

# 2002-04 Catalog

SAGINAW VALLEY STATE UNIVERSITY

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# SVSU Profile

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## Character

Comprehensive, co-educational, four-year, state-supported university offering bachelor's and master's degrees.

## History

Chartered in 1963 as a private institution to meet higher education needs in east-central Michigan. Became state-assisted in 1965. First class of 119 students was admitted in 1964; first commencement held in 1966. Name changed from "Saginaw Valley College" to "Saginaw Valley State College" in 1975 and to "Saginaw Valley State University" in 1987.

## Campus/Location

782-acre campus is located on M-84 (Bay Road) within a triangle formed by Bay City, Midland and Saginaw. Excellent transportation routes (I-75 within three miles, five minutes from MBS International Airport) connect the campus with urban centers.

## Student Body

By fall 2001, SVSU's student body had grown to more than 8,900.

## Faculty

There were 235 full-time faculty in 2001-02 with 84 percent holding doctoral or terminal degrees. Many SVSU professors have been accorded local, state or national honors recognizing their teaching and scholarly accomplishments. Adjunct faculty also teach in their areas of expertise.

## Colleges

Arts & Behavioral Sciences; Business & Management; Education; Crystal M. Lange Nursing & Health Sciences; Science, Engineering & Technology.

## Degrees/Majors

More than 70 programs of study leading to the following degrees: Bachelor of Applied Studies, Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Science, Bachelor of Business Administration, Bachelor of Professional Accountancy, Bachelor of Science in Electrical Engineering, Bachelor of Science in Mechanical Engineering, Bachelor of Science in Nursing, Bachelor of Social Work, Master of Arts/Communication and Multimedia, Master of Arts/Leadership and Public Administration, Master of Education, Master of Arts in Teaching, Master of Business Administration, Master of Science in Nursing, Master of Science/Technological Processes, and Education Specialist.

## Average Class Size

The average class size in 2001-02 was 20 students.

## Accreditation

North Central Association of Colleges and Schools, Accreditation Board for Engineering and Technology (Engineering), American Chemical Society (Chemistry), American Society of Clinical Pathologists and American Medical Association (Medical Technology), National Council for Accreditation of Teacher Education (Education), National League for Nursing (Nursing), Council of Social Work Education (Social Work), Accreditation Council for Occupational Therapy Education (Occupational Therapy).

## Scholarships & Financial Aid

Many scholarships, both need- and merit-based, are available. Grants, loans and work-study programs are available to students who meet criteria based on need.

## Athletics

Intercollegiate sports include football, basketball, golf, indoor and outdoor track, cross-country, bowling, soccer and baseball for men; volleyball, tennis, cross-country, indoor and outdoor track, basketball, soccer and softball for women. SVSU is a member of the Great Lakes Intercollegiate Athletic Conference and National Collegiate Athletic Association, Division II.

## Special Programs/Services

Included are the Honors Program, International Programs, Academic Advisement Center, Minority Student Services, Career Planning and Placement, and Cooperative Education.

## Facilities

Among the most modern and best equipped in the state. Buildings completed since 1985 include Brown Hall, Zahnaw Library, Herbert Dow Doan Science Building, Pine Grove Apartments, Arbury Fine Arts Center and Marshall M. Fredericks Sculpture Museum, Administrative Services Building, Ryder Center and Founders Hall. Other facilities include Pioneer Hall, Wickes Hall, Doan Center and two residence hall complexes. Charles B. Curtiss Hall, the Performing Arts Center and Groening Commons opened in 1997. Additional residence halls were constructed in 1999, 2000 and fall 2001. The Herbert Dow Doan Science Building was dedicated in August 2001. Under construction are: Regional Education Center (2003), Student Center (2003), and expansions to the Melvin J. Zahnaw Library (2002) and Ryder Center (2002).

## About this Catalog

This catalog contains comprehensive information about Saginaw Valley State University, its academic programs and requirements for earning bachelor's and master's degrees from SVSU. It can serve as your guide to admission and graduation requirements, and for various academic options. Brief descriptions of all courses are listed by department, as well as programs of study for each major and minor currently offered.

You should refer to this catalog for information you'll need to successfully complete a degree program at SVSU. Additional assistance is available from academic advisors and faculty. You also should refer to the Course Schedule, which lists all the courses, locations and meeting times for fall, winter and spring/summer semesters.

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## Information Sources

For assistance and more information, contact any of the offices listed below.

Academic Advisement Center	.964-4286
E-mail: aacsvsu@svsu.edu	
Admissions, Undergraduate	.964-4200 or (800) 968-9500
E-mail: admissions@svsu.edu	
Admissions, Graduate	.964-6096
E-mail: gradadm@svsu.edu	
Bookstore	.964-4277
E-mail: bookstore@svsu.edu	
Business Office, Accounts Payable/Receivable	.964-4210
Campus Life Center	.964-4170
E-mail: campuslife@svsu.edu	
Career Planning and Placement	.964-4954
E-mail: careers@svsu.edu	
College of Arts and Behavioral Sciences	.964-4062
E-mail: abs-dean@svsu.edu	
College of Business and Management	.964-4064
E-mail: cbmdean@svsu.edu	
College of Education	.964-4057
E-mail: coe-dean@svsu.edu	
Crystal M. Lange College of Nursing and Health Sciences	.964-4145
E-mail: reg@svsu.edu	
College of Science, Engineering and Technology	.964-4144
E-mail: kullgren@svsu.edu	
Cooperative Education	.964-4954
Employment and Compensation Services	.964-4108
E-mail: ecs@svsu.edu	
Health Services	.964-4272
Housing and Residential Life	.964-4255
E-mail: housing@svsu.edu	
International Programs	.964-4473
E-mail: oip@svsu.edu	
Library	.964-4240
Math Resource Center	.964-4648
E-mail: mathtutor@svsu.edu	
Minority Student Services	.964-7090
Orientation	.964-4200
E-mail: admissions@svsu.edu	
Public Safety	.964-4141
Registrar's Office	.964-4085
E-mail: registrar@svsu.edu	
Ryder Center	.964-7300
Scholarships and Financial Aid	.964-4103
E-mail: financial-aid@svsu.edu	
Student Association	.964-4232
E-mail: stugo@svsu.edu	
Student Counseling Center	.964-7000
E-mail: personal-counseling@svsu.edu	
Weather Line (University Open/Closed)	.964-4477
Writing Center (SE135)	.964-6061
E-mail: writing-center@svsu.edu	
Writing Center (R242)	.964-4681

To contact other campus offices, call (989) 964-4000. Additional information on SVSU programs and services, including semester course schedules and course descriptions, can be accessed on SVSU's web page at [www.svsu.edu](http://www.svsu.edu).

## University Office Hours

Academic Advisement Center <sup>1</sup>	8 a.m. to 4:30 p.m. Monday, Thursday and Friday 8 a.m. to 6 p.m. Tuesday and Wednesday
Administrative Offices	8 a.m. to 4:30 p.m. Monday through Friday
Admissions Office	8 a.m. to 6 p.m. Monday through Thursday 8 a.m. to 4:30 p.m. Friday
Bookstore <sup>2</sup>	9 a.m. to 6:30 p.m. Monday through Thursday 9 a.m. to 4 p.m. Friday
Evening Services	12:30 to 8:30 p.m. Monday through Thursday 8 a.m. to 4:30 p.m. Friday
Graduate Admissions	8 a.m. to 4:30 p.m. Monday, Thursday and Friday 8 a.m. to 6 p.m. Tuesday and Wednesday
Health Services	8 a.m. to 4:30 p.m. Monday, Thursday and Friday 9:30 a.m. to 6 p.m. Tuesday and Wednesday (Fall/Winter)
Library <sup>3</sup>	8 a.m. to 11 p.m. Monday through Thursday 8 a.m. to 4:30 p.m. Friday 9 a.m. to 5 p.m. Saturday 1 to 9 p.m. Sunday
Microcomputer Lab in 227 Curtiss Hall <sup>3</sup>	8 a.m. to 10 p.m. Monday through Thursday 8 a.m. to 4:30 p.m. Friday
Minority Student Services <sup>1</sup>	8 a.m. to 4:30 p.m. Monday, Thursday and Friday 8 a.m. to 6 p.m. Tuesday and Wednesday
Registrar <sup>1</sup>	8 a.m. to 4:30 p.m. Monday, Thursday and Friday 8 a.m. to 6 p.m. Tuesday and Wednesday
Scholarships and Financial Aid <sup>1</sup>	8 a.m. to 4:30 p.m. Monday, Thursday and Friday 8 a.m. to 6 p.m. Tuesday and Wednesday
Writing Center in 134 Zahnow <sup>3</sup>	10 a.m. to 5 p.m. Monday 9 a.m. to 5 p.m. and 6 to 9 p.m. Tuesday 10 a.m. to 5 p.m. and 6 to 9 p.m. Wednesday 9 a.m. to 4 p.m. Thursday Noon to 3 p.m. Friday
Writing Center in 242 Ryder Center	Noon to 2 p.m. Monday and Wednesday

<sup>1</sup> Plus all registration hours.

<sup>2</sup> Extended hours during registration and book buyback weeks. Summer hours vary.

<sup>3</sup> Hours vary with spring/summer semester and school breaks.

## Mission Statement

**MISSION:** The University produces value for the Region, State and Society by preparing highly qualified graduates who contribute to the betterment of a culturally diverse world and by providing intellectual and cultural opportunities that enrich the lives of people.

**VISION:** Saginaw Valley State University will provide academic and professional programs and services for its students at the highest levels of quality and value, and be recognized as among the finest teaching universities in the United States. Our graduates will rise to key positions in economic, political, cultural and civic leadership and will distinguish themselves and our University through their accomplishments and service. Our University will also be the premier cultural and intellectual center and resource for the schools, governments, businesses and people of the East-Central Region of Michigan.

—Adopted by the Board of Control on May 5, 2000.

## The Purpose of the University

To provide a comprehensive array of baccalaureate degree programs and a select number of master's degree programs.

- Baccalaureate degree programs are based upon a foundation in the liberal arts, the development of strong academic skills, and include studies in depth in one or more academic or professional disciplines.
- Master's degree programs concentrate studies in fields that address the needs of the East-Central region of Michigan or take advantage of unique opportunities and particular strengths within the university.

To strive for excellence in teaching, learning, research, service and creative endeavors, and to stand as an example in those regards.

To provide academic and support services that address the educational needs of a diverse student population that varies by gender, age, ability, experience, lifestyle, cultural background and economic circumstances.

To represent and advance the ideals and values of higher education in a democratic society by:

- Pursuing and defending freedom of inquiry, thought and expression.
- Practicing and encouraging respect, integrity, civility, decency and fairness in human relationships.
- Promoting understanding among people and by people for their world.
- Maintaining an openness of opportunity for all people to reach their fullest personal and professional potential.

To contribute to the quality of life for the people of the region, state, and society by:

- Providing expertise, leadership, and other support in the development of ideas and strategies for addressing social, technological, and economic issues.
- Creating, sponsoring and hosting events and activities that help people understand and appreciate the varieties of human culture, art and accomplishment.
- Promoting responsible participation in a democratic society by people both within and outside of the university community.

—Adopted by the Board of Control on March 29, 1993.

## Governing Board, Accreditations and Affiliations

### Board of Control

Saginaw Valley State University is a public institution governed by a Board of Control appointed by the Governor of the State of Michigan. The eight members serve staggered eight-year terms. Current members are:

Robert J. Vitito, Chairperson  
Freeland  
Linda L. Sims, Vice Chairperson  
Saginaw  
D. Brian Law, Secretary  
Bay City  
Jerome L. Yantz, Treasurer  
Bay City  
Raana W. Akbar  
Saginaw  
Ruth A. Braun  
Saginaw  
Sally Stegeman DiCarlo  
Ann Arbor  
Robert H. Walpole  
Traverse City  
Eric R. Gilbertson  
Ex-Officio

### Accreditation

Saginaw Valley State University was accredited by the North Central Association as a baccalaureate degree-granting institution in 1970. In 1980 the Association continued this accreditation and granted accreditation at the master's degree level. Both accreditations were renewed in 1986 and 1994. The Chemistry Department is accredited by the American Chemical Society, the Engineering Programs by the Accreditation Board for Engineering and Technology, the College of Education by the National Council for Accreditation of Teacher Education, the Medical Technology Program by the American Society of Clinical Pathologists and American Medical Association, the Nursing Program by the National League for Nursing, the Occupational Therapy Program by the American Occupational Therapy Association and the Social Work Program by the Council on Social Work Education.

### Affiliations

Saginaw Valley State University is a member of:

- American Assembly of Collegiate Schools of Business
- American Association of Collegiate Registrars and Admissions Officers
- American Association of State Colleges and Universities
- Council for Advancement and Support of Education
- Great Lakes Intercollegiate Athletic Association
- Michigan Academy of Science, Arts and Letters
- Michigan Association of Collegiate Registrars and Admissions Officers
- Michigan Association of Student Financial Aid Administrators
- National Association of Student Financial Aid Administrators
- National Collegiate Athletic Association
- Presidents Council, State Universities of Michigan

# General Information



# HOW TO EARN A Bachelor's Degree FROM SVSU

**To receive a baccalaureate degree you must meet each of the requirements listed at right. Descriptions of each requirement appear on the pages indicated.**

- Satisfy Basic Skills requirements (refer to Pages 14-15)
- Satisfy General Education requirements (refer to Pages 16-17)
- Satisfy major requirements (refer to the department information in the Undergraduate Programs section of this catalog)
- Satisfy minor requirements (refer to the department information in the Undergraduate Programs section of this catalog)
- Complete a minimum of 124 credits, which must include at least 42 credits of upper division (300 and 400 level) course work (refer to Page 14)
- Complete at least 31 credits at SVSU and be enrolled on campus the last semester (refer to Page 14)
- Complete at least six upper division credits in the major and at least three credits at the Sophomore or higher level in the minor at SVSU (refer to Page 14)
- Earn a grade point average of 2.00 (C) or higher (refer to Page 14)

## Undergraduate Admission

A number of different categories for undergraduate admission to Saginaw Valley State University are described below. Application forms for undergraduate admission to the University can be obtained from the Office of Undergraduate Admissions, high school and community college counseling offices or on-line at [www.svsu.edu](http://www.svsu.edu).

A check or money order made payable to SVSU for the \$25 non-refundable application fee must accompany the application for admission. The student's Social Security number should appear on the check or money order.

Pre-admission counseling and campus tours are available weekdays through the Office of Admissions, 178 Wickes Hall. Office hours are Monday through Thursday from 8 a.m. to 6 p.m. and Friday from 8 a.m. to 4:30 p.m. Special arrangements, other than our regular hours to visit, may be made with sufficient notice. For more information, call (989) 964-4200 or (800) 968-9500.

## Admissions Procedures

### First Time in College

An application for admission may be made any time after completion of the Junior year of high school. With acceptable American College Test (ACT) or Scholastic Aptitude Test (SAT) scores (ACT preferred), students with a minimum six- or seven-semester high school grade point average of 2.50 will be admitted. Those with a minimum seven-semester grade point average of 2.00 may be admitted if test scores and extracurricular involvement indicate they likely would succeed in college.

SVSU, along with the other 14 public universities in Michigan, requires that all admitted students meet the Presidents Council of Michigan Universities core requirements: four years of English, three years of math, three years of social science, and two years of natural science. Students who have not completed all of the core requirements will need to complete the necessary courses during their first year of study at SVSU.

A student applying for admission to a degree program is requested to submit the following:

1. An application for admission.
2. A high school transcript or official General Education Development (GED) test scores. Students currently enrolled in high school should send a transcript at the time application is made. Final Senior grades must be submitted by the high school as soon as possible after graduation. High school graduates who are age 22 or older are required to submit proof of high school graduation (copy of high school diploma, transcript or GED are acceptable).
3. ACT or SAT test scores (ACT preferred). High school graduates who are age 22 or older are not required to take the ACT or SAT.
4. Home-study students who have not attended an accredited public or private high school must submit all available academic records with their application, ACT or SAT results (ACT preferred) and schedule a personal interview.

### Transfer Students

Admission normally will be granted to those with a minimum GPA of 2.00 in all college courses taken. A transfer student who has less than a 2.00 GPA may be admitted on probation. Students admitted on probation must obtain a minimum GPA of 2.00 their first semester in residence or be subject to academic dismissal.

Transfer students must submit the following:

1. An application for admission.
2. Official college transcripts from all colleges and universities attended by the student.
3. Proof of high school graduation or copy of GED.

### Readmission

Former SVSU students who have been absent for seven or more semesters, have graduated from SVSU, or have been academically dismissed, are required to apply for readmission. If you attended another college since leaving SVSU, arrange to have an official copy of your transcripts sent to the Office of Admissions.

Readmitted students are subject to all regulations and requirements of the catalog current at the time of re-enrollment.

Academically dismissed students may be readmitted on probation if they have not enrolled for at least two semesters.

### Guest Students

A student in good academic standing at another college may apply for admission as a guest student. It is the guest student's responsibility to determine whether courses taken at SVSU will satisfy the requirements of his or her program. A guest student must submit a Michigan Uniform Guest Application approved by the Registrar of the home institution. Guest students must reapply prior to each semester of enrollment at SVSU. Based on federal regulations, guest students are not eligible for financial aid at SVSU.

### Applicants with Degrees

Applicants who hold baccalaureate or graduate degrees and who desire to enroll in one or more courses at SVSU without entering a degree program must submit an application for non-degree admission. Official transcripts of previous college work will not be required unless the student completes 31 undergraduate or nine graduate credits, or unless the applicant decides to work toward a degree. Students completing coursework for teacher certification should contact the College of Education for admission information.

### Auditors

Auditors are students who wish to take courses but who desire neither credits nor grades for these courses. The instructor for each course will determine the auditor's responsibilities in the course.

The tuition charge for the auditor is the same as that charged to the student who is taking the course for credit. Students wishing to audit courses must submit an application for admission.

### High School Dual Enrollment

High school students wishing to enroll in one or more SVSU courses must submit the following:

1. An application for admission (no application fee required).
2. A high school transcript (transcript should be sent at the time application is made).
3. Submit dual enrollment form if school will be responsible for payment. Check with your counseling department for details.

College credits earned by high school students will apply toward a degree program at SVSU or any other accredited college or University. No application fee is required.

Financial support may be available through your high school and the state of Michigan. Check with your high school counselor for details.

### Exploring the University

Exploring the University, a non-degree program of study, is for individuals who would like to take classes for personal enhancement or for those thinking about pursuing a college degree. Students are eligible to take up to 15 credits with a maximum of two courses per semester. Students must have a high school diploma or GED. SVSU will provide academic advising to help students select a course, prepare a class schedule and register. At any time students may enter a degree program at SVSU by following the admissions criteria outlined in the above categories. Credits earned through the program will transfer into the student's degree program. Students are eligible for financial aid only after they have been admitted to a degree program. Contact the Admissions Office for an Exploring the University application and registration form. No application fee is required.

### Additional Information and Assistance

For more information on admission categories, standards or requirements, call the Office of Admissions at (989) 964-4200 or (800) 968-9500, or send E-mail to [admissions@svsu.edu](mailto:admissions@svsu.edu). Information also is available on line through SVSU's home page at [www.svsu.edu](http://www.svsu.edu).

## Articulation Agreements

Articulation agreements provide a clear outline of community college courses that students should take to ensure full transfer of credit to specified degree programs at SVSU. Articulation agreements exist between SVSU and the following community colleges, with approved academic programs also noted. For further information on the following articulation agreements, please contact the Office of Admissions at (989) 964-4200 or (800) 968-9500:

### Alpena Community College

Bachelor of Science in Nursing (B.S.N.)

### Delta College

Bachelor of Arts/Criminal Justice (B.A.)  
Bachelor of Arts/Elementary Education (B.A.)  
Bachelor of Business Administration/Accounting (B.B.A.)  
Bachelor of Business Administration/Economics (B.B.A.)  
Bachelor of Business Administration/Finance (B.B.A.)  
Bachelor of Business Administration/General Business (B.B.A.)  
Bachelor of Business Administration/Industrial Management (B.B.A.)  
Bachelor of Business Administration/Management (B.B.A.)  
Bachelor of Business Administration/Marketing (B.B.A.)  
Bachelor of Fine Arts (B.F.A.)  
Bachelor of Professional Accountancy (B.P.A.)  
Bachelor of Science/Chemistry (B.S.)  
Bachelor of Science/Computer Science (B.S.)  
Bachelor of Science in Electrical Engineering (B.S.E.E.)  
Bachelor of Science in Mechanical Engineering (B.S.M.E.)  
Bachelor of Science in Nursing (B.S.N.)  
Bachelor of Social Work (B.S.W.)

### Kirtland Community College

Bachelor of Arts/Criminal Justice (B.A.)  
Bachelor of Arts/Elementary Education (B.A.)  
Bachelor of Science/Computer Information Systems (B.S.)  
Bachelor of Science/Computer Science  
Bachelor of Science in Nursing (B.S.N.)

### Lansing Community College

Bachelor of Science in Nursing (B.S.N.)

### Macomb Community College

Bachelor of Arts/Elementary Education (B.A.)  
Bachelor of Science in Electrical Engineering (B.S.E.E.)  
Bachelor of Science in Mechanical Engineering (B.S.M.E.)  
Bachelor of Science in Nursing (B.S.N.)

### Mid Michigan Community College

Bachelor of Arts/Criminal Justice (B.A.)  
Bachelor of Arts/Elementary Education (B.A.)  
Bachelor of Science in Nursing (B.S.N.)

### Montcalm Community College

Bachelor of Science in Nursing (B.S.N.)

### Mott Community College

Bachelor of Arts/Criminal Justice (B.A.)  
Bachelor of Arts/Elementary Education (B.A.)  
Bachelor of Science/Computer Information Systems (B.S.)  
Bachelor of Science/Computer Science (B.S.)  
Bachelor of Science in Electrical Engineering (B.S.E.E.)  
Bachelor of Science in Mechanical Engineering (B.S.M.E.)  
Bachelor of Science in Nursing (B.S.N.)  
Bachelor of Social Work (B.S.W.)

### Oakland Community College

Bachelor of Arts/Elementary Education (B.A.)  
Bachelor of Science in Nursing (B.S.N.)

### St. Clair County Community College

Bachelor of Arts/Elementary Education (B.A.)  
Bachelor of Business Administration/Accounting (B.B.A.)  
Bachelor of Business Administration/Economics (B.B.A.)  
Bachelor of Business Administration/Finance (B.B.A.)  
Bachelor of Business Administration/General Business (B.B.A.)

Bachelor of Business Administration/Industrial Management (B.B.A.)  
Bachelor of Business Administration/Management (B.B.A.)  
Bachelor of Business Administration/Marketing (B.B.A.)  
Bachelor of Professional Accountancy (B.P.A.)  
Bachelor of Science in Nursing (B.S.N.)

## Articulation Agreement with Programs in Michigan State University's College of Agriculture and Natural Resources

Michigan State University and SVSU have signed a formal agreement that will allow SVSU students to transfer into one of the 27 majors within MSU's College of Agriculture and Natural Resources with full transfer credit and student standing at MSU. For example, a student could attend SVSU for one to two years and then transfer to MSU with 30 or 60 transfer credits and begin their agriculture-related major as a Sophomore or Junior.

The bachelor degree programs within MSU's College of Agriculture and Natural Resources are as follows:

Agribusiness Management  
Agriculture and Natural Resources Communications  
Agriscience  
    General Option  
    Leadership Development Option  
    Teacher Certification Option  
Animal Science  
    Science Emphasis  
    Management Emphasis  
    Pre-Vet Program  
Biosystems Engineering \*  
Building Construction Management \*  
Crops and Soil Sciences  
    Advanced Study Option  
    Crops and Soils Option  
    Environmental Soil Science Option  
    Turfgrass Option  
Environmental Studies and Applications  
Fisheries and Wildlife  
    Fisheries Science and Limnology Option  
    Wildlife Ecology and Management Option  
    Conservation and Environmental Management Option  
Food Industry Management  
Food Science  
Forestry  
    Forest Conservation  
    Professional Forestry  
Horticulture  
    Horticulture Option  
    Horticulture Landscape Design, Construction and Management Option  
Packaging \*  
Park, Recreation and Tourism Resources  
Public Resource Management

\* Indicates limited enrollment

Interested students should contact the Office of Undergraduate Admissions at (989) 964-4200 or (800) 968-9500 for further information.

## Advance Credit

### Transfer Credit

Saginaw Valley State University is a consenting (with provisions) institution of the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) transfer agreement. Students transferring with the MACRAO Agreement will be granted a minimum of 30 credits toward the SVSU General Education requirements as determined by the transfer credit evaluator.

### Transfer Credit Policy

1. Saginaw Valley State University generally will consider for transfer credit course work that has been completed at a degree-granting college or university holding accreditation through a regional institutional accrediting association.

In evaluating such course work, SVSU will consider the nature and content of the courses as they may be appropriate to the intended program of study. Full credit will be granted by the Registrar's Office for courses that are determined to be comparable in nature and content to those offered by SVSU. Transfer students may be required to provide such materials as course descriptions, syllabi, papers and examinations to assure proper evaluation.

2. Credit earned in institutions of higher education that are not accredited as stated in section one (at the time the course was taken) generally is not acceptable for transfer to SVSU. By exception, such course work may be considered for credit upon individual course evaluation and the recommendation of the Registrar's Office and the dean of the appropriate college.
3. Credit attained through non-traditional learning experiences such as credit by examination, high school-based programs, military schools, noncollegiate instruction, etc., is evaluated according to the general policies of the University as stated in the catalog or addendum. If no formal policy exists, the credit is evaluated on an individual basis by the Registrar's Office for approval by the dean of the appropriate college. This policy applies to non-traditional educational sources regardless of previous validation by another educational institution, whether accredited or not.
4. Appeals of decisions regarding transfer of credit matters must be made in writing, with appropriate supporting materials, to the Associate Registrar. If the question is not resolved, the student may submit a course petition to the appropriate academic department and dean. The final authority for determining acceptance of transfer of credit is the Vice President for Academic Affairs.
5. Specific requirements and limitations for all students are:
  - a. Course work submitted for transfer of credit must be by official transcript, not issued to the student. The validity of the transcript or alternate document for non-traditional course work will be determined by the Registrar's Office.
  - b. Transferred credits are not included in the Saginaw Valley State University grade point average computation.
  - c. Grades such as "P" (Pass) or "S" (Satisfactory) that are credit-earned but do not carry grade point values must be validated by the issuing institution as being equivalent to the minimum acceptable grade for the appropriate degree program.
  - d. Transferred credits will be reevaluated upon readmission to the University.
  - e. Transferred credits become credits earned when the first Saginaw Valley State University credit is earned.
6. Specific requirements and limitations for undergraduate programs:
  - a. The maximum credits accepted from all sources for an undergraduate degree program is 93 credits (with the exception of the 150-credit hour accounting program).
  - b. The maximum credits accepted from all two-year institutions for an undergraduate degree program are 62.
  - c. The minimum acceptable grade for transfer to an undergraduate degree program is "C-" or its equivalent.
7. Specific requirements and limitations for graduate programs:
  - a. The maximum credits accepted from all sources for a graduate degree program are determined by each college, not to exceed 12.
  - b. The minimum acceptable grade for transfer to a graduate degree program is "B-" or its equivalent.

### Advanced Placement

Saginaw Valley State University participates in the Advanced Placement Program of the College Entrance Examination Board and grants either advanced credit, advanced placement or both, to Freshmen who have completed college-level studies while still in high school and have earned satisfactory scores on the Advanced Placement examinations.

Scores of three, four or five on the following examinations assure the entering student of both advanced placement and credit: American History, Studio Art, Art History, Calculus AB, Calculus BC, Chemistry, Computer Science, English Composition and Literature, English

Language and Composition, European History, Music, Physics B and Physics C. Credit and placement are granted for scores of four or five on Biology, French, German, Latin, Psychology and Spanish examinations.

### College Level Examination Program

Saginaw Valley State University also participates in the College Level Examination Program of the College Entrance Examination Board and grants credit for both General and Subject Examination. See "Credit by Examination" for detailed policy.

### Veterans Educational Benefits

SVSU certifies enrollment for students eligible for U.S. Department of Veterans Affairs educational benefits. Students must be admitted to SVSU as a degree-seeking or guest student. Students using veterans educational benefits for the first time should contact the U.S. Department of Veterans Affairs to obtain a certificate of eligibility. Students transferring from another institution may complete the appropriate forms in the Registrar's Office. Students eligible for veterans educational benefits should contact the Registrar's Office Certification Clerk when registering for each term.

Students receiving veterans benefits are expected to maintain academic progress according to the criteria listed below.

1. Undergraduate degree students receiving veterans educational benefits will be checked for academic probation, for certification purposes, based on a 2.00 cumulative GPA instead of the sliding scale normally used to determine academic probation and dismissal. A student on V.A. academic probation has two semesters to achieve a 2.00 cumulative GPA before certification is denied. Certification will remain denied until cumulative GPA is raised to a minimum of 2.00. A graduate degree student must maintain a 3.00 cumulative GPA.
2. If a student receives a failing ("F" or "WF") or no pass ("N") grade for a course that has been certified for veterans educational benefits, the student must report in writing to the Associate Registrar the final day of attendance in the course. If this is not done, SVSU is required to report to the U.S. Department of Veterans Affairs that the last day of attendance was the first day of classes for that semester.
3. If a student withdraws from a certified course, officially (completing withdrawal form at Registrar's Office) or unofficially (walks away without notifying the Registrar's Office), the student must report in writing to the Associate Registrar the final day of attendance in the course. If this is not done, SVSU is required to report to the U.S. Department of Veterans Affairs that the last day of attendance was the first day of classes for that semester.
4. When a student using veterans educational benefits transfers to SVSU, we will inform the student and the Department of Veterans Affairs of the "credit for previous training." In addition, the student will be informed of the number of credits necessary to complete the program to which she/he was admitted.

### International Student Admission

The University is authorized under federal law to enroll international students. A prospective student should write to the Director of International Programs, Saginaw Valley State University, University Center, Michigan 48710-0001. Instructions and application materials will be sent, and must be returned to the Office of International Programs. The application and additional information is available at [www.svsu.edu](http://www.svsu.edu). When the application is approved, an I-20 certificate will be mailed. Prospective students should not make plans to leave their country before receiving this certificate and obtaining a student visa from a U.S. consular office. The I-20 is required for receiving a visa, entering the U.S., and registration at the University.

Prospective international students must present a TOEFL (Test of English as a Foreign Language) score (usually a 500, depending on degree program), or attend Saginaw Valley State University's English Language Program before beginning a degree program.

Tuition and fees for international students are the same as for U.S. students claiming residency in a state other than Michigan.

## English Language Program

Saginaw Valley State University offers full-time, intensive English language training for students who need to improve their English language ability. English Language Program (ELP) courses include:

- Preparation for study at SVSU or other colleges and universities.
- Preparation for the TOEFL exam.
- General use of written and spoken English.
- Academic advisement (information about studying in the U.S.)
- Orientation to U.S. culture and university life.

For information, contact the Office of International Programs, 141 Wickes Hall, at (989) 964-4473 (phone), (989) 964-6066 (fax), or send E-mail to [oiip@svsu.edu](mailto:oiip@svsu.edu).

## Residency Classification for Tuition Purposes

Residency status will be determined by the Registrar. However, the President is authorized to make exceptions within the spirit of this policy and is authorized to establish procedures and delegate authority for classifying and reclassifying students as Michigan residents or out-of-state residents.

It shall be the responsibility of the student to register under the proper residency classification, to advise the Office of the Registrar of possible changes in residency and to furnish all requested information.

Students who enroll at SVSU as non-residents shall continue to be so classified throughout their attendance unless the classification is changed as hereafter provided.

International students attending SVSU on F-1 or J-1 visas will not be considered for residency status.

## Determination of Residency

For the purposes of this policy, a resident student is defined as a student domiciled in Michigan for a period of at least six months, with the intention of making Michigan his or her permanent home, or entering Michigan from another state of residency for the purpose of accepting an offer of permanent employment in this state with the intention of making Michigan his or her permanent home.

A non-resident student is defined as one who is domiciled in another state or foreign country. A student shall not be considered domiciled in Michigan unless he or she is in continuous physical residence in this state and intends to make Michigan his or her permanent home, not only while in attendance at SVSU but indefinitely thereafter and has no domicile or interest to be domiciled in another state or country. Upon qualifying for Michigan residency, a student in attendance at SVSU may apply for reclassification.

Documented evidence of the following facts and circumstances, although not necessarily conclusive evidence of domicile in Michigan, will be considered in support of the claim of resident status:

1. Continuous presence in Michigan during a six-month period when not enrolled as a student.
2. Reliance upon Michigan sources for financial support.
3. Domicile in Michigan of family, guardian or other relatives or persons legally responsible for the student.
4. Ownership and occupancy by the student of a home in Michigan.
5. Payment of Michigan income tax as a resident.
6. An alien who has been lawfully admitted for permanent residence in the United States.
7. A legal alien and/or dependent(s) in possession of a valid United States H-1 or L-1 visa who enters the state of Michigan under the directive of his or her employer shall, upon submission of said visa and verification of said employment, be classified as a Michigan resident for tuition purposes as long as said visa remains valid.
8. A student who enters the state of Michigan from another state of residency for the purpose of accepting employment as a cooperative education student or a student intern with a firm or industry in the state of

Michigan shall, upon submission of verification of said employment, be classified as a Michigan resident for tuition purposes during his or her tenure of said classification.

A student may submit any other pertinent evidence of intent to make Michigan his or her domicile after completion of college or university attendance. Each case is determined on its own particular merits.

## Special Circumstances Affecting Michigan Residency

A student who has been employed as a migrant worker in Michigan or whose parents have been so employed, will be granted resident status for purposes of tuition on the basis of proof of employment in this state for at least two months per calendar year in three of the five calendar years immediately preceding the initial enrollment of the student, or at least three months per calendar year in each of two of the five calendar years immediately preceding the initial enrollment. Enrollment in any of the summer terms constitutes one semester of enrollment.

If the family of a student with resident status moves out of Michigan the student will nevertheless maintain resident status for as long as he or she is continuously enrolled. Continuous enrollment is defined as enrollment during at least two of three successive semesters. A student who withdraws will be regarded as having been enrolled, provided tuition was paid in full and the withdrawal occurred after the end of the refund period.

## Appealing Residency Classification

Students may appeal residency by filing an Application for Consideration of State Residency for Tuition Purposes with the Office of the Registrar (forms are available from the Admissions Office), along with documented evidence in support of residency. The application and supporting evidence will be submitted to the Tuition Classification Appeal Board for determination. To be considered, the appeal and all supporting documents must be submitted by the 15th calendar day of the term. Reclassification shall be effective for the semester in which the appeal application was filed and for each semester thereafter, so long as the circumstances upon which the reclassification was based shall remain unchanged. Appropriate refunds shall be made following such reclassification. The Tuition Classification Appeal Board shall consist of the Vice President for Academic Affairs, the Vice President for Administration and Business Affairs and the Vice President for Student Services and Enrollment Management.

## Payment of Costs Not Covered by Financial Aid

Cash, personal and cashier's checks or Visa, MasterCard or Discover may be used to pay for University expenses at the time they are due. Another alternative is the Payment Option Plan. The SVSU Payment Option Plan allows you to maximize your savings and income by spreading your semester education and/or housing expenses over 5 monthly payments instead of larger, single-semester payments. The cost is a \$50 enrollment fee. Students enrolled in the Fall semester plan with no outstanding obligations can enroll in a Winter plan for \$20. The enrollment fee and any payment due must be paid to hold the student's course schedule. Students planning to participate in the Payment Option Plan must make arrangements prior to the payment due dates. Short-term loans are not available. For more information, deadlines and an application, call (989) 964-4210 or (989) 964-4213.

## Costs

2002-03 tuition for Michigan undergraduates was \$127.45 per credit hour. 2002-03 room and board in the residence halls was \$5,485 for two semesters. Apartment rental rates for two semesters ranged from \$3,430 to \$3,805 for individual students (utilities included).

## Scholarships and Financial Aid

The Office of Scholarships and Financial Aid is located in 160 Wickes Hall. The telephone number is (989) 964-4103. The E-mail address is [financial-aid@svsu.edu](mailto:financial-aid@svsu.edu).

A variety of financial aid programs are available to help finance your education.

While most financial assistance is distributed on the basis of established financial need, many scholarships and awards are available for qualified students regardless of their financial status.

Each application is considered on an individual basis.

The Office of Scholarships and Financial Aid will create a financial aid package that can include scholarships, grants, loans and student employment to make your education possible.

## SVSU Scholarships

Saginaw Valley State University offers the following scholarships for qualified students:

- SVSU Athletic Scholarship
- SVSU Academic Excellence Award
- SVSU Award for Excellence Scholarship
- SVSU Community College Scholarship
- SVSU Equity Grants
- SVSU Fine Arts Awards
- SVSU Foundation Scholars Program
- SVSU Graduate Assistantships
- SVSU Graduate Fellowships
- SVSU Horizon Scholarship (Canadian Students)
- SVSU Indian Tuition Waiver
- SVSU International Exchange Scholarship
- SVSU International Programs
- SVSU International Students
- SVSU Math Olympic Scholarship
- SVSU Marching Band Scholarship
- SVSU Pep Band Scholarship
- SVSU Piano Scholarship
- SVSU Presidential Scholarship
- SVSU Recognition Scholarship
- SVSU Residential Scholarship
- SVSU Roberts Fellowship Program
- SVSU University Scholarship

A substantial number of other private scholarships are awarded through the Office of Scholarships and Financial Aid. For further information on these scholarships and other financial aid assistance, contact the Office of Scholarships and Financial Aid.

## Grants

Saginaw Valley State University also offers the SVSU Opportunity Grant for students who demonstrate financial need.

## Federal Programs

Saginaw Valley State University participates in the following U.S. Department of Education federal programs:

- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant
- Federal College Work/Study
- Federal Direct Subsidized and Unsubsidized
- Federal PLUS Loan (Parent Loan for Undergraduate Students)

## State of Michigan Programs

Saginaw Valley State University participates in the following state of Michigan programs:

- Michigan Adult Part-time Grants
- Michigan Alternative Loans (MI-Loan)
- Michigan Competitive Scholarship
- Michigan Educational Opportunity Grant

- Michigan Merit Award
- Michigan Work/Study Program

## How to Apply for Financial Aid

1. Apply and be accepted for admission to SVSU as a degree seeking student. On-line admission is available at [www.svsu.edu](http://www.svsu.edu).
2. Submit the Free Application for Federal Student Aid for the 2002-03 school year. Although some scholarships do not require submission of the FAFSA, SVSU strongly recommends its submission in order to maximize award eligibility.
  - The application form is available at high school guidance offices, community college financial aid offices and the Office of Scholarships and Financial Aid. You also can apply on-line at [www.fafsa.ed.gov](http://www.fafsa.ed.gov).
  - Because funds will be awarded on a first-come, first-served basis, it is to your advantage to apply as soon after Jan. 1 as possible.
  - **SVSU's Federal School Code is 002314.**
3. Complete your file at the Office of Scholarships and Financial Aid:
  - Once the Office of Scholarships and Financial Aid is notified by the U.S. Department of Education of your completed application, processing of your financial aid award eligibility will begin.
  - Respond to any inquiry or request from the Office of Scholarships and Financial Aid promptly so your financial aid processing can proceed.
  - Notify the Office of Scholarships and Financial Aid if you receive or expect to receive a scholarship or award from a source other than Saginaw Valley State University.
4. The Free Application for Federal Student Aid must be filed each academic year. However, the U.S. Department of Education will mail a Renewal FAFSA or an electronic PIN number to all students who applied the previous year. Returning students may complete either the renewal application or the FAFSA. If a renewal application or PIN is not received, complete the FAFSA. You also can apply on-line at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). Financial aid for each academic year could reflect changes due to funding levels.

## Awarding Financial Aid

Federal, state, SVSU grants and some SVSU scholarships are awarded to students after the financial aid file is complete; other awards are made based upon selection processes. Financial aid awards are based on the planned enrollment status reported on the FAFSA for the fall and winter.

Enrollment Status	Undergraduate Students	Graduate Students
Full time	12 or more	9 or more
Three-quarter time	9, 10 or 11 credits	
Half time	6, 7 or 8 credits	5, 6, 7 or 8 credits
Less than half time	5 or less credits	

If students plan to obtain financial aid for the spring/summer semester, they must notify the Office of Scholarships and Financial Aid.

Students are notified of their financial aid awards through an Award Letter.

## Satisfactory Academic Progress Policy

Satisfactory Academic Progress must be maintained while receiving federal, state and SVSU financial aid at Saginaw Valley State University. There are three measurements for Satisfactory Academic Progress:

1. Qualitative requirement: SVSU cumulative GPA
  2. Quantitative requirement: Minimum number of new credits that must be completed
  3. Maximum time frame: Maximum number of credits to complete a program
- GPA is monitored every semester. New credits completed and program completion is monitored at the end of the winter semester. If a student is on financial aid probation, all Satisfactory Academic Progress requirements are monitored every semester.

## Probation

Students who do not attain the GPA requirement, new credits completed requirement or exceed the number of credits to complete a program will be placed on financial aid probation for one semester. The probation

## GPA, Credit Hour Requirements for Satisfactory Academic Progress

Class Standing	If you have earned the following credits:	Your SVSU cumulative GPA must be:	Your new credit hours completed must be:			Program completion must be by:
			Full time = 12 or more credits	Part time = 6 to 11 credits	Less than half = 5 or less credits	
Undergraduate or Teacher Certification	0 - 24 credits	1.70	9 = one semester 18 = Fall & Winter	4 = one semester 8 = Fall & Winter	All Credits	186
	25 - 36 credits	1.90	9 = one semester 18 = Fall & Winter	4 = one semester 8 = Fall & Winter	All Credits	186
	37 or more credits	2.00	12 = one semester 24 = Fall & Winter	6 = one semester 12 = Fall & Winter	All Credits	186
Graduate	0 - 54 credits	2.00*	9 = one semester 18 = Fall & Winter	5 = one semester 10 = Fall & Winter	All Credits	54

\* Graduate students must maintain a 2.00 GPA or meet the academic standards required by departments, whichever is higher.

semester is the student's next semester of attendance. During the probation semester, the student must meet the GPA and credit hour requirement of the Satisfactory Academic Progress policy. If a student is on financial aid probation because the GPA is too low, the student must raise the GPA to the required level **and** complete the required number of credits during the probation semester. If a student is on financial aid probation because the required number of new credits is too low, the student must complete the required number of credits **and** maintain the required GPA during the probation semester. The student can receive federal, state and institutional financial aid during the probation semester. If the student does not meet the Satisfactory Academic Progress requirements while on financial aid probation, the student will not be eligible to receive financial aid after the probation semester.

### Non-Credit Courses and Non-Degree Courses

Students enrolled in non-credit or non-degree courses in which the full tuition rate is charged, may use the credits for determination of full-time or part-time enrollment status; however, these credits will not be counted for satisfying the new credit hour requirement of the Satisfactory Academic Progress policy. Non-credit courses include those numbered below 100 level of the Basic Skills requirements (ENGL 080, 082 and MATH 081, 082).

## Registration and Degree Requirements

The Office of the Registrar is located on first floor Wickes Hall.

### Degrees

**The Bachelor of Applied Studies (B.A.S.)** is conferred upon those with an approved degree in technical or career oriented fields who wish to complete a bachelor's degree, but whose academic or career needs do not mandate a regular baccalaureate degree program.

**The Bachelor of Arts (B.A.)** is conferred upon those who fulfill the requirements in these majors: art\*, communication, criminal justice, graphic design, economics\*\*, elementary education, English\*, fitness and sports management, French\*, history\*, music\*, physical and health education\*, political science, political science-public administration, psychology, sociology, Spanish\* and theatre.

**The Bachelor of Science (B.S.)** is conferred upon those who fulfill the requirements in the following majors: athletic training, biochemistry, biology\*, business-chemistry, chemical physics, chemistry\*, computer information systems, computational mathematics, computer science, environmental chemistry, engineering technology management, health education/athletic training, mathematics\*, medical technology, occupational therapy, optical physics and physics\*.

**The Bachelor of Business Administration (B.B.A.)** is conferred upon those who fulfill the requirements in these majors: accounting, economics\*\*, finance, general business, industrial management, international business, management and marketing.

**The Bachelor of Fine Arts (B.F.A.)** is conferred upon those who wish to be fully prepared professionals in visual arts and receive credentials for acceptance in professional associations that control participation in various fields in the visual arts.

**The Bachelor of Professional Accountancy (B.P.A.)** is conferred upon those who fulfill the requirements of this 150-credit program.

**The Bachelor of Science in Electrical Engineering (B.S.E.E.)** is conferred upon those who fulfill the requirements in the electrical engineering major.

**The Bachelor of Science in Mechanical Engineering (B.S.M.E.)** is conferred upon those who fulfill the requirements in the mechanical engineering major.

**The Bachelor of Science in Nursing (B.S.N.)** is conferred upon those who fulfill the requirements in the nursing major.

**The Bachelor of Social Work (B.S.W.)** is conferred upon those who fulfill the requirements in the social work major.

**The Master of Arts in Teaching (M.A.T.)** is conferred upon those who fulfill the requirements for the degree.

**The Master of Education (M.Ed.)** is conferred upon those who fulfill the requirements for the degree.

**The Master of Arts (M.A.)** is conferred upon those who fulfill the requirements for the degree.

**The Master of Business Administration (M.B.A.)** is conferred upon those who fulfill the requirements for the degree.

**The Master of Science (M.S.)** is conferred upon those who fulfill the requirements for the degree.

**The Master of Science in Nursing (M.S.N.)** is conferred upon those who fulfill the requirements for the degree.

**The Education Specialist (Ed.S.)** is conferred upon those who fulfill the requirements for the degree.

\*Major is approved for secondary teaching certification; see College of Education.

\*\*Students majoring in economics may receive either a B.A. or B.B.A. degree; see College of Business and Management.

### Baccalaureate Degree Requirements

Graduation requirements for baccalaureate degrees are based on the regulations and requirements printed in the catalog in effect at the time of a student's initial registration at Saginaw Valley State University. A catalog published after initial registration may be chosen by the student when it is to his or her advantage, but the entire set of graduation requirements listed in any one catalog must be used. The time limitation on this provision is that no student may graduate under the requirement of a catalog published more than six calendar years prior to the date of graduation. Readmitted students are subject to all regulations and requirements of the catalog current at the time of re-enrollment. The degree requirements in

the 2001-02 catalog expire on completion of the spring/summer 2010 semester.

### Credit Hours Needed

Saginaw Valley State University operates on a trimester system of three 15-week semesters: fall, winter and summer (divided into a seven-week spring session and a seven-week summer session). Each degree requires the fulfillment of the academic residency requirement (see below) and the completion of 124 credits of academic work and must include 42 credits of upper division work (300 and 400 level courses).

Students pursuing a second SVSU undergraduate degree must complete a minimum of 31 additional credits beyond the first degree and also fulfill all requirements listed for a different major than from the first degree.

### Academic Residency Requirement

All candidates for baccalaureate degrees are required to take at least 31 credits at Saginaw Valley State University and the last semester must be on campus.

At least six upper division credits in the major field and at least three credits at the Sophomore or higher level in the minor field must be completed at SVSU.

### Grade Point Requirement

Each candidate for a degree must have a grade point average of not less than 2.00 ("C" average).

### Basic Skills Course Requirement and Course Placement Tests

Each student must satisfy basic skills course requirements for mathematics, reading and writing. Placement into or exemption from the required courses in mathematics, reading and writing will be determined by results of the ACT and/or course placement tests. Students who feel they have received an inappropriate placement may request additional assessment from Academic Advisement Center and/or the appropriate department chairperson. For transfer students, placement into or exemption from these required courses also may be determined by the results of the Transfer Evaluation Report (TER).

Students should view entry and college-level basic skills as minimum standards and continue to develop their skills in reading, writing and mathematics throughout their college careers. Although computer literacy is not a basic skills requirement at Saginaw Valley State University, students are strongly advised to become computer literate.

A student must have completed basic skills requirements, or have appropriate courses in each of the three sequences in progress by the time the SVSU total of registered credits reaches 12, and continue in the appropriate courses each succeeding semester until the requirement is satisfied in full. Failure to meet this requirement will block registration. Authorization to register without meeting this requirement may be given, in extenuating circumstances, only by an advisor in the Academic Advisement Center.

Students may satisfy the basic skills course requirements by:

1. Completing these courses with a satisfactory grade ("P" or minimum of "C"):
  - a. Math: Basic Mathematical Skills (Math 081), Beginning Algebra (Math 082) and Intermediate Algebra (Math 103).
  - b. Reading: One of the three sets of the following courses, depending on placement: 1) Foundations for College Reading and Learning (English 082) and College Reading and Learning (English 103); 2) College Reading and Learning (English 103); 3) Strategies for Academic Success (English 104).
  - c. Writing: Writing Skills (English 080) and Composition I (English 111).
2. Transferring appropriate coursework from another college or university. Equivalent coursework for transfer students is indicated on the Transfer Evaluation Report (TER) provided by the Registrar's Office upon completion of the review of transcripts from the previous institution(s). Early submission of transcripts from the previous institution(s) is encouraged for appropriate and timely course placement.
3. Meeting the required ACT College Assessment score for a course waiver.

4. Meeting the required SVSU course placement test score for a course waiver.

For more information on course placement, call the Academic Achievement Center, 117 Wickes Hall, at (989) 964-4286.

### Math Course Placement

Students will be placed into math courses according to this scale:

ACT Math Score	Course and Test Requirements
17 & below	Students will be placed in Basic Math Skills (MATH 081). The student can request to take the Mathematics Placement Test, which may lead to a higher placement; however, no retest is permitted. See below for process.
18 to 26	The student will take the Mathematics Placement Test. Scores on this test will be used for placement in Beginning Algebra (MATH 082), Intermediate Algebra (MATH 103), or courses requiring MATH 103 as a prerequisite. The student can request a single retest. See below for process.
27 & above	Students with these scores can be placed in any class requiring MATH 103 as a prerequisite and/or can request a Calculus Readiness Test. See below for process.

Transfer students who do not transfer appropriate coursework to SVSU, but do submit ACT College Assessment scores, will follow the scale above. Transfer students who do not transfer appropriate coursework to SVSU and who do not submit ACT scores must take the Mathematics Placement Test and will be placed in the same manner as students with scores of 17 and below who request to take the Mathematics Placement Test.

### Test and Retest Request Process

Requested tests and retests are coordinated by the Department of Mathematical Sciences and the Math Resource Center, scheduled by the Math Resource Center, and given on specific dates.

### Reading Course Placement

Students will be placed into reading courses according to this scale:

### ACT Composite High School Course and Test Requirement

Score	GPA
16 & below	N/A
Students with these scores are required to take Foundations for College Reading and Learning (English 082) and College Reading and Learning (English 103).	
17 to 21 or 22 & above	N/A Below 3.00
Students with these scores are required to take the Nelson-Denny Reading Test (NDRT). Reading placement will be determined by the results of the NDRT.	
22 & above	Minimum 3.00
Students with these scores are not required to take reading courses or the reading placement test.	

Transfer students who do not transfer appropriate coursework to SVSU, but do submit ACT College Assessment scores, will follow the scale above. Transfer students who do not transfer appropriate coursework to SVSU and who do not submit ACT scores must take the Nelson-Denny Reading Test (NDRT). A student who transfers to SVSU with 62 or more credits is exempted from English 082.

### Writing Course Placement

Writing course placement will be based on appropriate scores on authorized assessments, such as ACT. All SVSU students (except those who transfer appropriate course work to SVSU) must submit a score on an authorized assessment to determine writing course placement.

Currently, students with ACT verbal scores of 16 or higher are placed in ENGL 111; students with scores below 16 are placed in ENGL 080 or in linked sections of ENGL 080 and ENGL 082.

## **Non-credit Courses**

Non-credit courses are those that do not involve grades or University credit. They provide practical, hands-on experiences for skills in the working world or for leisure-time pursuits. These courses usually are offered as a result of suggestions from the community or by faculty who wish to offer some area of expertise to the community without the pressures of grades or tests. The instructors for non-credit courses include faculty of SVSU as well as individuals from the community who have knowledge and skills to share.

## **Continuing Education Units**

SVSU participates with the National Registry to provide continuing education units for attendance at non-credit courses, conferences and seminars. Through this service, participants can obtain complete, comprehensive transcripts detailing their attendance at non-credit activities.

## General Education Requirements

General education refers to that part of a student's education that contributes to the breadth of knowledge needed to be a more effective citizen of a complex and culturally diverse world. It supports the student with the skills and perspectives that will not always be gained from a specialized program of study and provides a basis for a common educational experience all students and graduates of the University can share. It is intended to help each student become more broadly knowledgeable, adaptable, and capable in their many life roles. By graduation, students will have been given opportunities to develop their insight, creativity and intellectual curiosity, as well as analytical and critical skills. The General Education Program is designed to develop in each student:

- Appreciation of a wide range of perspectives and experiences
- Acquaintance with the many ways of experiencing and acquiring knowledge
- Broad knowledge about the human and natural world
- Understanding of the structure and order of the natural world, including human thought processes
- Appreciation of the arts for aesthetic value and for their usefulness in exploring complex human truths
- Knowledge of the history of civilizations

- Competence in communication
- Exploration and development of individual values and ethics

A general education program cannot satisfy all of an individual's lifelong general education needs. SVSU's General Education Program enhances the graduate's ability to learn and function as an educated person in the many demanding roles of contemporary life.

The General Education Program comprises 35 credit hours in 10 categories, each with a learning objective, a required number of credit hours, and an approved group of courses from which to choose. Two courses chosen from Categories 2 through 8 must be communication intensive (designated [CI]). Categories 3, 9 and 10 must be completed in the student's first 75 credit hours.

The first chart outlines requirements for students starting any college for the first time in Fall 2001 and for students readmitted in Fall 2001. The second chart outlines requirements for returning students and those students who transfer to SVSU in the 2001-02 academic year (Fall 2001-Summer 2002).

## General Education Requirements

For Students Entering College for the First Time in Fall 2001 and After, and Transfer Students Entering SVSU in Fall 2002 and After

Student Objectives	Content Areas/ Credit Hours	Select from:
1. To read major literary works critically with appreciation and understanding.	Literature 3 credits	ENGL 202, 203, 204, 205; MFL 205; PHIL 220
2. To appreciate the arts; to understand the arts as vehicles for human expression.	Arts 3 credits	ART 100; MUS 117 (A,B,C,D,E); THEA 128A, 128B [CI], 136
3. To understand and manipulate numerical data; to respond to arguments and positions based on numbers and/or statistics.	Numerical Understanding 4 credits	ECON 235; MATH 120 (A,B), 125, 132 (A,B), 140, 161 PS 225 [CI]; PSYC 299; SOC 225
4. To understand basic scientific concepts; to appreciate how these concepts are verified through experimentation and observation; and to become knowledgeable and responsible citizens in dealing with the challenges of a sophisticated technological society.	Natural Sciences 7 credits	Minimum of two departments; must include at least one laboratory course. BIOL 104 (A,B), 105 (A,B,C), 111 (A,B,C); CHEM 102 (A,B), 111/111L; GEOG 101 [CI], PHYS 106(A,B,C), 107, 111/111L, 211/211L
5. To identify and subject to analysis the significant ideas and events of human history by understanding cause and effect relationships through historical and logical investigation, narration and synthesis.	Historical and Philosophical Ideas 3 credits	HIST 100 (A,B,C,D,E), 110 [CI]; PHIL 123, 205 (A,B) [CI], 210 (A,B), 230, 280
6. To analyze and interpret social phenomena and human thought processes using the techniques and procedures of the social sciences.	Social Sciences 3 credits	ECON 125; PS118 [CI]; PSYC 100; SOC 112
7. To identify, describe and understand the workings of important social, economic and political institutions and the relationship of the individual to these institutions.	Social Institutions 3 credits	ECON 221; LAW 208 [CI]; PS123; SOC 111
8. To understand the nature of significant international systems and to step outside of the constraints of one's own society.	International Systems 3 credits	GEOG 201; HIST/PHIL 213, 215; HIST 220; PS 130 [CI]; SOC 125 [CI]
9. To develop greater proficiency in English or a foreign language in general and discipline-specific settings.	Oral Communication 3 credits	COMM 105 (A,B,C); MFL 111, 112, 211 (FREN; GER, SPAN; PLSH); THEA 255
10. To write effective, researched academic texts in English.	Written Communication 3 credits	ENGL 212; HIST 111; HUM 210; PHIL 114; PS112

NOTE: English 111 is prerequisite to all courses in Objective Categories 1 and 10 and for all courses with a CI suffix. Students are required to complete two "CI" courses from two of Objective Categories 2 through 8. **Requirements for Objective Categories 3, 9, and 10 must be completed within a student's first 75 credit hours or registration will be blocked.**

## General Education Requirements

For Students Who Started at SVSU Prior to Fall 2001, and for Transfer Students Who Started at SVSU Prior to Fall 2002

Student Objectives	Content Areas/ Credit Hours	Select from:
1. The ability to read major literary works with appreciation and understanding.	Literature 3 credits	ENGL (200), 202, 203, 204, 205, (225), (226), (228), 271, 272, (281), (282); FREN (272), 311, 312; GER (272), 311, 312; MFL 205; PHIL 220; PLSH (272); SPAN (272), 313, 314, 317, 318
2. The ability to appreciate the arts; to understand the arts as vehicles of human expression.	Arts 3 credits	ART 111-229, 334, 411; ENGL/HUM 219; MUS 100-108, (110), 111, (116), 117A, 117B, 117C, 117D, 117E, 181-189; THEA 128, 136, 160, 220, 255, 260
3. The ability to understand and manipulate numerical data, and the ability to respond to arguments and positions based on numbers and statistics.	Numerical Understanding 4 credits	ECON 235-(336); MATH (105), 120A, 120B, (121), 125, 132A, 132B, 140, (141), (150), 161; PS 225 [CI]; PSYC 299 (300); SOC 225, (325)-(326)
4. The ability to understand basic scientific concepts; to appreciate how these concepts are verified through experimentation and observation; and to become knowledgeable and responsible citizens in dealing with the challenges of a sophisticated technological society.	Natural Sciences 7 credits	Minimum of two departments; must include one laboratory course. BIOL 104A, 104B, 105A, 105B, 105C, 111A, 111B, 111C, NS (120), (121), (122), (123); CHEM 101, 102A, 102B, 111/111L, NS (112), (113); PHYS 106A, 106B, 106C, 107, 111/111L, 211/211L, NS (114), (115), (116), (119)
5. The ability to identify and subject to analysis the significant ideas and events of the American and world past by establishing cause and effect relationships, by historical and logical investigation, narration and synthesis.	Historical and Philosophical Ideas 3 credits	HIST 100-399 (except HIST 111); PHIL 123, 205A [CI], 205B [CI], 210A, 210B, 230, 240, (250), (255), (260), (265), 280, 300, 305, 315, 331
6. The ability to analyze and interpret social phenomena using the methods of the social sciences.	Social Science Methodologies 3 credits	ECON 221, 222, 390; PS 118 [CI], 400; PSYC 100; SOC 326, 331
7. The ability to understand the workings of important social, economic and political institutions and the relationship of the individual to these institutions.	Social Institutions 3 credits	CJ 201; ECON 125; FIN 104; LAW 208 [CI], 209; PS 123, 262, 331, 332, 351; PSYC 310, 315, 350, 410; SOC 111, 236, 350
8. The ability to speak, write and understand communication effectively.	Communication 9 credits	COMM 105A, (105), 105B, (124); CS 105, 110, 115, 146, 147; ENGL 111, (112), 212, 300, 301, 304; MFL 111-212 (FREN, GER, LAT, PLSH, SPAN); PHIL 114
9. The ability to step outside the constraints of one's own national or native culture and societal institutions.	International Perspectives 4 credits	AH 470; ECON 200, 441; ENGL 253, 264; FIN 310; MFL 111-212; GEOG 201, 202; HIST 100D, 100E, (115), (116), (117), 230, 240, 260, 355, 357; HUM (212), 213, 214, 235, 245; LAW 407; MGT 427; MKT 432; NURS 470; PS 130; 205, 307, 405; SOC 112, 125 [CI], 370, 380, 405

Courses in parentheses no longer are offered or are replaced by new course numbers.

## Majors and Minors

Each candidate for a bachelor's degree must complete a major and a minor, two majors, or an approved interdisciplinary major.

Check respective department listings for credits and course requirements for majors.

The University will grant a limited number of interdisciplinary degrees of an experimental nature. A student who wishes to pursue such a program may submit a proposal to the Vice President for Academic Affairs, who will confer on the feasibility of the proposal with the Curriculum and Academic Policy Committee. Such proposals must be approved before the Senior year; approved copies must be deposited in the student's folder.

Courses with "D" grades may not be used to meet requirements for majors or minors. Cognate courses with "D" grades may not be used to meet requirements for the majors.

**The College of Arts and Behavioral Sciences** offers undergraduate courses in the following disciplines: art, communication, criminal justice, English, foreign languages (French, German, Latin, Polish or Spanish), history, music, philosophy, political science, psychology, social work, sociology, theatre and youth services.

Majors may be completed in: art\*, communication\*, criminal justice\*\*, graphic design, English (literature, creative writing, professional and technical writing)\*, French\*, history\*, international studies, music\*, political science, political science-public administration\*\*, psychology, social work\*\*, sociology, Spanish\* and theatre\*.

Minors may be completed in: art†, communication†, graphic design, English†, English-applied writing, English-creative writing, French†, gender studies, German†, gerontology, history†, music†, philosophy, political science†, Polish, psychology†, public administration, sociology†, Spanish†, theatre† and youth services.

Graduate courses are offered in leadership and public administration, and communication and multimedia for the Master of Arts; and in the disciplines of English, and history for the Master of Arts in Teaching.

**The College of Business and Management** offers undergraduate courses in the following disciplines: accounting, economics, law, finance, management and marketing.

Bachelor of Business Administration (B.B.A.) candidates may complete majors in: accounting\*\*, economics\*\*, finance\*\*, general business\*\*, industrial management\*\*, international business, management\*\*, and marketing\*\*.

Bachelor of Professional Accountancy (B.P.A.) candidates may complete a major in accounting.

Bachelor of Arts (B.A.) candidates may complete a major in economics.

Non-B.B.A. students may complete majors in economics, finance, industrial management, management or marketing as second majors (no minor is required with a double major).

B.B.A. candidates may complete minors in: accounting, economics, finance, legal studies, management and marketing and disciplines from other colleges.

Non-B.B.A. candidates may complete minors in: accounting, economics†, finance, general business, legal studies, management and marketing.

Graduate courses are offered in the disciplines of accounting, economics, finance, law, management and marketing for the Master of Business Administration (M.B.A.).

**The College of Education** offers undergraduate courses in the disciplines of education and physical and health education.

Candidates for a B.A. in elementary education must complete expanded General Education requirements instead of an academic major, and must complete special academic minor requirements specified in the College of Education section. Candidates for secondary teaching certification must choose a major in art, biology, chemistry, communication and theatre, English, French, general science, health education/athletic training, history, mathematics, music, physical education, physics or Spanish; and must choose a minor in art, biology, communication and theatre, chemistry, economics, English, French, general science, German, history, mathematics, music, physical and health education, physics, political science, psychology or sociology.

The Department of Physical and Health Education offers majors in physical and health education, health education/athletic training, fitness and sport management and athletic training; and minors in athletic coaching, physical and health education, and adapted physical education†.

Graduate courses are offered in the discipline of education for the Master of Arts in Teaching (M.A.T.); major emphasis may be in Classroom Teaching — Elementary, Secondary, Middle School, Reading, Learning and Behavioral Disorders, Early Childhood Education or in Natural Sciences.

Graduate courses are offered in education for the Master of Education (M.Ed.); major emphasis may be in educational administration — Principalship, Educational Leadership, Chief Business Official and Superintendency. The Education Specialist (Ed.S.) offers concentrations in Superintendency and Central Office Personnel, Principalship, Directorship of Athletics, Directorship of Curriculum, Directorship of Early Childhood Programs and Directorship of Special Education.

**The Crystal M. Lange College of Nursing and Health Sciences** offers undergraduate courses in the disciplines of allied health and nursing, and rehabilitation.

Majors may be completed in: medical technology\*\*, nursing\*\* and occupational therapy\*\*.

No minors are available.

Graduate courses in nursing are offered for the Master of Science in Nursing (M.S.N.); within the program, students select a role option in one of two concentrations: health system nurse specialist (management, education, informatics, management/education, management/informatics, or education/informatics) or advanced clinical practice (clinical nurse specialist or nurse practitioner).

**The College of Science, Engineering and Technology** offers undergraduate courses in the disciplines of biology, chemistry, computer science, electrical engineering, mechanical engineering, mathematics and physics.

Majors may be completed in: biochemistry\*\*, biology\*, business-chemistry\*\*, chemical physics\*\*, chemistry\*, computer information systems, computational mathematics\*\*, computer science, electrical engineering\*\*, environmental chemistry, engineering technology management, mathematics\*, mechanical engineering\*\*, optical physics and physics\*.

Minors may be completed in: biology†, chemistry†, computer information systems, computational mathematics, computer science, engineering and technology, mathematics† and physics†.

Graduate courses are offered in technological processes for the Master of Science; and in the disciplines of biology, chemistry, mathematics, natural sciences and physics for the Master of Arts in Teaching.

\*Approved major for secondary teaching certification

†Approved minor for secondary teaching certification

\*\*Interdisciplinary major; no minor required

## Application for Degree

Each degree candidate must file a written application with the Registrar's Office by the deadline specified in the Course Schedule of the student's final semester. A degree application fee is charged and is listed in the Course Schedule. All correspondence and official transcripts must be on file with the Registrar at the time the application is submitted. All "Incomplete" grades must be removed to qualify students to graduate. Attendance at commencement is requested of all candidates completing degree requirements.

## Graduation with Distinction

To be eligible to graduate with distinction, an undergraduate degree recipient must complete 62 credits at SVSU and achieve a grade point average listed below. At least 45 of these SVSU credits must be in courses graded on an A-B-C-D-F scale.

Cum Laude . . . . .	.3.40 - 3.59
Magna Cum Laude . . . . .	.3.60 - 3.79
Summa Cum Laude . . . . .	.3.80 - 4.00

## Semester Honors

The Deans' List is produced at the end of each fall and winter semester. It is composed of students in SVSU undergraduate degree programs who have earned a minimum grade point average of 3.40 in at least 12 credits of 100-level or above course work graded on an A-B-C-D-F scale. Inclusion on the President's List requires a 4.00 grade point average in at least 12 credits of 100-level or above course work graded A-B-C-D-F.

## Time Demands of College Courses

The faculty and administration of SVSU hope that each course taken by students is a worthwhile and productive experience. That outcome will require an investment of time. Many, if not most, SVSU students are employed, and cannot afford to stop employment while they go to school. Many also are parents, and/or face other demands on their time. When planning course load, the information below will help take into account the time required for course work.

The general guideline is that for every credit taken in class, students need to study approximately two additional hours every week. This amount of effort usually is needed to maintain and perform at reasonable standards. Overall, students should consider that a course load of 12 credits is equivalent to a full-time, 40-hour-per-week job. If, for example, a student is employed 30 hours per week and is taking 12 credits in school, that student will be working 70 hours total per week — with school and employment combined. At least that will be true if the student wants to do reasonably well in classes. This guideline is a low estimate; some students may need to spend more time, depending on the nature and difficulty of the particular course, knowledge of prerequisite material, studying efficiency, and other factors. This guideline is a common standard used at many universities nationwide. Students at Saginaw Valley State University can maximize the quality of their education by following this formula.

## Grading

Progress records are maintained by the institution and mailed to the student in the form of a grade report at the end of each term. The grading system is:

- A (4 honor points) outstanding achievement
- A- (3.7 honor points) outstanding achievement
- B+ (3.3 honor points) very good achievement
- B (3 honor points) very good achievement
- B- (2.7 honor points) above average achievement
- C+ (2.3 honor points) average achievement
- C (2 honor points) average achievement
- D (1 honor point) poor achievement (credit does not apply to major/minor)
- F (0 honor points) failing (credit is counted in the grade point average but not as credit earned)
- P successful completion at "C" or better level for course taken as Pass/Fail or Pass/No Credit (credit is counted as credit earned but not in the grade point average)
- AU audited course for no credit
- N no credit earned for a course taken as Pass/No Credit
- I incomplete work still in progress
- W withdrawal after the end of the add/drop period through the ninth week of a semester
- WP withdrawal passing in the 10th or 11th week of a semester
- WF (0 honor points) withdrawal failing in the 10th or 11th week of a semester (credit is counted in the grade point average but not as credit earned)

No course may be dropped after the eleventh week of the semester except in cases of documented personal emergency. Proportional dates will be used for courses of shorter duration.

A grade of "D" is not a passing grade for any required course. Regarding prerequisites, students must obtain at least a "C" grade in all prerequisite courses before being permitted to enroll in subsequent courses.

Grade changes may be made only for a certified error on the part of University faculty or staff.

A course may be repeated at SVSU to raise a grade. All grades shall remain on the student's academic record (transcript), but in computing the GPA, the better grade will be counted.

A course taken at SVSU may only be repeated at another institution if the course is an equivalent course at SVSU, the initial course grade at SVSU was a D, F or WF, and a grade of C or better is earned in the repeated course. There will be no transfer of the grade earned from the other institution and no recalculation of the SVSU GPA.

No course can be repeated at SVSU more than twice for a grade. Appeals for additional repeats may be made to the dean of the appropriate college.

In specified courses, students have the option of being graded on a pass/fail basis. This option requires permission of the instructor and must be recorded in the Registrar's Office by the end of the second week of the semester or proportional times for shorter semesters.

Grades in transferred courses are not included in calculating the SVSU grade point average. Transfer credit will be removed if equivalent course work is taken through SVSU or any other transfer institution.

## Incompletes

A student may request of his/her instructor, through the last day of the final examination period, that he or she be given an "I" (Incomplete) grade. The instructor is authorized to give an "I" if it is deemed that the failure to complete work on time occurred for reasons beyond the student's control, or that the student is engaged in an individual research project that requires a second semester for completion.

Unless a course is designated directed study, reading or research, the deadline for completing work shall be the end of the fourth week of the next semester. If no other grade is submitted by the instructor at the end of the fourth week, the Registrar will record the default grade specified by the instructor at the time the "I" was given. When no default grade is specified by the instructor at the time the "I" is given, the final grade will become "F" unless the instructor records a different grade by the end of the fourth week of the following semester. On rare occasions, when a prolonged illness or other clearly unavoidable circumstance prevents the student from completing his or her work, the Registrar is authorized to replace the "I" with a "W" indicating withdrawal.

Students who have enrolled in directed study, reading or research courses may continue their projects to the end of the next semester with the instructor's written approval.

## Course Numbering

Courses are numbered as follows:

### Lower Division

000 level .....Remedial\*  
100 level .....Freshman  
200 level .....Sophomore

### Upper Division

300 level .....Junior  
400 level .....Senior

### Graduate

500-600 level .....Graduate

The number in parentheses that follows each course title indicates the number of credits that may be earned in the course. Class hours, if different from credits, are indicated at the end of the course description. Where there are two numbers, the first represents hours of lecture, the second, hours of laboratory.

\*Credits earned in remedial courses (000 level) will not apply toward the credits required for graduation. However, they will count toward determining "full load" for students receiving financial aid.

## Registration

Students who apply early have the convenience of selecting courses and registering during an advanced period with the assistance of an academic or faculty advisor. Detailed information about registration appears in the Course Schedule, which is printed twice per year.

## Add/Drop

Students who need to add or drop a course should consult the current Course Schedule for detailed instructions. Courses may be dropped

through the 11th week of a 15-week semester (see Grading). Accelerated courses have deadlines that are proportional to the length of the course.

The date on which a course is dropped is used to determine both grades and refunds and is recorded in the Registrar's Office. The recorded date is the one on which the drop form is returned during office hours with all required signatures (see Grading and Refunds). A student may register late during the add/drop period. A late fee is charged.

### Class Standing

Freshman . . . . .	.30 credits and under
Sophomore . . . . .	.31 - 61 credits
Junior . . . . .	.62 - 92 credits
Senior . . . . .	.93 credits and over

### Course Load

Undergraduate students carrying 12 or more credits per semester and graduate students carrying nine or more credits are considered to be attending full time. Undergraduate students who desire to enroll in more than 18 credits per semester, or proportional credits for shorter sessions, must secure the permission of their academic dean.

### Tutorials

Academic credit can be earned for certain courses taken on a tutorial basis. Eligible courses are those listed in the University catalog and are required for degree completion but will not be offered prior to the student's expected graduation.

Under special circumstances tutorials also may be approved for course conflicts, for major and minor elective courses or for prerequisite courses. Ordinarily a tutorial may not be used to repeat a course.

The student must be in good standing and obtain approval of the relevant faculty member, department chairperson and academic dean. Application forms are available from the Registrar's Office.

### Directed Research/Reading

Many departments offer the opportunity to earn academic credit for study or research on topics not covered by regular courses. The student works with a faculty member, who directs and monitors the learning process according to a plan of study submitted with the course application.

The student must be Junior standing or above, with at least a 3.00 cumulative grade point average, and obtain approval of the faculty member and the relevant department chairperson and academic dean. Not more than two courses in a semester, and 16 credits total, of directed research/reading courses may be counted toward graduation requirements. Any directed research/reading course required for the student's major or minor is not subject to the 3.00 cumulative grade point average limitation. Application forms are available from the Registrar's Office.

### Credit by Examination

Credit for certain courses listed in this catalog may be earned by passing a special proficiency examination. Applications are available in the Registrar's Office and must be approved by the department chairperson and academic dean. The examinations will be administered by members of the SVSU faculty.

Credit may be granted for College Level Examination Program (CLEP) General Examinations and Subject Examinations. Contact the Registrar's Office for information about the available credit and minimum required scores.

### Tuition and Fees

Current tuition and fee information is available in the Course Schedule. These charges are subject to change by action of the SVSU Board of Control.

### Payment and Collection of Tuition, Fees and Other Obligations

#### Overview:

It is the stated policy of the University that tuition and fees must be paid in full by the published payment due dates for each academic semester.

### Student Responsibilities:

- Make payment by published payment due dates.
- Payment must be remitted in cash, credit card, or via credit of financial aid to a student's account or a combination thereof for the total amount due. Financial aid includes scholarships, grants, loans and third-party payment arrangements. Students receiving financial aid, furthermore, are responsible for any additional amounts which may subsequently be billed resulting from changes in financial aid awards.
- The only payment alternative to the above sources is the SVSU Payment Option Plan. Availability of and use of this plan is subject to plan terms and conditions as described in SVSU Payment Option Plan information documents.

### Approved Forms of Payment:

- Cash (U.S. currency) including debit card or pre-authorized Automated Clearing House transaction, credit cards – VISA, MasterCard, Discover.

### University Actions Involving Unpaid Accounts:

- Course registrations for students who have not made payment in full by the payment due date will be canceled. The University may offer at its option a re-enrollment period subsequent to the payment due date. A late payment fee is charged to students who re-enroll in addition to billed tuition and fees.
- Course registrations may be canceled by the University up to the end of the third week of classes for students with unpaid tuition and fee accounts including SVSU Payment Option Plan delinquency.
- Students with unpaid accounts (tuition and fees, on campus housing, all other financial obligations) will be prohibited from enrolling in subsequent semesters. Advance registrations will be canceled for those students who incur an obligation subsequent to the advance registration period. Additionally, students with unpaid accounts are prohibited from receiving their University transcript and may be denied other University services.
- Delinquent accounts will be assigned to debt collection agencies. Collection agencies are authorized by the University to collect unpaid accounts in accordance with the Federal Fair Debt Collection Practices Act. The University also in some circumstances pursues legal action to secure a court ordered judgement as a means of collecting unpaid accounts.
- Delinquent account information is provided to national credit reporting agencies and may impact an individual's credit rating.

### Policy Administration:

The authority to administer this policy is delegated to the University Controller.

### Withdrawal from the University

Students who find it necessary to drop all classes must make arrangements in the Registrar's Office for official withdrawal from the University. These students may expect to be re-enrolled, provided they have not been academically dismissed.

### Refund Policy

Students who make schedule adjustments resulting in a credit hour load reduction or complete withdrawal from the University may be eligible to receive a refund of tuition and fees. Refunds for the fall and winter semesters will be computed as follows:

<b>Class Week</b>	<b>Refund Percentages</b>
End of First Week . . . . .	.100%
End of Second Week . . . . .	.75%
End of Third Week . . . . .	.50%
End of Fourth Week . . . . .	.25%

Refunds for the spring/summer semester or shorter term periods will be calculated proportionally in accordance with the above schedule.

Students receiving University administered scholarships and financial aid may be subject to special federal or other awarding agency refund requirements. Financial Aid recipients attending SVSU for the first time who receive assistance from Title IV federal programs may be eligible for a pro rata refund if they totally withdraw from school. Withdrawing students should contact the Office of Scholarships and Financial Aid for further information.

Withdrawal and drop procedures are published in each semester's Course Schedule. Official dates pertaining to this process and office hours for the Registrar's Office also are listed in the Course Schedule. Students must file a withdrawal or drop form in the Registrar's Office to be eligible for refunds. The date used to determine refunds is the date on which the form is returned with all necessary signatures to the Registrar's Office.

Separate refund policies exist that apply to the death or serious illness of a student.

The University will provide, upon request, examples of the application of this policy. Such requests should be made in person or in writing to Student Accounting Services, Office of the Controller.

### Transcript Service

Transcripts of a student's academic record will be issued by the Registrar's Office when requested in writing by the student. A transcript fee will be charged. Current rates are listed in each Course Schedule or are available by contacting the Registrar's Office. Except for the period between final exams and the end of the next term's add/drop period, transcripts are usually sent within 72 hours of receipt of the request. During the grading and registration period, extra time should be allowed for grades to be reported and recorded on the academic record. Transcripts are not issued for students with financial obligations to SVSU. Graduating students will receive a free copy of their final record.

### Access to Records

University policy grants access by students to their educational records under the conditions that conform to the Family Educational Rights and Privacy Act of 1974, as amended. This policy is regulated by federal guidelines.

Directory information may be published or released unless a student informs the Registrar's Office, in writing before the first day of classes each semester, that any or all items should not be released without prior consent of the student. The request to withhold directory information is valid to the end of August in the current academic year. Directory information is defined to include the student's name, address, telephone listing, E-mail address, date and place of birth, major field of study, dates of attendance, degrees, awards, and the most recent educational institution attended by the student. In addition, participation in officially recognized activities and sports, and weight and height of members of athletic teams will be considered as directory information.

### Undergraduate Academic Probation and Dismissal

Students are expected to devote sufficient time and effort to their course work to maintain at least a 2.00 ("C") average. However, a period of adjustment to the standards of the university classroom is afforded to Freshmen and first semester Sophomores. All students failing to maintain a "C" average (unless they have been admitted or readmitted on a probationary basis) will be given at least one semester's warning (probation) before they are required to terminate enrollment.

A student will be placed on probation if he/she has either 12 GPA credits or 12 credits earned, but has failed to meet the following grade point average requirement:

12-24 credits	1.70 GPA
25-36 credits	1.90 GPA
37 or more credits	2.00 GPA

The student is removed from probation when his/her cumulative grade point average rises above these levels.

The student is continued on probation if the semester average is 2.00 or higher but the cumulative grade point average has not attained the minimum standards of the graduated scale above.

Students will be dismissed from the University if, while on academic probation, they fail to attain a 2.00 semester grade point average.

Students who have been academically dismissed from the University for the first time and who have a 1.80-1.99 cumulative grade point average may appeal to the Registrar for reinstatement. Reinstatement is not automatic, but each case is reviewed on an individual basis. This appeal must be in writing and the appeal interview must be heard by the last day of regular registration each semester. All other students who have been academically dismissed may appeal after a lapse of one semester and successful completion of college level work at another accredited institution.

Students who have been academically dismissed and have remained disenrolled for at least two semesters may request readmission from the Office of the Registrar. Readmission is discretionary with the Registrar and, if granted, will be on terms of academic probation. Degree requirements will be based on the catalog in use during the semester of readmission.

Students who have been academically dismissed more than once must remain disenrolled for at least two semesters (spring/summer sessions count as one semester) before being eligible to apply for readmission. Readmission is discretionary with the Registrar and, if granted, will be on terms of academic probation. Readmission may be contingent upon agreeing to terms of a behavioral contract.

### Suspension and Dismissal for Other Than Academic Reasons

The University reserves the right to suspend or dismiss any student at any time such action is deemed advisable. However, the University statement on due process protects students against arbitrary termination of enrollment. Saginaw Valley State University reserves the right to suspend or cancel classes or other University functions for any reason.

### In-class Use of Audio and Video Recording Devices

Students must seek the permission of their instructor before using any audio or video recording devices to record lectures, discussions, etc.

If such permission is granted, neither the resulting recordings nor any form of copies of transcripts of the recordings may be used for any other purpose than as a replacement for notes taken in class.

Permission to make recordings will not be withheld if such recordings are reasonably necessary to accommodate a student's disability as defined by law.

## Special Programs

### Roberts Fellowship Program

The Roberts Fellowship Program funds six credits of advanced academic course work and other unique experiences for a select group of undergraduate students who have demonstrated a high level of academic accomplishment and commitment to campus and/or community service. The purpose of this scholarship program is to develop Fellows' potential for leadership and for distinguished achievement in their subsequent careers. Roberts Fellowship course work consists of two 3-credit seminars, one each in the Fall and Winter semesters, culminating in an international travel experience. The Roberts Fellowship also provides regular opportunities to meet and talk with visiting leaders in business, political life, education, the arts, and many other areas.

The first academic seminar is "Philosophical/Historical Leaders," which examines models of leadership through the study of influential men and women, as well as theories about leadership, drawn from a range of sources and traditions. The second is "Contemporary Issues in Leadership," which combines extensive practical case study analysis of organizational leadership problems with leadership issues in a broad, international context. The "Contemporary Issues" seminar culminates in an international travel experience. Admission to the Roberts Fellowship is extremely competitive. Additional information about the Roberts Fellowship Program is available from the Program Chairperson.

### Off-Campus Courses

Graduate education programs leading to the Master of Arts in Teaching (M.A.T.), the Master of Education (M.Ed.), and the Education Specialist (Ed.S.) are offered through the L'Anse Creuse Middle School East Graduate Education Program. A selection of undergraduate courses is offered through SVSU's Cass City Center. Teacher Certification Programs in Elementary and Secondary Education are offered through an extension program at St. Clair County Community College (Port Huron). These centers were created to provide educational opportunities for students who cannot easily travel to the home campus. Courses are taught on-site by qualified faculty. For more information about the L'Anse Creuse programs, call (586) 749-0067. For information about the Cass City programs, call (989) 964-4200. For information about the St. Clair programs, call (810) 982-5530.

## Honors Program

The University Honors Program allows students to pursue their major and minor degree work, while providing enriched academic experiences in Honors courses, seminars, research projects, and social activities. The Honors experience enables students to work more intensively with active teacher/scholars and to participate in interdisciplinary courses. Honors students will have ample opportunity to develop as critical thinkers, active learners, and problem solvers.

Those who teach Honors courses are encouraged to experiment with course design and to collaborate with other teachers in the University. Honors courses are expected to broaden the contours of the classroom while always maintaining the highest of standards.

Honors students are especially encouraged to build community through their academic and extracurricular Honors experiences, to represent the Honors Program across the campus by holding key positions in clubs and student organizations. All of the above experiences combine to equip our Honors graduates for the challenges of graduate school.

### Admission Process

1. Students must have a 3.5 GPA for admission;
2. Students must have an initial interview with Chair of Honors and one Honors Committee member;
3. Students must submit a letter of recommendation from faculty or other knowledgeable source;
4. Students must submit a one-page writing sample at the time of application.

The Honors Committee will admit students given these criteria.

Transfer students with 60+ transfer credits may submit a portfolio as a waiver to a portion of the Honors courses. Portfolios must be approved by members of the Honors Committee.

### Graduation Requirements

1. Satisfy all Basic Skills and General Education requirements.
2. Maintain a minimum of 3.5 SVSU grade point average.
3. Produce a discipline-appropriate Honors Thesis, project, or presentation.
4. Complete at least four Honors courses, designated with an "H" on transcripts and as "Honors" in the Course Schedule, or by Honors -92 numbers. Students may seek a partial exemption by applying in writing to the Committee.
5. Complete at least 124 credits.
6. Complete an academic major and minor, if required.

## International Programs

**Call 964-4473 or E-mail: [oiip@svsu.edu](mailto:oiip@svsu.edu)**

Saginaw Valley State University supports opportunities for students to study abroad for academic credit and for faculty to do research and teach abroad. The University promotes appropriate linkages with institutions in other countries to facilitate student and faculty exchanges. Realizing that further educational benefits are obtained from the presence of students and faculty from other countries, the University encourages programs and recruitment efforts that will bring these people to its campus. Finally, the University recognizes that the promotion of international education touches upon its service role. Through extension and outreach activities, international education may be taken off campus and directly into the broader community, which the University is committed to serve. Classroom education, international exchanges and direct service to the community reinforce one another in the University's effort to increase international awareness and global understanding.

The Office of International Programs provides services for international students at SVSU, SVSU students studying abroad, international faculty visiting SVSU and SVSU faculty teaching abroad. Services include visa assistance, housing arrangements and general advisement and assistance in health care, financial, social, and academic needs. The office assists both faculty and students in arranging foreign travel/study and employment.

## Pre-Professional Studies

### Pre-Law

Saginaw Valley State University offers the necessary background courses for law school admissions, and our graduates with proper preparation have been successful in being accepted and graduating from accredited law schools. Law schools do not specify a particular major that students must complete as undergraduates. Consequently, any number of majors at SVSU can prepare students for the rigors of law school. To prepare for law school, students should take courses that develop their skills in the following areas:

- Writing
- Public Speaking
- Logical Reasoning
- Analytical Reasoning
- Historical Research
- Accounting Principles

Several majors have served students well in the past as preparation for law school. They have become traditional choices and can serve SVSU students as the foundation for their law school plans. These majors include the following:

- English
- History
- Communication
- Management
- Political Science
- Accounting

Students interested in law school should speak with one of several faculty and staff members designated as pre-law advisors. A list of these people and of curriculum suggestions is available in the Academic Advisement Center, 117 Wickes Hall.

### Pre-Medicine, Pre-Dentistry and Pre-Veterinary

Saginaw Valley State University offers all courses and advisement necessary to prepare the student for admission to medical, dental or veterinary school. Medical schools today are flexible about their requirements concerning the major field of study for the undergraduate student. However, most colleges have specific course requirements: one year of general chemistry, one year of organic chemistry, one year of biology, one year of physics and one year of English. (CHEM 111, 112; 111L, 112L; 230, 330, 231L, 331L; BIOL 111A, 111B, 111C; PHYS 111, 112; ENGL 111, 212.) Students interested in medicine as a career are advised to choose one of the many major fields of study offered by Saginaw Valley State University. Majors such as chemistry, biochemistry or biology particularly lend themselves to satisfying the specific course requirements noted above; however, if these courses are taken as electives, any other major also is suitable.

In addition, the student should take the appropriate Admissions Tests toward the end of the Junior year. Graduates of Saginaw Valley State University have been placed in all three of Michigan's medical schools. Students interested in medicine and associated programs should contact the faculty advisor for pre-medicine no later than their first semester of attendance at SVSU.

### Pre-Theology

Students who are considering a career in the ministry or priesthood should consult with a member of their chosen denominational clergy as soon as possible in order to learn more about the profession and its requirements and to assist in the selection of a seminary for postgraduate training (usually three years beyond the bachelor's degree). Admission policies vary, but most seminaries will accept any undergraduate major as long as the student has broad-based training in the social sciences, humanities and natural sciences. Recommended SVSU courses for pre-theological preparation include: HIST 111; MGT 321; PHIL 123, 250, 315, 350; PSYC 100, 370; SOC 111, 360; and COMM 105A. The faculty advisor for pre-theology can provide additional counseling and course selection assistance.

# Resources and Services for Students

## Academic Advisement Center

Call 964-4286 or E-mail: [aacsvsu@svsu.edu](mailto:aacsvsu@svsu.edu)

The Academic Advisement Center provides various programs to help students reach their academic goals.

- Initial academic advisement, course registration and placement testing for all new undergraduates.
- Academic advisement for all continuing undergraduate students to include: course planning prior to registration; explanation of academic policies, rules and procedures; monitoring academic progress using a computerized degree audit; and assistance in choosing a major
- Appointments and walk-in advising are available.
- Academic tutoring by appointment in selected first and second year courses such as beginning accounting, biology, chemistry, economics, history, physics and psychology.
- Coordination of University Foundation Scholars Program, College Success Courses, Basic Skills Testing and Orientation Programs.

## Academic Orientation and Registration Program

Call 964-4200 or E-mail: [admissions@svsu.edu](mailto:admissions@svsu.edu)

All freshman and transfer students are required to attend an academic orientation and registration program prior to the start of classes. The program consists of three components: University placement testing; advising and registration; and presentations to help students succeed in the classroom. Materials to register for the programs will be sent to students admitted to the University.

## Alumni Relations

Call 964-4196 or E-mail: [alumni@svsu.edu](mailto:alumni@svsu.edu)

All Saginaw Valley State University graduates are eligible for membership in the SVSU Alumni Association. The Office of Alumni Relations is the link between alumni and the University community.

The University and the Alumni Association Board seek to build loyalty and support among SVSU graduates through involvement in social, educational, cultural and political activities. Alumni are significant contributors to the continued growth and improvement of Saginaw Valley State University. Through professional and community experiences, alumni demonstrate the quality of Saginaw Valley State University, bringing distinction to the alumni body and their alma mater.

## Bookstore

Call 964-4262 or E-mail: [bookstore@svsu.edu](mailto:bookstore@svsu.edu)

The SVSU Bookstore, located in Doan Center, sells textbooks, paperbacks, class supplies, gifts and clothing.

## Campus Life Center

Call 964-4170 or E-mail: [campuslife@svsu.edu](mailto:campuslife@svsu.edu)

The Campus Life Center (CLC) is committed to offering quality out-of-class experiences for all SVSU students. The CLC supports the University's mission to provide opportunities for individuals to achieve intellectual and personal growth, and to develop students' leadership and professional skills. These goals are accomplished by sponsoring a variety of campus events, providing the opportunity to practice leadership skills and facilitating the development of student organizations and their activities.

The CLC provides support services to all students involved in co-curricular activities, including program planning, leadership development, organizational and audience development, consultation, talent acquisition, posting validation, promotion and publicity, recreation and travel. Students also may inquire about, and sign up for, campus recreation activities as well as investigate volunteer opportunities on campus and in local communities.

## Campus Events

Dates, times and locations of campus programs are available in the Campus Life Center. Examples of events sponsored by the Campus Life

Center are Welcome Week activities, the Cards' Party, student leadership programs, Homecoming, student club fairs, Red Pride Family Day, and the Student Recognition Celebration. SVSU students are invited to attend or to assist with any of these programs.

## Student Organizations at SVSU

The Campus Life Center promotes student organizations at SVSU by:

- Providing a listing of student organization contact persons.
- Processing club application materials.
- Equipping each club with a mailbox.
- Allocating available office space to student organizations.
- Approving the posting of club notices.
- Offering activities designed to enhance club growth such as the Cards' Party, leadership training and student recognition events.

The Help Desk (964-4260) provides details about campus events, area events and almost any facet of campus life. Students can obtain weekly and monthly calendars listing University events, plus other materials published by the Campus Life Center.

## Campus Dining Services

Call 964-4253

Both resident and commuter students choose meals from Doan Café. Two dining rooms can be combined to seat up to 500 guests and open hours accommodate students' schedules.

## Campus Recreation

Call 964-7295

The Campus Recreation Department sponsors a variety of intramural, extramural and wellness activities for students, faculty and staff. Numerous opportunities for competition, fun and fitness are available in the Ryder Center, which includes an indoor track, Olympic-sized swimming pool, fitness center, basketball courts, badminton courts, racquetball courts, volleyball courts and dance studio. Outdoor facilities include lighted tennis courts, an archery range and athletic fields for different sporting events.

Intramural leagues organized by Campus Recreation include flag football, co-ed softball, 3-on-3 and 5-on-5 basketball, volleyball, indoor soccer, racquetball, and floor hockey. Among the single-day tournaments and special events are Buschwacker 3-on-3 basketball, tennis, golf, racquetball, badminton, beach volleyball, billiards, snow football, bowling, and open recreation during Red Pride Family Day. Completing the schedule of annual events planned by Campus Recreation are aerobics, billiard and euchre tournaments and trips to professional sporting events.

For more information on recreational activities, stop by the Campus Recreation Office located near the Ryder Center Help Desk, or the Campus Life Center, 114 Curtiss Hall.

## Cardinals In Action, C.I.A. (Volunteerism)

Call 964-4297 or E-mail: [campuslife@svsu.edu](mailto:campuslife@svsu.edu)

Cardinals In Action is the volunteer placement office for the University. Students interested in community or campus involvement should seek assistance through the C.I.A., which is actively involved with Saginaw, Midland and Bay counties. The organization also is responsible for implementing on-campus agency fairs and off-campus volunteer initiatives.

## Career Planning and Placement

Call 964-4954 or E-mail: [careers@svsu.edu](mailto:careers@svsu.edu)

### Career Services

Career Planning and Placement provides a number of services to help students make informed career decisions and put into action effective strategies to achieve success. Students may receive one-on-one career advising on choosing a career path, writing a résumé, cover letter, or portfolio, interviewing, professional etiquette and labor market trends. Career Planning and Placement hosts a series of employment fairs and on-campus interviews each year that conveniently bring regional and national employers to campus. The office's website features advice on choosing a major, résumé writing, networking, and eRecruiting, a comprehensive system for online job postings, résumé submittal, and interview scheduling.

### **Job Shadowing, Internships and Cooperative Education**

Relevant experience is one of the most important factors that employers consider when making hiring decisions. By participating in job shadowing, co-ops or internships, students not only better their understanding of their future profession but also increase their value to potential employers after graduation. Career Planning and Placement places students with a variety of employers, or hosts, throughout the region. To learn more about internships or co-ops, visit our website ([www.svsu.edu/careers](http://www.svsu.edu/careers)) and click on the "Co-ops and Interns" link, or call to schedule an appointment with a Career Planning and Placement advisor.

### **Dean of Student Affairs**

**Call 964-4294 or E-mail: [thompson@svsu.edu](mailto:thompson@svsu.edu)**

Student services and student life matters are the responsibility of the Dean of Student Affairs, located on third floor Wickes Hall. The purpose of the Student Affairs division is to enhance the University experience by helping students develop the leadership skills to meet life's social, academic and personal challenges.

During their course of study at SVSU, students likely will encounter some situations that are puzzling or troublesome. The University can assist students who wish to find answers to their questions and provide the help they need to resolve any problems they might encounter. Students are encouraged to visit student services offices for answers to their questions. If a question or problem arises that cannot be resolved through normal channels, students are invited to contact the Dean of Student Affairs for advice and counsel.

### **Disability Services**

**Call 964-4168**

The Office of Disability Services can assist with accommodations for those with learning or physical disabilities. Some of the services available for students with documented disabilities include motorized wheelchairs, F.M. listening devices, T.D.D.s, alternate testing arrangements, tutoring, note-taking forms, screen-readers and large print and specialized computers. SVSU will make every reasonable attempt to meet the needs of qualified individuals, normally within three weeks from the specific request. SVSU does not provide personal care assistance for individuals.

### **Equal Opportunity and Special Programs**

**Call 964-4397**

Saginaw Valley State University policies and federal and state laws call for equal opportunity in employment and in educational programs and activities. Prohibited under these policies and laws is discrimination on the basis of race, color, gender, age, religion, national origin, marital status, sexual orientation, height, weight and mental and physical handicap. University policy and federal laws require affirmative action to overcome the effects of past societal discrimination against minorities, women, veterans and handicapped persons. The Office of Equal Opportunity and Special Programs is responsible for the implementation of these policies and laws.

### **Evening Services**

**Call 964-4092**

Evening Services is open from 12:30 to 8:30 p.m. Monday through Thursday and from 8 a.m. to 4:30 p.m. Friday to provide the following services to evening students and adjunct faculty members:

- Information on class locations, changes and cancellations
- Information on University programs and special events
- Processing course withdrawal forms
- Assistance with emergencies

### **Health Services**

**Call 964-4271**

Health Services assists students with managing or eliminating health problems that could interfere with their education. Services include treatment of minor illnesses and injuries, immunizations, screening tests, referrals and education. Located on second floor Wickes Hall, Health Services is a free walk-in service staffed by a registered nurse. Hours during the fall and winter semesters are from 8 a.m. to 4:30 p.m. Monday,

Thursday and Friday, and from 9:30 a.m. to 6 p.m. Tuesday and Wednesday. For advanced evaluation and prescription medications, a nurse practitioner is available by appointment from noon to 2:30 p.m. on Wednesday only. Hours are reduced during spring semester and the office is closed during July and the first two weeks of August. Student health insurance applications also can be obtained in Health Services.

### **Intercollegiate Athletics**

**Call 964-7300 or E-mail: [athletic@svsu.edu](mailto:athletic@svsu.edu)**

SVSU is a member of the Great Lakes Intercollegiate Athletic Conference (GLIAC) and the National Collegiate Athletic Association (NCAA II).

The University sports program features football, basketball, golf, bowling, cross-country, baseball, soccer, and indoor and outdoor track for men; basketball, volleyball, cross-country, softball, soccer, tennis and indoor and outdoor track for women. Offices for the Athletic Department are located on second floor Ryder Center.

### **Library and Learning Resources**

**Call 964-4240 or E-mail: [refsrv@svsu.edu](mailto:refsrv@svsu.edu)**

Named for one of the University's founders, the Melvin J. Zahnow Library opened its doors in the spring of 1987. Its 66,726 square feet spans three floors, offering its users a comfortable and convenient place for research and study. Zahnow Library is one of the region's largest and most modern libraries. As of 1997, the library's collection totals more than 562,025 items and is increasing by nearly 25,000 each year. In addition to books, the library houses generous collections of periodicals and audio-visual materials, government documents, University archives and more than 330,000 microforms. The library's mission is to meet the informational, research and classroom equipment needs of students, faculty and other users. In 1997, the library moved to a state-of-the-art web-based online catalog. "CardCat" can be accessed from the SVSU homepage or directly at <http://library.svsu.edu>. The catalog features keyword access, limit/sort capabilities and "hot links" within the database as well as to other web resources. The library homepage includes an Internet launchpad, floor plans, circulation policies and the library's online newsletter, Libline.

Zahnow Library offers its users a generous level of public service based on CD-ROM databases, electronic and Internet resources and a 28,000-volume reference collection. The library's staff currently responds to more than 60,000 inquiries each year that range from basic reference questions to requests for complex instruction in the development and implementation of subject-specific search strategies. One of the library's prime goals is to provide support, assistance and instruction in the use of the University library's numerous print and automated reference resources, print and non-print collections, programs and services.

While most library users associate libraries with books and periodicals, Zahnow Library in recent years has not only continued to acquire materials in a surprisingly wide variety of formats, but also has introduced its users to increasingly sophisticated technologies, especially Internet and online information resources such as FirstSearch.

Many of the book and periodical citations identified through the use of these technologies can be found in our own collection, but certainly not all. While Zahnow Library houses one of the most rapidly growing collections in this region and the region's largest periodical collection, our holdings are modest in comparison to those of major research libraries. Using OCLC, a nationwide database encompassing 34 million unique titles, the library's staff can identify holdings from libraries across the nation and, if warranted, request materials through interlibrary loan.

Considering the complexity of today's information sources, the library's instruction program is playing an increasingly more important role in introducing students to our broad range of holdings and increasingly sophisticated technologies. General tours introduce members of the University community, secondary school students and other groups to Zahnow Library. The library's reference staff emphasizes instruction in direct support of the University's curricula, ranging from basic instruction in the use of Internet resources and the on-line catalog to subject-specific seminars aimed at the needs of upper division and graduate students.

In addition to its general collection and public service programs, the library administers the University archives and special collections program and Audio-Visual Services. Audio-Visual Services meets classroom needs for equipment, manages the distributed media system and maintains a media collection of approximately 19,000 items. Holdings range from

35mm photographs and slides to videos, compact disc recordings and multimedia.

## **Math Resource Center**

**Call 964-4648 or E-mail: [mathtutor@svsu.edu](mailto:mathtutor@svsu.edu)**

The Math Resource Center is located in the Herbert Dow Doan Science Building, room SE 106. Individual tutoring services for mathematics courses numbered at or below the 200-level are offered to all registered SVSU students. Professional and student tutors are available in the center on a walk-in basis. Service also is available on-line, and by E-mail. All services are free to SVSU students.

## **Microcomputer Labs**

**Call 964-7268 or E-mail: [microlabs@svsu.edu](mailto:microlabs@svsu.edu)**

The Microcomputer Labs consist of Windows9x-based or Macintosh-based computers. Computer software includes word processing, spreadsheet, presentation and other specialized programs. All computer stations provide E-mail and Internet access. Two general purpose "open" labs, equipped with PC and Mac stations, are among several teaching labs and specialized labs available throughout the SVSU campus.

Hours for all labs vary during breaks and spring/summer semester. For additional information, visit [www.svsu.edu/microlabs](http://www.svsu.edu/microlabs).

## **Minority Student Services**

**Call 964-7090**

The Minority Students Services provides various programs to help students reach their academic goals.

- Academic and student support programs and services that include academic advisement and assistance with student service-related issues (e.g., registration, financial aid, student accounts).
- Advisement with personal concerns.
- Advisement to student organizations.
- Participating in and support of campus multicultural programs.
- Appointments and walk-in advising are available.

## **Public Safety**

**Call 964-4141**

The Department of Public Safety provides service oriented policing to the SVSU community. Our goal is to maintain a safe environment to work, learn, teach, and enjoy the many aspects that the University has to offer. Public Safety publishes an annual "Crime Awareness Report," which can be viewed at [www.svsu.edu/publicsafety](http://www.svsu.edu/publicsafety).

We are committed to developing new and imaginative ways to address the broad spectrum of community concerns at SVSU. Some of our programs and services include:

- Bike patrol
- Crime prevention
- Criminal and other investigations
- Critical incident management and supervision
- Emergency response
- Escort services
- Foot patrol
- Operation Identification
- Orientation
- RAD (Rape Aggression Defense Systems)
- Traffic and parking control
- Vehicle assistance

We strive to provide a level of police service to insure a safe environment and, at the same time, improve the quality of life for everyone at SVSU. For emergency assistance, call 9-911 from on campus or 911 from off campus. To contact the Parking Bureau, call 964-4140.

## **Student Association**

**Call 964-4232**

SVSU Student Association represents students through participation on many University policy-making committees and the Board of Control. It allocates student fees for activities as well as educational grants. The association also works with campus clubs and organizations to promote social and educational activities.

## **Student Code of Conduct**

**Call 964-4170**

Regulations governing student behavior at Saginaw Valley State University and the procedures followed in case of any violation(s) are found in the "Student Code of Conduct" section of the SVSU Student Handbook and are administered by the coordinator of the student conduct program. The Student Code of Conduct assures due process in the disposition of any alleged violations of the code.

## **Student Counseling Center**

**Call 964-5600 or E-mail: [personal-counseling@svsu.edu](mailto:personal-counseling@svsu.edu)**

Assistance from the Student Counseling Center, located in 112 Curtiss Hall, is available to students in need of counseling for concerns related to stress, relationships, grief, anxiety, depression, substance abuse, etc. SVSU's personal counseling staff will meet with students to assess needs, provide short-term counseling, and/or make appropriate referrals. All services are confidential.

## **Student Employment**

**Call Career Planning and Placement, 964-4954**

Working on campus as a student employee can be an effective way to earn money while pursuing an education. To be eligible for student employment in the fall and winter semesters, students must be enrolled at least half time during the semester in which they work. For the spring and summer semesters, students must be enrolled at least half time during spring and summer, or be pre-registered at least half time for the following fall semester to be eligible for work. Students interested in working on campus must submit a completed Student Employment Application to the Office of Career Planning and Placement. When an on-campus department has a student employment vacancy, applicants who have relevant experience and skills will be referred on a first-come, first-served basis.

## **Student Housing**

**Call 964-4255 or E-mail: [housing@svsu.edu](mailto:housing@svsu.edu)**

SVSU currently offers either residence hall or apartment living options for students wishing to live on-campus. First-year Suites consist of seven houses, each containing nine suites. A suite is composed of a living room, bath and four bedrooms. Bedrooms are rented to two students or, when space permits, as private rooms. Quite often the entire suite becomes a cohesive social unit. Members study together, relax together and relate to each other on a personal and friendly basis.

Pine Grove Apartments are designed for students beyond their first two years of college. Preference is given for graduate students and undergraduate students who have achieved 48 credits or are 21 years of age. These criteria are waived for students with families. The apartments offer an attractive alternative for students who want the convenience of living on campus, but prefer the flexibility of an apartment.

SVSU's Living Center offers students in their second year or beyond several unique life-style options. These choices will include efficiencies for two or three students as well as single bedroom suites with kitchenettes.

The University Village includes four single-bedroom, townhouse-style apartments. It also has a few buildings dedicated to single-efficiency units. These spaces are available to students beyond their freshman year.

## **Dining Plans**

First-year students participate in one of three declining balance dining plans: "Thrifty," "Traditional" or "Plus." Each features specific dollar amounts that can be used to purchase items in Doan Café. Upperclass residents may choose from two additional plans, or elect to do all of their own food preparation. All resident students have the option of subscribing to a Doan Café dining plan in an account that is accessed through "The CARD," SVSU's student identification card.

### **Application Procedure**

Students who indicate an interest in on-campus housing on their admissions application automatically will receive housing and dining services information that include specific instructions. Students already enrolled should apply at the Office of Housing and Residential Life, 113 Curtiss Hall, 964-4255.

### **Housing Payment**

A \$200 pre-payment must accompany the Housing and Dining Services Agreement to reserve a space in the residence halls. In the event of a housing shortage, students will be assigned a room on a "first-come, first-served" basis (in the order that agreements are received by the Office of Housing and Residential Life).

### **Payment Schedule**

The payment schedule applicable to the current school year will be sent with the Housing and Dining Services Application. Payments will be made in full or according to the payment plans set forth in the schedule.

### **Residence Hall Contract**

The Housing and Dining Services Agreement (contract) is for the full academic year (fall and winter semesters), or for winter only for those entering in January. Spring and/or summer contracts also are available. In signing this agreement, the student agrees to abide by published regulations established by Saginaw Valley State University for the safe and efficient utilization of University housing.

### **Cancellation of Housing Reservation**

Students who have paid a prepayment or application fee to live in University housing and decide not to enroll, or those who enroll and elect not to live in University housing, must notify the Office of Housing and Residential Life in writing. Applicants should refer to housing information for specific deadline dates associated with cancellation requests. Please note that cancellations may only be requested prior to the beginning of classes. During the academic semesters, cancellation requests are handled through contract release procedures.

### **Termination of Housing and Dining Services Agreement by the University**

The University may terminate the agreement and take possession of the room at any time for violation of any of the regulations or provisions therein, violation of other rules and regulations of the University, for health reasons, or when the student is no longer enrolled in at least eight credits in good standing at the University. The University may take possession of the room within 24 hours after the occupant withdraws from University or on termination of the Housing and Dining Services Agreement by the University.

The University reserves the right to:

1. Adjust room and board charges during the year if, in its opinion, such adjustments are necessary.
2. Assess residents for damages to community areas of the residence hall or to assigned living units.
3. Assign or re-assign students to rooms as necessary.

### **Contract Release**

The Housing and Dining Services Agreement is undertaken for the full academic year (fall and winter semesters) or for the remainder of the academic year in which the student contracts with the University for housing and dining services. The Housing and Dining Services Agreement is subject to the terms and conditions as stated in housing information and all other rules and regulations of Saginaw Valley State University that presently are in effect or may be adopted in the future.

In view of its own financial obligations, the University is limited in its ability to release students from their contractual obligations. The University will only release residents from their contracts if they:

1. Graduate during the contract period.
2. Totally withdraw from classes, in which case they will be required to pay a pro-rated amount for the actual days in residence and a forfeiture charge of \$100.
3. Are academically dismissed from the University, in which case they will be required to pay a pro-rated amount for the actual days in residence and a forfeiture charge of \$100.

It is the responsibility of the resident student to notify the Office of Housing and Residential Life in writing of any change in student status. Students must properly check-out of the University housing in order to complete withdrawal from Saginaw Valley State University.

The Office of Housing and Residential Life has developed a system for reviewing requests for contract releases for reasons that do not fit the above categories. These requests are reviewed by the Associate Director of Housing and Residential Life, who will determine if the reasons for release presented are consistent with the criteria discussed in published housing materials. If a contracted student experiences extreme and unusual circumstances beyond their control, a request for a contract release may be granted at the discretion of the Associate Director of Housing and Residential Life.

It is the responsibility of the student who desires a contract release to submit a request in writing to the Office of Housing and Residential Life with relevant documentation of the circumstances involved. Should the request be approved, the student will be required to pay a pro-rated amount for the actual days in residence and a forfeiture charge of 25 percent of the remainder of the contract obligation.

### **Transfer Student Programs and Services**

**Call 964-4220 or E-mail: [admissions@svsu.edu](mailto:admissions@svsu.edu)**

The Coordinator for Transfer Student Programs and Services assists transfer students as they begin their studies at the University. The Transfer Newsletter — which updates transfer students on University programs, services and important deadlines — is among the assistance services that are available to new transfer students. Articulation agreements with various educational institutions also are developed and maintained by this office.

### **Writing Center**

**Call 964-1661 or E-mail: [writing-center@svsu.edu](mailto:writing-center@svsu.edu)**

The SVSU Writing Center assists all students in developing their writing abilities. The Writing Center's location is 135 Science East. The Center is open during posted hours; students may walk in or call ahead for an appointment. For more information, call 964-6061, send E-mail to [writing-center@svsu.edu](mailto:writing-center@svsu.edu) or visit [www.svsu.edu/writingcenter](http://www.svsu.edu/writingcenter). On-line tutoring also is available; for further information, visit the Center's web site.

In the Writing Center, peer mentors help students at all levels of writing proficiency and from all disciplines with planning, drafting and revising all types of writing. The Center's focus goes beyond simply helping students on the documents they bring; the Center's goal is to aid in the overall development of students as writers.

The Center's peer mentors are experienced writers who have been specially trained to meet the needs of SVSU's diverse student body. Mentors work most effectively with students who arrive at the Writing Center with clear goals for their session and with their instructor's assignment, their syllabus and text(s), and any previous work they have done. The Center also has a trained specialist in English as a Second Language on staff and a growing collection of both print and electronic resources on a range of writing issues.

# Undergraduate Programs



# College of Arts and Behavioral Sciences

Donald J. Bachand, Dean

**NOTE: Candidates must meet all general and academic requirements listed on pages 8 through 26 of the catalog.**

The College of Arts and Behavioral Sciences is the largest college of the University. It offers courses to students in all colleges to fulfill their general education requirements and programs leading to the degrees of Bachelor of Applied Studies (B.A.S.), Bachelor of Arts (B.A.), Bachelor of Social Work (B.S.W.), and Master of Arts (M.A.). Students may select majors and minors from 15 different fields and interdisciplinary minors in the fields of gender studies, gerontology and youth services. In conjunction with the College of Education, it offers instruction in the arts and behavioral sciences for students pursuing certification in teaching or the Master of Arts in Teaching (M.A.T.) degree in these disciplines.

## Bachelor of Applied Studies

The Bachelor of Applied Studies degree is designed for students with associate degrees in technical or career-oriented fields who wish to complete a bachelor's degree, but whose academic or career needs do not mandate a regular baccalaureate degree program.

Each Bachelor of Applied Studies degree must meet the following standards:

- The program must include an approved associate degree in an applied, technical or career-oriented field, generally an Associate of Business, Applied Science, Technology or similar program, consisting of 60 semester hours or more. The associate degree must include at least 50 semester hours with a grade of "C" or better. Students with an Associate of Arts or Associate of Science degree usually are not eligible, and are expected to pursue a regular baccalaureate degree.
- The program must include a minor that is part of the curriculum at SVSU. At least half of the credits of the minor must be taken at SVSU. The Bachelor of Applied Studies degree is housed in the College of Arts and Behavioral Sciences, but minors may be taken in any college of SVSU.
- The student must complete and submit to the Office of Admissions a B.A.S. application, which indicates the associate degree and the minor proposed; an official copy of the associate degree transcript must be attached.
- The degree program must include all Basic Skills and General Education requirements.
- The degree program must include 42 credits of upper-division course work.
- The degree program must include at least 31 credits at SVSU, 15 credits of which must be completed on campus.
- The maximum number of credits transferable from a community college or two-year degree program is 62 credits. The maximum number of credits transferable from a four-year college is 93 credits. The maximum number of transfer credits allowable toward the degree, from no matter what source, is 93 credits.
- The B.A.S. program may include courses that otherwise are not acceptable for transfer to SVSU, if those courses are part of an approved associate degree. However, if the student later changes his/her major, SVSU is under no obligation to accept these courses for any other purpose, including elective credit.
- The diploma and transcript will not show a major, but will show Bachelor of Applied Studies. The title of the minor will be recorded on the transcript.
- At least 15 credits of course work must be completed after approval of the B.A.S. application by the University. Substitutions for courses in the minor must be approved in advance by the chair of the department and the dean of the college in which the minor is housed.

Associate degree programs approved for inclusion in a Bachelor of Applied Studies must have been completed at an accredited community

college or in a two-year program of an accredited four-year college, and must be approved by SVSU's Alternate Baccalaureate Committee. Approval of each associate degree program depends upon the specific contents and level of rigor of that program at that college during the time period in which the degree was completed. Programs with appropriate rigor involve critical thinking, scientific subject matter, higher-order skills or a grounding in theoretical concepts.

Many associate degree programs already have been evaluated for approval; the list is on file at the Admissions Office. Programs that have not already been evaluated will be considered by the committee on request; it may take several months for evaluation to be completed, and the student may be required to assist the committee in obtaining information about the degree program.

## International Studies Major

The objective of this interdisciplinary major is to provide students with an understanding of the world through language, history, business, economics, political science, literature, arts, geography and study abroad. Courses are taken from various departments within the College of Arts and Behavioral Sciences and the College of Business and Management. This major prepares students for graduate work or for work in a variety of areas within the increasingly interrelated world. Students select one of two emphases: 1) business or 2) geographical or cultural focus.

All international studies majors must have their proposed course of study approved by the International Studies Advising Committee. The advising committee insures that individual student programs remain focused on a central theme or emphasis. This committee shall consist of four people: the acting assistant deans of the colleges of Arts and Behavioral Sciences and of Business and Management, plus one faculty person from each of those two colleges selected by their respective department chairs. The international studies major is a program of the College of Arts and Behavioral Sciences with the acting assistant dean serving as advising committee chair. Day-to-day student advising is provided by the Office of International Programs.

## Summary of Major

The major is comprised of the following four elements, which are described in detail below (57 credits required):

- A. Foundation Courses: 12 credits
- B. Required Courses: 6 credits
- C. Language/Study Abroad: 12 credits
- D. Business or Geographical/Cultural: 27 credits

## Major Requirements

57 credits required

### Foundation Courses (12 credits required)

PS 130	World Politics	.....3 cr
GEOG 201	World Cultural Geography	.....3 cr
ECON 200	International Economic Issues	.....3 cr
HIST 100E	The World Since 1500	.....3 cr

### Required Courses (6 credits required)

SOC 405	Cross-Cultural Relations	.....3 cr
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Plus one three-credit course dealing with international electronic communication (currently satisfied by CS 101 or independent study).

### Language/Study Abroad Requirement (12 credits required)

- A. Approved combination of language and study abroad  
or
- B. 12 credits in a single language

(This requirement can be altered for international students or native speakers of languages other than English. Study abroad usually is required.)

## Emphases

Minimum of 27 credits required from one area.

**A. Business Emphasis** (requires a general business minor)

1. Meet the requirements of a general business minor (at least five courses; see Page 46 for details).
2. Nine credits from the following:
 

MGT 427	International Management	.3 cr
MKT 432	International Marketing	.3 cr
ECON 441	International Economics	.3 cr
LAW 407	International Business Law	.3 cr
FIN 310	International Finance	.3 cr

**B. Geographical/Cultural Emphasis** (no minor required)

Choose 27 credits from the list below, including a minimum of four courses focused on a particular geographic region or country (e.g., Europe, Japan) or culture (e.g., Hispanic, Asian) as it exists outside of the United States. A proposed combination of courses must be pre-approved by the International Studies Advising Committee. Courses taken overseas through an SVSU-approved study abroad program also can be approved by the International Studies Advising Committee for credit toward this major.

**International Literature**

ENGL 205	Studies in World Literature	.3 cr
ENGL 253	African Literature	.3 cr
ENGL 264	Literature of the Middle East	.3 cr
ENGL 281	British Literature I	.3 cr
ENGL 282	British Literature II	.3 cr
ENGL 355	Language in Society	.3 cr
FREN 272	French Literature in Translation	.3 cr
FREN 311	Intro to French Literature I	.3 cr
FREN 312	Intro to French Literature II	.3 cr
FREN 415	Literature of the 17th Century	.3 cr
FREN 420	Literature of the Enlightenment	.3 cr
FREN 425	Literature of the 19th Century	.3 cr
FREN 430	Literature of the 20th Century	.3 cr
FREN 435	Literature of French Canada	.3 cr
GER 272	German Literature in Translation	.3 cr
GER 311	Intro to German Literature I	.3 cr
GER 312	Intro to German Literature II	.3 cr
PLSH 272	Polish Literature in Translation	.3 cr
PLSH 317	16th and 18th Century Polish Literature	.3 cr
PLSH 318	Polish Literature, 19th Century to 1945	.3 cr
SPAN 272	Spanish Literature in Translation	.3 cr
SPAN 313	Intro to Spanish Literature I	.3 cr
SPAN 314	Intro to Spanish Literature II	.3 cr
SPAN 317	Intro to Spanish-American Lit. I	.3 cr
SPAN 318	Intro to Spanish-American Lit. II	.3 cr
SPAN 410	Masterpieces of Spanish Medieval Literature	.3 cr
SPAN 420	The Spanish Golden Age	.3 cr
SPAN 430	Modern Spanish Literature	.3 cr
SPAN 440	Contemporary Spanish-American Prose	.3 cr
SPAN 450	Spanish-American Poetry	.3 cr

**Contemporary Cultures**

PLSH 241	Contemporary Poland	.3 cr
FREN 340	French Civilization	.3 cr
FREN 441	Contemporary France	.3 cr
FREN 445	Folk Culture of France	.3 cr
ECON 214	World Production and Resource Use	.3 cr
HUM 235	France Today	.4 cr
HUM 245	Contemporary Canadian Cultures	.4 cr
SPAN 340	Spanish Civilization	.3 cr
SPAN 341	Spanish-American Civilization	.3 cr
SOC 112	Anthropology	.3 cr
SOC 315	Cross-Cultural Aging	.3 cr

**History of Foreign Countries and Regions**

HIST 230	Survey of Latin American History	.3 cr
HIST 307	Early Latin America from the Prehispanic Period to Independence	.3 cr
HIST 308	The Spanish Borderlands	.3 cr
HIST 309	History of Mexico	.3 cr
HIST 322	European Intellectual and Cultural History	.3 cr
HIST 331	Tudor-Stewart England	.3 cr
HIST 332	Modern Britain, 1688-1970	.3 cr

HIST 344	France: 1515-1815	.3 cr
HIST 351	Modern Germany	.3 cr
HIST 352	Modern Russia since 1801	.3 cr
HIST 353	History of Eastern Europe	.3 cr
HIST 354	History of Poland	.3 cr
HIST 355	Modern China	.3 cr
HIST 357	Modern Japan	.3 cr
HIST 361	Early Middle Ages, 300-1050	.3 cr
HIST 362	Europe in the High Middle Ages	.3 cr
HIST 363	Renaissance, 1350-1515	.3 cr
HIST 364	The Age of Reformation, 1515-1715	.3 cr
HIST 365	The Age of Democratic Revolution	.3 cr
HIST 366	Europe in the 19th Century, 1815-1914	.3 cr
HIST 367	Europe from 1914-1945	.3 cr
HIST 368	Postwar Europe, 1945-1970	.3 cr
HIST 372	Ancient Near East to 300 BC	.3 cr
HIST 373	Ancient Roman Republic and Empire	.3 cr

**International Arts and Philosophy**

ART 201	Understanding Art I	.3 cr
ART 202	Understanding Art II	.3 cr
HUM 290	British Arts and Society	.1-4 cr
MUS 117A	Classical Music	.3 cr
MUS 117 B	Non-Western Music	.3 cr
MUS 327	Non-Western Music	.3 cr
PHIL 213	South Asian Civilizations	.3 cr
PHIL 215	East Asian Civilizations	.3 cr
PHIL 300	History of Ancient Philosophy: The Greeks	.3 cr
PHIL 305	History of Philosophy: Modern	.3 cr

**Political Science of the World**

PS 205	Comparative Government	.3 cr
PS 307	Russia and Neighbors	.3 cr
PS 400	Political Ideologies	.3 cr
PS 461	American Foreign Policy and World Politics	.3 cr
CJ 385	Comparative Criminal Justice Systems	.3 cr

Special topics courses (190, 290, 390, 490) also can be considered for credit for an international studies major. The particular courses must be pre-approved by the International Studies Advising Committee. This would include courses taken overseas through SVSU-approved study abroad programs.

## Asian Studies Minor

The Asian Studies Minor and Certificate Programs are interdisciplinary introductions to the histories, cultures, and societies of the major civilizations of the Asian region, with particular emphasis on India, China and Japan. The Asian Studies Minor prepares students to understand Asia, and to work successfully in Asia or with Asian colleagues in such fields as business, marketing, management, industry, government service, health care and education. The Asian Studies Certificate program provides a comprehensive introduction to Asian civilizations that enhances the abilities of professionals in the fields listed above to work confidently and successfully in Asia, for Asian employers, or with Asian colleagues.

Because of Saginaw Valley State University's close relationships with universities and businesses in India, China, Taiwan and Japan, international study experiences and internships are regularly available. While not required, they are strongly encouraged as integral parts of the Asian Studies Programs. Details concerning specific opportunities are available from the International Programs Office.

### Asian Studies

A major is required.

#### The Asian Studies Minor (18 credits)

6 credits from:		
PHIL 213	South Asian Civilizations	.3 cr
or		
HIST 213	South Asian History	.3 cr
or		
PHIL 215	East Asian Civilizations	.3 cr
or		
HIST 215	East Asian History	.3 cr

- 6 credits from:
- |         |                                  |       |
|---------|----------------------------------|-------|
| MFL 190 | Elementary Chinese or Japanese   | .3 cr |
| MFL 290 | Intermediate Chinese or Japanese | .3 cr |
- or
- 6 credits of International Study in India, Japan, China or Taiwan as approved
- or
- |         |                           |       |
|---------|---------------------------|-------|
| MGT 390 | Survey of Global Business | .3 cr |
| MGT 427 | International Management  | .3 cr |
- 6 credits from:
- |          |              |       |
|----------|--------------|-------|
| HIST 355 | Modern China | .3 cr |
| HIST 357 | Modern Japan | .3 cr |
| HIST 359 | Modern India | .3 cr |

### Asian Studies Certification (12 credits)

- 12 credits from:
- |          |                           |       |
|----------|---------------------------|-------|
| PHIL 213 | South Asian Civilizations | .3 cr |
|----------|---------------------------|-------|
- or
- |          |                     |       |
|----------|---------------------|-------|
| HIST 213 | South Asian History | .3 cr |
|----------|---------------------|-------|
- PHIL 215 East Asian Civilizations .3 cr
- or
- |          |                    |       |
|----------|--------------------|-------|
| HIST 215 | East Asian History | .3 cr |
| HIST 355 | Modern China       | .3 cr |
| HIST 357 | Modern Japan       | .3 cr |
| HIST 359 | Modern India       | .3 cr |
- or
- At least 6 credits from the above list combined with 6 credits international study in India, Japan, China or Taiwan as approved.

## Gender Studies Minor

An interdisciplinary minor offered by the departments of Communication, English, History, Philosophy, Psychology, Political Science, and Sociology. The objective of the minor is to enable students to develop the conceptual tools and the empirical background for studying the cultural significance of gender, the development of feminist perspectives, and the application of feminist perspectives within traditional academic disciplines.

The Gender Studies minor is available by completing 21 credits, including one required introductory course (GS 100), a capstone project (GS 494), and at least 15 credits of electives from among the following courses:

- |          |                                    |       |
|----------|------------------------------------|-------|
| COMM 425 | Gender in Communications           | .3 cr |
| ENGL 250 | Gender Studies                     | .3 cr |
| HIST 324 | Introduction to Women's History    | .3 cr |
| PHIL 240 | Philosophy and Feminism            | .3 cr |
| PS 319   | Gender and Politics                | .3 cr |
| PSYC 385 | Psychology of Sexual Differences   | .3 cr |
| PSYC 386 | Seminar in Psychology of Sexuality | .1 cr |
| SOC 333  | Sociology of Gender                | .3 cr |

In the event that a special topics course focusing on gender is offered, it may be considered as a partial fulfillment (three credits) of the minor requirements, upon the recommendation of the Program Coordinator of the Gender Studies Minor.

Students may be admitted to the minor by consulting with the Program Coordinator. Students may be admitted to the minor at any time during their tenure at SVSU as long as they can demonstrate a commitment to fulfilling the requirements.

Transfer credit may be granted for up to six credits or equivalent from other institutions, on the recommendation of the Program Coordinator and approval of the Dean of Arts & Behavioral Sciences.

A minimum grade point average of 2.00 ("C") is required for graduation. No "D" or "F" may be counted toward the degree. Students earning a "C," "D," or "F" may repeat a course only one time and the second grade will become official.

If the cumulative GPA falls below 2.00 at any time after accumulation of nine credits in the minor, or if the student has accumulated six credits of "D" or "F" grades the second time the courses are taken, the student may be dismissed from the program.

Students admitted into the program will be assigned an advisor from among the faculty members with a permanent course in the program, on

the basis of mutual agreement between the student and the advisor. Advisors may be changed at the request of the student and/or the advisor. The advisor will approve the student's application for graduation in the minor.

## Gerontology Minor

The interdisciplinary minor in Gerontology is designed to: 1) provide the student with a broad understanding of the older population, and 2) provide experience and training in working with older persons.

Eighteen credits are required for the minor. Students are required to complete at least three credits of supervised field experience in an approved gerontological setting. The remaining 15 credits must include a minimum of three credits of course work from the designated course list, in at least four of the following disciplines: biology, psychology, social work, criminal justice, sociology, nursing, and allied health. For alternative electives to apply they must be approved by the Gerontology Committee. Courses may not be double counted for other major or minor requirements.

The following courses have been designated as suitable for the Gerontology minor:

### Biology

Independent study regarding the biology of aging

### Criminal Justice

CJ 388 The Elderly Offender (independent study)

### Nursing and Allied Health

Independent studies or electives in Gerontology or courses that specifically address the older population

### Psychology

PSYC 410 Life Span Human Development; PSYC 415 Psychology of Adulthood & Aging

### Social Work

SW 304 Introduction to Gerontology; SW 347 Social Work with the Aging

### Sociology

SOC 305 Sociology of Aging; SOC 315 Cross-Cultural Aging

### Field Work

Field work experience (3 credits) may be arranged through any of the designated disciplines. Field work must satisfy specific guidelines and must be coordinated by a faculty member designated by the Gerontology Committee.

Before beginning the Gerontology minor, any electives, independent studies, or transfer credits that are to be applied to this minor must be approved by the appointed representatives or members of the Gerontology Committee. To determine who the representative(s) is/are, contact the Dean of Arts and Behavioral Sciences.

Satisfaction of the Gerontology minor requirements will be overseen by the person or persons designated by the Gerontology Committee.

## Art

### Department Faculty

Shaun Bangert, Barron Hirsch, Hideki Kihata, Mike Mosher, Matthew Zivich

### Art (B.A.)

42 credits required

This degree is designed for students who wish to explore the history, theories and techniques of the visual arts while attaining a minor in another discipline. A graphic design minor may be earned with this major. Students may not double count courses that are applicable to both the art major and the graphic design minor. The required credits still must be earned from additional courses.

### Core (12 credits required)

ART 111	Two-Dimensional Design	.3 cr
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ART 112	Three-Dimensional Design	.3 cr
ART 121	Introduction to Drawing	.3 cr
ART 122	Intermediate Drawing	.3 cr

**Foundation** (15 credits required)

ART 222	Introduction to Sculpture	.3 cr
ART 223	Introduction to Painting	.3 cr
ART 224	Introduction to Printmaking	.3 cr
ART 225	Introduction to Black and White Photography	.3 cr
ART 226	Introduction to Watercolor	.3 cr
ART 227	Introduction to Ceramics	.3 cr

**Advanced Studio** (6 credits required)

ART 231	Life Drawing	.3 cr
ART 305	Color Slide Photography	.3 cr
ART 311	Relief Prints	.3 cr
ART 314	Etching	.3 cr
ART 315	Color Photography	.3 cr
ART 316	Advanced Watercolor	.3 cr
ART 321	Advanced Drawing	.3 cr
ART 322	Intermediate Sculpture	.3 cr
ART 323	Intermediate Painting	.3 cr
ART 324	Advanced Printmaking	.3 cr
ART 325	Advanced Black and White Photography	.3 cr
ART 327	Intermediate Ceramics	.3 cr
ART 328	Introduction to Wheel Throwing	.3 cr
ART 329	Intermediate Wheel Throwing	.3 cr
ART 330	Silkscreen	.3 cr
ART 331	Advanced Life Drawing	.3 cr
ART 337	Portrait Photography	.3 cr
ART 390	Special Topics in Art*	.1-4 cr
ART 423	Advanced Painting	.3 cr
ART 425	Photo Journalism	.3 cr
ART 427	Advanced Ceramics	.3 cr
ART 435	Alternative Photography	.3 cr
ART 480	Arts Management and Safety	.4 cr
ART 499	Directed Study	.1-5 cr

\*ART 390, taken under Advanced Studio, must be a studio course.

**History of Art** (9 credits required)

ART 201	Understanding Art I	.3 cr
ART 202	Understanding Art II	.3 cr
ART 334	Art in America	.3 cr
ART 335	Survey of Photography	.3 cr
ART 344	Art of the 20th Century	.3 cr
ART 390	Special Topics in Art*	.1-4 cr
ART 411	Seminar in Art History and Criticism	.3 cr

(ART 201 and 202 are required.)

\*ART 390, taken under History of Art, must be a history lecture course.

An **art minor** is available by completing 18 credits including ART 111, 112, 121 and nine credits selected from studio art and/or art history courses listed above. Students are encouraged to take ART 480 as a general elective.

## Art (B.A.) Teacher Certification

Persons seeking the K-12 teacher certification endorsement must complete the academic major (see above), the secondary education program and a K-12 student teaching experience.

## Bachelor of Fine Arts (B.F.A.)

82 credits required

This degree is designed for students who wish to be fully prepared professionals in visual arts and receive credentials for acceptance in professional associations that control participation in various fields in the visual arts. The degree prepares students who wish to continue into a graduate program. Students are required to declare one area of concentration from the following: ceramics, drawing and painting, graphic design, photography, printmaking or sculpture. The students will be required to present their portfolios twice: upon completion of the core and foundation requirements in order to be admitted into the B.F.A. program, and upon the completion of Junior standing to evaluate the students' progress in the pro-

gram. Graduating students will be required to complete a collection of works in their concentration as part of their final studio course. No minor is required.

**Core** (12 credits required)

ART 111	Two-Dimensional Design	.3 cr
ART 112	Three-Dimensional Design	.3 cr
ART 121	Introduction to Drawing	.3 cr
ART 122	Intermediate Drawing	.3 cr

**Foundation** (21 credits required)

ART 222	Introduction to Sculpture	.3 cr
ART 223	Introduction to Painting	.3 cr
or		
ART 226	Introduction to Watercolor	.3 cr
ART 224	Introduction to Printmaking	.3 cr
ART 225	Introduction to Black and White Photography	.3 cr
ART 227	Introduction to Ceramics	.3 cr
ART 250	Introduction to Graphic Design	.3 cr
ART 260	Introduction to Computer Graphic Design	.3 cr

**History of Art** (12 credits required)

ART 201	Understanding Art I	.3 cr
ART 202	Understanding Art II	.3 cr
ART 334	Art in America	.3 cr
ART 335	Survey of Photography	.3 cr
ART 344	Art of the 20th Century	.3 cr
ART 390	Special Topics in Art*	.1-4 cr
ART 411	Seminar in Art History and Criticism	.3 cr

(ART 201 and 202 are required.)

\*ART 390, taken under History of Art, must be a history lecture course.

**Art Management** (4 credits required)

ART 480	Arts Management and Safety B.F.A. Seminar	.4 cr
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**Studio** (33 credits required – 24 credits in area of concentration. It is recommended that students study with more than one instructor in their area of concentration.)

**Ceramics**

ART 327	Intermediate Ceramics	.3 cr
ART 328	Introduction to Wheel Throwing	.3 cr
ART 329	Intermediate Wheel Throwing	.3 cr
ART 427	Advanced Ceramics	.3 cr

**Drawing/Painting**

ART 231	Life Drawing	.3 cr
ART 316	Advanced Watercolor	.3 cr
ART 321	Advanced Drawing	.3 cr
ART 323	Intermediate Painting	.3 cr
ART 331	Advanced Life Drawing	.3 cr
ART 423	Advanced Painting	.3 cr

**Graphic Design**

ART 345	Intermediate Computer Graphic Design	.3 cr
ART 350	Type and Color in Design	.3 cr
ART 355	Logo and Business Identity Design	.3 cr
ART 360	Publication Design	.3 cr
ART 370	PhotoShop, Scanning and Digital Imagery	.3 cr
ART 390	Special Topics in Art*	.1-4 cr
ART 400	Illustration	.3 cr
ART 420	Multimedia	.3 cr
ART 430	Digital Image Design	.3 cr
ART 450	Advanced Computer Graphic Design	.3 cr
ART 496	Field Experience in Design	.3 cr
MGT 121	Introduction to Business	.4 cr
COMM 270	Communication in Marketplace and Media	.3 cr

\*ART 390, taken under Graphic Design, must be a studio course, or Design lecture course (non-history).

**Photography**

ART 305	Color Slide Photography	.3 cr
ART 315	Color Photography	.3 cr

ART 325	Advanced Black and White Photography	.3 cr
ART 337	Portrait Photography	.3 cr
ART 425	Photo Journalism	.3 cr
ART 435	Alternative Photography	.3 cr

#### Printmaking

ART 311	Relief Prints	.3 cr
ART 314	Etching	.3 cr
ART 324	Advanced Printmaking	.3 cr
ART 330	Silkscreen	.3 cr

#### Sculpture

ART 322	Intermediate Sculpture	.3 cr
ART 422	Advanced Sculpture	.3 cr

#### Special Courses

ART 495	Independent B.F.A. Studio	.3 cr
ART 499	Directed Study	.1-5 cr

Some courses may be taken more than once for credit. These courses must be 300 or 400 level advanced courses. Advanced courses ART 316, 321, 323, 431, 427, 422, 450, 496, 305, 315, 325, 337, 425, 435, 495, 499, 390, 311, 314, 324, 330 may be taken more than once for credit. ART 340, 355, 420, 450 and 496 may be taken only twice for the graphic design concentration. ART 327, 328, 329, 350, 360, 370, 400 and 430 may be taken only once for credit.

## Graphic Design (B.A.)

42 credits required

This degree is designed for students who wish to learn the techniques and practices of graphic design while attaining a minor in another discipline. Minors in general business, communication or marketing are recommended. An art minor may be earned with this major. Students may not double count courses that are applicable to both the graphic design major and the art minor. The required credits still must be earned from additional courses.

#### Core (12 credits required)

ART 111	Two-Dimensional Design	.3 cr
ART 112	Three-Dimensional Design	.3 cr
ART 121	Introduction to Drawing	.3 cr
ART 250	Introduction to Graphic Design	.3 cr

#### Foundation (6 credits required)

ART 260	Introduction to Computer Graphic Design	.3 cr
ART 370	PhotoShop, Scanning and Digital Imagery	.3 cr

#### Intermediate Studio (3 credits required)

ART 223	Introduction to Painting	.3 cr
ART 224	Introduction to Printmaking	.3 cr
ART 225	Introduction to Photography	.3 cr
ART 226	Introduction to Watercolor Painting	.3 cr

#### History of Art (9 credits required)

ART 201	Understanding Art I	.3 cr
ART 202	Understanding Art II	.3 cr
ART 334	Art in America	.3 cr
ART 335	Survey of Photography	.3 cr
ART 344	Art of the 20th Century	.3 cr
ART 390	Special Topics in Art*	.1-4 cr
ART 411	Seminar in Art History and Criticism	.3 cr

(ART 201 and 202 are required.)

\*ART 390, taken under Graphic Design, must be a studio course, or Design lecture course (non-history).

#### Advanced Studio (12 credits required)

ART 305	Color Slide Photography	.3 cr
ART 330	Silkscreen	.3 cr
ART 345	Intermediate Computer Graphic Design	.3 cr
ART 350	Typography and Color in Design	.3 cr
ART 355	Logo and Business Identity Design	.3 cr
ART 360	Publication Design	.3 cr
ART 400	Illustration	.3 cr
ART 420	Multimedia	.3 cr

ART 430	Digital Image Design	.3 cr
ART 450	Advanced Computer Graphic Design	.3 cr
ART 496	Field Experience in Design	.3 cr

(ART 355, 420, 450, and 496 may be taken twice for credit with the instructor's permission. The content will be increased to the advanced level of the student.)

A graphic design minor is available by completing 18 credits from courses listed under graphic design. For students who do not take an art major, the graphic design minor must include ART 111, ART 112, and ART 121.

ART 210 may not be used to meet requirements for the art or graphic design major.

**Recommended Electives** (The following courses are recommended for Art, B.F.A., and Design majors but cannot be used to satisfy required electives.)

PHIL 320	Philosophy of the Arts	.3 cr
THEA 260	Introduction to Stagecraft and Theatre Design	.3 cr
THEA 360	Scene Design	.3 cr
THEA 370	Costume and Make-up Design	.3 cr

## Communication

### Department Faculty

Charles Bailey, Robert Drew, Steven C. Erickson, Amy J. Pierce, Heather Powell, David Schneider, Dennis Wignall

## Communication (B.A.)

39 credits required

At least 15 credits of the major in communication must be in upper division courses (300-400 level). A minor also is required.

#### Core (15 credits required)

COMM 105A	Fundamentals of Communication	.3 cr
COMM 225	Nonverbal Communication	.3 cr
COMM 270	Communication in Marketplace and Media	.3 cr
COMM 379	Research Methods in Human Communication	.3 cr
COMM 405	Human Communication Theory	.3 cr

#### Interpersonal Area (3 credits required)

COMM 227	Small Group Communication	.3 cr
COMM 351	Interpersonal Communication	.3 cr
COMM 389	Family Communication	.3 cr
COMM 425	Gender in Communication	.3 cr

#### Organizational Area (3 credits required)

COMM 325	Business and Professional Communication	.3 cr
COMM 352	Organizational Communication	.3 cr
COMM 415	Communication in Conflict	.3 cr
COMM 445	Managerial Communication	.3 cr

#### Oral Performance Area (3 credits required)

COMM 105B	Public Speaking	.3 cr
COMM 220	Introduction to Performance Studies	.3 cr
COMM 315	Persuasion and Attitude Change	.3 cr

#### Additional Requirements

9 elective credits in Communication courses  
6 credits in Theatre courses

A **communication minor** is available by completing 18 credits in the communication content area. With departmental permission, one theatre course may be included in the 18-credit minor.

## Communication and Theatre (B.A.) Teacher Certification

A major and a minor in communication and theatre education are available to any student who wishes to seek Michigan Department of Education teaching certification in speech at the secondary school level. In order to graduate with this major or this minor, a student must complete the requirements indicated below, and also must satisfy the pertinent College of Education requirements.

## Major Requirements

1. Earn a total of 42 credits in communication and theatre courses. At least 18 of those credits must be at the upper division (300-400) level.
2. Specific breakdown:
  - A. Complete the indicated 27 credits of required courses, which includes 3 credits from the oral performance category.
  - B. Complete at least 15 additional credits, of which 6 must be at the upper division (300-400) level, as follows:
    - Communication Track (3 credits required)
    - Theatre Track (3 credits required)
    - Remaining 9 credits may be selected from Communication Track, Theatre Track and/or the general department course list.

### Required Courses (24 credits required)

COMM 105A	Fundamentals of Communication	.3 cr
THEA 128A	Introduction to Theatre	.3 cr
THEA 255	Introduction to Directing	.3 cr
COMM 270	Communication in Marketplace and Media	.3 cr
COMM 345	Directing Forensics and Debate	.3 cr
COMM 389	Family Communication	.3 cr
COMM 405	Human Communication Theory	.3 cr
COMM 435	Communication in the Classroom	.3 cr

### Oral Performance (3 credits required)

COMM 105B	Public Speaking	.3 cr
THEA 136	Introduction to Acting	.3 cr
COMM 220	Introduction to Performance Studies	.3 cr

### Communication Track

COMM 225	Nonverbal Communication	.3 cr
COMM 227	Small Group Communication	.3 cr
COMM 315	Persuasion and Attitude Change	.3 cr
COMM 325	Business and Professional Communication	.3 cr
COMM 351	Interpersonal Communication	.3 cr
COMM 365	Language, Thought and Behavior	.3 cr
COMM 490	Selected Topics (May not substitute for an existing course)	.3-4 cr

### Theatre Track

THEA 260	Introduction to Stagecraft and Theatre Design	.3 cr
THEA 336	Intermediate Acting	.3 cr
THEA 355	Intermediate Directing	.3 cr
THEA 385	Principles and Practices in Arts Management	.3 cr
THEA 470	Theatre for Children	.3 cr
THEA 497	Senior Project in Theatre	.3-6 cr

### Minor Requirements (24 credits required)

COMM 105A	Fundamentals of Communication	.3 cr
THEA 128A	Introduction to Theatre	.3 cr
THEA 255	Introduction to Directing	.3 cr
THEA 260	Introduction to Stagecraft and Theatre Design	.3 cr
COMM 345	Directing Forensics and Debate	.3 cr
COMM 389	Family Communication	.3 cr
COMM 435	Communication in the Classroom	.3 cr

### Oral Performance (3 credits required)

COMM 105B	Public Speaking	.3 cr
THEA 136	Introduction to Acting	.3 cr
COMM 220	Introduction to Performance Studies	.3 cr

# Criminal Justice

## Department Faculty

Jon Cisky, Clifford Dorne, Kenneth Gewerth, Richard Priehs, Jude Rariden

The criminal justice major is designed to provide students with a broad education based in the social sciences and, at the same time, introduce them to the goals and processes of the entire criminal justice system.

Objectives of the program are:

1. To prepare students for entry-level positions in a variety of public and private agencies related to criminal justice.

2. To provide the opportunity for practicing police officers to enhance their professional knowledge and abilities.
3. To provide students with the background necessary to pursue graduate studies.

## Criminal Justice (B.A.)

### Foundation (13 credits required)

PSYC 100	General Psychology	.4 cr
SOC 111	Introduction to Sociology	.3 cr
PS 123	The American Political System	.3 cr

Plus one from any of the following philosophy courses:

PHIL 114	Introduction to Logic	.3 cr
PHIL 123	Introduction to Western Philosophy	.3 cr
PHIL 210A	Applied Ethics in Law and Society	.3 cr
PHIL 230	Introduction to Social and Political Philosophy	.3 cr
PHIL 331	Law, Liberty and Morality	.3 cr

### Major Courses (24 credits required)

CJ 201	Introduction to Criminal Justice	.3 cr
CJ 301	Criminal Justice System in the U.S.A.	.3 cr
CJ 305	Criminal Law	.3 cr
CJ 330	American Constitutional Law	.3 cr
CJ 340	Correctional Policy and Treatment	.3 cr
CJ 381	Human Relations in Criminal Justice	.3 cr
CJ 410	Criminology	.3 cr
CJ 491	Seminar in Criminal Justice	.3 cr

### Electives (15 credits required)

PS 225	Statistics*	.4 cr
PHIL 210A	Applied Ethics in Law and Society	.3 cr
PHIL 230	Introduction to Social and Political Philosophy	.3 cr
PHIL 331	Law, Liberty and Morality	.3 cr
CJ 250	Forensic Science	.4 cr
CJ 315	Security Systems Administration	.3 cr
CJ 326	Research Applications in Criminal Justice**	.3 cr
CJ 345	Correctional Practice	.3 cr
CJ 350	The Juvenile Justice System	.3 cr
CJ 360	Evidence and Criminal Procedure	.3 cr
CJ 380	Social and Political Problems in Law Enforcement	.3 cr
CJ 385	Comparative Criminal Justice System	.3 cr
CJ 388	Elderly Offender	.3 cr
CJ 401	Community Corrections	.3 cr
CJ 402	Case Law Studies	.3 cr
CJ 490	Selected Topics in Criminal Justice	.1-4 cr
CJ 493	Directed Reading in Criminal Justice	.1-4 cr
CJ 494	Directed Research in Criminal Justice	.1-4 cr
CJ 496	Field Work (may enroll twice)	.3 cr
CJ 497	Police Academy Training	.12 cr
YS 300	Child Welfare Policies and Procedures	.3 cr
YS 330	Child Abuse and Neglect	.3 cr
SOC 300	Social Inequality and Human Diversity	.3 cr
SOC 346	Juvenile Delinquency	.3 cr

\* Only PS 225, or its equivalent, will be accepted for admission requirements to the Master of Arts/Leadership and Public Administration.

\*\* CJ 326 is strongly recommended.

**Interdisciplinary Requirement (21 credits required. No more than 12 credits may be from any one discipline. This requirement does not apply to students who elect to complete a disciplinary minor.)**

SOC 112	Introduction to Anthropology	.3 cr
SOC 236	Social Problems	.3 cr
SOC 300	Social Inequality and Human Diversity	.3 cr
SOC 327	Social Psychology	.3 cr
SOC 328	Group Dynamics	.3 cr
SOC 345	Urban Sociology	.3 cr
SOC 346	Juvenile Delinquency	.3 cr
SOC 351	Interpersonal Communication	.3 cr
SOC 352	Organizational Communications	.3 cr
PS 118	Introduction to Political Science	.3 cr
PS 260	Public Organization and Administration	.3 cr
PS 262	State and Local Gov't: Politics/Public Policy	.3 cr
PS 335	Political Ideologies	.3 cr

PSYC 370	Theories of Personality . . . . .	.3 cr
PSYC 372	Abnormal Psychology . . . . .	.3 cr
PHIL 210A	Applied Ethics in Law and Society . . . . .	.3 cr
PHIL 230	Introduction to Social and Political Philosophy . . . . .	.3 cr
PHIL 331	Law, Liberty and Morality . . . . .	.3 cr
SW 215	Introduction to Social Welfare/Social Work . . . . .	.3 cr
ENGL 300	Writing in the Professions . . . . .	.3 cr

- Survey Courses
- American Literature Courses
- Literary Periods
- Single Author Courses
- Theory Courses
- Genre Courses

### Recommended minor in public administration for criminal justice majors

Complete 18 credits in the following courses: PS 118 or PS 123, PS 260, PS 262, PS 345, PS 365, and one of CJ 491 or SOC 331.

A criminal justice minor is available (excluding criminal justice majors) to those who successfully complete the following courses: CJ 201, CJ 301, PS/CJ 330, CJ 381, CJ 410 and any three-credit elective in criminal justice.

## English

### Department Faculty

Patricia Cavanaugh, Basil Clark, Debra Combs, Ruth Copp, David Gaskill, H. James Geistman, Christopher Giroux, Lynne Graft, Katherine H. Harley, Mary Harmon, Phyllis Hastings, Thomas Meehan, Paul Munn, Elizabeth Rich, Rosalie Riegle, Ruth Sawyers, Kerry W. Segel, Melissa Seitz, C. Vincent Samarco, William F. Smith, James P. Sullivan, Gary Thompson, Mason Y.H. Wang, W. Leslie Whittaker, Janice Wolff, Laura Yelsik

The skills, knowledge and understanding acquired through the English major are excellent preparation for careers in education, law, business, medicine, government, journalism, editing, publishing and many others. The study of language and literature provides students with an opportunity to develop a better understanding of themselves and the world around them. Through courses that range from classic literature to new research technologies, students can acquire the skills necessary for effective use of language and for analyzing issues of relevance to individuals and society. These courses offer a foundation for effective interpersonal communication as well as an understanding of content area that is needed in today's society, and enable students to participate as critical thinkers well equipped to engage in the public discourse of our time.

Students may choose to earn degrees in English in one of four emphases:

- Literature
- Creative Writing
- Professional and Technical Writing
- Teacher Certification

Like many areas of contemporary culture, English is evolving as professionals in the field contend with the implications of new media and reconsider what is needed to be literate in the new century. These emphases are designed to give students the adaptability and flexibility to keep up with such challenges.

### Programs Offered

- Bachelor of Arts, English – Literature
- Bachelor of Arts, English – Creative Writing
- Bachelor of Arts, English – Professional and Technical Writing
- Bachelor of Arts, English – Teacher Certification

### Minors

- General Minor in English
- Creative Writing
- Applied Writing
- Secondary Education Teacher Certification

### Courses in English Studies

- Foundation Courses
- Creative and Professional Writing Courses
- Language Courses

## English (B.A.)

Students may choose from one of three majors available through the English Department: Literature, Creative Writing, and Professional and Technical Writing.

**Literature** (40 credits required, including a one-credit capstone and a minimum of 22 credits at the 300-400 level; a minor is required)

#### Required Courses (16 credits required)

ENGL 201	Introduction to Literary Studies . . . . .	.3 cr
ENGL 205	Studies in World Literature . . . . .	.3 cr
ENGL 301	Writing Interpretive Papers . . . . .	.3 cr
ENGL 311	Literature of Great Britain and the U.S. I . . . . .	.3 cr
ENGL 312	Literature of Great Britain and the U.S. II . . . . .	.3 cr
ENGL 499	English Colloquium . . . . .	.1 cr

**Elective Categories** (21 credits required; in addition to ENGL 311, one 300-400 level course in literature prior to 1800 is required)

#### Language (3 credits required)

ENGL 244	Introduction to Language Study . . . . .	.3 cr
ENGL 345	History of the English Language . . . . .	.3 cr
ENGL 355	Language in Society . . . . .	.3 cr

#### American Literature (3 credits required)

ENGL 307	Ethnic Literature in the U.S. . . . .	.3 cr
ENGL 341	Contemporary American Fiction . . . . .	.3 cr
ENGL 441	Topics in 19th Century American Literature . . . . .	.3 cr
ENGL 442	Topics in 20th Century American Literature . . . . .	.3 cr

#### Literary Genres (3 credits required)

ENGL 334	Studies in Poetry . . . . .	.3 cr
ENGL 336	Studies in Fiction . . . . .	.3 cr
ENGL 338	Studies in Drama . . . . .	.3 cr

#### Literary Periods (6 credits required from two different courses)

ENGL 410	Topics in Medieval and Early Modern Literature . . . . .	.3 cr
ENGL 426	Topics in 17th and 18th Century Literature . . . . .	.3 cr
ENGL 431	Topics in 19th Century British Literature . . . . .	.3 cr
ENGL 434	Topics in 20th Century British and Post-Colonial Literature . . . . .	.3 cr

#### Single Author (3 credits required)

ENGL 415	Seminar in Selected Author Prior to 1800 . . . . .	.3 cr
ENGL 417	Seminar in Selected Author Post 1800 . . . . .	.3 cr

#### Theory (3 credits required)

ENGL 372	History of Literary Criticism . . . . .	.3 cr
ENGL 373	Literary Theory . . . . .	.3 cr
ENGL 480	Studies in Rhetoric . . . . .	.3 cr

**Electives** (Majors are required to choose 3 credits in any 200-400 level English course and may include 500 level graduate courses with permission of the instructor; topical courses [ENGL 334, ENGL 441, ENGL 415, etc.] may be repeated for elective credit under a different title)

### Creative Writing (39 credits required; a minor is required)

#### Required Courses (15 credits required)

ENGL 201	Introduction to Literary Studies . . . . .	.3 cr
ENGL 261	Introduction to Creative Writing . . . . .	.3 cr
ENGL 305	Creative Writing: Poetry . . . . .	.3 cr
ENGL 306	Creative Writing: Fiction . . . . .	.3 cr
ENGL 461	Seminar in Creative Writing . . . . .	.3 cr

## Elective Categories (21 credits required)

### Introduction to Writing (3 credits required)

ENGL 212	Topics in Critical Writing	.3 cr
ENGL 262	Introduction to Journalism	.3 cr
ENGL 285	Writing in Cyberspace	.3 cr

### Backgrounds to Literature (3 credits required)

ENGL 311	Literature of Great Britain and the U.S. I	.3 cr
ENGL 312	Literature of Great Britain and the U.S. II	.3 cr

### Applied Writing (3 credits required)

ENGL 300	Writing in the Professions	.3 cr
ENGL 301	Writing Interpretive Papers	.3 cr
ENGL 304	Technical Report Writing	.3 cr

### Language (3 credits required)

ENGL 244	Introduction to Language Study	.3 cr
ENGL 345	History of the English Language	.3 cr
ENGL 355	Language in Society	.3 cr
ENGL 360	Grammar of Contemporary English	.3 cr

### Literary Genres (3 credits required)

ENGL 334	Studies in Poetry	.3 cr
ENGL 336	Studies in Fiction	.3 cr
ENGL 338	Studies in Drama	.3 cr

### Literature (3 credits required in a 300-400 level Literature course)

#### Concepts in Writing (3 credits required; ENGL 400 recommended)

ENGL 383	Tutoring Writing	.3 cr
ENGL 400	Style, Editing and Desktop Publishing	.3 cr
ENGL 480	Studies in Rhetoric	.3 cr
ENGL 490	Topics in Writing	.3 cr

**Electives** (Majors are required to choose 3 credits in any 200-400 level English course, including General Education Literature, and may include 500 level graduate courses with permission of the instructor)

## Professional and Technical Writing (39 credits required; a minor is required)

### Required Courses (21 credits required)

ART 260	Introduction to Computer Graphic Design	.3 cr
ENGL 300	Writing in the Professions	.3 cr
ENGL 304	Technical Report Writing	.3 cr
ENGL 296	Internship in Professional and Technical Communication	.3 cr
or		
ENGL 396	Internship in Professional and Technical Communication	.3 cr
ENGL 400	Style, Editing and Desktop Publishing	.3 cr
ENGL 480	Studies in Rhetoric	.3 cr
ENGL 481	Professional and Technical Documents	.3 cr

### Genres in Writing (9 credits required; ENGL 285 recommended)

ENGL 261	Introduction to Creative Writing	.3 cr
ENGL 262	Introduction to Journalism	.3 cr
ENGL 285	Writing in Cyberspace	.3 cr
ENGL 301	Writing Interpretive Papers	.3 cr
ENGL 340	Writing in Community Organizations	.3 cr
ENGL 383	Tutoring Writing	.3 cr
ENGL 390	Special Topics in Writing	.3 cr

### Language Study (3 credits required; ENGL 360 recommended)

ENGL 355	Language in Society	.3 cr
ENGL 360	Grammar of Contemporary English	.3 cr

### Electives (6 credits required from two departments)

ART 250	Introduction to Graphic Design	.3 cr
ART 345	Intermediate Computer Graphic Design	.3 cr
ART 360	Publication Design	.3 cr
ART 370	Photoshop, Scanning and Digital Imagery	.3 cr
COMM 227	Small Group Communication	.3 cr
COMM 270	Marketplace and Media	.3 cr

COMM 325	Business and Professional Communication	.3 cr
Any 300-400 level English course		

PHIL 205	Professional Ethics	.3 cr
PHIL 210	Applied Ethics	.3 cr

## English (B.A.) Teacher Certification

An English major is available to students desiring to teach at the secondary level. It requires completion of the 48-hour major described below, completion of a 20-hour minor in an approved department and completion of professional development courses described in the College of Education section.

### Literature (24 credits required)

**Foundation** (3 credits required; ENGL 201 is a prerequisite for all 300-400 level literature courses)

ENGL 201	Introduction to Literary Studies	.3 cr
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#### British Literature (6 credits required)

ENGL 281	British Literature	.3 cr
ENGL 282	British Literature	.3 cr
ENGL 311	Literature of Great Britain and the U.S. I	.3 cr
ENGL 410	Topics in Medieval and Early Modern Literature	.3 cr
ENGL 415	Seminar in Selected Author Prior to 1800 (When not offered as Shakespeare)	.3 cr
ENGL 417	Seminar in Selected Author Post 1800	.3 cr
ENGL 426	Topics in 17th and 18th Century Literature	.3 cr
ENGL 431	Topics in 19th Century British Literature	.3 cr
ENGL 434	Topics in 20th Century British and Post-Colonial Literature	.3 cr

#### American Literature (6 credits required)

ENGL 271	American Literature	.3 cr
ENGL 272	American Literature	.3 cr
ENGL 307	Ethnic Literature in the U.S.	.3 cr
ENGL 312	Literature of Great Britain and the U.S. II	.3 cr
ENGL 341	Contemporary American Fiction	.3 cr
ENGL 441	Topics in 19th Century American Literature	.3 cr
ENGL 442	Topics in 20th Century American Literature	.3 cr

#### Shakespeare (3 credits required)

ENGL 315	Survey of Shakespeare	.3 cr
ENGL 415	Seminar in Selected Author Prior to 1800 (when Shakespeare)	.3 cr

#### World Literature (3 credits required)

ENGL 205	Studies in World Literature	.3 cr
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or other world literature course with approval of English Department

#### Young Adult Literature (3 credits required)

ENGL 254	Young Adult Literature	.3 cr
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### Language and Writing (9 credits required)

**Language** (6 credits required. ENGL 355 or ENGL 370 highly recommended.)

3 credits from:

ENGL 350	Dialects in Contemporary English	.3 cr
ENGL 355	Language in Society	.3 cr
ENGL 370	Language In Education	.3 cr

3 credits from:

ENGL 360	Grammar of Contemporary English	.3 cr
ENGL 365	Teaching English to Speakers of Other Languages (TESOL)	.3 cr

#### Writing (3 credits required)

ENGL 301	Writing Interpretive Papers	.3 cr
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### Pedagogy (6 credits required)

ENGL 380	Teaching the Art of Writing	.3 cr
ENGL 482	Methods of Teaching English	.3 cr

### Electives (9 credits required)

Either one 3-credit course listed below, or an elective in language or writing:

ENGL 244	Introduction to Language Study	.3 cr
ENGL 261	Introduction to Creative Writing	.3 cr

ENGL 262	Introduction to Journalism . . . . .	.3 cr
ENGL 305	Creative Writing: Poetry . . . . .	.3 cr
ENGL 306	Creative Writing: Fiction . . . . .	.3 cr
ENGL 345	History of the English Language . . . . .	.3 cr
ENGL 350	Dialects in Contemporary English . . . . .	.3 cr
ENGL 355	Language in Society . . . . .	.3 cr
ENGL 360	Grammar of Contemporary English . . . . .	.3 cr
ENGL 365	Teaching English to Speakers of Other Languages (TESOL) . . . . .	.3 cr
ENGL 370	Language in Education . . . . .	.3 cr
ENGL 383	Tutoring Writing . . . . .	.3 cr
ENGL 480	Studies in Rhetoric, or 300- or 400-level elective . . . . .	.3 cr

3 credits from:

200-400 level elective . . . . .	.3 cr
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3 credits from:

300-400-level elective in literature . . . . .	.3 cr	
ENGL 307	Ethnic Literature in the U.S. . . . .	.3 cr
ENGL 312	Literature of Great Britain and the U.S. II . . . . .	.3 cr
ENGL 315	Survey of Shakespeare . . . . .	.3 cr
ENGL 334	Studies in Poetry . . . . .	.3 cr
ENGL 336	Studies in Fiction . . . . .	.3 cr
ENGL 338	Studies in Drama . . . . .	.3 cr
ENGL 341	Contemporary American Fiction . . . . .	.3 cr
ENGL 410	Topics in Medieval and Early Modern Literature . . . . .	.3 cr
ENGL 415	Seminar in Selected Author Prior to 1800 . . . . .	.3 cr
ENGL 417	Seminar in Selected Author Post 1800 . . . . .	.3 cr
ENGL 426	Topics in 17th and 18th Century Literature . . . . .	.3 cr
ENGL 431	Topics in 19th Century British Literature . . . . .	.3 cr
ENGL 434	Topics in 20th Century British and Post-Colonial Literature . . . . .	.3 cr
ENGL 441	Topics in 19th Century American Literature . . . . .	.3 cr
ENGL 442	Topics in 20th Century American Literature . . . . .	.3 cr
ENGL 491	Special Seminars-Literature Topic . . . . .	1-4 cr
ENGL 300-400 level	New topics in literature	

## Minors

Three English minors are available by completing 18 credits in 200-400 level English courses, including 9 credits at the 300-400 level. In addition, a minor for secondary education teacher certification requiring the completion of 24 credits is available.

### General

9 credits from:

ENGL 201	Introduction to Literary Studies . . . . .	.3 cr
ENGL 244	Introduction to Language Study . . . . .	.3 cr
ENGL 301	Writing Interpretive Papers . . . . .	.3 cr

**Electives** (3 credits in any 200-400 level course; 6 credits in any 300-400 level course.)

### Creative Writing

15 credits from:

ENGL 201	Introduction to Literary Studies . . . . .	.3 cr
ENGL 244	Introduction to Language Study . . . . .	.3 cr
ENGL 261	Introduction to Creative Writing (Prerequisite for ENGL 305/306) . . . . .	.3 cr
ENGL 305	Creative Writing: Poetry . . . . .	.3 cr
or		
ENGL 306	Creative Writing: Fiction . . . . .	.3 cr
ENGL 461	Seminar in Creative Writing . . . . .	.3 cr

**Electives** (3 credits required in any 200-400 level English course)

### Professional Writing

3 credits from:

ENGL 201	Introduction to Literary Studies . . . . .	.3 cr
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3 credits from:

ENGL 244	Introduction to Language Study . . . . .	.3 cr
ENGL 360	Grammar of Contemporary English . . . . .	.3 cr

3 credits from:

ENGL 300	Writing in the Professions . . . . .	.3 cr
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ENGL 304	Technical Report Writing . . . . .	.3 cr
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9 credits from:

ENGL 262	Introduction to Journalism . . . . .	.3 cr
ENGL 285	Writing in Cyberspace . . . . .	.3 cr
ENGL 300	Writing in the Professions . . . . .	.3 cr
ENGL 304	Technical Report Writing . . . . .	.3 cr
ENGL 340	Writing in Community Organizations . . . . .	.3 cr
ENGL 383	Tutoring Writing . . . . .	.3 cr
ENGL 400	Style, Editing and Desktop Publishing . . . . .	.3 cr
ENGL 480	Studies in Rhetoric . . . . .	.3 cr
ENGL 481	Professional and Technical Documents . . . . .	.3 cr

Other writing courses may be counted in this category with approval of the English Department.

## Secondary English Education Minor

### Secondary Teacher Certification

**Required Courses** (12 credits from)

ENGL 201	Introduction to Literary Studies . . . . .	.3 cr
ENGL 300	Writing in the Professions . . . . .	.3 cr
or		
ENGL 301	Writing Interpretive Papers . . . . .	.3 cr
ENGL 380	Teaching the Art of Writing . . . . .	.3 cr
ENGL 482	Methods of Teaching English . . . . .	.3 cr

### Electives

Students must select a 300-level language elective: ENGL 345, 350, 355, 360, 365, 370 or others by approval of the English Department.

Three literature electives, two of which must be at the 300-400 level:

1. Students must select a literature elective in American Literature: ENGL 271, 272, 307, 312, 341, 441, 442 or others by approval of the English Department.

2. Students must select a literature elective in British Literature: ENGL 281, 282, 311, 315, 410, 415, 417, 426, 431, 434 or others by approval of the English Department.

NOTE: ENGL 201 is a required course for majors and minors, and a prerequisite for all upper-division literature courses.

## English as a Second Language: Minor Endorsement

This course of study is designed to meet the state of Michigan requirements for teacher certification in English as a Second Language (ESL). To obtain this endorsement, students must complete the requirements of the program as given below, pass the certification test in this area, and obtain a Michigan teaching certificate. This is a minor endorsement for elementary or secondary levels.

**ESL Endorsement** (minor; 24 credits required)

**TESOL Core Courses** (15 credits required)

ENGL 244	Introduction to Language Study . . . . .	.3 cr
ENGL 365	TESOL I: Introduction to Language Acquisition and Teaching . . . . .	.3 cr
ENGL 465	TESOL II: Assessment, Materials and Methods . . . . .	.3 cr
ENGL 496	Practicum in TESOL . . . . .	.6 cr

**English Language Study** (3 credits required)

ENGL 345	History of the English Language . . . . .	.3 cr
ENGL 350	Dialects in Contemporary English . . . . .	.3 cr

**Linguistics** (3 credits required)

ENGL 355	Language in Society . . . . .	.3 cr
ENGL 370	Language in Education . . . . .	.3 cr

**Contemporary Cultures Requirement** (3 credits required)

COMM 455	Intercultural Communication . . . . .	.3 cr
SOC 370	The Family Cross-Culturally . . . . .	.3 cr
TE 446	Cultural Differences in Education . . . . .	.3 cr

## Teaching English to Speakers of Other Languages: Certificate

This certificate program is designed primarily for students wishing to teach English to speakers of other languages in adult education settings or outside the United States, and whose career needs do not mandate a state of Michigan teaching certificate.

The certificate in TESOL includes 18 credits of courses and a three-credit practicum. Students also must fulfill a language requirement of a minimum of two semester-long courses of college-level study in a single language, or its equivalent. No student may register for the practicum without approval from the program advisor at least one semester prior to beginning the practicum. The specific course requirements of the program are as follows:

**Certificate in TESOL** (21 credits required)

**Required Courses** (15 credits required)

ENGL 244	Introduction to Language Study	.3 cr
ENGL 360	Grammar of Contemporary English	.3 cr
ENGL 365	TESOL I: Introduction to Language Acquisition and Teaching	.3 cr
ENGL 465	TESOL II: Assessment, Materials and Methods	.3 cr
ENGL 496	Practicum in TESOL	.3 cr

**Restrictive English Electives** (3 credits required)

ENGL 345	History of the English Language	.3 cr
or		
ENGL 355	Language in Society	.3 cr
or		
ENGL 370	Language in Education	.3 cr

**Contemporary Cultures Requirement** (3 credits required)

COMM 455	Intercultural Communication	.3 cr
SOC 405	Cross-Cultural Relations	.3 cr
TE 446	Cultural Differences in Education	.3 cr

(For studies of single cultures or other courses that may qualify, see advisor)

**Language Requirement** (Two semesters of college-level language study in a single language other than English, or its equivalent. This requirement can be altered for native speakers of a language other than English.)

# History

## Department Faculty

Robert Braddock, John Grolle, John Jezierski, Nameeta Mathur, Alexander Nalbach, Eric Petersen, Thomas Renna, Frederick Sunderman, Melissa Teed, Paul Teed, John Willertz

The Department of History offers a major in history. The requirements for the major are the same for students whether or not they plan to seek Teacher Certification in secondary education. The department also offers minors in history for both education and non-education students (see below). The major requires at least 9 credits of foundation courses and at least 30 credits of 200 and 300 level electives distributed over three categories: U.S., Europe and World. Majors must also take the 3 credit HIST 499 Senior Seminar Capstone Course for a program total of 42 credits. A minor is also required. HIST 111 Introduction to Historical Study, introduces students to the major and also serves as a written communication course for Category 10 in General Education. The History Department requires all history majors to take this course for their second semester written communication requirement.

Students considering taking history courses should observe the following definitions:

- 100 – Broad surveys (suitable for all students)
- 200 – Specialized surveys (suitable for all students)
- 300 – Intensive studies (suitable for Seniors, Juniors and Sophomores who have completed at least one history course.)

Students should consult their departmental advisor or the department chair to plan a program of study to fit their individual, personal and career objectives. A history major is excellent preparation for professional post-graduate training in business, education, law and public administration.

# History (B.A.)

Total credits in the major: 42. A minor is required.

**Foundations in History** (9 credits required)

HIST 111	Historical Writing and Methodology	.3 cr
HIST 100	Historical Surveys	
	Sections A-B-C (U.S. Surveys)	.3 cr
	Sections D-E (World Surveys)	.3 cr

**Electives in History** (30 credits required)

In addition to the above Foundation Courses, majors are required to take at least 30 credits of electives with at least 24 credits distributed among the three categories designated below, a minimum of two courses (6 credits) for each category. At least 18 credits must be at the 300-level. HIST 110, Problems in Modern History, a communications intensive course for the General Education Program is not required for History majors but may be taken as an elective. Additional sections of the 100 level surveys may also be taken as electives as long as students meet the category requirements and have sufficient upper division credits.)

**Elective Categories**

**United States** (minimum of 6 credits required)

HIST 241	History of Michigan	.3 cr
HIST 308	History of the Spanish Borderlands	.3 cr
HIST 310	United States History in the Colonial Period	.3 cr
HIST 311	United States History During the Revolution	.3 cr
HIST 312	U.S. During the Early National Period	.3 cr
HIST 313	United States History	
	During the Era of Andrew Jackson	.3 cr
HIST 314	United States History	
	During the Civil War and Reconstruction	.3 cr
HIST 316	America and the World, 1900-1945	.3 cr
HIST 317	America and the World, 1945-Present	.3 cr
HIST 318	20th Century American Social Movements	.3 cr
HIST 319	African-American History	.3 cr
HIST 323	American Intellectual/Cultural History	.3 cr
HIST 325	American Frontier History	.3 cr
HIST 329	The Vietnam War	.3 cr
HIST 390A	Special Topics in U.S. History	.3 cr

**Europe** (minimum of 6 credits required)

HIST 220	Survey of European History	.3 cr
HIST 322	European Intellectual/Cultural History	.3 cr
HIST 330	Euro-American History in the 20th Century	.3 cr
HIST 331	History of Tudor-Stuart England	.3 cr
HIST 332	Modern Britain 1688-1970	.3 cr
HIST 344	France: 1515-1815	.3 cr
HIST 351	History of Modern Germany	.3 cr
HIST 352	History of Modern Russia Since 1801	.3 cr
HIST 353	History of Eastern Europe	.3 cr
HIST 354	History of Poland	.3 cr
HIST 361	Early Middle Ages, 300-1050	.3 cr
HIST 362	Europe in the High Middle Ages, 1050-1350	.3 cr
HIST 363	Renaissance, 1350-1515	.3 cr
HIST 364	Age of the Reformation, 1515-1715	.3 cr
HIST 365	Age of Democratic Revolutions	.3 cr
HIST 366	History of Europe in the 19th Century, 1815-1914	.3 cr
HIST 367	History of Europe from 1914-1945	.3 cr
HIST 368	History of Post-War Europe	.3 cr
HIST 373	Ancient Roman Republic and Empire to AD300	.3 cr
HIST 390B	Special Topics in European History	.3 cr

**World** (minimum of 6 credits required)

HIST 213	Survey of South Asian History	.3 cr
	(Cross-list with PHIL 213)	
HIST 215	Survey of East Asian History	.3 cr
	(Cross-list with PHIL 215)	
HIST 230	Survey of Latin American History	.3 cr
HIST 307	Early Latin America	.3 cr
HIST 309	History of Mexico	.3 cr
HIST 324	Introduction to Women's History	.3 cr
HIST 355	Modern China	.3 cr
HIST 357	Modern Japan	.3 cr
HIST 359	Modern India	.3 cr
HIST 372	Ancient Near East to 300 BC	.3 cr
HIST 390C	Special Topics in World History	.3 cr

### Senior Seminar (3 credits required)

All majors must take the capstone seminar, HIST 499. Prerequisite: 30 credits in the major. This course focuses on theoretical/historiographical issues within the discipline and historical practice/research methodology. It is in this course that students will submit their portfolios, introduced in HIST 111, for individual evaluation and program assessment.

**Minor in History: Foundation Courses** (9 credits required, same distribution as for majors)

- Elective courses (12 credits required)

### Honors in History

- Normal Requirements for the History Major
- GPA 3.50 in History, 3.20 overall
- Completion of a Senior Thesis (HIST 497)

## Humanities

### Department Faculty

Eric Gardner, Judith Kerman, Erik Trump

Founded in Spring 2001, the Department of the Humanities hopes to introduce students to innovative, cross-disciplinary approaches to the study of the arts and humanities, thus promoting greater understanding of complex, richly diverse, and sometimes conflicting concepts of culture, the arts and humanity. As such, the department primarily serves the General Education program.

## Modern Foreign Languages

### Department Faculty

David E. Barker, V. Emilio Castañeda, Anna R. Dadlez, Lynn Herkstroeter, Ricardo Pastor, Carol Shaw, Gladys von Hoff

### Majors and Minors

The department offers majors in French and Spanish. Minors are offered in French, German, Polish and Spanish. All discussions and lectures in 400-level courses are in the appropriate language. The department also offers courses in Latin and other languages according to demand.

For a foreign language major, 28 credits are required in courses numbered 211 or higher. For a foreign language major with teacher certification, 30 credits are required in courses numbered 211 or higher.

For a foreign language minor, 18 credits are required in courses numbered 211 or higher. Foreign language minors who are candidates for teacher certification must complete 20 credits in courses numbered 211 or higher.

### Placement Examinations

For those students who have had any previous contact with the language they intend to study, placement in first- and second-year language courses (111, 112, 211, 212) will be by examination. This examination is for placement purposes only. The department reserves the right to require a student to enroll in a more advanced course if his/her ability proves to be greater than indicated by the examination.

### Credit by Examination

Only in exceptional circumstances and only upon recommendation by the department chairperson to the Dean of the College of Arts and Behavioral Sciences will credit by examination be given for 211 or 212. Native speakers or people with near-native fluency will not receive credit for 111, 112, 211, 212, either for classwork or by examination. They may apply for credit by examination for language courses numbered 300 and above. Students may take no more than 9 credits by examination.

## Modern Foreign Languages (B.A.) Teacher Certification

### Secondary Level

1. Foreign language majors who are candidates for teacher certification at the secondary level must fulfill all the requirements for the major in French or Spanish.
2. Foreign language minors who are candidates for teacher certification at the secondary level must take FREN 321, GER 321, or SPAN 311 as part of their minor.
3. Foreign language majors and minors who are candidates for teacher certification at the secondary level must take MFL 466, Secondary Foreign Language Methods.
4. Foreign language majors and minors who are candidates for teacher certification at the secondary level must fulfill all the requirements for certification as prescribed by the College of Education.

### K-12 Levels

1. Foreign language majors who are candidates for teacher certification at the K-12 levels must fulfill all the requirements for the major in French or Spanish.
2. Foreign language majors who are candidates for teacher certification at the K-12 levels must take MFL 466, Secondary Foreign Language Methods.
3. Foreign language majors who are candidates for teacher certification at the K-12 levels must take MFL 465, Elementary Foreign Language Methods.
4. Foreign language majors who are candidates for teacher certification at the K-12 levels must fulfill all the requirements for certification as prescribed by the College of Education.

## French (B.A.)

For a major in French, 28 credits in French are required in courses numbered 211 or higher. For a major in French with secondary or K-12 teacher certification, 30 credits are required in courses numbered 211 or higher. Students whose French proficiency is beyond French 211 and 212 will take all their courses at the 300-400 levels.

For a minor in French, 18 credits in French are required in courses numbered 211 or higher. For a minor in French with secondary teacher certification, 20 credits are required in courses numbered 211 or higher.

For information about using French studies in careers, graduate work, and combined with other academic areas, please consult a faculty member in the Department of Modern Foreign Languages.

**Foundation** (8 credits required, or satisfactory score on placement examination)

FREN 211	Intermediate French I	. . . . .	.4 cr
FREN 212	Intermediate French II	. . . . .	.4 cr

**Major Courses** (9 credits required)

FREN 312	Introduction to French Literature	. . . . .	.3 cr
FREN 321	French Composition	. . . . .	.3 cr
FREN 332	French Conversation	. . . . .	.3 cr

**Electives** (3 credits required)

FREN 451	Advanced French Composition and Conversation	. . . . .	.3 cr
FREN 455	Intensive Language Review	. . . . .	.3 cr
FREN 457	French/English Translation	. . . . .	.3 cr

A total of 9 credits in 400-level courses are required; three of these credits must be in literature.

Additional credits at 300-400 level to total a minimum of 28 credits in French.

## Spanish (B.A.)

For a major in Spanish, 28 credits beyond SPAN 112 are required. For a Spanish major, a minor in another field is required. The major in Spanish may be applied to secondary teaching certification. Grades lower than "C" in Spanish DO NOT satisfy requirements for a major or minor in Spanish.

For specific information on a major or a minor in Spanish, read the information under the heading "Modern Foreign Languages." SPAN 111 and 112 do not count for a major or minor in Spanish; those courses may be used for General Education requirements.

**Foundation** (8 credits required, or satisfactory score on placement examination)

SPAN 211	Intermediate Spanish I	.4 cr
SPAN 212	Intermediate Spanish II	.4 cr

**Required Courses** (9 credits required)

SPAN 419	Advanced Composition and Conversation	.3 cr (required for a major)
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Six credits in the 400-level Spanish courses, of which at least three credits must be in literature.

**Electives**

SPAN 302	Spanish Conversation	.3 cr
SPAN 311	Spanish Composition	.3 cr
SPAN 313	Introduction to Spanish Literature I	.3 cr
SPAN 314	Introduction to Spanish Literature II	.3 cr
SPAN 317	Introduction to Spanish-American Literature I	.3 cr
SPAN 318	Introduction to Spanish-American Literature II	.3 cr
SPAN 319	Introduction to U.S. Hispanic Literature	.3 cr
SPAN 336	Spanish for the Professions	.3 cr
SPAN 340	Spanish Civilization	.3 cr
SPAN 341	Spanish-American Civilization	.3 cr
SPAN 344	United States Hispanic Civilization	.3 cr
SPAN 420	The Spanish Golden Age	.3 cr
SPAN 430	Modern Spanish Literature	.3 cr
SPAN 440	Contemporary Spanish-American Prose	.3 cr
SPAN 450	Spanish American Poetry	.3 cr
SPAN 456	Introduction to Linguistics	.3 cr
SPAN 467	United States Spanish	.3 cr
SPAN 469	Teaching English as a Second Language for Spanish Speakers	.3 cr
SPAN 471	Bilingual-Bicultural Methodology in Bilingual Education	.3 cr
SPAN 472	Curriculum Development in Bilingual Education	.3 cr
SPAN 491	Seminar in Hispanic Studies	.3 cr
SPAN 499	Directed Study	.1-4 cr

## Minors in German, Polish, Spanish and Polish Studies

A **German minor** is available by completing 18 credits in German courses numbered GER 211 or higher.

A **Polish minor** is available by completing 18 credits in Polish courses numbered PLSH 211 or higher.

A **Spanish minor** is available by completing 18 credits in Spanish courses beyond SPAN 112. SPAN 311 is required for a minor in Spanish.

An **interdisciplinary minor in Polish Studies** is available by completing 21 credits, with the following requirements:

**Foundation** (8 credits required)

PLSH 111	Elementary Polish I	.4 cr
PLSH 112	Elementary Polish II	.4 cr

**Electives** (6 credits required)

HIST 271	History of Poland	.3 cr
HIST 275	History of Eastern Europe	.3 cr
PS 307	The Soviet Union and Its Successors	.3 cr

**Recommended Electives** (7 credits required)

Polish language courses numbered above PLSH 112		
PLSH 204	The Polish-American Experience	.3 cr
PLSH 241	Contemporary Poland	.3 cr
HUM 290	World War II—Underground	.3 cr
HUM 390	Women in Modern Slavic Literature	.3 cr

## Music

### Department Faculty

Jane Girdham, Eric P. Nisula, Marc H. Peretz, William B. Wollner

## Music (B.A.)

A minor is required. An applied audition and theory assessment are required prior to being accepted as a music major. To schedule an audition and theory assessment, prospective majors should contact the Department of Music at (989) 964-4159; from Midland, call 695-5325, ext. 4159.

**Major Courses** (34 credits required)

MUS 111	Music Theory and Ear Training I	.4 cr
MUS 150	Introduction to Music Study Skills	.3 cr
MUS 211	Music Theory and Ear Training II	.4 cr
MUS 212	Keyboard Harmony	.2 cr
MUS 311	Music Theory and Ear Training III	.4 cr
MUS 312	Musical Analysis	.3 cr
MUS 320	Music History and Literature I	.4 cr
MUS 321	Music History and Literature II	.4 cr
MUS 334	Conducting I	.3 cr
MUS 421	20th Century Music	.3 cr

### Applied Music

Majors must take applied lessons on their declared principal instrument each semester they are enrolled as declared music majors for a minimum of 8 credits. (Part-time students with special schedule problems may apply to the department for an exemption from this requirement.)

### Ensembles

8 credits required from participation in an ensemble appropriate to the student's principal performing instrument or voice. Students are required to participate in an appropriate ensemble every semester during which they are enrolled as declared music majors for a minimum of 8 credits. Keyboard and guitar majors would normally enroll in one of the choirs or Collegium to meet this requirement. (Part-time students with special schedule problems may apply to the department for an exemption from this requirement.)

MUS 181	Concert Choir	.1 cr
MUS 182	Chamber Choir	.1 cr
MUS 183	Concert Band	.1 cr
MUS 184	Marching Band	.1 cr
MUS 185	Jazz Ensemble	.1 cr
MUS 187	Ensemble	.1 cr
MUS 188	Collegium Musicum	.1 cr

## Music Education (B.A.)

A minor is not required (the minor requirement is met automatically by completing the music core). An applied audition and theory assessment are required prior to being accepted as a music education major. To schedule an audition and theory assessment, prospective majors should contact the Department of Music at (989) 964-4159; from Midland, call 695-5325, ext. 4159. The music education major with K-12 teacher certification is designed for students desiring to teach in the public schools. It requires completion of the 101-credit music education major described below. Students wishing to be certified in an additional subject area should contact the College of Education for current requirements.

**Music Education** (25 credits required)

MUSE 203	Woodwinds Methods Class	.2 cr
MUSE 204	Brass Methods Class	.2 cr
MUSE 205	Strings Methods Class	.2 cr
MUSE 206	Percussion Methods Class	.2 cr
MUSE 303	Teaching Elementary School Music	.3 cr
MUSE 304	Teaching Middle School Music	.2 cr
MUSE 305	Teaching Secondary Music Ensemble Classes	.3 cr
MUSE 306	Technology in Music Education	.3 cr
MUSE 309	Arranging and Charting for School Music Ensembles	.3 cr
MUSE 314	Foundations of Music Education	.3 cr

**Pre-Professional Education** (5 credits required)

PSYC 100 General Psychology . . . . .4 cr
TE 100 Exploring Teaching: K-12 . . . . .1 cr

**Professional Education** (21 credits required)

PSYC 317 Educational Psychology . . . . .3 cr
TE 302 General Methods for Teaching
in the Secondary and Middle Schools . . . . .3 cr
TE 312 Teaching Reading in the Content Areas
of Secondary and Middle Schools . . . . .3 cr
TE 412 Seminar in Secondary Student Teaching . . . . .2 cr
TE 422 Secondary Student Teaching . . . . .10 cr

**Music Core** (36 credits required)

MUS 111 Music Theory and Ear Training I . . . . .4 cr
MUS 150 Introduction to Music Study Skills . . . . .3 cr
MUS 211 Music Theory and Ear Training II . . . . .4 cr
MUS 212 Keyboard Harmony . . . . .2 cr
MUS 311 Music Theory and Ear Training III . . . . .4 cr
MUS 312 Musical Analysis . . . . .3 cr
MUS 320 Music History and Literature I . . . . .4 cr
MUS 321 Music History and Literature II . . . . .4 cr
MUS 334 Conducting I . . . . .3 cr
MUS 421 20th Century Music . . . . .3 cr
MUS 434 Conducting II . . . . .2 cr

**Applied Music**

Majors must take applied lessons on their declared principal instrument each semester they are enrolled as a declared music education major (with the exception of the semester during which they student teach) for a minimum of 7 credits. (Part-time students with special schedule problems may apply to the department for an exemption from this requirement.)

**Ensembles**

Seven credits required from participation in an ensemble appropriate to the student's principal performing instrument or voice. Students are required to participate in an appropriate ensemble every semester during which they are enrolled as a declared music education major (with the exception of the semester during which they student teach) for a minimum of 7 credits. Instrumental music education majors are required to enroll in Marching Band for at least two semesters. (Part-time students with special schedule problems may apply to the department for an exemption from this requirement.)

MUS 181 Concert Choir . . . . .1 cr
MUS 182 Chamber Choir . . . . .1 cr
MUS 183 Concert Band . . . . .1 cr
MUS 184 Marching Band . . . . .1 cr
MUS 185 Jazz Ensemble . . . . .1 cr
MUS 187 Ensemble . . . . .1 cr
MUS 188 Collegium Musicum . . . . .1 cr

**Music Minors**

Three different music minors are available. The first, Music Minor, is a general music minor intended for those students wishing to have music as their declared minor. The second, Elementary Music Education Minor, is for elementary teacher education majors who wish to have music education as their minor teaching area. The third, Secondary Music Education Minor, is for secondary teacher education majors who wish to have music education as their minor teaching area.

**Music Minor** (20 credits required. A theory assessment is required prior to being accepted as a music minor. To schedule a theory assessment, prospective minors should contact the Department of Music at [989] 964-4159; from Midland, call 695-5325, ext. 4159.)

**Theory, History and Literature**

MUS 111 Music Theory and Ear Training I . . . . .4 cr
MUS 150 Introduction to Music Study Skills . . . . .3 cr

Select one of the following:

MUS 117A The Musical Experience: Classical Music . . . . .3 cr
MUS 117B The Musical Experience: Non-Western Music . . . . .3 cr
MUS 117C The Musical Experience: Music in the U.S. . . . .3 cr

**Applied Music and Ensembles**

Applied Music . . . . .2 cr
Ensembles . . . . .2 cr

**Piano**

MUS 107 Applied Music: Piano . . . . .1 cr
or
MUS 212 Keyboard Harmony . . . . .2 cr

**Electives**

Select any music course(s) that will bring the total number of music credits to a minimum of 20 credits.

**Elementary Music Education Minor** (24 credits required. A theory assessment is required prior to being accepted as an elementary music education minor.)

**Theory, History and Literature**

MUS 111 Music Theory and Ear Training I . . . . .4 cr
MUS 117A The Musical Experience: Classical Music . . . . .3 cr
MUS 150 Introduction to Music Study . . . . .3 cr

**Applied Music and Ensembles**

Applied Music . . . . .2 cr
Ensembles . . . . .2 cr

**Piano**

MUS 212 Keyboard Harmony . . . . .2 cr

**Music Education**

MUSE 303 Teaching Elementary School Music . . . . .3 cr
MUSE 304 Teaching Middle School Music . . . . .2 cr

**Electives**

Select any music education course(s) that will bring the total number of music credits to a minimum of 24 credits.

**Secondary Music Education Minor** (24 credits required. A theory assessment is required prior to being accepted as a music minor.)

**Theory, History and Literature**

MUS 111 Music Theory and Ear Training I . . . . .4 cr
MUS 117A The Musical Experience: Classical Music . . . . .3 cr
MUS 150 Introduction to Music Study Skills . . . . .3 cr

**Applied Music and Ensembles**

Applied Music . . . . .2 cr
Ensembles . . . . .2 cr

**Piano**

MUS 212 Keyboard Harmony . . . . .2 cr

**Conducting**

MUS 334 Conducting I . . . . .3 cr

**Music Education**

MUSE 305 Teaching Secondary Music Ensemble . . . . .3 cr

Select either:

MUSE 203 Woodwinds Class . . . . .2 cr
or
MUSE 204 Brass Class . . . . .2 cr

**Transfer Students**

Transfer students must be enrolled in an ensemble every semester of attendance, but may count ensemble credits gained at another institution toward the minimum ensemble credits required for graduation. For placement in required courses, all transfer students will be given proficiency exams in music theory, music history and applied music. Remedial work may be assigned, if necessary. All transfer students must take at least 2 credits in Applied Music at SVSU.

**Advising and Applied Juries**

All music and music education students should seek the advice of the music faculty on a regular basis to maintain regular and intelligent advancement toward finishing their degrees.

Applied Juries will be given at the end of fall and winter semesters, and are required for all music and music education majors enrolled in applied music courses. Other students may be advised to take Juries if their occupational goal would suggest it. Minimum performance standards in each performance medium will be determined by the music faculty, and each student must satisfy these performance standards in order to graduate. Juries and/or senior recitals will be used for evaluation. Failure to meet applied performance standards will result in additional requirements in the applied area having to be met prior to graduation.

# Philosophy

## Department Faculty

Judith M. Hill, Drew Hinderer, Jeffrey Koperski, David Rayfield

The Department of Philosophy does not offer a major, but it does offer a structured minor that has been sufficient to enable students to enroll in nationally recognized graduate programs in philosophy and other fields. Students should consult department members on careers related to philosophy.

A philosophy minor is available by completing 18 credits in philosophy courses, which must include at least one course from PHIL 300 or 305; at least one from PHIL 205A, 205B, 210A, 210B or 331; at least one from PHIL 214, 280, 311, or 380; and at least one from PHIL 213 or 215, PHIL 220, PHIL 240, or PHIL 320. Philosophy faculty will advise students in creating minor programs that will support and enhance their career and continuing educational interests.

# Political Science

## Department Faculty

Jesse C. Donahue, Robert Lane, Douglas McGee, Mark Nicol, David Weaver

The study of politics is an examination of the processes and institutions through which humans create a common life. Ancient and modern political scientists have shown us that politics also is the study of the ideas, interests and expectations people bring to making decisions, and the obstacles they meet in their efforts to forge a common life that will be good for more than a few. This department in particular is concerned with issues of equality and justice. And we feel that it is important for citizens to understand the complexities of politics because governing rarely is a simplistic process.

The course offerings for this major reflect four traditional areas of political study: political theory, American political institutions, public policy, and international relations. Additionally, our program helps students understand the process of analyzing politics through exposure to research methods in the discipline.

A major in political science is appropriate background for students interested in careers in law, political work for public or private organizations from the local to the national level, journalism, and teaching. The major also can prepare students for graduate studies in fields such as law, public policy, and political science; or for interdisciplinary studies such as the Master of Arts degree in Leadership and Public Administration offered by Saginaw Valley State University.

## Political Science (B.A.)

A minor is required.

### Required Courses (16 credits required)

PS 118	Introduction to Political Science	.3 cr
PS 123	The American Political System	.3 cr
PS 130	World Politics	.3 cr
PS 225	Statistics	.4 cr
PHIL 230	Introduction to Social and Political Philosophy	.3 cr

### Electives (33 credits required, including 27 credits from the following content areas)

#### Theory (3 credits required)

PS 220	Art and Politics	.3 cr
PS 334	American Democratic Political Thought	.3 cr
PS 400	Political Ideologies	.3 cr

#### American Political Institutions (12 credits required)

PS 240	Parties and Interest Groups	.3 cr
PS 260	Understanding and Managing the Bureaucracy	.3 cr
PS 262	State and Local Government	.3 cr
PS 330	American Constitutional Law	.3 cr
PS 331	American Presidency and Congress	.3 cr
PS 365	Public Human Resource Management	.3 cr
PS 370	Federal and State Courts	.3 cr

#### Public Policy (9 credits required)

PS 270	Race and the U.S. Political System	.3 cr
PS 319	Gender and Politics	.3 cr
PS 325	Native American Politics	.3 cr
PS 345	Public Policymaking in the U.S.	.3 cr
PS 496	Field Work in Public Affairs*	1-6 cr

\*For majors only

#### International (3 credits required)

PS 205	Comparative Government	.3 cr
PS 307	Russia and Its Neighbors	.3 cr
PS 461	American Foreign Policy and World Politics	.3 cr

#### Political Science Minor (21 credits required)

PS 118	Introduction to Political Science	.3 cr
PS 123	The American Political System	.3 cr
PS 130	World Politics	.3 cr
Any one PS	200 level elective	.3 cr
Three PS	300 or 400 level electives, excluding PS 496	.9 cr

#### Political Science Minor, Secondary Certification (21 credits required)

PS 118	Introduction to Political Science	.3 cr
PS 123	The American Political System	.3 cr
PS 130	World Politics	.3 cr
or		
PS 205	Comparative Government	.3 cr
PS 262	State and Local Government: Politics/Public Policy	.3 cr
PS 330	The American Constitutional and Legal System	.3 cr
PS 351	Current/Future U.S. Political Issues	.3 cr
PS Elective		.3 cr

## Political Science – Public Administration (B.A.)

Interdisciplinary major, a minor is required.

### Major Courses (40 credits required)

ACCT 213	Financial Accounting	.4 cr
ACCT 218	Fund Accounting	.4 cr
ECON 221	Principles of Macroeconomics	.4 cr
PS 118	Introduction to Political Science	.3 cr
PS 123	The American Political System	.3 cr
PS 225	Statistics	.4 cr
PS 260	Understanding and Managing the Bureaucracy	.3 cr
PS 262	State and Local Government: Politics/Public Policy	.3 cr
PS 345	Public Policy Making in the U.S.	.3 cr
PS 355	Public Budgeting and Finance	.3 cr
PS 365	Public Human Resource Management	.3 cr
PS 496	Field Work in Public Affairs	.3 cr

### Recommended Electives

ENGL 300	Writing in the Professions	.3 cr
HIST 241	History of Michigan	.3 cr
PS 205	Comparative Government	.3 cr
PS 270	Race & the U.S. Political System	.3 cr
PS 319	Gender and Politics	.3 cr
PS 331	The American Presidency and Congress	.3 cr
SOC 440	Complex Organizations	.3 cr

A **public administration minor** is available to any major, excluding political science majors, by completing 18 credits in the following courses: PS 118 or PS 123, PS 260, PS 262, PS 345, PS 365 and one of CJ 491 or SOC 331.

# Psychology

## Department Faculty

Louis Cohen, Eric DeVos, Ranjana Dutta, Larry Hatcher, Julie Lynch, Matthew Margres, Gerald L. Peterson, Sandra Randall, Janet K. Robinson, Andrew Swihart

Undergraduate psychology introduces the student to the traditions, content, methodologies and results of the scientific study of behavior.

Psychology also provides the student with experience in applying psychological principles in real-world settings. The student learns what systematic psychology has shown about how we perceive, learn and are motivated to think and take action; how we differ from one another; how we develop from infancy to old age; and how interpersonal factors affect our relations with each other in the home, at work and in the social order.

The psychology major does not prepare the student for any specific vocational objective, although it may facilitate some occupations in social and community services. Students intending to become professional psychologists should plan to complete the major and then pursue post-graduate studies for two or more years.

## Psychology (B.A.)

A minor is required.

### Major Courses (18 credits required)

PSYC 100	General Psychology	4 cr
PSYC 299	Statistics	4 cr
PSYC 302	Computer Application in Data Analysis	2 cr
PSYC 305	Experimental Psychology	4 cr
PSYC 488	History and Systems of Psychology	4 cr

### Electives (20 credits required)

#### Core A (two courses required)

PSYC 320	Psychology of Learning	3 cr
PSYC 330	Motivation	3 cr
PSYC 335	Comparative Psychology	3 cr
PSYC 340	Physiological Psychology	4 cr
or		
PSYC 346	Neuropsychology	4 cr
PSYC 345	Sensation and Perception	3 cr
PSYC 425	Cognitive Processes	3 cr

#### Core B (two courses required)

PSYC 350	Social Psychology	3 cr
PSYC 370	Theories of Personality	3 cr
or		
PSYC 430	Psychoanalytic Theory	3 cr
PSYC 372	Abnormal Psychology	3 cr
PSYC 375	Psychological Testing	4 cr
PSYC 410	Life Span Human Development	3 cr
PSYC 453	Industrial/Organizational Psychology	3 cr

#### Labs (two courses required)

PSYC 320L	Lab in Psychology of Learning	1 cr
PSYC 330L	Lab in Motivation	1 cr
PSYC 335L	Lab in Comparative Psychology	1 cr
PSYC 340L	Lab in Physiological Psychology	1 cr
PSYC 345L	Lab in Sensation and Perception	1 cr
PSYC 350L	Lab in Social Psychology	1 cr
PSYC 370L	Lab in Personality	1 cr
PSYC 373L	Lab in Interviewing	1 cr
PSYC 425L	Lab in Cognitive Processes	1 cr

#### Additional electives to total a minimum of 38 credits in psychology.

A **psychology minor** is available by completing PSYC 100, one course from both Core A and Core B and additional electives to total a minimum of 18 credits in psychology.

## Social Work

### Department Faculty

Judy Berglund, Vanessa Brooks Herd, Lucy Mercier, Stephen Yanca

The Bachelor of Social Work (B.S.W.) degree is offered for those who complete the college baccalaureate degree requirements with a major in Social Work.

The social work major is designed to provide students with an introduction to the goals and processes of the social work profession. No minor is available in social work; however, a minor is available in Youth Services, as described below.

The principal educational objective of the social work program is to prepare students for beginning generalist social work practice. Other program objectives are to develop knowledge and competency in order to:

1. Enable students to recognize social work values and develop a strong commitment to the ethics and standards of the social work profession.
2. Prepare students for entry to graduate level education.

No academic credit will be given, in whole or in part, for any professional or other life experience. This applies both to experiences prior to admission to the major as well as life experiences after major admission. Only volunteer work approved by the department will be credited towards partial or complete fulfillment of the 40-credit volunteer component required in SW 215, Introduction to Social Work/Social Welfare. Only field work approved by the department and undertaken as part of SW 483-484, Field Instruction I and II, will be credited for the major.

The Department of Social Work does not discriminate on the basis of race, color, gender, age, creed, ethnic or national origin, disability, political orientation or sexual orientation. This policy applies to students, employees, volunteers, field placement supervisors, faculty members, Community Advisory Committee members and anyone else who may have contact or business with the program on any basis.

### Pre-Social Work Curriculum

Students interested in earning a degree in social work should select a "pre-social work major." As Freshmen and Sophomores, they should obtain advising from the Academic Advisement Center. During the semester when pre-social work majors will be completing 60 credits, they should arrange for an interview with a member of the social work faculty. This interview is part of the formal application process for admission to the social work major. Freshmen and Sophomores who have specific professional questions or concerns will be referred to a member of the social work faculty.

The Social Work Department sponsors a number of clubs/activities and special events during each year. Pre-social work students are encouraged to participate in order to begin to develop the ethics and values of the profession.

### Requirements for Admission to the Social Work Major

A minimum of a 2.25 cumulative GPA is required for admission to the social work major, together with a minimum 2.25 GPA in the combination of the interdisciplinary prerequisite courses and SW 215 and 300.

To be eligible for admission, the student must complete a total of 60 credits, including satisfactory completion of the following:

1. All Basic Skills requirements
2. All interdisciplinary prerequisite courses
3. Both SW 215 and 300
4. The volunteer placement
5. At least six of the nine General Education requirements. An advantage may occur to students who have satisfied more of the General Education requirements.

Application may be made during the semester in which the student will complete the requirements or subsequent to it, but no admission decision will be made until after the final grades are received. Students who are not formally admitted to the major will not be permitted to enroll in any of the advanced professional courses: SW 316, 318, 401, 403, 483, 484 and 485.

Students may be admitted to the social work major during any semester; however, the two-semester senior sequence commences only in the fall semester.

### Application Procedures

During the semester in which the admission requirements specified above will be met, the student should accomplish the following:

1. Submit a completed formal application form to the chair of the Department of Social Work.
2. Schedule and complete a formal interview with a member of the social work faculty.

- Complete the writing sample for social work admissions through the Academic Advisement Center.
- Have a letter filed with the Social Work Department indicating satisfactory completion of the volunteer placement as required in SW 215.
- Sign an agreement to uphold the National Association of Social Workers Code of Ethics.

It is strongly recommended that three professional letters of reference — such as from employers, volunteer activities directors, or former professors — be submitted to the social work faculty in support of the application for the major.

Evaluation of the writing sample and admission to the major will be done by a selection committee consisting of faculty members from the Department of Social Work, one faculty member selected by the social work faculty from a related department, and a staff member from the Academic Advisement Center.

### Selection Criteria

In addition to the student's academic achievement in college courses, other selection criteria will include the number of credits completed at Saginaw Valley State University, representation of the population base in terms of ethnicity as established by federal guidelines, and potential for achievement of the "Admission and Retention Criteria," which is specified in the next section. Since the number of openings are insufficient to satisfy the demand, admission is competitive. Students denied admission to the major may reapply for the next round of committee deliberations. Minimal achievement of the criteria is not likely to lead to admission.

### Admission and Retention Criteria

- Stability and autonomy:** Students will demonstrate the capacity to deal effectively with emotional stress, both in themselves and in relation to others, as demonstrated through a satisfactory evaluation of the volunteer component, a grade of "C" or better in "Introduction to Social Welfare/Social Work," and performance as a social work major in a variety of courses throughout the student's career.
- Verbal and writing ability:** Students will be able and willing to communicate thoughts and feelings effectively, both orally and in writing, as demonstrated in part by passing the English Basic Skills examination or receiving a grade of "C" or better in English composition courses, through satisfactory performance on the writing sample required for admission to the major, and continuous satisfactory achievement of written and oral communication skills throughout the Junior and Senior year.
- Identifying and handling conflicting values:** Students will be able to function within the context of value conflict, respecting the values of others even when different from their own, as demonstrated by acceptance of others with different backgrounds in their volunteer placement and field placement.
- Academic achievement:** Student will maintain a minimum of a 2.25 cumulative GPA in all courses, a minimum of a 2.25 cumulative GPA in the interdisciplinary courses, including SW 215 and SW 300, and a minimum of a 2.25 cumulative GPA in the professional foundation requirements. Students must have a grade of "C" or better in the interdisciplinary courses, including SW 215 and SW 300 and the professional foundation requirements.
- Capacity for continued growth in professional education and commitment to the code of ethics of the social work profession:** Students will assume increasing responsibility for their own learning and make use of educational experience oriented toward peer learning. Violations of the canons of ethical responsibility of the social work profession are unacceptable.
- Professional choice:** Students will show a growing understanding of their chosen field of social work and what is demanded of the professional, and will demonstrate a maturing interest in and commitment to their profession. Should the faculty become concerned about the student's physical, mental or behavioral ability to perform in the program, the field placement, or in later professional practice, the student may be asked to sign a release of information form in order to assess his/her current functioning. Criminal background record checks will be conducted at the time of the student's application to the social work program and/or at the discretion of the Department of Social Work.

Students will sign a release of information form for faculty to conduct the criminal background record check.

- Letters of reference:** Social Work students will submit three letters of reference during the process of admission to the major. These letters may be from faculty members outside of the Department of Social Work, employers, or supervisors. Letters must utilize the Volunteer Placement Evaluation format.

The faculty reserve the right to remove the status of social work major from any student who does not satisfactorily fulfill the requirements of any of these criteria; however, this procedure will require a hearing for the student and provide all the protection inherent in the rights of due process. The interests of both the student and the profession will be considered in reaching a final decision.

### Eligibility for Social Work Registration

Upon completion of the B.S.W. degree, students are eligible for the Social Work Technician Registration Credential as defined in the State of Michigan Occupational Code, and conferred by the Social Work Board of Examiners, Bureau of Licensing and Regulation.

## Social Work (B.S.W.)

No minor is required if interdisciplinary major requirement is met.

### Interdisciplinary Prerequisites (16-17 credits required)

PSYC 100	General Psychology	4 cr
SOC 111	Introduction to Sociology	3 cr
PS 118	Introduction to Political Science	3 cr
	or	
PS 123	The American Political System	3 cr
BIOL 104B	Human Biology	3 cr
ECON 125	Introduction to Economics	3 cr
	or	
ECON 221	Principles of Macroeconomics	4 cr

### Major Courses (48-50 credits required)

#### Social Work Prerequisite Requirements (6 credits required)

SW 215	Intro to Social Welfare/Social Work	3 cr
SW 300	Interviewing and the Helping Relationship	3 cr

#### Professional Foundation Requirements (42 credits required)

<b>Human Behavior in the Social Environment Sequence (8 credits required)</b>		
SW 320	Human Behavior in the Social Environment I	4 cr
SW 330	Human Behavior in the Social Environment II	4 cr

#### Social Welfare Policy Sequence (8 credits required)

SW 316	Social Welfare Policy I	4 cr
SW 403	Social Welfare Policy II	4 cr

#### Social Work Practice Research Methods (4 credits required)

SW 329	Research Methods and Social Work Practice	4 cr
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It is recommended that students planning to attend graduate school take a course in statistics such as SOC 225 to fulfill Category 3 - Numerical Understanding for General Education.

#### Social Work Practice Sequence (8 credits required)

SW 318	Social Work Practice I	4 cr
SW 401	Social Work Practice II	4 cr

#### Social Work Field Instruction Sequence (12 credits required)

SW 483	Social Work Field Instruction I	6 cr
SW 484	Social Work Field Instruction II	6 cr

#### Integrative Social Work Senior Seminar (2 credits required)

SW 485	Integrative Social Work Senior Seminar	2 cr
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**Interdisciplinary Major Requirement** (12 credits from the following courses are required for an interdisciplinary major. These courses are not required for a student with a minor.)

SOC 320	Community Organization	.3 cr
SOC 225	Statistics	.4 cr
SOC 326	Research Methods	.3 cr
SOC 327	Social Psychology	.3 cr
or		
PSYC 350	Social Psychology	.3 cr
SOC 328	Group Dynamics	.3 cr
SOC 345	Urban Sociology	.3 cr
SOC 346	Juvenile Delinquency	.3 cr
SOC 350	The Family	.3 cr
SOC 352	Organizational Communications	.3 cr
PS 260	Understanding and Managing the Bureaucracy	.3 cr
PSYC 310	Child Psychology	.3 cr
PSYC 312	Exceptional Child	.3 cr
PSYC 315	Adolescent Psychology	.3 cr
PSYC 370	Theories of Personality	.3 cr
PSYC 372	Abnormal Psychology	.3 cr
PSYC 385	Psychology of Sexual Differences	.3 cr
HIST 241	History of Michigan	.3 cr
PHIL 331	Law, Liberty and Morality	.3 cr
CJ 301	Criminal Justice System in the U.S.A.	.3 cr
CJ 410	Criminology	.3 cr
YS 300	Child Welfare Policies and Procedures	.3 cr
YS 330	Child Abuse and Neglect	.3 cr
YS 347	Problems of American Youth	.3 cr
YS 348	Social Services for Youth	.3 cr
YS 349	Group Work with Youth	.3 cr
YS 405	Group Facilitation	.3 cr
ENGL 300	Writing in the Professions	.3 cr

A **social work minor** is not available.

## Youth Services

A minor in Youth Services is available to all SVSU students. Students who major in Social Work must do their SW 483-484 field placement in a youth services agency; these students are then waived from the CJ 496 Field Work requirement for the minor. These students must also take 18 credits from the youth services list without major/minor double counting.

Students who major in other disciplines must take either SW 215 or CJ 301, CJ 496, and the balance of the 18 credits from the Youth Services minor list without major/minor double counting.

### Program Objectives:

1. To provide the student the opportunity to better provide services to youth.
2. To enhance the student's awareness of human needs and services relevant to children and youth.

A **youth services minor** is available by completing 18 credits from the following without any major-minor double counting:

SW 215	Introduction to Social Welfare/Social Work	.3 cr
or		
CJ 301	Criminal Justice System in the U.S.A.	.3 cr
3 credits from:		
CJ 496	Field Work (Youth Services Placement)	.3 cr
Additional credits to total a minimum of 18 credits from:		
YS 300	Child Welfare Policies and Procedures	.3 cr
YS 330	Child Abuse and Neglect	.3 cr
YS 347	Problems of American Youth	.3 cr
YS 348	Social Services for Youth	.3 cr
YS 349	Group Work with Youth	.3 cr
YS 405	Group Facilitation	.3 cr
YS 490	Selected Topics	.1-4 cr
CJ 350	The Juvenile Justice System	.3 cr

## Sociology

### Department Faculty

Joni M. Boye-Beaman, Elson Boles, Dawn Hinton, Scott Youngstedt, Karen Lang Krause, Steven W. Sherlock, Robert J. Thaler

The Department of Sociology offers courses that reflect the various forms of human behavior and interaction in social settings. This broad approach is tempered by the differing interests and viewpoints of individual faculty, providing a student with the opportunity to understand more fully the society in which we live.

A major consists of 32 credits in sociology, and is appropriate for a general education or for careers in government and social service agencies, community and recreation work, social research and for pre-professional programs in law, theology and journalism. Sociology also is a recommended second major (double major) for students in most academic disciplines.

Students planning to major in sociology must confer with a member of the sociology faculty to plan a program suitable to their individual goals and arrange to take the courses in the proper sequence. All majors are advised to enroll in SOC 225 and 326 by the end of their Junior year.

### Sociology (B.A.)

A minor is required.

#### Major Courses (20 credits required)

SOC 111	Introduction to Sociology	.3 cr
SOC 112	Introduction to Anthropology	.3 cr
SOC 225	Statistics	.4 cr
SOC 326	Research Methods	.3 cr
SOC 327	Social Psychology	.3 cr
SOC 401	Advanced Research Project	.1 cr
SOC 450	Sociological Theories	.3 cr

#### Other Requirements (12 additional credits in sociology courses.)

SOC 335, Computers in Social Research, is recommended.)

A **sociology minor** is available by completing 18 credits in sociology courses.

## Theatre

### Department Faculty

Steven Erickson, Marc Gordon, Janet Rubin

### Theatre (B.A.)

39 credits required. A minor is required.

#### Major Courses I – Individual Course Requirements (24 credits required)

THEA 128A	Introduction to Theatre	.3 cr
THEA 136	Introduction to Acting	.3 cr
THEA 255	Introduction to Directing	.3 cr
THEA 260	Introduction to Stagecraft and Theatre Design	.3 cr
THEA 299	Applied Theatre (1 credit – repeatable)	.3 cr
THEA 375	Theatre History I	.3 cr
THEA 380	Theatre History II	.3 cr
THEA 497	Senior Project in Theatre (three or six credits)	.3 cr

#### Major Courses II – Group Requirements (additional credits to total a minimum of 39 credits)

One course from:		
THEA 336	Intermediate Acting	.3 cr
THEA 360	Scene Design	.3 cr

One course from:		
THEA 355	Intermediate Directing	.3 cr
THEA 370	Costume and Makeup Design	.3 cr
THEA 385	Principles and Practices in Arts Management	.3 cr
THEA 460	Light and Sound Design	.3 cr

One course from:

THEA 465	Creative Drama	.3 cr
THEA 470	Theatre for Children	.3 cr
THEA 496	Field Work: Theatre Tour	.3 cr

Plus 6 credits in communication courses

A **theatre minor** is available by completing 18 credits in the theatre content area. With departmental permission, one communication course may be included in the 18-credit minor.

COMM 345	Directing Forensics and Debate	.3 cr
COMM 389	Family Communication	.3 cr
COMM 435	Communication in the Classroom	.3 cr

**Oral Performance** (3 credits required)

COMM 105B	Public Speaking	.3 cr
THEA 136	Introduction to Acting	.3 cr
COMM 220	Introduction to Performance Studies	.3 cr

## Communication and Theatre (B.A.) Teacher Certification

A major and a minor in communication and theatre education are available to any student who wishes to seek Michigan Department of Education teaching certification in speech at the secondary school level. In order to graduate with this major or this minor, a student must complete the requirements indicated below, and also must satisfy the pertinent College of Education requirements.

### Major Requirements

- Earn a total of 42 credits in communication and theatre courses. At least 18 of those credits must be at the upper division (300-400) level.
- Specific breakdown:
  - Complete the indicated 27 credits of required courses, which includes 3 credits from the oral performance category.
  - Complete at least 15 additional credits, of which 6 must be at the upper division (300-400) level, as follows:
    - 3 credits from Communication Track below;
    - 3 credits from Theatre Track below;
    - Remaining 9 credits may be selected from Communication Track, from Theatre Track, and/or from the general department course list.

### Required Courses (24 credits required)

COMM 105A	Fundamentals of Communication	.3 cr
THEA 128A	Introduction to Theatre	.3 cr
THEA 255	Introduction to Directing	.3 cr
COMM 270	Communication in Marketplace and Media	.3 cr
COMM 345	Directing Forensics and Debate	.3 cr
COMM 389	Family Communication	.3 cr
COMM 405	Human Communication Theory	.3 cr
COMM 435	Communication in the Classroom	.3 cr

### Oral Performance (3 credits required)

COMM 105B	Public Speaking	.3 cr
THEA 136	Introduction to Acting	.3 cr
COMM 220	Introduction to Performance Studies	.3 cr

### Communication Track

COMM 225	Nonverbal Communication	.3 cr
COMM 227	Small Group Communication	.3 cr
COMM 315	Persuasion and Attitude Change	.3 cr
COMM 325	Business and Professional Communication	.3 cr
COMM 351	Interpersonal Communication	.3 cr
COMM 365	Language, Thought and Behavior	.3 cr
COMM 490	Selected Topics*	.3-4 cr

\*May not substitute for an existing course.

### Theatre Track

THEA 128B	Theatre in Performance	.3 cr
THEA 260	Introduction to Stagecraft and Theatre Design	.3 cr
THEA 336	Intermediate Acting	.3 cr
THEA 355	Intermediate Directing	.3 cr
THEA 385	Principles and Practices in Arts Management	.3 cr
THEA 470	Theatre for Children	.3 cr
THEA 497	Senior Project in Theatre	.3-6 cr

### Minor Requirements (24 credits required)

COMM 105A	Fundamentals of Communication	.3 cr
THEA 128A	Introduction to Theatre	.3 cr
THEA 255	Introduction to Directing	.3 cr
THEA 260	Introduction to Stagecraft and Theatre Design	.3 cr

# College of Business and Management

Paul Uselding, Dean

**NOTE: Candidates must meet all general and academic requirements listed on pages 8 through 26 of the catalog.**

## Mission

The mission of the College of Business and Management is to develop business competence and provide experiences, both academic and applied, that help students become productive and ethical professionals.

## Goals and Objectives

In accomplishing this mission, the College will:

- Enhance students' communication skills
- Enhance students' technical and problem solving competence
- Emphasize the globalization of business
- Serve as a resource to area businesses
- Address the unique needs of small- and medium-size enterprises in its curriculum

The College of Business and Management offers programs leading to master's and bachelor's degrees, in particular, the Master of Business Administration (M.B.A.), the Bachelor of Business Administration (B.B.A.), the Bachelor of Professional Accountancy (B.P.A.) and the Bachelor of Arts (B.A.). The B.A. degree is available only with a major in economics. The B.B.A. and the M.B.A. programs offered by the College allow students to concentrate in, or major in, accounting, economics, finance, management, industrial management, marketing, and general business. Also, the College provides an array of minors in business and economics that frequently are elected by students with majors outside the college — for example, pre-law, computer science and many others.

Freshmen and Sophomores who intend to major or minor in any business program are encouraged to first enroll in the 200-level business core courses, the business cognate courses and indicate their intended majors and minors on the course registration form.

Students who are interested but undecided whether to declare a business major or minor should seek the advice of a business faculty member. These students should consider enrolling in MGT 121, Introduction to Business.

## Objectives of the Four-Year Programs

The College of Business and Management recognizes that students pursuing four-year degrees in business and economics at SVSU have two major objectives for their academic training at SVSU. First, they intend to achieve specialized skills adequate to qualify them for entry-level positions in a variety of private and public enterprises. Generally, the specialized content of majors offered by the College makes this objective possible. But the College also recognizes that students have a broader objective. During their four-year experience at SVSU, business and economics students plan to lay a broad foundation of knowledge, and they plan to sharpen their communication skills with the expectation that these efforts will enrich their lives generally and prepare them for leadership roles in our society. As a result of the total SVSU experience — including careful selection of coursework outside of the College and participation in cultural and other campus events and activities — students expect to gain a better appreciation of the arts, literature and the sciences; they expect to have a better sense of history and the workings of the social, political and legal institutions that form their environment; they expect to be able to speak, listen, write and read more effectively; and they expect to have a more global perspective of their total environment.

## Requirements for Admission

Students must apply and be accepted into the College of Business and Management prior to enrollment in 300-400 level courses. Application forms are available through the Office of the Dean of the College of

Business and Management. Admission decisions ordinarily are made within one week and applicants are notified by mail of the actions taken by the admissions committee.

## Admission Criteria

The following criteria must be successfully completed prior to filing an admission application with the College of Business and Management:

1. All Basic Skills requirements
2. Three of four business cognate courses (see below)
3. Four of six 200-level business core courses (see below)
4. Demonstrated competency in writing and mathematics. Ordinarily, satisfactory evidence of these two competencies will be demonstrated by successful completion (grade of "C" or better) of ENGL 111 and ENGL 212 (for writing) and MATH 120B (for mathematics). Applicants seeking to waive these courses by examination must contact the Academic Advisement Center.
5. A minimum 2.25 cumulative grade point average is required for admission.

## Transfer Students

The College of Business and Management welcomes transfer students. Courses from accredited four-year institutions are accepted as equivalent to Saginaw Valley State University if the grades are "C" or better. Transfer students must complete at least 50 percent of the business credits, which normally is interpreted as approximately 30 credits, at SVSU. Reasonable exceptions to this rule will be approved by the Dean of the College of Business and Management in consultation with the appropriate department chairperson. Students holding appropriate associate degrees or courses from community colleges are admitted in the same manner as SVSU students, except that writing and quantitative tests may be required. Transfer students should contact the Office of Admissions to obtain admission to SVSU before applying to the College of Business and Management.

## Bachelor of Business Administration (B.B.A.)

Every candidate must earn at least a total of 124 credits and must satisfy the following:

### Business Core (49 credits required)

ACCT 213	Financial Accounting	.4 cr
ECON 221	Principles of Macroeconomics	.4 cr
ECON 235	Introductory Statistics	.4 cr
ACCT 214	Managerial Accounting	.4 cr
ECON 222	Principles of Economics II	.4 cr
ECON 335	Applied Statistics	.2 cr
MGT 321	Organization and Administration	.4 cr
MGT 325	Management Information Systems	.3 cr
MKT 331	Marketing Principles	.4 cr
FIN 304	Financial Management	.4 cr
MGT 324	Production and Operations Management	.4 cr
LAW 308	Social, Political and Legal Environment of Business	.4 cr
MGT 429	Executive Strategies and Policies	.4 cr

### Business Cognates (12 credits required)

MATH 120B	Finite Mathematics	.4 cr
or		
MATH courses numbered at or above MATH 161 (although MATH 120B is recommended for business students who are not planning to take additional work in mathematics)		
ENGL 300	Writing in the Professions	.3 cr
COMM 105A	Fundamentals of Communication	.3 cr
ECON 151	Computer Applications in Business	.2 cr
or		
An introductory programming course of at least two credits in a high level language.		

## Courses Outside of the College of Business and Management

48 credits must be earned in courses that are not in the College of Business and Management.

### Major and Minor Requirements

A minor is not required (the minor requirement is met automatically by completing the business core). However, a minor may be obtained, if desired, by completion of certain courses as listed under respective departments.

A major is required. Requirements are listed under each department (accounting, economics, law and finance, and management/marketing). In addition, a major in general business may be obtained. Requirements for the general business major are as follows:

### Upper Division Courses

42 credits must be earned in 300-400 level courses (may be from any college).

## General Business Major (B.B.A.)

### Foundation Courses (61 credits required)

12 credits in Business Cognate Courses

49 credits in Business Core Courses

### Electives (18 credits required)

18 credits from approved courses (300-400 level) involving at least three business departments

## Bachelor of Professional Accountancy (B.P.A.)

The B.P.A. degree is offered only to majors in accounting. For specific requirements, see the Department of Accounting.

## Bachelor of Arts (B.A.)

The B.A. degree is offered only to majors in economics. For specific requirements see the Department of Economics.

## Non-B.B.A. Majors and Minors

Candidates for degrees from other colleges may earn majors or minors in various business disciplines. Requirements are listed under each department (accounting, economics, law and finance, and management/marketing). In addition, a minor in general business may be obtained. A major in general business is not available.

## General Business Minor (Non-B.B.A.)

A general business minor is available to non-B.B.A. students by completing five courses from the business core. At least three of these courses must be at the 300 level and prerequisites must be observed. Faculty members in the Department of Law and Finance are general business advisors.

## International Business Major (B.B.A.)

### Foundation Courses (61 credits required)

12 credits in Business Cognate Courses

49 credits in Business Core Courses

The International Business Major consists of two parts: a non-English language requirement and international business courses: Graduation audits and modifications of course plans shall be approved by the Undergraduate Program Committee of the College of Business and Management, or a designate of this committee.

### Language/Study Abroad Requirement (12 credits required)

Approved combination of non-English language and study abroad, or 12 credits in a single modern foreign language. (This is a minimal requirement. For students desiring a higher level of proficiency in a foreign language, additional foreign language study is recommended. This requirement may be altered or waived for international students or native speakers of languages other than English. In this circumstance, related study abroad is usually required.)

**International Business** (A minimum of 18 credits must be taken from the following courses. The electives must be from at least four disciplines from the following: accounting, economics, management, marketing, law, finance, sociology/political science)

ACCT 317	International Accounting	.3 cr
ECON 441	International Economics	.3 cr
FIN 310	International Finance	.3 cr
LAW 407	International Law	.3 cr
MGT 427	International Management	.3 cr
MKT 432	International Marketing	.3 cr
SOC 405	Cross-Cultural Relations	.3 cr

ACCT/ECON/FIN/LAW/MGT/MKT 390/490 International Special Topics courses may be preapproved for inclusion in the program. (1-4 cr)

## Certificate in International Business

In conjunction with an SVSU bachelor's degree, a Certificate in International Business will be awarded to all students upon satisfactory completion of the following requirements:

### Required Courses (9 to 11 credits required)

SOC 405	Cross-Cultural Relations	.3 cr
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Two semesters of a modern foreign language (6 to 8 credits)

### Electives (9 credits required)

ECON 441	International Economics	.3 cr
FIN 310	International Finance	.3 cr
LAW 407	International Business Law	.3 cr
MGT 427	International Management	.3 cr
MKT 432	International Marketing	.3 cr

One or more of these five courses may be used simultaneously to satisfy major, minor, and/or elective requirements.

## International Studies Major (B.A.)

See International Studies Major on Page 29.

# Accounting

### Department Faculty

Lorinda (Lyn) P. Adair, Russell T. Gingras, Louis R. Jacoby, Lawrence J. Kickham, Marilyn Y. Knight, Mark W. McCartney

## Accounting (B.B.A., B.P.A.)

The Department of Accounting offers two undergraduate degrees in accounting – a 124-credit Bachelor of Business Administration and a 150-credit Bachelor of Professional Accountancy.

The 124-credit B.B.A. accounting program provides the foundation for a variety of business career opportunities in industry, government and non-profit organizations. An accounting major is an excellent background for any career in business. Many accounting graduates advance from their accounting positions to more senior positions because of their ability to understand business issues. Business owners, managers, and government agencies depend on accountants for their technical knowledge and their ability to interpret financial information. Accountants are involved in the preparation of taxes, the design and implementation of accounting information systems and other financial consulting projects. While the 124-credit B.B.A. accounting program is a viable option for any business student, it is not sufficient to meet the educational requirements of the CPA examination (effective July 1, 2003). Students planning to sit for this professional examination should consider the 150-credit B.P.A. program.

The 150-credit B.P.A. program is designed to prepare the student for a career in professional accounting. Certified Public Accountants provide auditing, tax and management advisory services to corporate and individual clients. The increasing complexity of business operations, the need to control costs, the pressure to improve performance, and the constantly changing tax laws contribute to the growing demand for Certified Public Accountants.

Students who plan to sit for the Certified Management Accounting (CMA) examination, the Certified Internal Auditor (CIA) examination, the Certified

Information System Auditor (CISA) examination, or other accounting and auditing certifications, also are advised to complete the 150-credit program.

A combination B.B.A./M.B.A. program is offered for students who wish to complete a graduate program and at the same time meet a five-year educational requirement. Students who are working on an undergraduate degree in accounting at SVSU can elect, at the end of their Junior year, to apply for admission to the M.B.A. program (see admission requirements). After completing both the four-year accounting degree requirements and the M.B.A. requirements, the student will be awarded both a B.B.A. and an M.B.A.

Students who already have a four-year B.B.A. degree in accounting may pursue a plan of study within the undergraduate program or the M.B.A. program to qualify for the 150-credit requirement. This plan will give appropriate consideration to previous academic preparation and future professional objectives. These students should seek academic counseling from the Department of Accounting to assure that their program will satisfy the 150-credit requirement. Students who have completed their B.B.A. degree in accounting and wish to pursue the B.P.A. program must complete a minimum of 31 credits. Students must complete any agreed upon accounting courses and at least 16 credits from the College of Business and Management.

## Accounting Major — Bachelor of Business Administration (B.B.A.)

The four-year accounting degree provides the student with a sequence of courses that is broad-based in its scope. This program provides maximum flexibility in choosing accounting electives. This program is not designed for those seeking to sit for the CPA examination.

**Foundation Courses** (61 credits required)  
 12 credits in Business Cognate Courses  
 49 credits in Business Core Courses

**Major Courses** (12 credits required)  
 ACCT 311 Intermediate Accounting I . . . . .4 cr  
 ACCT 312 Intermediate Accounting II . . . . .4 cr  
 ACCT 315 Cost Accounting . . . . .4 cr

**Electives** (3 courses required)  
 ACCT 218 Fund Accounting . . . . .4 cr  
 ACCT 316 Federal Income Tax Accounting . . . . .4 cr  
 ACCT 317 International Accounting . . . . .3 cr  
 ACCT 318 E-Business: Measurement, Audit & Security . . . . .3 cr  
 ACCT 411 Advanced Accounting . . . . .4 cr  
 ACCT 413 Auditing . . . . .4 cr  
 ACCT 414 Accounting Information Systems . . . . .3 cr  
 ACCT 415 Advanced Management Accounting . . . . .3 cr  
 ACCT 416 Federal Income Tax-Advanced . . . . .4 cr

## Professional Accounting Major — Bachelor of Professional Accountancy (B.P.A.)

The objective of the Bachelor of Professional Accountancy (B.P.A.) curriculum sequence is to prepare the student for a career in professional accounting. This program would satisfy the 150-hour (five year) requirement to sit for the CPA examination. It would also provide in-depth preparation beyond the B.B.A. in accounting for other certification examinations—or for those who desire additional preparation in a specific area of accounting.

**Foundation Courses** (61 credits required)  
 12 credits in Business Cognate Courses  
 49 credits in Business Core Courses

**Major Courses** (31 credits required)  
 ACCT 218 Fund Accounting . . . . .4 cr  
 ACCT 311 Intermediate Accounting I . . . . .4 cr  
 ACCT 312 Intermediate Accounting II . . . . .4 cr  
 ACCT 315 Cost Accounting . . . . .4 cr  
 ACCT 316 Federal Income Tax Accounting . . . . .4 cr  
 ACCT 411 Advanced Accounting . . . . .4 cr  
 ACCT 413 Auditing . . . . .4 cr  
 ACCT 414 Accounting Information Systems . . . . .3 cr

**Electives** (two of the following courses required)  
 ACCT 317 International Accounting . . . . .3 cr  
 ACCT 318 E-Business: Measurement, Audit & Security . . . . .3 cr  
 ACCT 416 Federal Income Tax - Advanced . . . . .4 cr  
 ACCT 415 Advanced Managerial Accounting . . . . .3 cr  
 ACCT 419 Accounting Software Applications . . . . .3 cr  
 LAW 309 Private Law and Business . . . . .3-4 cr

**Optional Elective**  
 ACCT 319 Accounting Internship . . . . .1-3 cr

## Accounting (Non-B.B.A.)

Accounting is not available as a second major to students currently enrolled in a non-B.B.A. SVSU major.

## Minors

A minor is not required for the B.B.A. or B.P.A. degree. The minor requirement is met automatically by completing the business core; however, a minor in economics, finance, legal studies, management or marketing may be obtained by completion of certain courses listed under the respective department. Likewise, a minor can be obtained outside the College of Business and Management (computer science and English, for example) by meeting the requirements of that department.

## B.B.A. Students

An accounting minor is available to a B.B.A. student by completing ACCT 213, 214, 311, 312, and one additional accounting course.

## Non-B.B.A. Students

An accounting minor is available for a non-B.B.A. student by completing ACCT 213, 214, 311, and two additional accounting courses.

## Economics

### Department Faculty

Faisal Harahap, Mahendra S. Kanthi, Hong Youl Park, Shyamalendu Sarkar, William P. Welch

## Economics (B.B.A. or as a second major)

A minor is not required. (The minor requirement is met automatically by completing the business core; however, a minor in accounting, finance, legal studies, management or marketing may be obtained by completion of certain courses as listed under the respective department.)

**Foundation Courses** (61 credits required)  
 12 credits in Business Cognate Courses  
 49 credits in Business Core Courses

**Electives** (18 credits required)  
 ECON 301 Money, Credit and Banking . . . . .3 cr  
 ECON 304 Income and Employment Theory . . . . .4 cr  
 ECON 315 The Price System . . . . .4 cr  
 ECON 324 Economics of Labor . . . . .2-4 cr  
 ECON 363 Business and Economic Forecasting . . . . .4 cr  
 ECON 370 Regional Economics . . . . .3 cr  
 ECON 375 Managerial Economics . . . . .4 cr  
 ECON 402 Public Finance . . . . .4 cr  
 ECON 461 Introduction to Econometrics . . . . .3 cr  
 ECON 465 Economic Development . . . . .4 cr

## Minor

An economics minor is available to any student by completing 18 credits in economics (not including ECON 151, 235 or 335).

## Economics (B.A.)

A minor is required.

### Electives (36 credits required)

ECON 151	Computer Application in Business	2 cr
or		
An introductory programming course of at least two credits in another high level language.		
ECON 221	Principles of Macroeconomics	4 cr
ECON 222	Principles of Economics II	4 cr
ECON 235	Introductory Statistics	4 cr
ECON 301	Money Credit and Banking	3 cr
ECON 304	Income and Employment Theory	4 cr
ECON 315	The Price System	4 cr
ECON 335	Applied Statistics	2 cr
ECON 375	Managerial Economics	4 cr
ECON 461	Introduction to Econometrics	3 cr
ECON 465	Economic Development	4 cr
or		
PS 123	The American Political System	3 cr

### Recommended Electives

SOC 111	Introduction to Sociology	3 cr
SOC 236	Social Problems	3 cr
PSYC 100	General Psychology	4 cr
PSYC 330	Motivation	3 cr
PSYC 350	Social Psychology	3 cr
HIST 317	America and The World: 1945-present	3 cr

## Law and Finance

### Department Faculty

William G. Elliott, Gwangheon Hong, Iksu Jurn, Wayne E. Mackie, Jill L. Wetmore

### Finance (B.B.A. or as a second major)

A minor is not required. (The minor requirement is met automatically by completing the business core; however, a minor in accounting, economics, legal studies, management or marketing may be obtained by completing certain courses as listed under the respective department).

#### Foundation Courses (64 credits required)

12 credits in Business Cognate Courses  
49 credits in Business Core Courses

ECON 301	Money, Credit and Banking	3 cr
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#### Major Courses (10 credits required)

FIN 302	Investment Analysis	3 cr
FIN 303	Financial Institutions	3 cr
FIN 405	Financial Policy and Topics	4 cr

#### Electives (6 credits required)

FIN 305	Principles of Risk and Insurance	3 cr
FIN 306	Commercial Banking	3 cr
FIN 307	Real Estate Finance	3 cr
LAW 309	Private Law and Business	3-4 cr
FIN 310	International Finance	3 cr
FIN 401	Investment Strategy	3 cr
FIN 403	Advanced Financial Management	3 cr

### Minor

A finance minor is available to a B.B.A. student by completing FIN 405 plus two additional 300-400 level finance courses beyond the core.

A finance minor is available to a non-B.B.A. student by completing 18 credits from FIN 104, 302, 303, 304, 305, 306, 307, 310, 401, 403, 405 and LAW 308.

## Management/Marketing

### Department Faculty

Shiv K. Arora, Deborah R. Bishop, Gary L. Clark, David M. Hall, David M. Hunt, Scott Julian, Richard D. Leininger, Joseph Ofori-Dankwa, George M. Puia, C. Surender Reddy, Danilo Sirias, Gail E. Sype

Students may select a major in management as well as a more specialized major in industrial management. A management minor also is offered. Students selecting any major offered in the management area are expected to develop the verbal and quantitative skills and the knowledge of human behavior necessary for success in a management career.

The management major seeks to promote the development of potential executives for business, government and other organizations. The program permits a student to gain an understanding of management techniques while acquiring a broadly based general education.

### Management (B.B.A. or as a second major)

A minor is not required. (The minor requirement is met automatically by completing the business core; however, a minor in accounting, economics, finance, legal studies or marketing may be obtained by completion of certain courses as listed under the respective department.)

#### Foundation Courses (65 credits required)

12 credits in Business Cognate Courses  
49 credits in Business Core Courses

PSYC 100	General Psychology	4 cr
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#### Major Courses (7 credits required)

MGT 323	Human Resource Management	3 cr
MGT 328	Organizational Behavior	4 cr

**Electives** (12 credits required in 300-400 level management courses, not to include any business core courses)

### Minor

A management minor is available to a B.B.A. student by completing MGT 323 and MGT 328 and 6 additional credits in 300-400 level management courses, not to include any business core courses.

A management minor is available to a non-B.B.A. student by completing MGT 321, 323, and 328 and 6 additional credits in 300-400 level management courses.

### Industrial Management (B.B.A. or as a second major)

A minor is not required. (The minor requirement is met automatically by completing the business core; however, a minor in accounting, economics, finance, legal studies or marketing may be obtained by completion of certain courses as listed under the respective department. A management minor or major may not be earned with this major.)

#### Foundation Courses (69 credits required)

12 credits in Business Cognate Courses  
49 credits in Business Core Courses

PSYC 100	General Psychology	4 cr
ACCT 315	Cost Accounting	4 cr

#### Major Courses (14 credits required)

MGT 320	Quantitative Aids for Managerial Decision Making	4 cr
MGT 328	Organizational Behavior	4 cr
MGT 424	Production Planning and Control	3 cr
MGT 428	Problems in Operations Management	3 cr

**Electives** (3 credits required in 300-400 level management courses)

### Minor

An industrial management minor is not available to any student.

## Marketing (B.B.A. or a second major)

A minor is not required. (The minor requirement is met automatically by completing the business core; however, a minor in accounting, economics, finance, legal studies or management may be obtained by completion of certain courses as listed under the respective department.)

### Foundation Courses (61 credits required)

12 credits in Business Cognate Courses

49 credits in Business Core Courses

### Major Courses (9 credits required)

MKT 434	Consumer Behavior	. . . . .	.3 cr
MKT 435	Marketing Research	. . . . .	.3 cr
MKT 436	Marketing Problems	. . . . .	.3 cr

**Electives** (9 credits required in 300-400 level marketing courses, not to include any business core courses)

## Minor

A marketing minor is available to a B.B.A. student by completing MKT 435 and 436 plus 6 additional credits in 300-400 level marketing courses, not to include any business core courses.

A marketing minor is available to a non-B.B.A. student by completing MKT 331 and 436, plus 12 additional credits in 300-400 level marketing courses.

# College of Education

## Stephen P. Barbus, Dean

**NOTE: Candidates must meet all general and academic requirements listed on pages 8 through 26 of the catalog.**

SVSU is fully approved as a teacher-training institution by action of the Michigan Board of Education and is fully accredited at the bachelor's and master's levels by the North Central Association of Colleges and Secondary Schools. Also, the College is fully accredited by the National Council for Accreditation of Teacher Education (NCATE) at the basic and graduate levels.

Teaching is an exciting and challenging profession. The College of Education provides students with the knowledge and skills to meet these challenges. Teaching is a multi-faceted process combining the knowledge of subject matter with a variety of teaching strategies. Knowledge of content and methods is only part of the process. As prospective teachers, students will have the opportunity to apply what they have learned. The methods courses in the College of Education provide opportunities to work with children or adolescents in a variety of ways. Through SVSU's extensive field work program, students will observe master teachers, tutor students who are behind in their studies, gain experience in planning for instruction, and practice teaching methods in actual elementary or secondary classrooms. After these experiences, the opportunity for student teaching will serve as a culminating experience in which students can refine their knowledge and the skills that they have developed.

Statewide regulations govern the certification of teachers, which SVSU must enforce. There are additional requirements the college has added that can make you a better teacher. These requirements should improve students' chances of finding an appropriate teaching position.

The goals of the program collectively prepare students to work intensely with individuals, become effective classroom teachers, and, as professional educators, make a broader contribution in the field of education. SVSU graduates can place in perspective their assumptions about children, the nature of learning, the process of education, and the role of the educator.

SVSU's secondary education program prepares students for teaching in the 21st century. Students will work closely with innovative educators in school districts in the Saginaw Valley. Learning from them in their classrooms, as well as in the college setting, will be most beneficial to the student. Students will have contact with a variety of cultural and academic backgrounds. Students will have frequent opportunities to discuss their thoughts with practicing teachers and administrators, college personnel and fellow classmates.

## Elementary and Secondary Teaching Programs: Initial Certification

### Teacher Education Program: Policies and Procedures

The Teacher Education Program at Saginaw Valley State University is built upon a foundation in the liberal arts, proficiency in Basic Skills, attainment of subject matter specialties and competency in professional studies. A recommendation by the University to the Michigan Department of Education for a provisional teaching certificate is based upon the successful completion of specific requirements in those four areas.

Students should follow the planned program in this catalog established by the College of Education for completing General Education requirements, Basic Skills requirements and approved majors and minors for teachers.

The steps leading to a recommendation for teacher certification are:

1. Fulfill application requirements for admission to the University.
2. Gain admission into the Teacher Education Program.
3. Attain acceptance for student teaching.
4. Successfully complete student teaching.
5. Fulfill the requirements for a bachelor's degree.
6. Successful completion of State required Michigan Test for Teacher Certification Basic Skills and appropriate content area major and minor tests.

In addition to the requirements listed here, candidates for teacher certification must complete any new requirements established by the state Board of Education.

## Application Requirements

Students must apply and be accepted into the teacher education program prior to enrollment in 300-level professional studies courses. The requirements listed below must be completed or in progress for application to the teacher education program. The following must be successfully completed prior to filing an application with the College of Education:

1. All Basic Skills requirements.
2. Minimum 2.75 cumulative GPA based on most recent 60 credits.
3. Passing scores on the Michigan Test for Teacher Certification (MTTC) Basic Skills Test, as established by the Michigan Department of Education.

The following may be in progress when filing an application with the College of Education, but must successfully be completed by the end of winter semester for fall admission, or the end of fall semester for winter admission:

1. Minimum 61 credits with a grade of "C" or better.
2. Psychology 100 with a grade of "C" or better.
3. Teacher Education 100 with a grade of "C" or better.
4. 15 credits in the major and nine credits in minor. (Secondary majors only.)

## Admission into the Teacher Education Program

Students will be selected for admission into the Teacher Education Program on the basis of several admissions criteria. These criteria include a cumulative GPA based on the most recent 60 semester credits; passing scores on the MTTC Basic Skills; and the results of an interview with professional educators. Other criteria include consideration of potential contributions to a pluralistic society, and demonstrated interest in content areas of high need determined both locally and nationally. Students will be notified in writing of the results of their application.

Effective Jan. 1, 1998, any candidate who is denied admission may reapply up to two additional semesters. After three denials, a student's application for admission will not be accepted.

## Progression and Return Policies

All students admitted into the Teacher Education Program must maintain a minimum overall GPA of at least 2.50 in the professional studies course sequence to remain in the Teacher Education Program. College of Education faculty will review and determine the readiness of any student whose GPA is below 2.50 in the professional studies sequence or upon the written request of a professor in the professional studies sequence or a professor in a student's major or minor fields. Students who receive a grade of "D" in a professional studies course will be subject to review by College of Education faculty prior to continuing in the program.

## Acceptance for Student Teaching

Student teaching placement generally occurs at the end of the professional studies sequence. Students must apply during the semester preceding the one in which they will be ready for student teaching. It is recommended that students complete the Michigan Test for Teacher Certification Content Area Tests prior to student teaching. Contact the Student Teaching Office for specific deadlines for application for student teaching.

# Teacher Education

## Department Faculty

Patricia Calahan, Camille Cammack, David Cline, Sally M. Edgerton, Gamal Elashhab, Susie B. Emond, Carolyn Gilbreath, Douglas E. Hansen, Susan Hillman, B. Jean Jones, Kathy Kalmar, Poonam Kumar, Debra Lively, Dorothy Millar, Virginia Muller, Gloria Musial, Gretchen M. Owocki, Nancy Rice, Pamela Ross, James Royle, Dian Shaw, Robert Shaw, Fran Silvernail, Gayle Slater, Carrie Sorensen, Ervin F. Sparapani, Denise C. Storey, Anne Tapp, Carol Wolfe

## Elementary Education (B.A.)

SVSU is authorized by the State of Michigan to recommend students for initial certification at the elementary level, grades kindergarten through eighth. As such, the elementary education degree plan includes course work in the following areas: General Education, specialty studies and professional education. In keeping with state requirements, SVSU requires that all elementary education majors complete a minimum of 35 credits in 10 areas of General Education. The specialty studies component is a planned sequence of courses and experiences consisting of academic knowledge essential for professional competence in teaching and other professional education assignments. The academic knowledge of the subject matter is acquired through course work in the minor areas of academic study. The professional studies component prepares elementary education majors to work effectively in a variety of educational settings. This component is a planned sequence of courses and experiences consisting of both knowledge about education and clinical experiences derived from professional practice in schools. Throughout the sequence of courses and experiences, prospective teachers are required to integrate cognitive knowledge of education with practical experiences with children and youth in schools.

The Elementary Education Program consists of three components:

1. General Education (35 credits in 10 areas; described under Baccalaureate Degree Requirements)
2. Academic Minors
3. Professional Education Requirements

## Academic Minors

Elementary Education majors are required to have a foundation in English, mathematics, the natural sciences, and the social sciences beyond the general education requirements. To achieve this, a minimum of three minors must be selected from Categories A and B.

## Category A

First, select two minors from the following four core content areas. The approved list of courses for each of these areas is given below.

### English Minor (21 credits required)

9 credits from:

ENGL 201	Introduction to Literary Studies	. . . . .	.3 cr
ENGL 300	Writing in the Professions	. . . . .	.3 cr
or			
ENGL 301	Writing Interpretive Papers	. . . . .	.3 cr
ENGL 380	Teaching the Art of Writing	. . . . .	.3 cr

3 credits from:

ENGL 271	American Literature	. . . . .	.3 cr
ENGL 272	American Literature	. . . . .	.3 cr
ENGL 299	Selected Topics in Literature (American only)	. . . . .	.1-4 cr

3 credits from (355 or 370 highly recommended):

ENGL 345	History of the English Language	. . . . .	.3 cr
ENGL 350	Dialects in Contemporary English	. . . . .	.3 cr
ENGL 355	Language in Society	. . . . .	.3 cr
ENGL 370	Language in Education	. . . . .	.3 cr

3 credits from:

ENGL 261	Introduction to Creative Writing	. . . . .	.3 cr
ENGL 305	Creative Writing: Poetry	. . . . .	.3 cr
ENGL 306	Creative Writing: Fiction	. . . . .	.3 cr

3 credits from any literature course (excluding those listed above)

**Mathematics Minor** (20-24 credits required. The total number of credits earned for a mathematics minor [20-24 credits] may vary depending on whether a student must take MATH 103, which can be waived by successfully completing the Algebra Placement Test given by the Academic Advisement Center.)

MATH 103 Intermediate Algebra . . . . .4 cr  
(May be waived on basis of pretest given by the Academic Advisement Center)

16 credits required:

MATH 104 Geometry . . . . .4 cr  
MATH 132A Statistics . . . . .4 cr  
MATH 110 Mathematics for Elementary Teachers . . . . .4 cr  
MATH 125 Contemporary Mathematics . . . . .4 cr

4 credits from:

MATH 120A College Algebra . . . . .4 cr  
MATH 120B Finite Mathematics . . . . .4 cr  
MATH 140 Introductory Mathematical Analysis . . . . .4 cr  
MATH 161 Calculus with Analytic Geometry I . . . . .4 cr

Students who possess a more advanced background than the courses listed above will be counseled into higher-level math courses.

**Natural Science Minor** (24 credits required)

12 credits in Foundation courses from:

CHEM 102B Concepts of Matter . . . . .4 cr  
PHYS 107 Our Physical World . . . . .4 cr

BIOL 105A Science of Life . . . . .4 cr  
or  
BIOL 111A Principles of Biology . . . . .4 cr

12 credits in Electives from:

PHYS 106A Earth and Space Science A: Physical Geology . . .4 cr  
PHYS 106B Earth and Space Science B: Meteorology . . . . .4 cr  
PHYS 106C Earth and Space Science C: Astronomy . . . . .4 cr  
BIOL 104A Plants and Civilization . . . . .3 cr  
BIOL 105B Environmental Dynamics . . . . .4 cr  
BIOL 105C Human Heredity . . . . .4 cr  
BIOL 111B Principles of Zoology . . . . .3 cr  
BIOL 111C Principles of Botany . . . . .3 cr  
CHEM 101 Introduction to Chemistry . . . . .4 cr  
CHEM 111 General Chemistry Lecture I . . . . .4 cr  
CHEM 111L General Chemistry Lab I . . . . .1 cr  
CHEM 112 General Chemistry Lecture II . . . . .4 cr  
CHEM 112L General Chemistry Lab II . . . . .1 cr  
PHYS 111 General Physics I . . . . .4 cr  
PHYS 111L General Physics Lab I . . . . .1 cr  
PHYS 112 General Physics II . . . . .4 cr  
PHYS 112L General Physics Lab II . . . . .1 cr

Advanced science students may choose to substitute the following: BIOL 111A for BIOL 105A; CHEM 111 and 111L for CHEM 102B; and PHYS 111 and 111L for PHYS 107. Any substituted class can only be counted in one natural science section.

Any acceptable course that transfers in as Category 4 for the General Education Requirements may be applied to the elective category of the natural science minor.

**Social Studies Minor** (28 credits required. Students who plan to minor in social studies must follow the guidelines for the minor as indicated. Students who select social studies as a planned program minor must take one class in history, one class in economics, one class in political science and one class in geography, to total a minimum of 12 credits)

**History** (9 credits required)

HIST 100D The World to 1500 . . . . .3 cr  
or  
HIST 100E The World from 1500 . . . . .3 cr

Plus 6 credits from:

HIST 241 History of Michigan . . . . .3 cr  
HIST 310 U.S. History in the Colonial Period . . . . .3 cr  
HIST 311 U.S. History During the Revolution . . . . .3 cr  
HIST 312 U.S. History During the Constitutional and Federalist Periods . . . . .3 cr  
HIST 313 U.S. History During the Era of Andrew Jackson . . .3 cr

HIST 314 U.S. History During the Civil War and Reconstruction . . . . .3 cr  
HIST 316 America and the World: 1900-1945 . . . . .3 cr  
HIST 317 America and the World: 1945-Present . . . . .3 cr

**Economics** (7 credits required)

ECON 125 Introduction to Economics . . . . .3 cr  
ECON 221 Principles of Macroeconomics . . . . .4 cr

**Political Science** (6 credits required)

PS 123 The American Political System . . . . .3 cr  
PS 262 State and Local Government: Politics/Public Policy . . . . .3 cr

**Geography** (6 credits required)

GEOG 201 World Cultural/Regional Geography . . . . .3 cr  
GEOG 202 North American Regional Geography . . . . .3 cr

**Category B**

The student then will use the remaining two core content areas to build a 24-credit "Planned Program Minor." This minor consists of 12 credits in each of the two remaining core content areas. The courses to build the planned program minor also must be selected from the approved list of courses for the academic minors above.

**Example**

A student selects English and mathematics as minors from Category A. Then, under Category B, the student builds a planned program minor consisting of 12 credits from the approved courses for natural science and 12 credits from the approved courses for social studies.

Note: Students using courses from the social studies minor toward their planned program minor must choose one course from each social studies area (i.e., history, political science, economics and geography).

**Professional Education Requirements** (47-56 credits required)

**Pre-Professional Studies** (5 credits required)

PSYC 100 General Psychology . . . . .4 cr  
TE 100 Exploring Teaching: K-12 . . . . .1 cr

**Professional Studies** (35 credits required)

EDL 300 Foundations of Education: K-12 . . . . .3 cr  
TE 301 Methods of Teaching Children's Literature: K-8 . . .2 cr  
TE 310 Methods of Teaching Reading: K-8 . . . . .6 cr  
TE 322 Methods of Teaching in the Arts: K-8 . . . . .3 cr  
TE 325 Methods of Teaching Physical and Health Education: K-8 . . . . .3 cr  
TE 330 Methods of Teaching Science: K-8 . . . . .4 cr  
TE 331 Methods of Teaching Mathematics: K-8 . . . . .4 cr  
TE 334 Computer Applications in Schools: K-8 . . . . .2 cr  
TE 341 Methods of Teaching Social Studies: K-8 . . . . .4 cr  
TE 342 Teaching and Managing the Diverse Classroom: K-8 . . . . .4 cr

**Support Courses** (6 credits required)

PSYC 310 Child Psychology . . . . .3 cr  
PSYC 317 Educational Psychology . . . . .3 cr

**Student Teaching** (12 credits required)

TE 410 Student Teaching Seminar: K-8 . . . . .2 cr  
TE 420 Student Teaching: K-8 . . . . .3-10 cr  
Must be passed to be recommended for certification as a K-8 teacher.

Courses within the Professional Studies Requirement block should be completed in the following sequence with the approval of the student's Elementary Education Program advisor.

Semester 1

TE 301 Methods of Teaching Children's Literature: K-8 . . .3 cr  
TE 322 Methods of Teaching in the Arts: K-8 . . . . .3 cr  
TE 341 Methods of Teaching Social Studies: K-8 . . . . .4 cr  
EDL 300 Foundations of Education . . . . .3 cr  
PSYC 310 Child Psychology . . . . .3 cr

Semester 2

TE 330 Methods of Teaching Science: K-8 . . . . .4 cr  
(Prerequisite: 7 credits of General Education Science)  
TE 331 Methods of Teaching Mathematics . . . . .4 cr  
(Prerequisite: MATH 110)

TE 334	Computer Applications in Schools: K-8	.2 cr
ENGL 380	Teaching the Art of Writing	.3 cr
PSYC 317	Educational Psychology	.3 cr

**Semester 3**

TE 310	Methods of Teaching Reading: K-8	6 cr
(Prerequisite: PSYC 310 and ENGL 380)		
TE 325	Methods of Teaching Physical and Health Education: K-8	.3 cr
TE 342	Teaching and Managing the Diverse Classroom: K-8	.4 cr
(Prerequisite: PSYC 310 and ENGL 380)		

**Student Teaching** (12 credits required)

(Prerequisite: TE 100: Exploring Teaching-1 credit hour; PSYC 100: General Psychology-4 credits, admission to Teacher Education, successful completion of all required professional courses, 2.50 G.P.A., application for Student Teaching. No student may enroll for any additional credits without written permission from the Dean.)

TE 410	Student Teaching Seminar: K-8	.2 cr
TE 420	Student Teaching; K-8	.3-10 cr
Must be passed to be recommended for certification as a K-8 teacher.		

**Additional Minors Available**

In addition to the content minors outlined above, students may complete the following minors in preparation for additional specialization and certification.

**Bilingual Education Minor** (24 credits required)

An interdisciplinary minor in bilingual education is available for students in the Elementary Education and Secondary Teaching Certificate programs.

**Required courses** (21 credits required)

SOC 310	Hispanic People in United States Society	.3 cr
SPAN 456	Introduction to Linguistics	.3 cr
SPAN 467	United States Spanish	.3 cr
SPAN 469	Teaching English as a Second Language for Spanish Speakers	.3 cr
TE 346	Cultural Differences in Education	.3 cr
SPAN 471	Bilingual/Bicultural Methodology in Bilingual Education	.3 cr
TE 423	Field Project for Bilingual/Bicultural Education in Spanish	.3 cr

One of the following:

SPAN 344	United States Hispanic Civilization	.3 cr
HIST 260	History of the Spanish Borderlands	.3 cr
SPAN 341	Spanish-American Civilization	.3 cr
HIST 261	History of Mexico	.3 cr

Students who select this minor also must demonstrate proficiency in basic standard Spanish by successfully completing SPAN 211, SPAN 212 and SPAN 302 or by demonstrating knowledge of that material by way of an examination given by the Department of Modern Foreign Languages.

**Early Childhood Minor** (20 credits required)

Students enrolled in the early childhood minor must complete two academic minors and a planned program minor.

Prerequisites: Admission to the Elementary Teacher Education Program; PSYC 310, Child Psychology. (Course requirements for TE 322 and TE 342 are met through completion of the early childhood minor courses.)

TE 480	Introduction to Early Childhood Education	.4 cr
TE 481	Curriculum Development in Early Childhood Programs	.4 cr
TE 482	Assessment of Children in Early Childhood Programs	.4 cr
TE 487	Young Child in Home/School/Community	.4 cr
TE 489	Internship in Preprimary Programs	.4 cr
(Student teaching must be in K-2. Internship must be completed immediately before or after elementary student teaching.)		

The early childhood minor will be offered in cohorts with the following sequence of courses:

**Semester 1**

Introduction to Early Childhood Education

**Semester 2**

Curriculum Development for Early Childhood Programs or Assessment of Children in Early Childhood Programs

**Semester 3**

Curriculum Development for Early Childhood Programs or Assessment of Children in Early Childhood Programs

**Semester 4**

Internship in Preprimary Programs

**Secondary Teaching Certification**

Students seeking secondary teaching certification must fulfill the general requirements for a bachelor's degree. Additionally, an approved teaching major must be completed. The approved majors are: art, biology, chemistry, communication and theatre, English, French, general science, health education/athletic training, history, mathematics, music, physical and health education, physics and Spanish. Requirements are listed under the respective departments. Students seeking K-12 certification in art also should see the Certification Officer in the College of Education.

Students seeking K-12 certification in music do not take EDL 305 nor PSYC 315 (see the Music Department for substitute requirements). Students majoring in K-12 art, music, and physical and health education must enroll for 10 credits in TE 422 (see Director of Clinical Experience in the College of Education).

A 20-credit minor must be chosen from biology, chemistry, economics, Spanish, French, German, mathematics, physics, political science, psychology, sociology; or a 24-credit minor in art, communication, theatre, English, music, general science, physical and health education.

In addition to content area minors, secondary certification students may complete the Bilingual/Bicultural Minor (see course requirements outlined above).

**Pre-Professional Studies** (5 credits required)

PSYC 100	General Psychology	.4 cr
TE 100	Exploring Teaching: K-12	.1 cr

**Professional Studies** (21 credits required)

Methodology (TE 302 and EDL 305 are prerequisites for TE 308 and TE 312)		
EDL 300	Foundations of Education: K-12	.3 cr
TE 302	General Methods for Teaching in the Secondary and Middle Schools	.3 cr
EDL 305	Computer Applications in the Secondary and Middle Schools	.3 cr
TE 308	Advanced Methods for Teaching in the Secondary and Middle Schools	.3 cr
TE 312	Teaching Reading in the Content Areas of Secondary and Middle Schools	.3 cr

**Support Courses**

PSYC 315	Adolescent Psychology	.3 cr
PSYC 317	Educational Psychology	.3 cr

**Student Teaching** (12 credits required)

TE 412	Seminar in Secondary Student Teaching	.2 cr
TE 422	Secondary Student Teaching	.10 cr

**Special Education Teaching Certification**

Students seeking to major in special education must fulfill the general requirements for a bachelor's degree, requirements for a teaching certificate at either the elementary or secondary level and advanced preparation in educating students with learning and behavior disorders. Students majoring in special education are subject to all teacher education policies and procedures.

This program represents an extended advanced training for special education majors for teaching individuals with learning disabilities and emotional impairments. Completion of the following sequence of courses will result in teacher certification at either the elementary or secondary level, a Master of Arts in Teaching degree and endorsements in Learning Disabilities and Emotionally Impaired. However, students may exit prior to

the completion of this program at either the Bachelor of Arts/Science level with teacher certification or with BA/BS-certification and an endorsement in Emotionally Impaired.

1. General Education: 35 credits in 10 areas; described under Baccalaureate Degree Requirements.
2. Professional Education Requirements: Following admission to the College of Education, students majoring in special education are required to follow the sequence for professional studies described under Elementary Education and Secondary Teaching.  
Exception: Elementary Education students continuing special education major are not required to complete TE 342, Teaching and Managing the Diverse Classroom: K-8.
3. Academic Minors

## Special Education Majors — Elementary

Special education elementary majors are required to develop a foundation in English, natural science, mathematics and social science. To achieve this, the student must select categories A and B.

### Category A

First, select a minor from the following four content areas:

1. English: 21 credits
2. Mathematics: 20-24 credits
3. Natural Science: 24 credits
4. Social Science: 27 credits

### Category B

The student will use the remaining three core content areas to build a 20- to 22-credit planned program minor, which consists of at least two courses in each of the three remaining core content areas.

## Special Education Major—Secondary Teaching Certification

In addition to the special education professional studies requirements, special education majors at the secondary level must complete either:

1. An approved major listed under Secondary Teaching Certification  
or
2. Two minors from the list of approved minors listed under Secondary Teaching Certification

Note: Students electing to exit from the Special Education Major prior to completion of Special Education Professional Studies and seeking certification must meet requirements for approved majors/minors listed under Elementary/Secondary Certification.

## Special Education Professional Studies Requirements

**Foundations** (16 credits required. Prerequisites for remaining special education professional studies.)

PSYC 210	Applications in Human Development	.4 cr
PSYC 374	Psychological Disorders of Childhood and Adolescence	.3 cr
TE 430	Educating Exceptional Learners	.3 cr
TE 431	Introduction to Emotional/Behavioral Impaired	.3 cr
TE 432	Introduction to Learning Disabilities	.3 cr
Emotionally Impaired Endorsement		
TE 445	Seminar Special Education: K-12	.2 cr
TE 460	Student Teaching: Special Education	.6 cr
TE 516	Classroom Management	.3 cr
TE 532	Assessment in SPED	.3 cr
TE 535	Consultation and Programming	.3 cr
TE 536	Advanced Theory and Methods: Emotionally Impaired	.3 cr
TE 541	Special Education Curriculum and Methods: K-12	.4 cr

SVSU undergraduates can complete an M.A.T. in Learning and Behavior Disorders and a Learning Disabilities endorsement by completing the following:

Master of Arts in Teaching/Learning Disabilities Endorsement		
TE 504	Foundations of Education	.3 cr
TE 505	Educational Learning Theories	.3 cr
TE 545	Language Acquisition/Dysfunction	.3 cr
TE 537	Advanced Theory/Methods: Learning Disabilities	.3 cr

One 500-level, 3-credit elective

TE 620	Special Education Research & Practice	.3 cr
TE 660	Practicum in Special Education: K-12	.4 cr

## General Science (B.S.) Teacher Certification

This program is restricted to students seeking secondary teaching certification in General Science. A minor is required.

**Foundation Courses** (46 credits required)

MATH 120A	College Algebra	.4 cr
MATH 140	Introductory Mathematical Analysis	.4 cr
BIOL 111A	Principles of Biology	.4 cr
BIOL 111B	Principles of Zoology	.3 cr
BIOL 111C	Principles of Botany	.3 cr
CHEM 111	General Chemistry Lecture I	.4 cr
CHEM 111L	General Chemistry Lab I	.1 cr
CHEM 112	General Chemistry Lecture II	.4 cr
CHEM 112L	General Chemistry Lab II	.1 cr
PHYS 111	General Physics I	.4 cr
PHYS 111L	General Physics Lab I	.1 cr
PHYS 112	General Physics II	.4 cr
PHYS 112L	General Physics Lab II	.1 cr

Take two of the following:

PHYS 106A	Earth and Space Science A: Physical Geology	.4 cr
PHYS 106B	Earth and Space Science B: Meteorology	.4 cr
PHYS 106C	Earth and Space Science C: Astronomy	.4 cr

**Restricted Electives** (take two of the following three sequences; 16 credits required)

**Biology** (take any two of the following)

BIOL 350	Genetics	.4 cr
BIOL 360	Cell Biology	.4 cr
BIOL 370	Developmental Biology	.4 cr
BIOL 380	Ecology	.4 cr

**Chemistry** (take any 8 credits from the following)

CHEM 412	Biochemistry	.3 cr
CHEM 413	Biochemistry Lab	.1 cr
CHEM 230	Organic Chemistry Lecture I	.4 cr
CHEM 231	Organic Chemistry Lab I	.1 cr
CHEM 330	Organic Chemistry Lecture II	.3 cr
CHEM 352	Lab Supervision in Chemistry	.1-2 cr

**Physics** (take both courses)

PHYS 309	Intro. to Modern Physics	.4 cr
PHYS 314	Electronics	.4 cr

**Required Education Courses** (33 credits of secondary teaching professional development courses)

## Teacher Education Program Requirements

### Grade Point Average Requirement

Students in the Department of Teacher Education will be required to maintain an accumulative GPA of at least 2.50 in all professional studies courses in order to student teach. Additionally, NCATE accreditation requires an accumulative GPA of 2.50 prior to recommendation for certification.

Students failing to maintain the required GPA in either case may be dismissed from the program, subject to an appeal. Information for an appeals process may be obtained from the dean's office.

### Student Teaching Regulations

TE 420 and 422 are graded on a pass/fail basis. Evaluations are made and kept on file in the College of Education Office. Application forms for

student teaching can be obtained from the Director of Clinical Experiences and must be returned to the director by either the last Friday in September for winter assignments, or by the last Friday in January for fall assignments.

Student teaching and the seminar (TE 410 or 412) constitute a full course load. No student may enroll for any additional credits without written permission from the Director of Clinical Experiences. Student teaching normally involves 14 weeks of full-time teaching in an area school. Assignments are made by the Director of Clinical Experiences.

Student teaching assignments are routinely made only for fall and winter semesters. Summer student teaching assignments may be approved by the faculty of the Department of Teacher Education upon recommendation of the Director of Clinical Experiences. Such assignments are to be exceptional and/or experimental.

Note: It is particularly important that students placed in student teaching assignments for a given semester immediately notify the Director of Clinical Experiences when they are not able to fulfill their placement obligation. When a student drops student teaching without approval of the Director of Clinical Experiences, he/she will not be given a student teaching assignment during the following semester. When this student re-applies, he/she may be asked to appear for a formal hearing of the Department of Teacher Education.

## Physical and Health Education

### Department Faculty

Paul A. Ballard, Jennifer M. Bridges, John E. Lowry, Robert L. Pratt, Ann-Catherine Sullivan, Marsha K. Wilson

The Department of Physical and Health Education shares the University vision to be the premier learning community in Michigan and one of the best in the nation. In concert with the College of Education, we are dedicated to fostering a dynamic community of lifelong learners, skilled practitioners, and dedicated leaders. The department is committed to the creation, enhancement, and dissemination of knowledge in the fields of physical education, health education, athletic training and leisure management. As agents of change, we strive to fulfill this commitment through exemplary scholarship, creative endeavors, teaching, technological involvement and service. In this pursuit, we encourage academic excellence; the integration of academic disciplines, and quest for social justice based on a knowledge and appreciation of human diversity.

The Department of Physical and Health Education has world-class facilities, including the Ryder Center, Natatorium, Wickes Memorial Stadium, Morley Track and Field, outdoor activity areas, a fitness center, dance studios, athletic training and rehabilitation center, and a state-of-the-art Human Performance Laboratory and computer classroom. Our top-notch faculty, innovative curriculum, and outstanding facilities create an environment unparalleled in Michigan for the development of our majors. The Athletic Training Education Program has obtained candidacy status from the Joint Review Committee on Educational Programs in Athletic Training (JRC-AT) and was selected in 2002 as a "Program of Qualitative Distinction" at SVSU.

### The Department of Physical and Health Education offers four majors and four minors for students.

Students interested in Athletic Training can choose either a non-teaching major, Athletic Training (AT), or combine athletic training with a grades 7-12 teaching major in health education; Health Education/Athletic Training (HEAT). Athletic Training students are encouraged to select the unique secondary HEAT major. Students majoring in Fitness and Sport Management (Non-Teaching) will be prepared for a professional career or graduate study. The Physical and Health Education major K-12 is accredited by the National Council for Accreditation of Teacher Education, and is recognized regionally as one of the premier teacher education programs. Students majoring in Physical and Health Education will be prepared for K-12 teacher certification.

All teacher education students must apply and be admitted to the teacher education program (see an advisor to obtain current application materials and information). All athletic training students must make a formal application and be admitted to the athletic training education program (see an

advisor to obtain current application materials and information).

Electives are available to all students in theoretical courses and physical activities. Non-majors/minors, as well as PHE department majors, are encouraged to take as many as four credit hours of physical activities courses (PHE 101-163) to apply to the 124-credit hour graduation requirement. Students may also count theoretical concepts courses (PHE 211A-490) as electives toward graduation in addition to the physical activities.

### Teaching Majors

- Health Education/Athletic Training, Grades 7-12
- Physical and Health Education, Grades K-12

### Non-teaching Majors

- Athletic Training
- Fitness and Sport Management

### Minors

- Adapted Physical Education
- Athletic Coaching
- Physical Education, Non-Teaching
- Physical and Health Education, Grades 7-12

## Health Education/Athletic Training, Grades 7-12 (B.S.)

Completing the major courses also fulfills an approved secondary teaching biology minor.

### Major Courses (90 credits required\*)

AH 400	Physical Agent Technologies	.3 cr
AH 436	Orthopedic Assessment and Interventions	.3 cr
BIOL 111A	Principles of Biology	.4 cr
BIOL 111B	Principles of Zoology	.3 cr
BIOL 111C	Principles of Botany	.3 cr
BIOL 231	Physiological Anatomy	.4 cr
BIOL 236	Human Nutrition	.3 cr
BIOL 290	Advanced Human Biology	.3 cr
BIOL 300/400 Level		.4 cr
(Student's choice to complete biology minor)		
CHEM 111	General Chemistry Lecture I	.4 cr
CHEM 111L	General Chemistry Lab I	.1 cr
PHE 206	Exploring Teaching Physical and Health Education	.1 cr
PHE 211A	First Aid and CPR for the Professional Rescuer	.2 cr
PHE 212	Introduction to Athletic Training	.3 cr
PHE 221	Health Science	.3 cr
PHE 231	Athletic Training Practicum I	.1 cr
PHE 232	Athletic Training Practicum II	.1 cr
PHE 250	Community Health Concerns	.3 cr
PHE 312	Athletic Injury and Illness Assessment	.3 cr
PHE 314	Health Conditions and Drugs	.3 cr
PHE 333	Athletic Training Practicum III	.1 cr
PHE 334	Athletic Training Practicum IV	.1 cr
PHE 350	School Health Education	.3 cr
PHE 355	Motor Learning and Development	.3 cr
PHE 365	Adapted Aquatics	.2 cr
PHE 375	Kinesiology	.2 cr
PHE 375L	Kinesiology Lab	.1 cr
PHE 376	Physiology of Exercise	.2 cr
PHE 376L	Physiology of Exercise Lab	.1 cr
PHE 385	Administration of Athletic Training Programs	.3 cr
PHE 398	Therapeutic Exercise	.3 cr
PHIL 205B	Professional Ethics: Health Care	.3 cr
PSYC 100	General Psychology	.4 cr
SOC 111	Introduction to Sociology	.3 cr
SOC 350	The Family	.3 cr

\*Students majoring in Health Education/Athletic Training must also be admitted to the secondary teacher education program in order to graduate with 7-12 teacher certification, in addition to meeting all Athletic Training Education Program admission requirements. This major prepares students to teach grades 7-12 health education and biology as well as enables them to work as a certified athletic trainer. These students

must meet with the faculty coordinator of the athletic training education program and are strongly encouraged to meet with an advisor in the Teacher Education Certification office in the sophomore year to plan this additional course of study.

## Physical and Health Education, Grades K-12 (B.A.)

A minor is required.

### Major Courses (56 credits required\*)

BIOL 231	Physiological Anatomy	4 cr
PHE 125	Beginning Swimming	1 cr
PHE 201	Fitness and Movement Fundamentals	2 cr
PHE 202	Dance and Rhythms	2 cr
PHE 203	Individual Sports and Leisure Activities	2 cr
PHE 204	Team Sports and Games	2 cr
PHE 205	Water Safety Instruction	2 cr
PHE 206	Exploring Teaching Physical and Health Education	1 cr
PHE 211A	First Aid and CPR for the Professional Rescuer	2 cr
PHE 221	Health Science	3 cr
PHE 240	Foundations of Physical Education	3 cr
PHE 250	Community Health Concerns	3 cr
PHE 264	Organization and Administration of Physical Education	3 cr
PHE 282	Adapted Physical Education	2 cr
PHE 321	Materials and Methods of Teaching Physical Education: 7-12	3 cr
PHE 350	School Health Education	3 cr
PHE 355	Motor Learning and Development	3 cr
PHE 375	Kinesiology	2 cr
PHE 375L	Kinesiology Lab	1 cr
PHE 376	Physiology of Exercise	2 cr
PHE 376L	Physiology of Exercise Lab	1 cr
PHE 440	Tests & Measurement in Physical Education	3 cr
PHE 470	Humanistic Concerns in Physical Education	3 cr
TE 325	Methods of Teaching Physical and Health Education: K-8	3 cr

\*Students seeking to graduate with K-12 teacher certification must be admitted to the secondary teacher education program. Students are strongly encouraged to meet with an advisor in the Department of Physical and Health Education as well as the Teacher Education Certification office in the Sophomore year to plan this additional course of study.

## Athletic Training (B.S.)

A minor is required.

### Major Courses (71 credits required)

AH 400	Physical Agent Technologies	3 cr
AH 436	Orthopedic Assessment and Interventions	3 cr
BIOL 111A	Principles of Biology	4 cr
BIOL 231	Physiological Anatomy	4 cr
BIOL 236	Human Nutrition	3 cr
BIOL 290	Advanced Human Biology	3 cr
CHEM 111	General Chemistry Lecture I	4 cr
CHEM 111L	General Chemistry Lab I	1 cr
MGT 321	Organization and Administration	4 cr
PHE 211A	First Aid and CPR for the Professional Rescuer	2 cr
PHE 212	Introduction to Athletic Training	3 cr
PHE 221	Health Science	3 cr
PHE 231	Athletic Training Practicum I	1 cr
PHE 232	Athletic Training Practicum II	1 cr
PHE 312	Athletic Injury and Illness Assessment	3 cr
PHE 314	Health Conditions and Drugs	3 cr
PHE 333	Athletic Training Practicum III	1 cr
PHE 334	Athletic Training Practicum IV	1 cr
PHE 355	Motor Learning and Development	3 cr
PHE 365	Adapted Aquatics	2 cr
PHE 375	Kinesiology	2 cr
PHE 375L	Kinesiology Lab	1 cr
PHE 376	Physiology of Exercise	2 cr
PHE 376L	Physiology of Exercise Lab	1 cr

PHE 385	Administration of Athletic Training Programs	3 cr
PHE 398	Therapeutic Exercise	3 cr
PHIL 205B	Professional Ethics: Health Care	3 cr
PSYC 100	General Psychology	4 cr

### Electives (23 credits required)

Elective credits will be used to complete a minor and to prepare for graduate study (i.e., Occupational Therapy, Physical Therapy, Medicine, Sport Psychology, Exercise Physiology, and Sport Management). Elective Courses will need final approval from the academic advisor for the athletic training education program.

## Fitness and Sport Management Major (B.A.)

A minor is required.

### Major Courses (63 credits required)

BIOL 231	Physiological Anatomy	4 cr
BIOL 236	Human Nutrition	3 cr
CHEM 111	General Chemistry Lecture I	4 cr
CHEM 111L	General Chemistry Lab I	1 cr
PHE 125	Beginning Swimming	1 cr
PHE 201	Fitness and Movement Fundamentals	2 cr
PHE 203	Individual Sports and Leisure Activities	2 cr
PHE 205	Water Safety Instruction	2 cr
PHE 207	Professional Orientation to Fitness and Sport Management	1 cr
PHE 211A	First Aid and CPR for the Professional Rescuer	2 cr
PHE 212	Introduction to Athletic Training	3 cr
PHE 221	Health Science	3 cr
PHE 240	Foundations of Physical Education	3 cr
PHE 264	Organization and Administration of Physical Education	3 cr
PHE 310	Health/Fitness Programming for Apparently Healthy Populations	3 cr
PHE 320	Health/Fitness Programming for Special Populations	3 cr
PHE 330	Sport Management	3 cr
PHE 355	Motor Learning and Development	3 cr
PHE 375	Kinesiology	2 cr
PHE 375L	Kinesiology Lab	1 cr
PHE 376	Physiology of Exercise	2 cr
PHE 376L	Physiology of Exercise Lab	1 cr
PHE 410	Applied Technology and Training	2 cr
PHE 440	Tests & Measurement in Physical Education	3 cr
PHE 470	Humanistic Concerns in Physical Education	3 cr
PHE 496	Field Work in Fitness and Sport Management	3 cr

## Minors

The Department of Physical and Health Education offers four academic minors:

### Adapted Physical Education Minor

This minor is open to all SVSU students. Completion of this minor and a valid teaching certificate will enable either a PHE or special education teacher education major to teach Adapted Physical Education in the schools. This minor meets all state of Michigan requirements for Teachers of Physical Education for Handicapped Individuals. Further, completion of the minor and a valid teaching certificate in physical education meets the Adapted Physical Education national standard requirements preparing candidates for the Adapted Physical Education National Standards (APENS) examination.

### Adapted Physical Education Minor (18 credits required)

PHE 282	Adapted Physical Education	2 cr
PHE 345	Assessment & Program Planning for Students with Special Needs	3 cr
PHE 355	Motor Learning and Development	3 cr
PHE 365	Adapted Aquatics	2 cr
PHE 375L	Kinesiology Lab*	1 cr
PHE 430	Field Experiences with Students with Special Needs	4 cr
TE 430	Educating Exceptional Learners	3 cr

\*Adapted Physical Education minors do not have to take PHE 375 Kinesiology.

### Athletic Coaching Minor

This minor is for students from any major who wish to coach in the schools or communities and fulfills the graduation requirement of a minor. Non-degree students are encouraged to complete this program. Secondary education and PHE (K-12) majors can take this as a second minor.

**Athletic Coaching Minor** (16 credits required. These courses meet the NASPE Level III National Athletic Coaching Standards.)

PHE 212	Introduction to Athletic Training	.3 cr
PHE 260	Officiating Sports	.1 cr
PHE 355	Motor Learning and Development	.3 cr
PHE 360	Scientific Principles of Athletic Coaching	.3 cr
PHE 361	Athletic Coaching Theories and Practices	.3 cr
PHE 480	Athletic Coaching Internship	.3 cr

A minimum of 2 credits must be taken from the courses listed below. Students are encouraged to take additional courses from this section as electives.

PHE 204	Team Sports and Games	.2 cr
PHE 211A	First Aid and CPR for the Professional Rescuer	.2 cr
PHE 282	Adapted Physical Education	.2 cr
PHE 300	Fitness: College and Life	.2 cr
PHE 365	Adapted Aquatics	.2 cr
PHE 410	Applied Technology and Training	.2 cr

### Physical Education (Non-teaching) Minor

This minor fulfills all of the graduation requirements of a minor and is intended to help advocate for more physically active SVSU students and graduates (as physical activity is the number one indicator of health) and to assist in meeting the "Healthy People 2010" guidelines for increasing physical activity <http://www.health.gov/healthypeople/About/hpfact.htm>. Secondary teaching majors may not use this minor for teacher education. None of the PHE majors may use this minor.

#### Physical Education (Non-teaching) Minor

4 credits from:

Any four different PHE 100 level physical activity courses. One of the four courses must be an aquatics class.)

11 credits of required theory courses:

PHE 211A	First Aid and CPR for the Professional Rescuer	.2 cr
PHE 212	Introduction to Athletic Training	.3 cr
PHE 221	Health Science	.3 cr
PHE 300	Fitness: College and Life	.2 cr
PHE 300L	Fitness: College and Life Laboratory	.1 cr

3 credits from:

BIOL 104B	Human Biology	.3 cr
BIOL 231	Physiological Anatomy	.3 cr
COMM 225	Nonverbal Communication	.3 cr
ENGL 262	Introduction to Journalism	.3 cr
PHIL 205B	Professional Ethics: Health Care	.3 cr
PHE 330	Sport Management	.3 cr
PHE 440	Tests and Measurements in Physical Education	.3 cr
PHE 470	Humanistic Concerns in Physical Education	.3 cr
PSYC 330	Motivation	.3 cr

### Physical and Health Education (Grades 7-12) Minor

Available to any college major. Also approved for secondary education majors (students receive secondary endorsement by the state of Michigan to teach in two areas: health education/physical education). PHE majors may not take this minor. Certified teachers seeking an additional endorsement in Physical and Health Education should consult with a SVSU certification officer regarding this minor. It is possible for any student to complete this minor in three consecutive spring semesters taking 8 credits as regularly offered (see advisor for schedule).

14 credits required:

PHE 201	Fitness and Movement Fundamentals	.2 cr
PHE 202	Dance and Rhythms	.2 cr
PHE 204	Team Sports and Games	.2 cr
PHE 211A	First Aid and CPR for the Professional Rescuer	.2 cr
PHE 221	Health Science	.3 cr
PHE 240	Foundations of Physical Education	.3 cr

10 credits from:

Any 300-level or above PHE course (excluding any athletic training major and athletic coaching minor courses). TE 325 also may be used in completing the 10 credits.

## Athletic Training Education Program Admission and Retention Policies

### Requirements for Admission to the Athletic Training Education Program

A committee, based upon current selection criteria, will select students to be admitted to the Athletic Training Education Program. Students should apply to the Athletic Training Education Program after completing the pre-requisite application requirements. An application form can be obtained from the Curriculum Coordinator of the Athletic Training Education Program. The admission process takes place twice a year and actual admission occurs at the beginning of fall or winter semesters.

#### Technical Standards For Admission

The Athletic Training Educational Program at Saginaw Valley State University is a rigorous and intense program that places specific requirements and demands on the students enrolled in the program. An objective of this program is to prepare graduates to enter a variety of employment settings and to render care to a wide spectrum of individuals engaged in physical activity. The technical standards set forth by the Athletic Training Educational Program establish the essential qualities considered necessary for students admitted to this program to achieve the knowledge, skills, and competencies of an entry-level athletic trainer, as well as meet the expectations of the program's accrediting agency (Commission on Accreditation of Allied Health Education Programs [CAAHEP]). All students admitted to the Athletic Training Educational Program must meet the following abilities and expectations. In the event a student is unable to fulfill these technical standards, with or without reasonable accommodation, the student will not be admitted into the program.

Compliance with the program's technical standards does not guarantee a student's eligibility for the NATABOC certification exam.

Candidates for selection to the Athletic Training Educational Program must demonstrate:

1. The mental capacity to assimilate, analyze, synthesize, integrate concepts and problem solve to formulate assessment and therapeutic judgments and to be able to distinguish deviations from the norm.
2. Sufficient postural and neuromuscular control, sensory function, and coordination to perform appropriate physical examinations using accepted techniques; and accurately, safely and efficiently use equipment and materials during the assessment and treatment of patients.
3. The ability to communicate effectively and sensitively with patients and colleagues, including individuals from different cultural and social backgrounds; this includes, but is not limited to, the ability to establish rapport with patients and communicate judgment and treatment information effectively. Students must be able to understand and speak the English language at a level consistent with competent professional practice.
4. The ability to record the physical examination results and a treatment plan clearly and accurately.
5. The capacity to maintain composure and continue to function well during periods of high stress.
6. The perseverance, diligence and commitment to complete the athletic training education program as outlined and sequenced.
7. Flexibility and the ability to adjust to changing situations and uncertainty in clinical situations.
8. Affective skills and appropriate demeanor and rapport that relate to professional education and quality patient care.

Candidates for selection to the athletic training educational program will be required to verify they understand and meet these technical standards or that they believe that, with certain accommodations, they can meet the standards.

The Department of Disability Services at SVSU will evaluate a student who states he/she could meet the program's technical standards with

accommodation and confirm that the stated condition qualifies as a disability under applicable laws.

If a student states he/she can meet the technical standards with accommodation, then the University will determine whether it agrees that the student can meet the technical standards with reasonable accommodation; this includes a review as to whether the accommodations requested are reasonable, taking into account whether accommodation would jeopardize clinician/patient safety, or the educational process of the student or the institution, including all coursework, clinical experiences and internships deemed essential to graduation.

#### **Selection Criteria for the Athletic Training Education Program**

Ordinarily, the entering class is admitted to the Athletic Training Education Program in the fall or winter semesters. Admission to SVSU is required for, but does not guarantee, acceptance into the Athletic Training Education Program. The program is planned to accommodate a limited number of students each year and this number may vary depending on available resources. Prospective students must submit an application for admission to the athletic training education program by April 15 preceding fall admission or by Nov. 15 preceding winter admission. Preference will be given to those applicants who have:

1. Completed a minimum of 12 college-level semester hours and are currently enrolled in a minimum of 12 college level semester hours.
2. Achieved a minimum cumulative 2.75 GPA for all completed course work (based on all college-level work computed both at SVSU and at other schools and colleges)
3. Completed (or are in the process of completing) the following courses with a GPA of 2.75 or better in each:
  - A. PHE 211A First Aid and CPR for the Professional Rescuer
  - B. PHE 212 Introduction to Athletic Training
4. The following valid certifications (or their equivalents):
  - A. Standard First Aid and Safety - American Red Cross
  - B. CPR for the Professional Rescuer - American Red Cross
5. Completed a minimum of 30 voluntary observational clinical hours under the direct supervision of a Clinical Instructor within the Athletic Training Education Program at Saginaw Valley State University. These hours need to be recorded on the appropriate form, which will be provided. Transfer students may complete documented observational clinical hours under the direct supervision of a certified athletic trainer at the institution from which they are transferring. These supervised clinical hours must comply with the guidelines as outlined by the National Athletic Trainers' Association Board of Certification (NATABOC).
6. Received a positive observation evaluation score from the Curriculum Coordinator, Clinical Instructors, and current student athletic trainers of the Athletic Training Education Program. This evaluation will reflect the student's performance in the clinical setting, potential as a student athletic trainer, and the student's potential to become a professional in the athletic training field.
7. Submitted two letters of recommendation. Students may pick-up the Letter of Recommendation forms from the curriculum coordinator of the athletic training education program.
8. Completed formal interviews with the Curriculum Coordinator, Head Athletic Trainer, and Assistant Athletic Trainer of the SVSU Athletic Training Education Program. These interviews will take place following submission of application materials.

#### **Standards for Retention in the Athletic Training Education Program**

Students will be retained within the SVSU Athletic Training Education Program providing the following criteria are maintained throughout the student's undergraduate experience:

1. Receive a grade of "C" or better in all major courses within the Athletic Training major or Health Education/Athletic Training major and maintain a cumulative GPA of at least 2.75.
2. Receive written clinical evaluations that reflect positive advancement in the Athletic Training Education Program. The Clinical Instructors of the Athletic Training Education Program will complete evaluations at the end of each semester.

3. Proof of successful progress toward the completion of a minimum of 1,000 supervised clinical hours. These supervised clinical hours must comply with the guidelines as outlined by the National Athletic Trainers' Association Board of Certification (NATABOC).
4. Demonstrate professional and ethical behavior as members in the athletic training education program.
5. Abide by all policies and procedures as outlined in the Policies and Procedure Manual of the Athletic Training Education Program at SVSU.

NOTE: A student failing to fulfill any of the above requirements will be removed from the clinical portion of the athletic training education program until the deficiency is satisfactorily remedied. The faculty and staff reserve the right to dismiss students from the program when the student fails to comply with the outlined requirements.

#### **Eligibility for Certification**

Certifying athletic trainers ensures high standards of professional practice. Certification by the National Athletic Trainers' Association Board of Certification (NATABOC) is considered the entry-level credential and is required by most employers nationwide. Students in the Athletic Training Education Program at Saginaw Valley State University will become eligible to sit for the certification examination if they:

1. Complete the Athletic Training Education Program in no fewer than two years.
2. Complete at least 1,000 hours of athletic training experience supervised by a clinical instructor from the athletic training education program.
3. Receive a baccalaureate degree (Athletic Training major or Health Education/Athletic Training major) from Saginaw Valley State University.

In addition to certification, athletic trainers may have to meet individual state licensing and regulation requirements. To determine if these added requirements apply, athletic trainers must check with the states in which they practice.

# Crystal M. Lange College of Nursing and Health Sciences

Cheryl E. Easley, Dean

**NOTE: Candidates for graduation must meet all general and academic requirements listed on pages 8 through 26.**

## Nursing

### Department Faculty

Judith Apgar, Janalou Blecke, Sachiko Claus, Sally Decker, Margaret Flatt, Mary Graiver, Ava Lewis, Sandra Mixer, Elizabeth Roe, Rose Schliska, Marcia Shannon

## Bachelor of Science in Nursing (B.S.N.)

In accordance with the philosophy of Saginaw Valley State University, the nursing faculty believes the Department of Nursing has the responsibility to foster intellectual and maturational growth of the student as a person, as a productive citizen and as a potential member of the nursing profession. The curriculum coordinates a program of professional nursing with courses in the natural and behavioral sciences and general education, thereby providing the framework to meet student learning needs. This is an interdisciplinary major, no minor is required.

### Purposes

The primary purposes of the undergraduate curriculum of the Department of Nursing are to:

1. Support students in gaining a general education.
2. Prepare students as beginning practitioners of professional nursing who can care for well and ill clients of all ages in a variety of health care environments.
3. Offer an educational base that fosters personal and intellectual growth.
4. Offer a fundamental base of education that makes students eligible to write the State Board of Nursing Licensure Examination to practice as registered nurses.
5. Offer students potential eligibility for graduate study through provision of a sound theoretical and clinical practice foundation.

## Basic Nursing Program

### Degree Requirements

In order to achieve the above purposes, the Department of Nursing offers an interdisciplinary major of which a minimum of 57 credits are from nursing courses (NURS). The credits of the major contribute to the 124 credits required for graduation. The remaining credits are fulfilled by courses from general education, natural and behavioral sciences and electives.

Credit by examination is available for selected non-nursing requirements. Transfer credit in nursing and/or waiver of requirements are considered on an individual basis by the department.

### Admission Process for Basic Students

Students should apply to the Department of Nursing when they anticipate completion of prenursing courses prior to the fall or winter selection. Students admitted to the Department of Nursing will be chosen by a selection committee using current selection criteria. Applications are due Oct. 15 for winter selection or April 20 for fall selection. Selection criteria include:

#### Eligibility

Inclusion into the pool from which the selection of nursing students will be made. Eligibility will be based upon grade point average. To be eligible for

consideration, a student must have a minimum 2.50 cumulative SVSU GPA and a 2.50 required math/science GPA (in computation of this GPA, retake grades will be calculated).

#### Selection

Application to the program and admission into NURS courses.

- A. Eligible students will be interviewed and will complete a writing sample. Scores from the interview and writing sample will be calculated as part of the ranking for selection.
- B. Prenursing courses may be in progress during the application process. These courses must be successfully completed prior to enrollment in nursing courses.
- C. For ranking in the selection process, calculation of GPA will be done using only one repeat grade.
- D. Other considerations for selection include:
  - Number of credits successfully completed at SVSU
  - Representation of the population base

## Program for Basic Nursing Students

### Prenursing Courses

Available from the dean's office are recommendations regarding General Education and course sequencing.

Category 3	MATH 132 A or B, PSYC 299, or PS 225 CI
Category 4	BIOL 111A & CHEM 111 / 111L
Category 6	Any course
Category 9	COMM 105A
Category 10	ENGL 212
BIOL 231	Physiological Anatomy
Prerequisites to BIOL 237 (CHEM 240)	

### Nursing Major

#### Semester 1

NURS 272	Critical Thinking and Communication I	.3 cr
AH 262	Adaptation Across the Lifespan	.3 cr
BIOL 237	Introduction to Microbiology	.4 cr

#### Semester 2

NURS 270	Core Phenomena and Nursing Interventions	.4 cr
NURS 274	Nursing Practicum I	.5 cr
AH 260	Pharmacology	.3 cr

#### Semester 3

NURS 360	Human Experience of Health Phenomena and Nursing Interventions	.3 cr
NURS 362	Critical Thinking and Communication in Nursing II	.4 cr
NURS 364	Nursing Practicum II	.5 cr

#### Semester 4

NURS 370	Family Health Phenomena and Nursing Interventions	.3 cr
NURS 372	Health of Populations I	.3 cr
NURS 374	Nursing Practicum III	.5 cr

#### Semester 5

NURS 460	Community Health Phenomena and Nursing Interventions	.3 cr
NURS 462	Health of Populations II	.3 cr
NURS 464	Nursing Practicum IV	.4-5 cr

#### Semester 6

NURS 480	Professional Role Development	.3 cr
NURS 482	Professional Issues	.3 cr
NURS 484	Nursing Practicum V	.4-5 cr

#### Electives

Two upper division, non-required courses; total of 4 credits minimum.

## Eligibility for Nursing Licensure

Students should be aware that the State Board of Nursing reviews the records of all graduates who have completed a nursing program to determine eligibility to write the State Board of Nursing Licensure Examinations for Registered Nurses. The State Board of Nursing retains the right to deny a graduate permission to write the licensure examinations if the individual has been convicted of a felony.

## RN Program

### Registered Nurse (RN) Students

The registered nurse student is one who has graduated from a state approved school of nursing and holds a current license to practice in the state of Michigan.

### Degree Requirements

To complete the degree requirements, an RN student must earn a minimum of 27 credits from nursing courses (NURS). 124 credits are required for graduation, of which 31 must be from SVSU. The 124 credits include: the 27 NURS credits, 31 credits awarded based on articulation criteria, prerequisite credits, transfer credits, Basic Skills credits, General Education credits, and elective credits.

### Admission Process for RN Students

Admission to the Department of Nursing for RN students ordinarily occurs during the semester in which they are completing NURS 300.

Minimum eligibility criteria for admission to the program include:

1. Michigan RN license.
2. 2.50 minimum cumulative GPA.
3. An approved plan of study, which includes student's goals and individualized plan for program completion. Transfer credits are considered in this process.

RN to BSN students may enroll in NURS 300 prior to approval of the plan of study.

## Programs for RN Students

### RN to BSN Program

#### Prerequisite Course

MATH 132A or B, PSYC 299, PS 225 or equivalent statistics course.

#### Nursing Courses (27 credits required)

NURS 300	Transition	4 cr
(strongly recommended as the first course in which to enroll upon admission to SVSU)		
NURS 362	Critical Thinking and Communication in Nursing II	4 cr
NURS 463	Family and Community Health Phenomena and Nursing Interventions	4 cr
NURS 466	RN Practicum I	4 cr
NURS 483	Integration of Professional Role and Issues	4 cr
	Nursing Elective	3 cr
NURS 486	RN Practicum II	4 cr

#### Elective Courses

Two upper division, non-required courses, total of 4 credits minimum.

### RN to MSN Program

Information is provided in this catalog under Graduate Programs.

## General Information for Basic and Licensed Registered Nurse Students

### Progression and Retention Policies

Nursing courses ordinarily are offered fall and winter semesters and the full-time nursing students are expected to attend these two semesters. Part-time study is available with the approval of the department.

Nursing courses must be taken in sequence as specified unless approved by the faculty. Each June, part-time and RN students are to file a plan of study with the department, indicating which courses they plan to take the following academic year. Failure to file a plan of study may result in exclusion from practicum courses.

Nursing students may elect to complete other graduation requirements during spring and summer semesters. Progression into any nursing course at any level cannot take place if a student has a grade of "I" in any prerequisite course. A grade of "C" or better is required for each nursing course to permit student progression. A student who earns an unacceptable grade (less than "C") in one course must apply to the Department of Nursing for readmission and satisfactorily repeat the course in order to progress in the nursing major. The student may repeat a nursing course only once and no more than one nursing course may be repeated. If the student fails a second nursing course he/she will not be allowed to progress.

### Withdrawal and Readmission

Students choosing to withdraw from the Department of Nursing must notify the dean in writing. If such students withdraw while in good standing, they may be readmitted once.

### Additional Requirements for All Students

All students are required to have a complete physical examination upon admission to the Department of Nursing. Various types of diagnostic assessment and preventative health measures may be required before beginning the first practicum course.

Professional liability insurance is provided through the University for basic nursing students. A fee for this coverage may be added to the charge for practicum courses.

Registered Nurse students must show evidence of professional liability insurance, beginning with the first practicum course, and must maintain coverage throughout the program.

Students must show evidence of completion of an approved cardiopulmonary resuscitation (CPR) course for the professional rescuer and are required to maintain certification throughout the program. CPR courses are available through the Michigan Heart Association and Red Cross.

### Suspension and Dismissal for Other Than Academic Reasons

All students are required to maintain high health and safe practice standards while enrolled in the Department of Nursing. The faculty reserves the right to dismiss students from practicum areas on a daily basis when they are too ill or unprepared to benefit from the experience.

Students with physical and/or psychological difficulty may be required to seek the care of a qualified health professional. Dependent upon the individual situation, the student may be placed on probation until an appropriate health professional affirms that the student's health is satisfactory for progression in nursing.

### Transportation

The student is responsible for providing transportation to and from all courses and/or practicum learning experiences. When making practicum assignments, priority is given to selecting meaningful learning activities; therefore, practicum assignments may occur in a variety of geographical locations.

### University Requirements for Graduation

Degree requirements stipulated in the SVSU Catalog apply to students in the Nursing program.

## Health Sciences

### Department Faculty

Cheryl E. Easley, Gary M. Lange

### Medical Technology Program

The program prepares students for a professional career in clinical laboratory sciences. Medical technologists work in clinical settings to perform

a variety of routine and specialized laboratory tests. Physicians use test results to base their decision for the diagnosis of disease and formulate treatment plans. Often medical technologists will supervise the work of medical laboratory technicians and laboratory assistants.

Completion of the Bachelor of Science degree in Medical Technology requires completion of the four-year medical technology program. However, in order to become certified as a medical technologist, an approved internship training program in an approved hospital is required. Currently, there is a state-wide matching program for internships in the State of Michigan.

### The Nature of Study in Medical Technology

In accordance with the philosophy of Saginaw Valley State University, the faculty believe the goal within the Medical Technology Program is to foster intellectual and maturational growth of the student as a person, as a productive citizen and as a potential member of the medical community. The curriculum coordinates a program of content-rich courses in the natural sciences and general education, thereby providing the framework to meet student learning needs.

### Purposes

The purposes of the curriculum of the Medical Technology Program are to:

1. Support students in gaining general education.
2. Prepare students with rich and detailed content knowledge of information relevant to life sciences with an emphasis on health issues.
3. Offer an educational base that fosters personal and intellectual growth.
4. Offer the framework of science education to make students eligible to successfully apply for post-graduate internships in Medical Technology.
5. Offer students potential eligibility for graduate study in a variety of medical and/or life science disciplines.

### Selection Criteria and Processes for Students

Students admitted to the Medical Technology Program will be chosen by a selection committee using current selection criteria. Students should apply to the Medical Technology Program during the semester they are completing the prerequisite course requirements and prior to October 15 or April 20. Selection criteria will include:

- A minimum 3.00 cumulative SVSU GPA with a minimum 3.0 GPA in the required science courses. When computing GPA, the repeat of only two prerequisite courses is considered.
- Completion of all courses required for admission.
- Completion of Basic Skills requirements.
- Positive review of a writing sample.

Other considerations for admission will include

- Number of credit hours successfully completed at SVSU.
- Representation of the population base.

The selection of students will be made by a committee composed of the Dean of the College of Nursing and Health Sciences, the Director of the Medical Technology Program, the Registrar and faculty members. Applicants will be notified in writing of their admission status as soon as possible after the selection process is completed.

**Prerequisite Courses for Admission** (Refer to respective department catalog listing)

BIOL 111A	Principles of Biology	.4 cr
BIOL 111B	Principles of Zoology	.3 cr
BIOL 111C	Principles of Botany	.3 cr
CHEM 111	General Chemistry Lecture I	.4 cr
CHEM 111L	General Chemistry Laboratory I	.1 cr
CHEM 112	General Chemistry Lecture II	.4 cr
CHEM 112L	General Chemistry Laboratory II	.1 cr
ENGL 111	Composition I	.3 cr

## Medical Technology (B.S.)

An interdisciplinary major of 70 required credits with no minor required.

### Major Courses (64 credits required)

AH 301	Medical Technology Seminar	.1 cr
BIOL 231	Physiological Anatomy	.4 cr
BIOL 360	Cell Biology	.4 cr
BIOL 431	Microbiology	.4 cr
BIOL 437	Immunology and Hematology	.4 cr
CHEM 230	Organic Chemistry Lecture I	.4 cr
CHEM 231	Organic Chemistry Laboratory I	.1 cr
CHEM 313	Analytical Chemistry I	.3 cr
CHEM 330	Organic Chemistry Lecture II	.4 cr
CHEM 331	Organic Chemistry Laboratory II	.1 cr
CHEM 412	Biochemistry	.3 cr
CHEM 413	Biochemistry Laboratory	.1 cr
CS 160	Microcomputer Software	.3 cr
ENGL 300	Writing in the Professions	.3 cr
or		
ENGL 304	Technical Report Writing	.3 cr
MATH 132B	Biostatistics	.4 cr
MATH 161	Calculus with Analytic Geometry I	.4 cr
MGT 323	Human Resource Management	.3 cr
PHIL 205B	Ethics in Health Professions	.3 cr
PHYS 111	General Physics I	.4 cr
and		
PHYS 111L	General Physics Laboratory I	.1 cr
or		
PHYS 211	Analytical Physics I	.4 cr
and		
PHYS 211L	Introductory Physics Laboratory I	.1 cr
PHYS 112	General Physics II	.4 cr
and		
PHYS 112L	General Physics Laboratory II	.1 cr
or		
PHYS 212	Analytical Physics II	.4 cr
and		
PHYS 212L	Introductory Physics Laboratory II	.1 cr

### Electives (6 or more additional 300–400 level credits from the list below)

BIOL 350	Genetics	.4 cr
BIOL 370	Developmental Biology	.4 cr
BIOL 442	Molecular Biology	.4 cr
BIOL 461	Endocrinology	.3 cr
BIOL 461L	Endocrinology Laboratory	.2 cr
BIOL 472	Parasitology	.3 cr
CHEM 370	Clinical Analytical Chemistry	.4 cr

A medical technology minor is not available.

### Application for Admission to Hospital Internship

Obtaining hospital internship training is a competitive process. To increase the likelihood of acceptance into an internship program, students are strongly recommended to maintain a GPA of 3.30 or better.

Prior to applying for medical technology internship training (which occurs at the start of the student's senior year), students are encouraged to consult with the program director concerning the application procedure and submission of necessary documents.

## Occupational Therapy

### Department Faculty

Alfred G. Bracciano, Donald Earley, Janet Nagayda

The program in occupational therapy is designed to prepare professionally-qualified occupational therapists who can effectively assume positions in occupational therapy to treat clients who are limited in their ability to perform developmentally appropriate tasks and roles. Occupational therapy is a health and rehabilitation profession that provides services to individuals of all ages whose abilities to cope with tasks of living are impaired by physical injury or illness, psychological and social disability, or developmental disabilities. The occupational therapist designs the rehabilitation process individually for each client and, through evaluation and treatment, seeks to achieve restoration or improvement of impaired functions. The goal of occupational therapy is to assist clients in achieving a maximum

level of independent living by developing and enhancing the capacities that remain after disease, accident, deformity or disability.

The program in occupational therapy provides students with the knowledge, techniques and clinical reasoning skills necessary to assume entry-level positions as registered occupational therapists. The program also prepares students to be able to critically and creatively function in a variety of health-related settings and to adapt to changes in health care and to adapt to and assume nontraditional roles in the health care field.

The Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA's phone number is (301) 652-AOTA. Graduates of the program will be able to sit for the national certification examination for occupational therapy administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). Most states require licensure in order to practice; however, state licenses usually are based on the results of the NBCOT Certification Examination.

## Requirements and Policies for the Occupational Therapy Major

### Degree Requirements

The Department of Occupational Therapy offers an interdisciplinary major with a minimum of 60 credits in occupational therapy for the registered occupational therapy student. The program in occupational therapy recognizes the importance of the profession's theoretical base in both the liberal arts and the sciences through the selection of the pre-professional courses.

### Transfer Students

Transfer students' needs are considered on an individual basis by the Occupational Therapy Selection Committee.

### Requirements for Admission to the Occupational Therapy Program

Students admitted to occupational therapy will be chosen by a selection committee based upon current selection criteria. Students should apply to the Department of Occupational Therapy during the semester in which they are completing the prerequisite courses and Basic Skills requirements. Upon meeting these prerequisite requirements, students should submit an application for admission to the professional program (Junior, Senior, and fieldwork years). The admission process is done once a year and actual admission occurs at the beginning of the fall semester.

### Selection Criteria for the Occupational Therapy Program

Ordinarily, the entering class is admitted to the professional curriculum in fall. Admission to SVSU is required for, but does not guarantee, acceptance into the occupational therapy program. The program is planned to accommodate approximately 40 students each year, but this number may vary depending on available resources. Prospective students must submit an application for admission to the professional program by Feb. 15 preceding the fall admission. The following admission criteria are required of all applicants and will be used to rank order applicants to determine acceptance to the program:

1. Completed a minimum of 51 credits prior to admission to the program.
2. Achieved a minimum cumulative 2.50 GPA for all pre-professional coursework (based on all college-level work computed both at SVSU and at other schools and colleges).
3. Achieved a minimum combined GPA of 2.50 for the following courses: BIOL 231, CHEM 111, PSYC 372, OT 200.
4. Completed all prerequisite courses listed for the Freshman and Sophomore years.
5. Had work and/or volunteer experience with ill, handicapped or disadvantaged people with a minimum of two references regarding the work/volunteer experiences.

6. Successful completion of an interview following submission of application materials.
7. Completion of a writing sample following submission of application materials.

## Transfer Credit and/or Credit by Examination Policies

The transfer student from another baccalaureate program in occupational therapy may be allowed to transfer up to 15 occupational therapy credits following a review process and approval by the faculty. Students transferring into the occupational therapy program with 15 credits of course work must demonstrate a GPA of 2.60 or better during the first semester in the occupational therapy degree program. Transfer students who do not meet the GPA conditions as indicated will be placed on probation for the next semester. In the event the 2.60 GPA is not achieved by the end of the probation semester, the student will not be permitted to enroll in further occupational therapy courses.

## General Information

### Progression and Retention Policies

The professional program in occupational therapy requires four semesters of full time academic coursework in addition to internships. Pending approval of the faculty for clinical affiliations or internships, students may take electives during the spring and summer terms. The internship component of the occupational therapy program is an integral part of the student's education and a minimum of approximately six months of supervised practice is required. Placements are subject to faculty approval and assignment at a specific facility or location cannot be assured. To ensure continuity of academic concepts, all fieldwork shall be completed within 24 months following completion of academic preparation.

To continue in the professional occupational therapy curriculum, students are expected to maintain a cumulative GPA of 2.00 calculated on courses following enrollment and to demonstrate a level of competence in the subject material. Progression into any occupational therapy course at any level cannot take place if a student has a grade of "I" in any prerequisite course. Students who fail to maintain a cumulative GPA of 2.00 at the end of the first period of enrollment and each subsequent semester, or earn a "D" grade in their occupational therapy curriculum (regardless of the cumulative GPA) will be placed automatically on probation and notified by the Department of Occupational Therapy. Students who are on probation due to "D" grades must retake the course as designated by the department, achieving a grade of "C" or better while also meeting all other academic standards. A student may repeat an occupational therapy course once.

Only one semester of academic probation is permitted. Students who fail to meet academic standards during the semester of probation or do not successfully complete a deficient course will be considered dismissed from the program. Since courses in occupational therapy are ordinarily offered only once during each academic year, and since the course work follows a sequential design, probationary students will have to continue under an adjusted curriculum plan. This will result in extending the student's time to achieve all program requirements.

### Withdrawal and Readmission

Students enrolled in the Junior and Senior years of the professional curriculum may be granted a leave of absence from the SVSU program for a maximum of two consecutive semesters (excluding spring/summer sessions) and re-enter on a space-available basis without applying for readmission to the professional program. Those absent from the program for more than two consecutive semesters (excluding summer session) may re-enter the program only with the permission of the selection committee.

Professional students wishing to take a leave of absence from their studies must send written notification in advance to the program director. Lack of available spaces in classes may preclude readmission for any given semester.

### Suspension and Dismissal for Other Than Academic Reasons

All students are expected to maintain and demonstrate professional and

ethical behavior while enrolled in the Department of Occupational Therapy. The faculty reserves the right to dismiss students from clinical areas on a daily basis when the students are too ill or unprepared to benefit from the experience. Students may be suspended due to repeated physical and or psychological difficulty exhibited over an extended period. Medical problems or emotional instability may delay or prevent students from attending internship placements.

Students may be required to seek the care of a qualified physician if demonstrating continued physical and psychological difficulties. Students may be placed on probation until an appropriate health professional affirms that the student's health is stable for continued progression in the occupational therapy program.

## Transportation

The student is responsible for providing transportation to and from all courses and/or clinical learning experiences. Clinical education may include observation and practice in clinical or community setting under the supervision of a registered occupational therapist or other health professional. Students also are required to enroll for 12 credits of internship coursework and should be prepared to meet their own living expenses, transportation costs, and tuition throughout the internship period.

## Eligibility for Certification

Upon successful completion of the two required internship experiences and all coursework, the student is awarded the bachelor of science degree in occupational therapy. The student then is eligible to sit for the national certification examination administered by the National Board for Certification in Occupational Therapy (NBCOT). Passing of the certification examination qualifies the student to become registered as an occupational therapist and to use the title O.T.R. (Occupational Therapist Registered).

**Prerequisite Courses for Admission** (Suggested sequence for pre-professional program courses)

### Freshman Year: Fall Semester

BIOL 111A	Principles of Biology	.4 cr
ENGL 111	Composition I*	.3 cr
MATH 132B	Biostatistics*	.4 cr
PSYC 100	General Psychology	.4 cr

### Freshman Year: Winter Semester

CHEM 111	General Chemistry I Lecture*	.3 cr
CHEM 111L	General Chemistry I Lab*	.1 cr
	General Education Courses	.3-6 cr
PHIL 205B	Professional Ethics: Health Care*	.3 cr
PSYC 210	Applications in Human Development*	.4 cr

### Sophomore Year: Fall Semester

ART 210	Introduction to Crafts*	.3 cr
ENGL 212	Topics in Critical Writing*	.3 cr
SOC 111	Introduction to Sociology*	.3 cr
PSYC 370	Theories of Personality*	.3 cr

### Sophomore Year: Winter Semester

BIOL 231	Physiological Anatomy*	.4 cr
OT 200	Orientation to OT*	.2 cr
PSYC 372	Abnormal Psychology*	.3 cr
PSYC 346	Neuropsychology*	.4 cr
	General Education Courses	.2-4 cr

\*Course required for admission to the professional OT curriculum.

Following successful completion of the prerequisite classes with a GPA of no less than 2.50, students may apply for admission to the professional program in occupational therapy.

## Major Courses: Professional Curriculum

Note: Courses must be taken in sequence as specified below unless approved by faculty.

### Semester: Spring/Summer

PHE 211A	First Aid and CPR for the Professional Rescuer	.2 cr
PHE 355	Motor Learning and Development	.3 cr
OT 302	Foundations in Occupational Therapy	.3 cr

## Professional Level Program

### Semester 1: Fall

OT 308	Therapeutic Use of Activities	.4 cr
OT 326	Conditions and Approaches to Orthopedics	.4 cr
OT 328	Conditions and Approaches to Physical Dysfunction	.3 cr
PHE 375	Kinesiology	.2 cr
PHE 375L	Kinesiology Lab	.1 cr

### Semester 2: Winter

OT 330	Professional Reasoning and Communication	.3 cr
OT 350	Occupational Therapy Treatment of Physical Disabilities	.6 cr
PHE 376	Physiology of Exercise	.2 cr
PHE 376L	Physiology of Exercise Lab	.1 cr

### Semester 3: Spring/Summer

OT 450	Level II Fieldwork—Physical Disabilities
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### Semester 4: Fall

OT 400	Transitions in Occupational Therapy Practice	.3 cr
OT 410	Conditions and Approaches to Pediatric Occupational Therapy	.4 cr
OT 420	Conditions and Approaches to Psychosocial Dysfunction	.3 cr
OT 422	Therapeutic Adaptations and Technology for the Handicapped	.4 cr

### Semester 5: Winter

MGT 321	Organization and Administration	.4 cr
OT 430	Clinical Research	.3 cr
OT 440	Occupational Therapy Treatment of Psychosocial Dysfunction	.5 cr
OT 444	Professional Issues in Occupational Therapy	.3 cr

### Semester 6: Spring/Summer

OT 460	Level II Fieldwork—Psychosocial Disabilities	.6 cr
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# College of Science, Engineering and Technology

Thomas E. Kullgren, Dean

**NOTE: Candidates must meet all general and academic requirements listed on pages 6 through 24 of the catalog.**

The College of Science, Engineering and Technology offers programs leading to the Bachelor of Science (B.S.) degree in 14 major fields. The Bachelor of Science in Electrical Engineering (B.S.E.E.) and Bachelor of Science in Mechanical Engineering (B.S.M.E.) degree programs are accredited by the Accreditation Board for Engineering and Technology (ABET). The ACS Chemistry Program is approved by the American Chemical Society. The College also offers the Master of Science/Technological Processes, which is described more fully in the Graduate Programs section of the catalog.

The mission of the college is to provide high-quality education for students majoring in science, engineering and technology and to broaden the intellectual horizons of all students through coursework in the physical and life sciences. To support this mission, faculty and staff provide intellectually stimulating group and individual experiences for students in lecture classes, laboratories, student clubs, overseas study, cooperative education and faculty-student research projects.

All science, engineering and technology programs have significant "hands-on" experiences in well-equipped laboratories and computer facilities. Students have exceptional opportunities for career-related employment on campus in the Independent Testing Laboratory, in faculty-student research projects, in off-campus regional industry and in funded environmental research activities.

Due to a flexible pattern of class scheduling, students can attend class either full or part time, day or evening. Graduates have a broad range of opportunities for employment in both the public and private sectors and many continue their education through admission to graduate school. The college offers numerous scholarships from private endowments, student clubs and government agencies.

The college is particularly interested in encouraging excellence in K-12 education through numerous outreach activities of the SVSU Math-Science Center, Master of Arts in Teaching programs in biology, chemistry, mathematics, natural sciences and physics and special programs for those groups traditionally under-represented in technical education. In addition, the Master of Arts/Natural Science Teaching is offered for elementary, middle and secondary teachers with a science, mathematics or general emphasis. Details of this program can be found in the Graduate Programs section of the catalog.

## Biology

### Department Faculty

David S. Dalgarn, Gail E. Kantak, Gary M. Lange, Kathleen Pelkki, Charles F. Pelzer, Sally Shepardson, David J. Stanton, Richard J. Trdan, Bing Yang

### Biology (B.S.)

A minor is required.

#### Foundation Courses (39 credits required)

CHEM 111	General Chemistry Lecture I	.4 cr
CHEM 111L	General Chemistry Lab I	.1 cr
CHEM 112	General Chemistry Lecture II	.4 cr
CHEM 112L	General Chemistry Lab II	.1 cr
CHEM 230	Organic Chemistry Lecture I	.4 cr
CHEM 231	Organic Chemistry Lab I	.1 cr
CS 160	Microcomputer Software	.3 cr
ENGL 304	Technical Report Writing	.3 cr
MATH 132B	Biostatistics	.4 cr

MATH 140	Introductory Mathematical Analysis	.4 cr
or		
MATH 161	Calculus with Analytic Geometry I	.4 cr
PHYS 111	General Physics I	.4 cr
and		
PHYS 111L	General Physics Lab I	.1 cr
or		
PHYS 211	Analytical Physics I	.4 cr
and		
PHYS 211L	Introductory Physics Lab I	.1 cr
PHYS 112	General Physics II	.4 cr
and		
PHYS 112L	General Physics Lab II	.1 cr
or		
PHYS 212	Analytical Physics II	.4 cr
and		
PHYS 212L	Introductory Physics Lab II	.1 cr

#### Major Courses (27 credits required)

BIOL 111A	Principles of Biology	.4 cr
BIOL 111B	Principles of Zoology	.3 cr
BIOL 111C	Principles of Botany	.3 cr
BIOL 350	Genetics	.4 cr
BIOL 360	Cell Biology	.4 cr
BIOL 370	Developmental Biology	.4 cr
BIOL 380	Ecology	.4 cr
BIOL 491	Undergraduate Seminar in Biology	.1 cr

**Electives** (Additional 300-400 level credits to total a minimum of 33 credits in biology courses. BIOL 390, BIOL 490 and BIOL 499 are excluded from counting toward the required minimum of 33 credits.)

**Recommended Electives** (The following courses are strongly recommended for students planning to attend graduate school.)

CHEM 330	Organic Chemistry Lecture II	.3 cr
CHEM 331	Organic Chemistry Lab II	.2 cr
MATH 162	Calculus with Analytic Geometry II	.4 cr

A biology minor is available by completing 18 credits in biology courses which must include BIOL 111A, 111B, 111C, and at least one 300-400 level course (excluding BIOL 104A, 104B, 105A, 105B, 105C, 390, 490, 491 and 499).

## Biology (B.S.) Teacher Certification

This program is restricted to students seeking teaching certification in biology. A minor is required.

#### Foundation Courses (43 credits required)

CHEM 111	General Chemistry Lecture I	.4 cr
CHEM 111L	General Chemistry Lab I	.1 cr
CHEM 112	General Chemistry Lecture II	.4 cr
CHEM 112L	General Chemistry Lab II	.1 cr
CHEM 230	Organic Chemistry Lecture I	.4 cr
CHEM 231	Organic Chemistry Lab I	.1 cr
CS 160	Microcomputer Software	.3 cr
ENGL 304	Technical Report Writing	.3 cr
MATH 132B	Biostatistics	.4 cr

MATH 140	Introductory Mathematical Analysis	.4 cr
or		
MATH 161	Calculus with Analytic Geometry I	.4 cr
PHYS 111	General Physics I	.4 cr
and		
PHYS 111L	General Physics Lab I	.1 cr
or		
PHYS 211	Analytical Physics I	.4 cr
and		
PHYS 211L	Introductory Physics Lab I	.1 cr
PHYS 112	General Physics II	.4 cr
and		
PHYS 112L	General Physics Lab II	.1 cr
or		
PHYS 212	Analytical Physics II	.4 cr
and		
PHYS 212L	Introductory Physics Lab II	.1 cr
PHYS 106A	Earth and Space Science: Physical Geology	.4 cr

**Major Courses** (34 credits required)

BIOL 111A	Principles of Biology	.4 cr
BIOL 111B	Principles of Zoology	.3 cr
BIOL 111C	Principles of Botany	.3 cr
BIOL 350	Genetics	.4 cr
BIOL 360	Cell Biology	.4 cr
BIOL 370	Developmental Biology	.4 cr
BIOL 380	Ecology	.4 cr
BIOL 431	Microbiology	.4 cr
BIOL 452	Evolution	.3 cr
BIOL 491	Undergraduate Seminar in Biology	.1 cr

**Electives** (One of the following required)

BIOL 231	Physiological Anatomy	.4 cr
BIOL 460	Advanced Studies in Physiology	.2-5 cr
BIOL 461	Endocrinology	.3 cr
BIOL 464	Plant Physiology	.4 cr

**Required Education Courses** (38 credits of secondary teaching professional development courses. Refer to College of Education section of this catalog.)

# Chemistry

**Department Faculty**

A.G. Andrewes, Andrew Chubb, George W. Eastland Jr., Berner J. Gorden, Deborah R. Huntley, David S. Karpovich, Stephen S. Lawrence, Albert C. Plaush, David H. Swenson

The Chemistry Department offers a curriculum that is approved by the Committee on Professional Training of the American Chemical Society (ACS).

A variety of degree options are available within the department that include a major in chemistry (with optional ACS approval if desired), environmental chemistry, several interdisciplinary majors and a Master of Arts in Teaching (with major emphasis on the academic major of chemistry).

A student who receives a grade lower than "C" in a chemistry course may not use that course to satisfy a prerequisite for another chemistry course.

## Chemistry (B.S.)

A minor is required.

**Foundation Courses** (21 credits required)

MATH 161	Calculus with Analytic Geometry I	.4 cr
MATH 162	Calculus with Analytic Geometry II	.4 cr
CS 160	Microcomputer Software (or equivalent)	.3 cr

An additional 10 credits of physics required:

PHYS 111	General Physics I	.4 cr
PHYS 111L	General Physics Lab I	.1 cr
PHYS 112	General Physics II	.4 cr
PHYS 112L	General Physics Lab II	.1 cr

or (required for ACS approval)

PHYS 211	Analytical Physics I	.4 cr
PHYS 211L	Introductory Physics Lab I	.1 cr
PHYS 212	Analytical Physics II	.4 cr
PHYS 212L	Introductory Physics Lab II	.1 cr

**Major Courses** (41 credits required)

CHEM 111	General Chemistry Lecture I	.4 cr
CHEM 111L	General Chemistry Lab I	.1 cr
CHEM 112	General Chemistry Lecture II	.4 cr
CHEM 112L	General Chemistry Lab II	.1 cr
CHEM 230	Organic Chemistry Lecture I	.4 cr
CHEM 231	Organic Chemistry Lab I	.1 cr
CHEM 330	Organic Chemistry Lecture II	.3 cr
CHEM 331	Organic Chemistry Lab II	.2 cr
CHEM 313	Analytical Chemistry I - Quantitative Analysis	.3 cr
CHEM 314	Analytical Chemistry II - Instrumental Analysis	.3 cr
CHEM 321	Physical Chemistry I	.3 cr
CHEM 321L	Physical Chemistry I Lab	.1 cr
CHEM 322	Physical Chemistry II	.3 cr
CHEM 322L	Physical Chemistry II Lab	.1 cr

CHEM 490	Seminar	.1 cr
CHEM 412	Biochemistry	.3 cr
or		
CHEM 414	Inorganic Chemistry	.3 cr
400-level chemistry courses		.3 cr

**Required Electives for ACS Approval**

CHEM 412	Biochemistry	.3 cr
CHEM 414	Inorganic Chemistry	.3 cr
400-level chemistry courses		.3 cr
MATH 261	Calculus with Analytic Geometry III	.4 cr
MATH 262	Introduction to Differential Equations	.4 cr

**Recommended Electives for ACS Approval**

CHEM 413	Biochemistry Lab	.1 cr
CHEM 414L	Inorganic Synthesis	.1 cr

One year of a modern foreign language

A chemistry minor is available by completing 18 credits in chemistry courses, starting with CHEM 111/112 and their laboratories. Chemistry courses with a number lower than CHEM 111 cannot be used to satisfy the requirements of this minor.

## Biochemistry (B.S.)

Interdisciplinary major, no minor is required. Biology and chemistry minors may not be earned with this major.

**Foundation Courses** (21 credits required)

MATH 161	Calculus with Analytic Geometry I	.4 cr
MATH 162	Calculus with Analytic Geometry II	.4 cr
CS 146	Visual BASIC Programming	.3 cr
or		
CS 147	FORTRAN Programming	.3 cr

**One Year of College Physics** (The following are recommended)

PHYS 211	Analytical Physics I	.4 cr
PHYS 211L	Introductory Physics Lab I	.1 cr
PHYS 212	Analytical Physics II	.4 cr
PHYS 212L	Introductory Physics Lab II	.1 cr

**Major Courses** (56 credits required)

BIOL 111A	Principles of Biology	.4 cr
BIOL 111B	Principles of Zoology	.3 cr
BIOL 111C	Principles of Botany	.3 cr
BIOL 360	Cell Biology	.4 cr
BIOL 431	Microbiology	.4 cr
CHEM 111	General Chemistry Lecture I	.4 cr
CHEM 111L	General Chemistry Lab I	.1 cr
CHEM 112	General Chemistry Lecture II	.4 cr
CHEM 112L	General Chemistry Lab II	.1 cr
CHEM 230	Organic Chemistry Lecture I	.4 cr
CHEM 231	Organic Chemistry Lab I	.1 cr
CHEM 330	Organic Chemistry Lecture II	.3 cr
CHEM 331	Organic Chemistry Lab II	.2 cr
CHEM 313	Analytical Chemistry I—Quantitative Analysis	.3 cr
CHEM 314	Analytical Chemistry II—Instrumental Analysis	.3 cr
CHEM 321	Physical Chemistry I	.3 cr
CHEM 321L	Physical Chemistry I Lab	.1 cr
CHEM 322	Physical Chemistry II	.3 cr
CHEM 322L	Physical Chemistry II Lab	.1 cr
CHEM 412	Biochemistry	.3 cr
CHEM 413	Biochemistry Lab	.1 cr

**One Year of a Modern Foreign Language** (Preferably German or French; or satisfactory score on a placement exam in German, French or Russian. Other languages may be substituted with Chemistry Department approval.)

A biochemistry minor is not available.

## Business Chemistry (B.S.)

Interdisciplinary major, no minor is required. This program must be approved for graduation by the Dean of the College of Business and Management and the Chairperson of the Chemistry Department. General business and chemistry minors may not be earned with this major.

**Major Courses** (19 credits required)

FIN 304	Financial Management	4 cr
LAW 308	Social, Political and Legal Environment of Business	4 cr
MGT 321	Organization and Administration	4 cr
MGT 429	Executive Strategies and Policies	3 cr
MKT 331	Marketing Principles	4 cr

**Electives** (56 credits required)

30 credits in chemistry (CHEM 111 or above) with at least one 400-level course

7 additional credits in business courses

8 credits of physics (PHYS 111 or above)

8 credits of mathematics (MATH 120A or above)

CS 146	Visual BASIC Programming	3 cr
or		
CS 147	FORTRAN Programming	3 cr

A business-chemistry minor is not available.

**Chemical Physics (B.S.)**

Interdisciplinary major, no minor is required. Chemistry and physics minors may not be earned with this major.

**Foundation Courses** (7 credits required)

MATH 262	Introduction to Differential Equations	4 cr
CS 146	Visual BASIC Programming	3 cr
or		
CS 147	FORTRAN Programming	3 cr

**Electives** (50 credits required)

30 credits in chemistry (CHEM 111 or above), including CHEM 321, 321L, 322, 322L and at least one 400-level course.

20 credits in physics (PHYS 200 level or above) including at least nine credits at the 300-400 level.

**Recommended Electives**

Foreign language of French or German

A chemical physics minor is not available.

**Chemistry (B.S.) Teacher Certification**

A chemistry major is available to students desiring to teach at the secondary level. An approved minor is required as well as completion of the professional development courses (refer to the College of Education section of this catalog). The certification requires the following chemistry and cognate courses.

**Foundation Courses**

MATH 161	Calculus with Analytic Geometry I	4 cr
and		
MATH 162	Calculus with Analytic Geometry II	4 cr
CS 146	Visual BASIC Programming	3 cr
or		
CS 147	FORTRAN Programming	3 cr
PHYS 106A	Earth and Space Science: Physical Geology	4 cr
PHYS 211	Analytical Physics I	4 cr
PHYS 211L	Introductory Physics Lab I	1 cr
PHYS 212	Analytical Physics II	4 cr
PHYS 212L	Introductory Physics Lab II	1 cr
BIOL 111A	Principles of Biology	4 cr
and		
BIOL 111B	Principles of Zoology	3 cr
or		
BIOL 111C	Principles of Botany	3 cr

**Major Courses**

CHEM 111	General Chemistry Lecture I	4 cr
CHEM 111L	General Chemistry Lab I	1 cr
CHEM 112	General Chemistry Lecture II	4 cr

CHEM 112L	General Chemistry Lab II	1 cr
CHEM 230	Organic Chemistry Lecture I	4 cr
CHEM 231	Organic Chemistry Lab I	1 cr
CHEM 330	Organic Chemistry Lecture II	3 cr
CHEM 331	Organic Chemistry Lab II	2 cr
CHEM 313	Analytical Chemistry I—Quantitative Analysis	3 cr
CHEM 314	Analytical Chemistry II—Instrumental Analysis	3 cr
CHEM 321	Physical Chemistry I	3 cr
CHEM 322	Physical Chemistry II	3 cr
CHEM 412	Biochemistry	3 cr
CHEM 413	Biochemistry Lab	1 cr
CHEM 414	Inorganic Chemistry	3 cr
CHEM 414L	Inorganic Synthesis	1 cr

**Recommended Electives**

One year of a modern foreign language

**Environmental Chemistry (B.S.)**

Interdisciplinary major, no minor is required. Biology and chemistry minors may not be earned with this degree.

**Foundation Courses** (36 or 37 credits required)

BIOL 111A	Principles of Biology	4 cr
BIOL 237	Introduction to Microbiology	4 cr
or		
BIOL 431	Microbiology	4 cr
BIOL 380	Ecology	4 cr
or		
METC 350	Environmental Engineering Technology	3 cr
or		
ME 250	Principles of Engineering Materials	3 cr
or		
PHYS 309	Introduction to Modern Physics	4 cr
MATH 162	Calculus with Analytical Geometry II	4 cr
CS 146	Visual BASIC Programming	3 cr
or		
CS 147	FORTRAN Programming	3 cr
ECON 221	Principles of Macroeconomics	4 cr
LAW 208	Law and Society	3 cr
PHYS 106A	Earth and Space Science: Physical Geology	4 cr
PHIL 114	Introduction to Logic	3 cr
or		
PHIL 210A	Applied Ethics in Law and Society	3 cr
or		
PHIL 305	History of Philosophy: Modern	3 cr
or		
PHIL 331	Law, Liberty and Morality	3 cr

**One year of college physics** is required. **One year of a modern foreign language** (preferably German, French, Russian, or Spanish) is required or a satisfactory score on a placement exam in one of the languages.

**Major Courses** (49 credits required)

CHEM 111	General Chemistry Lecture I	4 cr
CHEM 111L	General Chemistry Lab I	1 cr
CHEM 112	General Chemistry Lecture II	4 cr
CHEM 112L	General Chemistry Lab II	1 cr
CHEM 230	Organic Chemistry Lecture I	4 cr
CHEM 231	Organic Chemistry Lab I	1 cr
CHEM 330	Organic Chemistry Lecture II	3 cr
CHEM 331	Organic Chemistry Lab II	2 cr
CHEM 313	Analytical Chemistry I—Quantitative Analysis	3 cr
CHEM 314	Analytical Chemistry II—Instrumental Analysis	3 cr
CHEM 321	Physical Chemistry I	3 cr
CHEM 321L	Physical Chemistry I Lab	1 cr
CHEM 322	Physical Chemistry II	3 cr
CHEM 322L	Physical Chemistry II Lab	1 cr
CHEM 412	Biochemistry	3 cr
CHEM 417	Environmental Chemistry I	3 cr
CHEM 418	Environmental Chemistry II	3 cr
CHEM 419	Environmental Analytical Methods	3 cr
CHEM 495	Research in Chemistry (Environmental Related)	3 cr

### Recommended Electives

CHEM 413	Biochemistry Lab	.1 cr
CHEM 414	Inorganic Chemistry	.3 cr
CHEM 416	Polymer Science	.3 cr
LAW 308	Social, Political and Legal Environment of Business	.4 cr
HIST 316	America and The World: 1900-1945	.3 cr
HIST 317	America and The World: 1945-present	.3 cr
HIST 329	The Vietnam War	.3 cr
SOC 435	Environmental Sociology	.3 cr

## Computer Science

### Department Faculty

Moe Bidgoli, Farid Hallouche, John Hansen, Randall L. Hock, Scott James, Tai-Chi Lee, Morteza Marzjarani

The Department of Computer Science offers majors and minors in computer science and computer information systems. Also offered is a Computer Science Endorsement for teachers holding a viable secondary certificate from the state of Michigan. (For additional information see the College of Education section in this catalog.)

Students considering a degree in one of these areas should arrange an early interview with the Department of Computer Science so that their interests and future career will be considered in planning their curriculum.

A student who receives a grade lower than "C" in a computer science or computer information systems course may not use that course to satisfy a prerequisite for another computer science or computer information systems course, nor may the student take any course having that course as a prerequisite without repeating the course.

## Computer Science (B.S.)

A minor is required. A computational mathematics minor is not permitted.

**Area I: General Requirements** (33 or 34 credits required from the following four components)

### 1. Mathematics and Statistics Components (14 or 15 credits required)

MATH 132A	Statistics	.4 cr
or		
MATH 304	Applied Probability and Statistics	.3 cr
MATH 161	Calculus with Analytic Geometry I	.4 cr
MATH 162	Calculus with Analytic Geometry II	.4 cr
MATH 300	Discrete Mathematical Structures	.3 cr

### 2. Science Components (10 credits required)

PHYS 211	Analytical Physics I	.4 cr
and		
PHYS 211L	Introductory Physics I Lab	.1 cr
and		
PHYS 212	Analytical Physics II	.4 cr
and		
PHYS 212L	Introductory Physics II Lab	.1 cr
or		
BIOL 111A	Principles of Biology	.4 cr
and		
BIOL 111B	Principles of Zoology	.3 cr
and		
BIOL 111C	Principles of Botany	.3 cr
or		
CHEM 111	General Chemistry I	.4 cr
and		
CHEM 111L	General Chemistry I Lab	.1 cr
and		
CHEM 112	General Chemistry II	.4 cr
and		
CHEM 112L	General Chemistry II Lab	.1 cr

### 3. Communication Skills Component (6 credits required)

COMM 105A	Fundamentals of Communication	.3 cr
ENGL 304	Technical Report Writing	.3 cr

### 4. Social and Ethical Component (3 credits required)

PHIL 210B	Applied Ethics in Engineering and Computer Technologies	.3 cr
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### Area II: Computer Science Core Requirements (32 credits required)

CS 116	Computer Programming I	.4 cr
CS 216	Computer Programming II	.4 cr
CIS 311	WINDOWS Programming Using Visual Basic	.4 cr
CS 316	Data Structures and Algorithm Analysis	.4 cr
CS 331	Computer Organization and Assembly Language	.4 cr
CS 381	File and Database Processing	.4 cr
CS 446	Operating Systems	.4 cr
CS 451	Programming Languages and Compiler Construction	.4 cr

### Area III: Computer Science Elective Requirements (16 credits required; choose one of the following options)

#### 1. General

CS 421	Object-Oriented Design and Development I	.4 cr
and		
CS 422	Object-Oriented Design and Development II	.4 cr
or		
CS 401	Computer Networks I	.4 cr
and		
CS 402	Advanced Computer Networks II	.4 cr

An additional 8 credits from:

CS 411	Database Systems	.4 cr
CS 416	Algorithms and Complexity	.4 cr
CS 431	Computer Architecture	.4 cr
CS 476	Computer Graphics	.4 cr
CS 482	Artificial Intelligence and Expert Systems	.4 cr
CS 490	Special Topics	.1-4 cr

#### 2. Software Engineering

CS 421	Object-Oriented Design and Development I	.4 cr
and		
CS 422	Object-Oriented Design and Development II	.4 cr

An additional 8 credits from:

CS 411	Database Systems	.4 cr
CS 416	Algorithms and Complexity	.4 cr
CS 482	Artificial Intelligence and Expert Systems	.4 cr
CS 490	Special Topics	.1-4 cr

#### 3. Computer Systems and Networking

CS 401	Computer Networks I	.4 cr
and		
CS 402	Advanced Computer Networks II	.4 cr

An additional 8 credits from:

CS 411	Database Systems	.4 cr
CS 431	Computer Architecture	.4 cr
CS 477	Networked Multimedia Programming	.4 cr
CS 490	Special Topics	.1-4 cr

### Recommended Electives

CS 101	Using the Internet	.3 cr
CS 105	Introduction to Computers and Programming	.4 cr
CS 146	Visual BASIC Programming	.3 cr
CS 147	FORTRAN Programming	.3 cr
CS 345	UNIX System Administration	.3 cr

A computer science minor is available by completing: CS 160, CS 116, CS 216, CIS 311, and CS 331. Computer Information Systems majors may take this minor with prior permission of the department.

## Computer Information Systems (B.S.)

A minor is required. Recommended minors include general business, accounting, finance, management or marketing. A computational mathematics minor is not permitted.

**Area I: General Requirements** (24 credits required from the following four components)

### 1. Mathematics and Statistics Components (8 credits required)

MATH 120B	Finite Mathematics	.4 cr
ECON 235	Introductory Statistics	.4 cr

## 2. Management Components (7 credits required)

MGT 321	Organization and Administration	.4 cr
MGT 325	Information Systems for Operations Management	.3 cr

## 3. Communication Skills Component (6 credits required)

COMM 105A	Fundamentals of Communication	.3 cr
ENGL 304	Technical Report Writing	.3 cr

## 4. Social and Ethical Component (3 credits required)

PHIL 210B	Applied Ethics in Engineering and Computer Technologies	.3 cr
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## Area II: Computer Information Systems Requirements (40 credits required)

CS 116	Computer Programming I	.4 cr
CS 216	Computer Programming II	.4 cr
CIS 284	COBOL Programming in Business Applications	.4 cr
CIS 301	Data Communication and Network Administration	.4 cr
CIS 311	WINDOWS Programming Using Visual Basic	.4 cr
CIS 333	Introduction to System Software	.4 cr
CIS 371	Storage Devices and File Manipulation Techniques	.4 cr
CIS 386	Database Management Systems	.4 cr
CIS 422	System Analysis and Design Concepts and Techniques	.4 cr
CIS 424	System Design, Implementation and Management	.4 cr

## Area III: Computer Information Systems Electives (6 credits required)

CS 345	UNIX System Administration	.3 cr
CIS 355	Web Design and Development	.3 cr
CIS 425	Decision Support Systems	.3 cr
CIS 486	Data Warehousing and Enterprise Database Systems	.3 cr
CIS 490	Special Topics	.3 cr

A computer information systems minor is available by completing CS 160, CS 116, CS 216, CIS 284 and CIS 311. Computer Science majors may take this minor with prior permission of the department.

# Engineering Programs

The goal of the engineering unit is to provide programs of choice for students in East-Central Michigan and to have graduates recognized by various regional constituencies as among the best in the state.

To support this goal, the following objectives of SVSU Engineering are structured around the themes of lifelong learning, technical foundation, design, experimenting/hands-on skills, and professional practice:

1. To prepare students for a life-long learning process in the profession of engineering.
2. To educate students in the fundamental technical areas of electrical (EE students) and mechanical engineering (ME students), including the foundation of mathematics, computational skills, and physical science, appropriate for an entry level professional position or graduate school.
3. To develop in students the skills inherent in the design process, including the ability to identify problems, investigate creative and functional solutions, effectively communicate results and work in a collaborative environment.
4. To foster good hands-on skills in experimenting; acquiring, reducing and analyzing data and prototyping systems.
5. To develop an understanding of the economic, ethical and social environment in which engineering is practiced internationally.
6. Graduates from the EE Program will have a demonstrated knowledge of advanced mathematics and be able to analyze and design complex devices and systems containing hardware and software components.
7. Graduates from the ME Program will be able to work professionally in the design and realization of both thermal and mechanical systems.

# Electrical Engineering

## Department Faculty

Russell Clark, Mohamed A. El-Kasabi, Jonathan Leonard, Altaf-Ur Rahman, Ghulam Raz

The EE department offers a spectrum of fundamental courses in electrical engineering with an option to concentrate in one of two specialty areas: Electrical Systems Engineering or Computer Engineering. For details on these options, refer to the notes under "Electives."

## Electrical Engineering (B.S.E.E.)

Interdisciplinary major; no minor is required. Students must declare their major prior to their Junior year.

### Foundation Courses (37 credits required)

CHEM 111	General Chemistry Lecture I	.4 cr
CHEM 111L	General Chemistry Lab I	.1 cr
MATH 161	Calculus with Analytic Geometry I	.4 cr
MATH 162	Calculus with Analytic Geometry I	.4 cr
MATH 261	Calculus with Analytic Geometry III	.4 cr
MATH 262	Introduction to Differential Equations	.4 cr
PHIL 210B	Applied Ethics in Engineering and Computer Technologies	.3 cr
PHYS 211	Analytical Physics I	.4 cr
PHYS 211L	Introductory Physics Lab I	.1 cr
PHYS 212	Analytical Physics II	.4 cr
PHYS 212L	Introductory Physics Lab II	.1 cr

One 3 credit course selected from CS 110, CS 146 or CS 147

### Engineering Core (12 credits required of all engineering students)

ECE 101	Engineering Careers and Concepts	.2 cr
or		
ME 101	Engineering Careers and Concepts	.2 cr
ECE 235	Circuits I	.3 cr
ECE 235L	Circuits I Lab	.1 cr
ME 251	Engineering Statics	.3 cr
ECE 302	Engineering Analysis	.3 cr
or		
ME 302	Engineering Analysis	.3 cr

### Major Courses (51 credits required)

ECE 216	Digital Circuits	.3 cr
ECE 216L	Digital Circuits Lab	.1 cr
ECE 318	Electronic Circuits I	.3 cr
ECE 318L	Electronic Circuits I Lab	.1 cr
ECE 335	Circuits II	.3 cr
ECE 341	Electrical Machinery	.3 cr
ECE 341L	Electrical Machinery Lab	.1 cr
ECE 355	Microprocessors/Microcomputers	.3 cr
ECE 355L	Microprocessors/Microcomputers Lab	.1 cr
ECE 358	Electronic Circuits II	.3 cr
ECE 358L	Electronic Circuits II Lab	.1 cr
ECE 360	Automatic Control Systems	.3 cr
ECE 368	Computer Engineering I	.3 cr
ECE 368L	Computer Engineering I Lab	.1 cr
ECE 441	Electric Power Systems	.3 cr
ECE 445	Electromagnetic Fields	.3 cr
ECE 450	Digital Signal Processing	.3 cr
ECE 453	Electronic Communications	.3 cr
ECE 453L	Electronic Communications Lab	.1 cr
ECE 460	Digital Control Systems	.3 cr
ECE 460L	Digital Control Systems Lab	.1 cr
ECE 497	Senior Design Project I	.2 cr
ECE 499	Senior Design Project II	.2 cr

**Electives** (9 credits required; 6 credits must be selected from Design-Content Electives; 3 credits may be selected from Design-Content Electives or Other Elective Courses.)

### Design-Content Electives

ECE 436	Measurements and Instrumentation: Lecture	.2 cr
and		
ECE 436L	Measurements and Instrumentation Lab	.1 cr

ECE 440	Linear System Analysis	.3 cr
ECE 451	MicroComputer Applications	.3 cr
ECE 455	Data Communication	.3 cr
ECE 458	Power Electronics	.3 cr
ECE 461	Modern Control System Design	.3 cr
ECE 468	Computer Engineering II	.3 cr
ECE 470	Robot Dynamics and Control	.3 cr
ECE 471	Computer Applications in Power Systems	.3 cr
ECE 478	Introduction to VLSI	.3 cr
ECE 485	Digital and Satellite Communications	.3 cr

**Note**

1. It is recommended that students who plan to concentrate in electrical systems engineering choose from the following courses: ECE 436, 440, 458, 461, 470 or 471.
2. It is recommended that students who plan to concentrate in computer engineering choose from the following courses: ECE 451, 455, 468, 478 or 485.
3. Exceptions to these guidelines are permitted by petitioning the department.

**Other Elective Courses**

CS 315	Data Structures Using C++	.3 cr
CS 450	Introduction to Compiler Design	.3 cr
CS 475	Computer Graphics	.3 cr
CS 480	Introduction to Artificial Intelligence	.3 cr
ECE 490	Special Topics	.3 cr
ECE 496	Engineering Field Work	.3 cr
ME 356	Fluid Mechanics	.3 cr
PHYS 309	Introduction to Modern Physics	.4 cr
PHYS 332	Modern Optics and Holography	.3 cr
PHYS 442	Laser Physics and Optoelectronics	.3 cr

Other courses may be selected, subject to the department's approval.

**Course Sequence**

Engineering courses are to be taken with careful attention paid to prerequisite courses. Requests for the waiver of requirements, transfer credit, and/or fulfillment of requirements by substitute courses should be submitted by the student for departmental approval on a form available from the chairperson.

A minor in electrical engineering is not available. An engineering and technology minor is available by completing 18 credits from ETM/ME and ECE courses. A specific course sequence is selected by each student with prior approval by the dean.

**Mechanical Engineering**

**Department Faculty**

Brooks Byam, Eldon Graham, M. Yousef Jabbari, Enayat Mahajerin, David A. Pape, Joseph Shlien

**Mechanical Engineering (B.S.M.E.)**

Interdisciplinary major; no minor is required. Students must declare their major prior to their Junior year.

**Foundation Courses (34 credits required)**

CHEM 111	General Chemistry Lecture I	.4 cr
CHEM 111L	General Chemistry Lab I	.1 cr
MATH 161	Calculus with Analytic Geometry I	.4 cr
MATH 162	Calculus with Analytic Geometry II	.4 cr
MATH 261	Calculus with Analytic Geometry III	.4 cr
MATH 262	Introduction to Differential Equations	.4 cr
PHIL 210B	Applied Ethics in Engineering and Computer Technologies	.3 cr
PHYS 211	Analytical Physics I	.4 cr
PHYS 211L	Introductory Physics Lab I	.1 cr
PHYS 212	Analytical Physics II	.4 cr
PHYS 212L	Introductory Physics Lab II	.1 cr

**Engineering Core (12 credits required of all engineering students)**

ECE 101	Engineering Careers and Concepts	.2 cr
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or		
ME 101	Engineering Careers and Concepts	.2 cr
ECE 235	Circuits I	.3 cr
ECE 235L	Circuits I Lab	.1 cr
ME 251	Engineering Statics	.3 cr
ECE 302	Engineering Analysis	.3 cr
or		
ME 302	Engineering Analysis	.3 cr

**Major Courses (48 credits required)**

ME 220	Computer-aided Design	.3 cr
ME 250	Principles of Engineering Materials	.3 cr
ME 250L	Engineering Materials Lab	.1 cr
ME 252	Engineering Dynamics	.3 cr
ME 304	Computer Applications in Engineering	.3 cr
ME 311	Thermodynamics I	.3 cr
ME 315	Engineering Measurements	.2 cr
ME 315L	Engineering Measurements Lab	.1 cr
ME 353	Mechanics of Materials	.3 cr
ME 353L	Solid Mechanics Lab	.1 cr
ME 356	Fluid Mechanics	.3 cr
ME 356L	Fluid Mechanics Lab	.1 cr
ME 380	Manufacturing Processes and Systems	.3 cr
ME 411	Thermodynamics II	.3 cr
ME 420	Heat Transfer	.3 cr
ME 420L	Heat Transfer Lab	.1 cr
ME 451	Machine Design	.3 cr
ME 460	Automatic Control Systems	.3 cr
ME 480	Senior Design I	.3 cr
ME 481	Senior Design II	.2 cr

**Electives (12 credits required, of which at least 6 credits must be from a design-content course)**

**Design-Content Courses**

ME 370	Physical Metallurgy	.3 cr
ME 416	Power Plant Engineering	.3 cr
ME 430	Heating, Ventilating, Air Conditioning System Design	.3 cr
ME 444	Kinematics of Machines	.3 cr
ME 445	Mechanical Vibrations	.3 cr
ME 453	Finite Element Analysis	.3 cr
ME 456	Aerodynamics	.3 cr
ME 470	Fracture and Fatigue Analysis	.3 cr

**Other Acceptable Courses**

ECE 341	Electrical Machinery	.3 cr
ECE 341L	Electrical Machinery Lab	.1 cr
ECE 355	Microprocessors/Microcomputers	.3 cr
ECE 355L	Microprocessors/Microcomputers Lab	.1 cr
MATH 304	Applied Probability and Statistics	.3 cr
MATH 323	Linear Algebra	.3 cr
MATH 454	Probability and Statistics I	.3 cr
ME 406	Engineering Cost Analysis	.3 cr
ME 490	Advanced Special Topics	.1-4 cr
ME 497	Senior Research Project	.1-4 cr
MGT 321	Organization and Administration	.4 cr
PHYS 301	Theoretical Mechanics I	.3 cr
PHYS 313	Mathematical Methods	.3 cr
PHYS 332	Modern Optics and Holography	.3 cr

Other courses may be selected but they are subject to prior departmental approval.

The B.S.M.E. totals 127 credits (including General Education).

**Course Sequence**

Engineering courses are to be taken with careful attention paid to prerequisite courses. The waiver of requirements, transfer credit, and/or fulfillment of requirements by substitute courses are to be submitted by the student for departmental approval by filling out a form available from the chairperson.

A minor in mechanical engineering is not available. An engineering and technology minor is available by completing 18 credits from ETM/ME and ECE courses. A specific course sequence is selected by each student with prior approval by the dean.

## Engineering Technology Management (B.S.)

The goal of the ETM program is to add value to the associate's degree held by selected degree candidates so that they may perform more effectively in the modern industrial workplace. Program objectives supporting this goal are:

1. An increased understanding of modern industrial practices.
2. An increased level of skill in leadership and management practices.
3. An awareness of good business practices, especially in areas of ethics and technology.
4. Communication skills appropriate for the industrial workplace.

The award of an approved associate's degree from a two-year school is required for admission, or students in an engineering program also may transfer into this program. (Engineering program transfer students must have at least 45 credits and obtain the approval of the ETM Program Coordinator, or the Dean of the College of Science, Engineering and Technology.) Approved degrees at the associate's degree level are those programs with an ETM articulation agreement with SVSU and are in the technology area. Students must complete a minimum of 62 credits at SVSU for the award of this degree (124 total credits, as a minimum); 45 credits of required courses; and the credits necessary to fulfill the SVSU General Education requirements. (Students also must fulfill the requirement to have 42 credits at the 300 and 400 levels.)

This is an interdisciplinary major; completion of this program fulfills the requirement for a minor in management.

### Major Courses (46 credits required)

#### Industrial Practices (15 credits required)

ME 220	Computer Aided Design	.3 cr
ETM 333	Introduction to Industrial Engineering	.3 cr
ETM 364	Quality Control and Assurance	.3 cr
ME 406	Engineering Cost Analysis	.3 cr
ME 380	Manufacturing Processes	.3 cr
or		
ECE 355	Microprocessors/Microcomputers	.3 cr

#### Leadership and Management (15 credits required)

MGT 321	Organization and Administration	.4 cr
MGT 323	Human Resource Management	.3 cr
MGT 324	Production and Operations Management	.4 cr
MGT 328	Organizational Behavior	.4 cr

#### Business Practices (10 credits required)

ECON 235	Introductory Statistics	.4 cr
PHIL 210B	Applied Ethics in Engineering and Computer Technologies	.3 cr
One 300 or 400 level MGT elective		.3-4 cr

#### Communication (6 credits required)

ENGL 304	Technical Report Writing	.3 cr
COMM 325	Business and Professional Communication	.3 cr

An engineering technology management minor is not available.

## Mathematical Sciences

### Department Faculty

Jim Adams, Hamza Ahmad, Reza Akbari, Hasan Al-Halees, Curtis Grosse, Tyler H. Haynes, Garry L. Johns, Bing Liu, Joseph T. Matti, Gretchen Mooningham, John Mooningham, Rose S. Novey, Patrick Pan, David Schall, Steven J. Sepanski, Andrew Tierman, Tim Weier, Thomas Zenger

The Department of Mathematical Sciences offers majors in mathematics and computational-mathematics.

A student who receives a grade lower than "C" in a mathematics course may not use that course to satisfy a prerequisite for another mathematics course, nor may the student take any course having that course as a prerequisite without repeating the course.

## Mathematics (B.S.)

### Core (16 credits required)

MATH 161	Calculus with Analytic Geometry I	.4 cr
MATH 162	Calculus with Analytic Geometry II	.4 cr
MATH 261	Calculus with Analytic Geometry III	.4 cr
MATH 262	Introduction to Differential Equations	.4 cr

### Required Courses (10 credits required)

MATH 304	Applied Probability and Statistics	.3 cr
MATH 323	Linear Algebra	.3 cr
MATH 420	Abstract Algebra	.3 cr
MATH 480	Senior Seminar	.1 cr

3 credits required from the following:

MATH 401	Advanced Calculus	.3 cr
MATH 405	Introduction to Real Analysis	.3 cr

6 credits required from the following:

MATH 441	Numerical Analysis I	.3 cr
MATH 454	Probability and Statistics I	.3 cr
MATH 471	Abstract Geometry	.3 cr

### Electives (6 credits required)

6 additional credits in 300-400 level mathematics courses

### Additional Requirements

One computer science course involving a structured programming language suitable for mathematics (3 credits required)

A mathematics competency exam is required to be taken in the Senior year. Students should contact the department for information concerning testing times.

A minor is required.

A mathematics minor is available by completing 18 credits in mathematics courses that must include MATH 161, 162, 261 and 262 and may not include math classes numbered below 120A.

## Mathematics (B.S.) Teacher Certification

Restricted to students seeking teacher certification in mathematics. A student who does not complete teacher certification requirements will not be permitted to graduate with this major. A minor is required.

### Major Courses (37 credits required)

MATH 161	Calculus with Analytic Geometry I	.4 cr
MATH 162	Calculus with Analytic Geometry II	.4 cr
MATH 261	Calculus with Analytic Geometry III	.4 cr
MATH 262	Introduction to Differential Equations	.4 cr
MATH 300	Discrete Mathematical Structures	.3 cr
MATH 302	Introduction to Modern Math	.3 cr
MATH 304	Applied Probability and Statistics	.3 cr
MATH 323	Linear Algebra	.3 cr
MATH 420	Abstract Algebra	.3 cr
MATH 471	Abstract Geometry	.3 cr
MATH 476	Content and Concepts: Secondary School Mathematics	.2 cr
MATH 480	Senior Seminar	.1 cr

### Electives (6 credits required)

6 additional credits in 300-400 level mathematics courses

### Additional Requirements

One computer science course involving a structured programming language suitable for mathematics (3 credits required).

A mathematics competency exam is required to be taken in the Senior year. Students should contact the department for information concerning testing times.

### Recommended Electives

MATH 104, as a prerequisite to MATH 471 for those students who have not had a course in Euclidean geometry in high school.

MATH 141 or MATH 120B, applications course with examples appropriate for the high school curriculum.

## Required Education Courses

Refer to College of Education section of catalog.

A mathematics minor for teacher certification (restricted to students seeking teacher certification in mathematics; a student who does not complete teacher certification requirements will not be permitted to graduate with this minor) is available by completing the following:

MATH 161	Calculus with Analytic Geometry I	.4 cr
MATH 162	Calculus with Analytic Geometry II	.4 cr
MATH 300	Discrete Mathematical Structures	.3 cr
MATH 302	Introduction to Modern Math	.3 cr
MATH 304	Applied Probability and Statistics	.3 cr
MATH 471	Abstract Geometry	.3 cr

In accordance with the Academic Residency Requirement, at least 3 credits of mathematics at the sophomore or higher level must be completed at SVSU.

## Computational Mathematics (B.S.)

No minor is required.

### Core (16 credits required)

MATH 161	Calculus with Analytic Geometry I	.4 cr
MATH 162	Calculus with Analytic Geometry II	.4 cr
MATH 261	Calculus with Analytic Geometry III	.4 cr
MATH 262	Introduction to Differential Equations	.4 cr

### Required Courses (29 credits required)

MATH 300	Discrete Mathematical Structures	.3 cr
MATH 323	Linear Algebra	.3 cr
MATH 441	Numerical Analysis I	.3 cr
MATH 480	Senior Seminar	.1 cr
CS 116	Computer Programming I	.4 cr
CS 147	FORTRAN Programming	.3 cr
CS 216	Computer Programming II	.4 cr
CS 316	Data Structures and Algorithm Analysis	.4 cr
CS 482	Artificial Intelligence and Expert Systems	.4 cr

3 credits required from the following:

MATH 401	Advanced Calculus	.3 cr
MATH 405	Introduction to Real Analysis	.3 cr

3 credits required from the following:

MATH 304	Applied Probability and Statistics	.3 cr
MATH 454	Probability and Statistics I	.3 cr

### Electives (9 additional credits required)

300-400-level mathematics courses, except MATH 302

### Additional Requirements

A mathematics competency exam, to be taken in the Senior year, is required. Students should contact the department for information on testing times.

A computational mathematics minor is available by completing 8 credits of calculus plus 10 credits of computer science courses including CS 147. The other computer science credits must be taken from CS 116, 216, 316, 331, 416 or 482.

# Physics

## Department Faculty

Hsuan Shen Chen, Ming-Tie Huang, Albert R. Menard III, Laureen Reed, Marian Shih, David Slaven

The Department of Physics offers four programs in physics leading to the B.S. degree. A student contemplating a physics major should arrange for an early interview with the department, so that his or her interest and future career can be considered in the planning of the program.

In addition to the requirements described below for each program, the distribution and general requirements listed in the catalog should be fulfilled. A student planning a physics major is encouraged to take a year of college calculus as early as possible.

## Physics (B.S.)

A minor is required.

### Foundation Courses

MATH 161	Calculus with Analytic Geometry I	.4 cr
MATH 162	Calculus with Analytic Geometry II	.4 cr
MATH 261	Calculus with Analytic Geometry III	.4 cr
MATH 262	Introduction to Differential Equations	.4 cr
CHEM 111	General Chemistry Lecture I	.4 cr
CHEM 111L	General Chemistry Laboratory I	.1 cr
CHEM 112	General Chemistry Lecture II	.4 cr
CHEM 112L	General Chemistry Laboratory II	.1 cr

### Major Courses (34 credits required)

PHYS 211	Analytical Physics I	.4 cr
PHYS 211L	Introductory Physics Laboratory I	.1 cr
PHYS 212	Analytical Physics II	.4 cr
PHYS 212L	Introductory Physics Laboratory II	.1 cr
PHYS 301	Theoretical Mechanics I	.3 cr
PHYS 302	Electricity and Magnetism	.3 cr
PHYS 309	Introduction to Modern Physics	.4 cr
PHYS 312	Thermodynamics	.3 cr
PHYS 313	Mathematical Methods	.3 cr
PHYS 320	Junior Laboratory	.1 cr
PHYS 400	Senior Laboratory	.1 cr
PHYS 401	Theoretical Mechanics II	.3 cr
PHYS 402	Physical Optics	.3 cr

### Recommended Electives

PHYS 403	Introduction to Quantum Mechanics	.3 cr
PHYS 404	Solid State Physics	.3 cr

A physics minor is available by completing 18 credits in physics courses at the 200 level or above, which must include 8 credits at the 300-400 level.

## Optical Physics (B.S.)

A minor is required. A major or minor in physics may not be earned with this major.

### Foundation Courses

MATH 161	Calculus with Analytic Geometry I	.4 cr
MATH 162	Calculus with Analytic Geometry II	.4 cr
MATH 261	Calculus with Analytic Geometry III	.4 cr
MATH 262	Introduction to Differential Equations	.4 cr
CHEM 111	General Chemistry Lecture I	.4 cr
CHEM 111L	General Chemistry Laboratory I	.1 cr
CHEM 112	General Chemistry Lecture II	.4 cr
CHEM 112L	General Chemistry Laboratory II	.1 cr

### Major Courses (40 credits required)

PHYS 211	Analytical Physics I	.4 cr
PHYS 211L	Introductory Physics Laboratory I	.1 cr
PHYS 212	Analytical Physics II	.4 cr
PHYS 212L	Introductory Physics Laboratory II	.1 cr
PHYS 301	Theoretical Mechanics I	.3 cr
PHYS 302	Electricity and Magnetism	.3 cr
PHYS 309	Introduction to Modern Physics	.4 cr
PHYS 313	Mathematical Methods	.3 cr
PHYS 320	Junior Laboratory	.1 cr
PHYS 332	Modern Optics and Holography	.3 cr
PHYS 400	Senior Laboratory	.1 cr
PHYS 402	Physical Optics	.3 cr
PHYS 432	Introduction to Fourier Optics	.3 cr
PHYS 442	Laser Physics and Optoelectronics	.3 cr
PHYS 497	Senior Research	.3 cr

### Recommended Electives

CS 146	Visual BASIC Programming	.3 cr
or		
CS 147	FORTRAN Programming	.3 cr
PHYS 401	Theoretical Mechanics II	.3 cr
PHYS 403	Introduction to Quantum Mechanics	.3 cr
PHYS 404	Solid State Physics	.3 cr

## Physics (B.S.) Teacher Certification

This program is restricted to students seeking teacher certification in physics. A minor is required. The student may complete a minor in chemistry and mathematics by electing 20 credits. Chemistry courses with a number lower than CHEM 111 cannot be used to satisfy the requirements of the chemistry minor.

### Foundation Courses (25 credits required)

BIOL 111A	Principles of Biology . . . . .	.4 cr
CHEM 111	General Chemistry Lecture I . . . . .	.4 cr
CHEM 111L	General Chemistry Laboratory I . . . . .	.1 cr
CHEM 112	General Chemistry Lecture II . . . . .	.4 cr
CHEM 112L	General Chemistry Laboratory II . . . . .	.1 cr
MATH 161	Calculus with Analytic Geometry I . . . . .	.4 cr
MATH 162	Calculus with Analytic Geometry II . . . . .	.4 cr

Plus an additional 3 credits in astronomy, meteorology or geology

### Major Courses

PHYS 211	Analytical Physics I . . . . .	.4 cr
PHYS 211L	Introductory Physics Laboratory I . . . . .	.1 cr
PHYS 212	Analytical Physics II . . . . .	.4 cr
PHYS 212L	Introductory Physics Laboratory II . . . . .	.1 cr
PHYS 301	Theoretical Mechanics I . . . . .	.3 cr
PHYS 302	Electricity and Magnetism . . . . .	.3 cr
PHYS 309	Introduction to Modern Physics . . . . .	.4 cr
PHYS 312	Thermodynamics . . . . .	.3 cr
PHYS 314	Electronics . . . . .	.4 cr
PHYS 320	Junior Laboratory . . . . .	.1 cr
PHYS 332	Modern Optics and Holography . . . . .	.3 cr
PHYS 400	Senior Laboratory . . . . .	.1 cr

### Required Education Courses

38 credits secondary teaching professional development courses. (Refer to College of Education section of this catalog.)

## Chemical Physics (B.S.)

See cross-listing under Chemistry Department section of this catalog.

# Undergraduate Course Descriptions



## Special Courses

Each discipline in the University may offer one or more of the below courses, although most will not appear in the departmental course description section of the catalog that follows. The discipline prefix will appear in front of each number when it is listed in the Course Schedule.

**190, 290, 390, 490 Special Topics (1-4)** A departmental course in a subject area not currently listed in the catalog. A descriptive title will appear on the Course Schedule and the transcript. Prerequisites: As listed in the Course Schedule.

**191, 291, 391, 491 Special Seminar (1-4)** A departmental seminar in a subject area not currently listed in the catalog. A descriptive title will appear on the Course Schedule and the transcript. Prerequisites: As listed in the Course Schedule.

**192, 292, 392, 492 Honors (1-4)** A course approved by the Honors Committee in a subject area not currently listed in the catalog. A descriptive title will appear on the Course Schedule and the Transcript. Prerequisites: As listed in the Course Schedule and Honors Student Status; for other students with a 3.40 grade point average or higher, permission of the instructor.

**393, 493 Directed Readings (1-3)** An organized plan of readings in one or more aspects of the discipline. The student and instructor must agree on a plan of readings prior to enrollment. Prerequisite: Instructor's permission, a 3.00 grade point average or higher, and a minimum of 12 credits in the discipline.

**394, 494 Independent Research (1-4)** An independent research project in the discipline by a student or a cooperative research project with a faculty member. The student and instructor must agree on a project before enrollment. Prerequisite: Instructor's permission, 3.00 grade point average or higher, and a minimum of 12 credits in the discipline.

**395, 495 Independent Lab/Studio (1-4)** An independent research project in the discipline by a student; a cooperative research project with a faculty member or an advanced independent studio in a performing art. The student and instructor must agree on a project before enrollment. Prerequisite: Instructor's permission, 3.00 grade point average or higher and a minimum of 12 credits in the discipline.

**396, 496 Field Studies (1-4)** Applications of the discipline in off-campus locations. The student and instructor must agree on the project before enrollment. Prerequisite: Instructor's permission, 2.50 grade point average and a minimum of 12 credits in the discipline. May enroll only twice in one department.

**497 Senior Project (1-4)** An independent Senior project in the discipline. Prerequisite: Must be a Senior major in the discipline who has the instructor's permission.

**498 Honors Thesis (3)** Preparation and completion of an Honors Thesis. May enroll twice, one for the preparation of the proposal and once for its completion. Prerequisite: Honors students status and permission of the Thesis Advisor.

**RFS 397 Roberts Seminar: Philosophical/Historical Leaders (3)** An examination of influential individual leaders and theories about leadership drawn from a broad range of philosophical and historical sources. Examples may include Confucius, Han Fei Tzu, Plato, Aristotle, Machiavelli, Lincoln, Wilson, Martin Luther King Jr. and other major figures; also authoritarian, liberal, moral, consensus building, visionary, and other leadership models. Prerequisite: Admission to the Roberts Fellowship Program.

**RFS 398 Roberts Seminar: Contemporary Issues in Leadership (3)** An examination of issues in organizational, social, political, cultural and economic leadership including extensive practical case study analysis, as well as material focusing on international issues associated with a specific region such as east Asia, south Asia, Europe or Africa. Prerequisite: Admission to the Roberts Fellowship Program.

Some of the courses may be listed in the Course Schedule when offered. For others, it will be necessary to consult with the faculty and/or department chair before enrollment. Numbers 199, 299, 399 and 499 are reserved by the departments for selected topic courses that do not fit into the above categories.

## Accounting

**ACCT 213 Financial Accounting (4)** The accumulation and presentation of business data with primary emphasis on the external user. Accounting principles will be examined as they apply to individual proprietorships, partnerships and corporations in the service and merchandising industries.

**ACCT 214 Managerial Accounting (4)** Accounting as an aid to decision making. Topics considered will include: The Statement of Cash Flows, the analysis and interpretation of financial statements, current planning and control systems, evaluation of performance, special decisions and long range planning. Emphasis will be placed on the use of accounting information in decision making rather than data accumulation and presentation. Prerequisite: ACCT 213.

**ACCT 218 Fund Accounting (4)** Rules and methods used in accounting systems for nonprofit entities and private health, education and welfare organization. Systems covered include: state and local government; colleges and universities; health care entities; and various other governmental and nongovernmental agencies. Frequent reference to GASB and FASB standards and other authoritative pronouncements. Students who are majoring in accounting are encouraged to take this course before or at the beginning of the Junior year. Prerequisite: ACCT 213.

**ACCT 311 Intermediate Accounting I (4)** Theory and principles involved in the definition, measurement, and disclosure of assets. Other topics include: review of the accounting cycle, overview of basic financial statements, and accounting for income taxes. Frequent reference is made to authoritative accounting pronouncements. Prerequisite: ACCT 214 and Junior standing.

**ACCT 312 Intermediate Accounting II (4)** Continuation of Intermediate Accounting I. Emphasizes measurement and reporting problems associated with stockholders; equity and liabilities, including leases and pensions. Other topics include: statement of cash flows, accounting changes and error analysis, revenue recognition, and disclosure requirements. Prerequisite: ACCT 311 and Junior standing.

**ACCT 315 Cost Accounting (4)** Emphasizes the accumulation of costs by product for internal and external uses. The accumulation of costs is demonstrated for use in planning, control and decision making. Cost accounting techniques are analyzed in traditional and modern manufacturing and service environments. Prerequisite: ACCT 214 and Junior standing.

**ACCT 316 Federal Income Tax Accounting (4)** Basic concepts applicable to all taxpayers with emphasis on taxable income for individuals. Includes gross income, exclusions and deductions from gross income, nonbusiness deductions, gains and losses on sale or exchange of assets, and tax credits. Frequent reference to the Internal Revenue Code and Regulations. Prerequisite: ACCT 214 and Junior standing or permission of the instructor.

**ACCT 317 International Accounting (3)** An introduction to international accounting. Topics include comparative development patterns in international accounting, comparative financial accounting practices, foreign currency translation and accounting for changing prices, analysis of foreign financial statements, transfer pricing and international taxation, management accounting in international enterprise. Prerequisite: ACCT 213.

**ACCT 318 E-Business: Measurement, Audit & Security (3)** Discussion, cases and computer exercises with dynamic, data-driven web pages related to the accountants' role in business applications of Internet technology. Unique issues in measurement (revenue and expense recognition and disclosure), auditing, security and control encountered in wired and wireless networks. Prerequisite: ACCT 213, 214 and ECON 151.

**ACCT 319 Accounting Internship (1-3)** Students may apply for academic credit for activities emphasizing the practical application of accounting, auditing or tax. These activities involve on-the-job experience with an employer. Approval of the department is required.

**ACCT 411 Advanced Accounting (4)** Topics include corporate stock investments using the cost and equity methods; consolidation methods; accounting for foreign currency transactions and translation of the statement of foreign subsidiaries; partnership formation, income division, and liquidation; and other current advanced topics. Prerequisite: ACCT 312 and Junior standing.

**ACCT 413 Auditing (4)** A study of the standards, procedures, and theories guiding the practice of auditing. Topics include: the nature and scope of auditing, auditing standards, ethics, internal control structure, legal obligations, and technical reporting considerations. Prerequisite: ACCT 312 and Senior standing or permission of instructor.

**ACCT 414 Accounting Information Systems (3)** Current methodologies for designing, auditing, and evaluating the storing, processing and retrieving of accounting information. Includes the solving of information system problems, case studies and computer exercises. Prerequisite: ACCT 312 or 315 and Junior standing.

**ACCT 415 Advanced Management Accounting (3)** Advanced consideration of the use of accounting information in planning control and decision making. Emphasis is on quantitative techniques used in conjunction with accounting information. Examines behavioral consequences of alternative planning control and decision making models. Prerequisite: ACCT 315 and Junior standing or permission of instructor.

**ACCT 416 Federal Income Tax—Advanced (4)** Income tax for other than individuals. Includes depreciation, depletion, partnerships, corporations, especially taxed corporations, net operating losses, gift and estate taxes, and income tax research. Frequent reference to the Internal Revenue Code and Regulations. Prerequisite: ACCT 214 and Junior standing or permission of instructor.

**ACCT 419 Accounting Software Applications (3)** The use of commercially available computer software packages as a tool to understanding accounting systems and developing information for decision-making. Creating, maintaining and analyzing accounting records that comply with tax rules and generally accepted accounting principles. Prerequisite: ACCT 213, 214 and ECON 151.

**ACCT 493 Directed Readings in Accounting (1-4)** A student must submit a plan of study for approval by the faculty member and the dean before enrolling.

## Allied Health

**AH 240 The US Health Care System (3)** Examines the U.S. health care system from a multi-disciplinary perspective. Topics include historical development, comparison with structural models and health outcomes of other nations, current health system issues and roles of citizens.

**AH 260 Pharmacology (3)** Introduces basic pharmacologic principles, classifications and relevant pathophysiology with emphasis on clinical implications. Prerequisite: BIOL 231 and BIOL 237.

**AH 262 Adaptation Across the Lifespan (3)** Focuses on selected theories and processes involved in human development as it relates to health. A holistic adaptation approach will be used to explore nurturance related to clinical implications from conception to later adulthood. Required for nursing students. Prerequisite: BIOL 111A and CHEM 111. BIOL 231 recommended.

**AH 290 Selected Topics in Allied Health (1-4)** Current or timely topics in the Allied Health field designed to meet the learning needs of a variety of students who are interested in health related problems.

**AH 301 Medical Technology Seminar (1)** Readings, presentations, and discussions of selected topics relevant to Medical Technology. (1-0) Prerequisite: Admission to the Medical Technology Program or permission of instructor.

**AH 400 Physical Agent Technologies (3)** The biophysiological effects and clinical application of therapeutic technologies and their impact on occupational performance skills. Occupational components of wound healing, pain, and the inflammatory response are presented and provide a foundation for application and intervention within the context of occupational performance. Lecture, case study, and lab format. Prerequisite: OT 326, OT 328, or permission of instructor.

**AH 422 Managing Health Care Organizations (3)** An orientation to management within the health care field including how managerial practices are affected by providers, the professional and specialty fields in the health care system, the individual user, the general public and external groups. Prerequisite: Permission of instructor.

**AH 436 Orthopedic Assessment and Interventions (3)** Review of standardized and non-standardized assessments and evaluative procedures related to orthopedic condition and disabilities of the upper quadrant.

Biomechanical and rehabilitative approaches to therapeutic interventions will be addressed. Prerequisite: OT 326 or permission of instructor.

**AH 470 International Health Care (4)** An international experience in health care that is outside the U.S.A., with both theoretical and fieldwork components. (Cross-listed with NURS 470.) Prerequisite: Permission from the College of Nursing and Allied Health Sciences.

## Art

Studio courses require two hours of weekly class attendance for each elected credit hour, with no additional outside preparation necessary. Each is designated with an (S) for your convenience in scheduling.

Lecture courses require an equal amount of weekly class attendance for each credit hour elected. The student is expected to spend about this same amount of time each week in outside preparation. Each is designated with an (L).

**ART 100 Art Appreciation (3)** This introductory course for the beginner in art focuses on a study of a variety of visual arts through media, style, genre, historical period, and culture. The course provides a broad understanding and appreciation of artistic expressions from a wide variety of perspectives. Not an elective for art, design or BFA majors.

**ART 111 Two-Dimensional Design (3)** An introduction to design, its means and materials. Line, form, color and their composition are analyzed separately and combined together in experimental, temporal, psychological and pictorial terms. A basic required course for art majors. (S)

**ART 112 Three-Dimensional Design (3)** A first course in spatial design, introducing various basic concepts and formal elements of sculptural form. A basic required course for art majors. (S)

**ART 121 Introduction to Drawing (3)** A course in pictorial composition to introduce the novice to line, form, proportion, light-value and perspective. A basic required course for art majors. (S)

**ART 122 Intermediate Drawing (3)** A continuation of the study of drawing including value, shape and composition. Personal expression will be emphasized. Prerequisite: ART 121. (S)

**ART 201 Understanding Art I (3)** A survey of the art of western civilization. The course will cover art from its earliest visual record up to the Renaissance.

**ART 202 Understanding Art II (3)** A continuation of the survey of the art of western civilization. The course will cover from the Renaissance to the modern age.

**ART 210 Introduction to Crafts (3)** A beginning course in craft techniques chosen from areas not normally covered in other art classes. DOES NOT APPLY TO ART MAJOR. (S)

**ART 222 Introduction to Sculpture (3)** A beginning course designed to introduce the student to the techniques and formal principles of sculpture. Spatial design, clay modelling and plaster casting are explained and examined by supplementary lectures and demonstrations. (S)

**ART 223 Introduction to Painting (3)** A beginning course designed to introduce the student to basic techniques and concepts of painting. Individual problems of space, image and color are encountered, including instruction in composition and color theory. Prerequisite: ART 121 (S)

**ART 224 Introduction to Printmaking (3)** A beginning course in the principles and the techniques of printmaking, including linoleum cuts, woodcut, drypoint and etching. (S)

**ART 225 Introduction to Black & White Photography (3)** A basic understanding of black and white photography as an art form. The course will explore the technical, aesthetic, and historical aspects of photography including film development and enlarging. A 35mm CAMERA WITH MANUAL CONTROLS IS REQUIRED. (S)

**ART 226 Introduction to Watercolor Painting (3)** A beginning course in the techniques of transparent watercolor emphasizing a basic approach. Prerequisite: ART 121 (S)

**ART 227 Introduction to Ceramics (3)** A study of the ceramic processes emphasizing technique and skill. A course designed to give the student facility with clay through building techniques and glazing procedures. (S)

**ART 231 Life Drawing (3)** An introduction to drawing the human figure, and a study of the human form using the skeleton and nude models. (S) Prerequisite: ART 121.

**ART 250 Introduction to Graphic Design (3)** An introduction to the tools, materials and techniques used by graphic designers. Includes design elements, layout grid systems, color systems and separations, typography, paper stocks, print production, print types, keylining and mechanicals. Explores the relationship between traditional techniques and electronic interfaces. (S)

**ART 260 Introduction to Computer Graphic Design (3)** A beginning course in the use of computers to create images in graphic design. Included will be a general description of machine usage and operation of printers, disk drives, peripherals and software. Specific software will include word processing, illustration and page layout programs. (S)

**ART 305 Color Slide Photography (3)** An advanced photography course involving the study of color theory, processing of color slide film, studio lighting and other advanced techniques. Prerequisite: ART 225 or permission of the instructor. (S)

**ART 311 Relief Prints (3)** An in-depth study of printmaking from a raised surface. Traditional and experimental techniques will be used as the means for individual expression. Linoleum, woodblock and collage printing are included. (S)

**ART 314 Etching (3)** An in-depth study of the techniques of etching, aquatint and collagraph as used by the creative artist. (S)

**ART 315 Color Photography (3)** A basic study in color photography including exposure control, negative development and printing. The course also will include the study of composition, content, emotional use of color and color as its own subject. Prerequisite: ART 225. (S)

**ART 316 Advanced Watercolor (3)** Advanced Watercolor is a continuation of Introductory Watercolor. The students innovate more personal forms of expression based on introductory techniques. Prerequisite: ART 226. (S)

**ART 320 Methods of Teaching in the Arts: K-8 (3)** See Teacher Education 322.

**ART 321 Advanced Drawing (3)** The student becomes more involved with personal expression. Prerequisite: ART 121 and 122. (S)

**ART 322 Intermediate Sculpture (3)** An introduction to new methods in sculpture not covered in the introductory class. Prerequisite: ART 222. (S)

**ART 323 Intermediate Painting (3)** A continuation of the introductory class with emphasis on different techniques not covered previously. Prerequisite: ART 223. (S)

**ART 324 Advanced Printmaking (3)** Prerequisite: ART 224. (S)

**ART 325 Advanced Black & White Photography (3)** A study of advanced techniques in black and white photography. The course includes the study of the zone system, stereo photography, research paper and production of personal portfolio. Prerequisite: ART 225. (S)

**ART 327 Intermediate Ceramics (3)** Focus is on the continued development of skills learned in ART 227 with emphasis on form and aesthetic, glaze calculation and kiln firing. Prerequisite: ART 227 (S)

**ART 328 Introduction to Wheel Throwing (3)** The course will investigate clay through the use of the potters wheel as a tool. Students will learn basic throwing skills and concepts of form. Prerequisite: ART 227 or permission of instructor. (S)

**ART 329 Intermediate Wheel Throwing (3)** A continuation of the introductory course. This course will further explore the diversity of the potters wheel as a creative tool. Clay type and firing techniques will be addressed. Prerequisite: ART 328 or permission of instructor.

**ART 330 Silkscreen (3)** A study in depth of the basic techniques of silkscreen as an art medium. (S)

**ART 331 Advanced Life Drawing (3)** Advanced drawing of the human figure. Prerequisite ART 231. (S)

**ART 334 Art in America (3)** A survey of the visual arts in America from the colonial period to the present. Painting, sculpture, graphic arts and architecture will be covered. (L)

**ART 335 Survey of Photography (3)** A survey of photographic history. Includes pre-photography art, inventions and technological and aesthetic development of photography through the 20th century. (L)

**ART 337 Portrait Photography (3)** A study of the basic styles of photographic portraiture including standard lighting techniques, available light, posing and environmental portraiture. Prerequisite: ART 225. (S)

**ART 344 Art of the 20th Century (3)** A survey of the visual arts from the industrial revolution to the contemporary period. Painting, sculpture, graphic arts and architecture will be covered. (L)

**ART 345 Intermediate Computer Graphic Design (3)** A continuation of ART 260 using computer technology to create images and solve contemporary graphic design problems. Specific software will include photographic capture, manipulation and enhancement. Prerequisite: ART 250 and ART 260 or permission of instructor. (S)

**ART 350 Typography and Color in Design (3)** A study of the use of typography and color in graphic design using illustration, page layout and photo manipulation programs. Includes the layout of text and headlines, creating typefaces, four-color processes and two-color techniques. Prerequisite: ART 250, ART 260 or permission of instructor. (S)

**ART 355 Logo and Business Identity Design (3)** A study in designing logos and business identity programs. Includes identity packages, presentation folders and signage. Prerequisite: ART 250, 260 or permission of instructor. (S)

**ART 360 Publication Design (3)** A study of techniques used in designing for the printed page and pre-press production. Includes cover design, newsletters, brochures, annual reports and multi-page layout and advertising. Prerequisite: ART 250, 260 or permission of instructor. (S)

**ART 370 PhotoShop, Scanning and Digital Imagery (3)** A study of electronic imagery in graphic design. Includes one-, two- and four-color artwork, producing electronic art for use in various media formats. Pre-press printing and new media procedures and techniques will be covered. Prerequisite: ART 250, ART 260, or permission of instructor. (S)

**ART 390 Special Topics in Art (1-4)** An arrangement for special areas of art not covered in other courses. Studio or lecture course.

**ART 400 Illustration (3)** A study of the creative problems encountered by designers and illustrators. Includes graphic, technical, charting and topical illustration. Prerequisite: ART 250 or permission of instructor. (S)

**ART 411 Seminar in Art History and Criticism (3)** An advanced study of various art periods and trends as a basis for evaluating works of art. (L)

**ART 420 Multimedia (3)** A study of advanced techniques used in creating multimedia while working in the dynamics of a group. Prerequisite: ART 250, ART 260, ART 370 or permission of instructor. (S)

**ART 422 Advanced Sculpture (3)** The student becomes more involved with complex plaster casting, constructions and personal expression. Prerequisite: ART 222. (S)

**ART 423 Advanced Painting (3)** The student becomes more involved with personal expression. Prerequisite: ART 223 and ART 323. (S)

**ART 425 Photojournalism (3)** Techniques of camera use and darkroom as they relate to photojournalism with particular emphasis on news photography assignments. Prerequisite: ART 225 or permission of instructor. (S)

**ART 427 Advanced Ceramics (3)** The development of individual expression and self sufficiency. Prerequisite: ART 327. (S)

**ART 430 Digital Image Design (3)** A study of the problems encountered in design using electronic imaging and paint programs. Prerequisite: ART 250, ART 260, ART 370 or permission of instructor. (S)

**ART 435 Alternative Photography (3)** Exploration of advanced photography techniques and aesthetics using non-silver materials including Cyanotype and Gum Bichromate. Prerequisite: ART 225. (S)

**ART 450 Advanced Computer Graphic Design (3)** A continuation of the study of graphic design topics. Students will focus on more complex graphic design procedures and techniques, while developing a personal style of design. Prerequisite: ART 250, ART 260, ART 350, ART 370 or permission of instructor. (S)

**ART 480 Arts Management & Safety B.F.A. Seminar (4)** This course is to act as the capstone course for B.F.A. students. A survey of the business of being a professional artist. Included will be a discussion of exhibition, galleries, museums, art writing, grants, legal considerations and marketing. Also covered will be studio design for various disciplines and safety and health concerns. (L)

**ART 495 Independent B.F.A. Studio (3)** An intensive and comprehensive studio course designed specifically for the B.F.A. program. The course will focus on one concentration in order to produce portfolio pieces

and study advanced techniques. Prerequisite to be determined by faculty advisor.

**ART 496 Field Experience in Design (3)** Advanced study in art and design that will involve internship experience. To be chosen with the consent of the student's faculty advisor. (S)

**ART 499 Directed Study (1-5)** Any student demonstrating unusual and special interest and/or competence in a particular area of study, not ordinarily included in the curriculum as stated above, or one subject to unavoidable circumstance, does work in depth under the direction of a faculty supervisor. (S)

## Biology

**BIOL 104 Principles of Life Sciences (3)** This course will cover the basic concepts in biology, each emphasizing humans. Analytical problem solving, logical reasoning, abstract and critical thinking, and written and oral communication skills also will be emphasized.

**BIOL 104A Plants and Civilization (3)** The importance of plants in human society is the emphasis of this course. Topics to be covered include: beginnings of agriculture; agricultural systems; medicinal plants; ecological role of plants; and industrial uses of plants. (3-0)

**BIOL 104B Human Biology (3)** An introductory human biology course focusing on the structural and functional aspects of the human body. Included in the course is a discussion of the development of the human organism and its interaction with environmental and genetic factors from conception to death. Intended for social work majors. (3-0)

**BIOL 105 Principles of Experimental Life Science (4)** This course will cover the basic principles of biology as well as dealing with a particular sub-area(s) of biology, such as diversity and evolution, ecology and genetics. Analytical problem solving, logical reasoning, abstract and critical thinking, and written and oral communication skills will be emphasized.

**BIOL 105A Science of Life (4)** This course serves as a broad introduction to the study of biology. The course includes a study of plant and animal diversity, metabolism and evolution. A laboratory is included. (3-2).

**BIOL 105B Environmental Dynamics (4)** A study of basic ecological principles regarding interactions between living beings and the environment, with an emphasis on applications to humans and human society. A laboratory is included. (3-2).

**BIOL 105C Human Heredity (4)** This course is an introduction to human genetics, including discussions of chromosomal abnormalities, genetic engineering, cancer and genetic screening. A laboratory is included. (3-2).

**BIOL 111 Principles of Experimental Biological Sciences (3-4)** This course covers the basic concepts in biology, with an emphasis on a particular sub-area(s) of biology. Analytical problem solving, logical reasoning, abstract and critical thinking, and written and oral communication skills will be emphasized.

**BIOL 111A Principles of Biology (4)** An introductory course, lecture and laboratory, dealing with the unifying fundamentals of life with emphasis on the organization of living things. Intended for majors and minors in life sciences. (3-2).

**BIOL 111B Principles of Zoology (3)** Survey of major animal phyla; includes consideration of structure, function, behavior, adaptation and evolutionary relationships. (2-2).

**BIOL 111C Principles of Botany (3)** The study of plants with emphasis on structure, function, development and heredity, followed by a brief survey of the plant kingdom. (2-2).

**BIOL 231 Physiological Anatomy (4)** An introductory course in human anatomy and physiology with emphasis on physiological principles. Topics include kidney function, water and electrolyte balance, endocrine function, etc. Open to all students; not applicable to biology majors; required for medical technology and nursing students. (3-3). Prerequisite: BIOL 111A.

**BIOL 236 Human Nutrition (3)** Fundamentals of human nutrition are presented. To introduce the student to normal diet formulations, the roles that various nutrients play in supporting normal metabolic activity are presented; thus a basis is provided for interpretation of therapeutic diet regimes. Open to all students; not applicable to biology major; required for nursing students. (3-0). Prerequisite: BIOL 105A or BIOL 111A and CHEM 111 and 111L.

**BIOL 237 Introduction to Microbiology (4)** A survey of microbiology and immunology with special emphasis on pathogenic organisms, their characteristics, identification and control. Laboratory work stresses techniques used for working with microorganisms. Open to all students; required for nursing students; not applicable to biology major. (3-2). Prerequisite: CHEM 240 and BIOL 111A.

**BIOL 250 Forensic Science (4)** An introduction to the application of science to law. Topics will include: physical evidence, scientific tools and techniques, crime scene, physical properties, chemical analysis and others. (3-2). Prerequisite: BIOL 105A or BIOL 105C recommended. This course is intended principally for criminal justice majors. (Cross-listed with CJ 250.)

**BIOL 350 Genetics (4)** A consideration of classical as well as modern genetics designed to emphasize the unifying role of genetic biology. Societal problems related to heredity will be discussed. Laboratory experiences will demonstrate genetic phenomena by using plants, flies, mammals and humans among other organisms. (3-4). Prerequisite: BIOL 111A, BIOL 111B, and BIOL 111C.

**BIOL 360 Cell Biology (4)** A study of the attributes and activities of plant, animal and microbial cells. Topics include methodology employed in cell biology, the relationships of cell structure to function and cell specialization. (3-3). Prerequisite: BIOL 111A, 111B and 111C.

**BIOL 370 Developmental Biology (4)** Development and structure of roots, stems, leaves, flowers, fruits and seeds. Environmental and innate factors influencing development. Gametogenesis, fertilization, cleavage and gastrulation of animals. Determination of primary organ rudiments. Organ formation and comparative structure in vertebrates. (2-4). Prerequisites: BIOL 111A, 111B and 111C.

**BIOL 380 Ecology (4)** A study of the interactions of organisms and their physical and biological environments. Laboratories emphasize field methodologies, sampling techniques and data analysis. (3-4). Prerequisite: BIOL 111A, 111B and 111C.

**BIOL 420 Applied Biology (2-4)** Courses offered under this number include industrial microbiology, sanitary microbiology, clinical microbiology, genetic counseling, nature photography and other related courses. Cooperative education may qualify for credit under this number with approval of the Biology Department. (4-2). Prerequisite: Permission of instructor.

**BIOL 422 Biological Specimen Preparation (3)** Techniques for collection and preservation of botanical and zoological specimens. Procedures for microtechnique and preparation of slides. (1-3).

**BIOL 423 Electron Microscopy (4)** Lectures in this course cover the theory of electron imaging and associated preparatory techniques. All phases of specimen preparation are taught in the laboratory with emphasis on use of the electron microscope and ancillary equipment. Students are required to complete a research project. (2-6).

**BIOL 430 Advanced Studies in Morphology (2-5)** Courses offered under this number may include plant anatomy, comparative anatomy and other related courses. Prerequisite: BIOL 360.

**BIOL 431 Microbiology (4)** An introduction to the biology of microorganisms, immunology and pathogenicity. Emphasis is on medical aspects of microorganisms associated with infectious diseases of man. Basic microbiological techniques as well as methods of diagnostic bacteriology are emphasized in the laboratory. (3-3). Prerequisite: BIOL 360.

**BIOL 434 Clinical Bacteriology (2)** Systematic laboratory procedures for diagnosis of infectious agents of bacterial origin. (1-2). Prerequisite: BIOL 431.

**BIOL 437 Immunology and Hematology (4)** An introduction to molecular and cellular principles of the immune system and functions of the blood. Topics include the nature of antigens and antibodies, role of cell-mediated immunity and blood group substances with an emphasis on the pathology of blood diseases. Immunological techniques applicable to clinical diagnosis are emphasized in the laboratory. (3-3). Prerequisite: BIOL 360.

**BIOL 440 Selected Topics in Molecular Biology (2-4)** Courses offered under this number may include Molecular Genetics and other related courses. Prerequisite: BIOL 360.

**BIOL 442 Molecular Biology (4)** This course will be a detailed study of DNA replication, RNA transcription, protein synthesis and genetic control

mechanisms. The laboratory will introduce techniques for isolating mutants, cloning DNA and molecular separation techniques. (3-3). Prerequisite: BIOL 360.

**BIOL 450 Advanced Studies in Genetics (2-4)** Courses offered under this number may include population genetics, evolution and other related courses. Prerequisite: BIOL 350.

**BIOL 451 Human Genetics (3)** A survey of human and medical genetics emphasizing recent developments in cytogenetics, biochemical polymorphisms, immunogenetics and selected topics. (3-0). Prerequisite: BIOL 350.

**BIOL 452 Evolution (3)** This course will cover the historical development of evolution theories. Next, the origin and evolution of life (phylogeny) will be discussed. These discussions will emphasize evolutionary processes (natural selection, neutral evolution) that are responsible for the diversity of life. Particular attention will be devoted to molecular and genetic approaches to evolutionary studies. (3-0). Prerequisite: BIOL 350.

**BIOL 460 Advanced Studies in Physiology (2-5)** Courses offered under this number may include plant physiology, microbial physiology and other related courses. Prerequisite: BIOL 360.

**BIOL 461 Endocrinology (3)** Principles of chemical coordination. The glands of internal secretion, including their development, structure, biochemistry and physiology. (3-0). Prerequisite: BIOL 231 or BIOL 360.

**BIOL 461L Endocrinology Lab (2)** Experiments in endocrinology involving operative technique, replacement therapy and statistical analysis of data. (0-4). Prerequisites: BIOL 231 or BIOL 360.

**BIOL 462 Comparative Physiology (3)** Examination of the function of various organ systems with emphasis on functions as related to adaptation and survival of organisms in their natural environment. (3-0). Prerequisite: BIOL 360.

**BIOL 464 Plant Physiology (4)** A detailed study of the physiology and development of plants. Topics to be included are variations of photosynthesis, transport mechanisms, the actions of plant hormones and other aspects of plant metabolism. (3-3). Prerequisite: BIOL 360.

**BIOL 470 Advanced Studies in Systematics (2-4)** Courses offered under this number may include vertebrate zoology, entomology, plant taxonomy and other related courses. Prerequisites: BIOL 111A, 111B, and 111C.

**BIOL 471 Invertebrate Zoology (4)** A survey of the morphology, physiology, behavior, ecology and phylogenetic relationships of the invertebrate groups. The laboratory consists of the study of living marine, freshwater and terrestrial representatives. (2-4). Prerequisite: BIOL 111A and BIOL 111B.

**BIOL 472 Parasitology (3)** An introduction to the study of animal parasitism. Major groups to be considered will include the parasitic protozoa, worms and arthropods. Emphasis will be placed on the role of these organisms in human disease. (2-2). Prerequisite: BIOL 111A and BIOL 111B.

**BIOL 474 Mycology (2)** Basic principles of mycology including classification, structure, physiology and pathogenic aspects of mycotic infections. Laboratory emphasis is on the identification of mycological organisms. (2-0). Prerequisite: BIOL 431.

**BIOL 475 Vertebrate Zoology (3)** Morphology, behavior, ecology and phylogenetic relationships of vertebrates and other chordates. (2-3). Prerequisite: BIOL 111A and BIOL 111B.

**BIOL 476 Mammalogy (3)** Functional morphology, evolutionary relationships and natural history of mammals of the world. (2-3). Prerequisite: BIOL 111A and BIOL 111B.

**BIOL 477 Ornithology (3)** Review of avian biology, including functional morphology, evolutionary relationships, breeding biology and ecology. Laboratory consists primarily of field trips to local areas to identify birds and to collect data on ecology and behavior. (2-3). Prerequisite: BIOL 111A and BIOL 111B.

**BIOL 480 Advanced Studies in Ecology (2-4)** Courses under this number may include urban systems ecology, genecology, resource ecology, aquatic ecology, animal ecology, comparative animal behavior and other related courses. Prerequisite: BIOL 380.

**BIOL 481 Natural History of Freshwater Invertebrates (3)** Taxonomic and biological survey of local fauna. Special emphasis will be placed on

the identification of local species and characterization of their environments. (1-4). Prerequisite: BIOL 380 or permission of instructor.

**BIOL 482 Plant Ecology Methods (3)** Field sampling procedures for plant populations and communities and analysis of field data. (1-4). Prerequisite: BIOL 380.

**BIOL 483 Biogeography (3)** Examination of historical and ecological processes that have shaped the distribution and association of plant and animal species on a global scale. (3-0). Prerequisite: BIOL 380 recommended.

**BIOL 484 Ethology (4)** A detailed study of the behavior of animals. Emphasis shall be on integrating ideas of ecology, development, endocrinology and physiology as they pertain to mechanisms bringing about behavior. Topics include learning, maturation, foraging, sociality, territoriality, predator/prey interactions, courtship and reproduction, parental care, and aging. (3-3). Prerequisite: At least one of the following courses must be completed prior to enrollment: BIOL 350, BIOL 360, BIOL 370, or BIOL 380.

**BIOL 491 Undergraduate Seminar in Biology (1)** Readings and presentations of selected topics in biology. (1-0). Prerequisite: BIOL 111A, BIOL 111B, BIOL 111C and at least one of the following courses completed prior to enrollment: BIOL 350, BIOL 360, BIOL 370 or BIOL 380.

**BIOL 499 Special Problems (1-6)** Student must submit a plan of study for approval before enrolling. Individual work for qualified students involving search of original sources in the literature, preparation of abstracts and experimentation. Prerequisite: 16 credits in biology and permission of instructor.

## Chemistry

**CHEM 101 Introduction to Chemistry (4)** An introduction to general chemical principles but particularly emphasizing periodic properties, fundamental chemical calculations, formulas, equations, bonding and nomenclature. Recommended for students not adequately prepared for CHEM 111 and/or who do not need the CHEM 111-112 sequence. Not applicable toward major or minor credit. (4-0). Prerequisite: MATH 082.

**CHEM 102 Principles of Chemistry (3-4)** An introduction to basic chemical concepts and the methods by which scientific endeavors define our view of the world, the impact of science on society and the reasons that social factors can impact the ability of science to serve as a basis for technological changes.

**CHEM 102A Chemistry and Society (3)** A study of the contributions chemistry makes to our civilization from the standpoint of the individual and of society as a whole. Substances examined include those found in the cosmos, living organisms and the material world. The roles of substances and materials in the modern world are assessed with respect to benefit and risk. (3-0)

**CHEM 102B Concepts of Matter (4)** The importance of matter in relation to development and sustainability of people in society, and the critical assessment of substances and materials used and proposed. Basic concepts and development regarding atoms and molecules from discovery to application, usage to disposal, and the impact on an ecologically sustainable future. Includes laboratory. Not recommended for chemistry majors. (3-2)

**CHEM 111 General Chemistry Lecture I (4)** A systematic study of chemical properties and principles with their applications. One year of high school chemistry and algebra, or CHEM 101, is desirable. (4-0).

**CHEM 111L General Chemistry Lab I (1)** Normally taken concurrently with CHEM 111. (0-3).

**CHEM 112 General Chemistry Lecture II (4)** A continuation of CHEM 111. (4-0).

**CHEM 112L General Chemistry Lab II (1)** Normally taken concurrently with CHEM 112. (0-3).

**CHEM 190 Special Topics (1-6)** Topics of special or current interest are offered periodically. The credit allowed for the particular course will be set by the department. Appropriate prerequisites will vary with the nature of the course offering and will be determined by the instructor.

**CHEM 230 Organic Chemistry Lecture I (4)** Covalent bonding, reactions, mechanisms and stereochemistry of organic compounds. (4-0). Prerequisite: CHEM 112.

**CHEM 231 Organic Chemistry Lab I (1)** Fundamental laboratory techniques and preparations. Normally taken concurrently with CHEM 220 or CHEM 230. May not be taken prior to enrollment in CHEM 220 or CHEM 230. (0-3).

**CHEM 240 Survey of Organic and Biological Chemistry (4)** A one-semester survey course designed for the non-major. Topics will include major organic functional groups and a survey of their chemistry as well as a survey of important biologically active compounds and a brief introduction to metabolism. Not applicable towards a major in chemistry. (3-3). Prerequisite: CHEM 111 and 111L or satisfactory performance on an equivalency test offered by the chemistry department.

**CHEM 290 Special Topics (1-6)** Topics of special or current interest are offered periodically. The credit allowed for the particular course will be set by the department. Appropriate prerequisites will vary with the nature of the course offering and will be determined by the instructor.

**CHEM 313 Analytical Chemistry I – Quantitative Analysis (4)** Current theory and applications in titrimetric, gravimetric and potentiometric methods of analysis with emphasis on practical laboratory skills. Basic topics in spectrophotometric and chromatographic methods also are covered. (3-3) Prerequisite: CHEM 112, CS 160 or equivalent.

**CHEM 314 Analytical Chemistry II – Instrumental Analysis (4)** This course will cover theory, design and applications of modern instrumental methods of chemical analysis including techniques in atomic spectroscopy, molecular spectroscopy, mass spectrometry, separations and electrochemistry. The goal of this course is to provide students with a technical understanding and laboratory experience with a variety of analytical chemistry instrumentation. (3-3) Prerequisite: CHEM 230, CHEM 231 and CHEM 313.

**CHEM 321 Physical Chemistry (3)** First part of a two-semester course in physical chemistry. Topics include states of matter, properties of gases, kinetic theory, thermodynamics, properties of solutions, chemical equilibrium and electrochemistry. (3-0). Prerequisite: CHEM 112, MATH 162. MATH 261 and 8 credits of physics are recommended.

**CHEM 321L Physical Chemistry I Laboratory (1)** Laboratory course designed to complement and enhance CHEM 321. Laboratory focuses on measurement and data analysis in laboratory experiments. Normally taken concurrently with CHEM 321. (0-3). Prerequisite: CHEM 321 or concurrent enrollment in CHEM 321.

**CHEM 322 Physical Chemistry II (3)** Continuation of CHEM 321. Topics include quantum mechanics, atomic and molecular structure, spectroscopy, reaction kinetics and statistical thermodynamics. (3-0). Prerequisite: CHEM 321.

**CHEM 322L Physical Chemistry II Laboratory (1)** Continuation of CHEM 321L. Laboratory enhances and complements CHEM 322 using experimental, computational and independent projects. Normally taken concurrently with CHEM 322. (0-3). Prerequisite: CHEM 322 or concurrent enrollment in CHEM 322.

**CHEM 330 Organic Chemistry Lecture II (3)** A continuation of CHEM 230. (3-0).

**CHEM 331 Organic Chemistry Lab II (2)** Organic synthesis and elementary organic qualitative analysis. Normally taken concurrently with CHEM 330. May not be taken prior to enrollment in CHEM 330. (0-6).

**CHEM 352 Lab Supervision in Chemistry (1-2)** Students enrolling in this course will serve as laboratory assistants under the supervision of a faculty member. Four hours of work per week are expected for each credit elected. This course may be elected on a Pass/Fail basis and may be taken more than once.

**CHEM 370 Clinical Analytical Chemistry (4)** Theory and laboratory techniques especially designed for medical technology and biology students emphasizing clinical and instrumental methods as well as the chemical periodicity of the elements. Required for the Medical Technology program. (2-6). Prerequisite: CHEM 313.

**CHEM 390 Special Topics (1-6)** Topics of special or current interest are offered periodically. The credit allowed for the particular course will be set by the department. Appropriate prerequisites will vary with the nature of the course offering and will be determined by the instructor.

**CHEM 411 Molecular Structure (3)** Quantum theory, approximation methods in quantum chemistry, group theory, many-electron atoms,

molecular orbital theory, valence bond theory, bonding in complexes and spectroscopy. (3-0). Prerequisite: CHEM 322.

**CHEM 412 Biochemistry I (3)** An introduction to structure and function of proteins, carbohydrates, lipids and nucleic acids. Mechanism of enzyme reactions including kinetic consideration will be discussed as well as the full spectrum of intermediate metabolism. (3-0). Prerequisite: CHEM 230 or 240.

**CHEM 413 Biochemistry Lab (1)** Fundamental techniques, biochemical preparations and measurements. (0-3). Prerequisite: CHEM 412 or concurrent enrollment in CHEM 412.

**CHEM 414 Inorganic Chemistry (3)** Periodic classification of the elements, structural relationships, mode of reaction, coordination compounds, kinetics and mechanisms of reactions. (3-0). Prerequisite: CHEM 330.

**CHEM 414L Inorganic Synthesis (1)** Synthesis, purification and characterization of inorganic and organometallic compounds. May be taken concurrently with CHEM 414. (0-3).

**CHEM 415 Advanced Organic Chemistry (3)** A review and extension of organic chemistry with special emphasis on rearrangements, mechanisms and physical organic chemistry. (3-0). Prerequisite: CHEM 330.

**CHEM 416 Polymer Science (3)** An introduction to the chemical and physical characteristics of natural and synthetic polymers. The course covers the chemistry and kinetics of polymerization, structure-property relationships and selected topics relating to technological application of these materials. Prerequisite: CHEM 330.

**CHEM 417 Environmental Chemistry I (3)** An introduction to environmental chemistry covering air, water and soil chemistry and transport phenomena. Prerequisite: CHEM 330.

**CHEM 418 Environmental Chemistry II (3)** An extension of CHEM 417 to include toxicology, risk assessment, remediation techniques and costs, as well as state and federal policies and procedures. Prerequisite: CHEM 330.

**CHEM 419 Environmental Analytical Methods (3)** Instrumental analysis course focusing on sample collection, preparation, methods of analysis and reporting protocols. Prerequisite: CHEM 314. (1-6)

**CHEM 420 Biochemistry II (3)** A continuation of Biochemistry I with an in-depth coverage of the chemistry and biochemistry of nucleic acids. Topics include, but are not limited to, DNA sequencing, gene splicing, PCR, cell culturing, restriction enzyme assays and DNA isolation. (1-6). Prerequisite: CHEM 412.

**CHEM 490 Special Topics (1-6)** Topics of special or current interest are offered periodically. The credit allowed for the particular course offered will be set by the department. Appropriate prerequisites will vary with the nature of the course offering and will be determined by the instructor.

**CHEM 495 Research in Chemistry (1-3)** Normally elected by Junior and Senior chemistry majors; however, open to all qualified students. Student must obtain written permission of both an advisor to direct the project and the departmental chairperson. Before a project is selected the student must consult with a minimum of three staff members. At least four hours of work per week is expected for each credit elected. In addition, attendance at a weekly seminar is required and may include a presentation as well. This course may be taken as often as desired but will count as only one of the two 400-level courses required for a major.

## Communication

**COMM 105 Introduction to Communication (3)** This course focuses on the development of oral competency. Emphasis will be placed on the spoken word as it relates to human interaction in multiple contexts. Students will develop their ability to convey and process information using fundamentals of communication.

**COMM 105A Fundamentals of Communication (3)** Provides the student with basic theory and practice in person-to-person, small group, and public speaking communication processes. Examines characteristics of communicator behavior, with communication in relationships as the basic model; message transmission/ reception; effects of communication.

**COMM 105B Public Speaking (3)** Theory and practice in organizing and presenting informational and persuasive messages in various

public communication contexts. Emphasizes the communicator's adaptations to audiences and speaking situations.

**COMM 105C Argumentation (3)** Develops skill in critical thinking through argumentation and oral expression.

**COMM 220 Introduction to Performance Studies (3)** A beginning course in the analysis and performance of aesthetic texts, grounded in, but not limited to, traditional literary forms (prose, poetry, drama). Performance texts may derive from a variety of aesthetic communication acts. Primarily individual performance; may involve some study of group performance. (Cross-listed with THEA 220.)

**COMM 225 Nonverbal Communication (3)** Study of non-linguistic and para-linguistic dimensions of human communication. Personal space; eye contact/facial behaviors; body language and touching; non-vocal aspects of communication; related topics. Survey of relevant and current research; empirical experiences and observations.

**COMM 227 Small Group Communication (3)** Examines group processes as they embody communication in decision making and problem solving groups. Provides opportunity for students to practice group communication behaviors in semi-structured exercises. Theoretical and practical approaches to group membership, norms, goals, leadership and related small group communication variables.

**COMM 230 Voice and Articulation (3)** An applied approach to developing the student's vocal capabilities through analysis and classroom exercises. Voices will be refined for conversational as well as theatrical purposes. Dialect and local color will also be analyzed and applied to a variety of vocal "types." Emphasis will be placed upon improving individual voices in a classroom practicum. (Cross-listed with THEA 230).

**COMM 270 Communication in Marketplace and Media (3)** Enables students to identify and analyze messages and images to which they are exposed as consumers of goods and services and as recipients of information from various advertising sources, printed and electronic.

**COMM 275 Introduction to Public Relations (3)** Principles and practice of public relations in modern society, with emphasis on the history, issues, theoretical perspectives and current practices of the profession.

**COMM 290 Selected Topics in Communication (1-4)** Lower division seminar or laboratory.

**COMM 315 Persuasion and Attitude Change (3)** Examines processes and theories of attitude change; susceptibilities and resistances to persuasion; audience analysis; message formulation and source credibility; verbal and non-verbal components of persuasive communication. Prerequisite: COMM 105A, 105B or permission of instructor.

**COMM 325 Business and Professional Communication (3)** Principles and skills involved in communication within a variety of organizational and job-related contexts. Explores relationships between presentational approaches to communication and a humanistic view of communication in hierarchical work settings. Prerequisite: COMM 105A or permission of instructor.

**COMM 345 Directing Forensics and Debate (3)** An individualized, performance-oriented course designed to involve students in the study of forensics and to prepare them to direct forensics activities at the secondary school level. Standard forensics categories will be covered, and students will become familiar with both the performance activities and the coaching/directing functions.

**COMM 351 Interpersonal Communication (3)** Skills and knowledge that contribute to an understanding of the role of communication in the initiation, maintenance, and dissolution of human relationships in both dyadic and group situations. Prerequisite: COMM 105A or permission of instructor. (Cross-listed with SOC 351.)

**COMM 352 Organizational Communication (3)** Principles and practice in the management of communication system within formal organizations, with emphasis on information exchange, information management and conflict resolution. Prerequisite: SOC 111 or permission of instructor. (Cross-listed with SOC 352.)

**COMM 365 Language, Thought and Behavior (3)** Study of the roles played by language in communication; interactions among our uses of language, the ways in which we think and believe, and our construction of human relationships. Symbolic and abstracting characteristics of language; the perception of meanings; functional and dysfunctional seman-

tic uses of language. Prerequisite: COMM 105A or 225 or permission of instructor.

**COMM 379 Research Methods in Human Communication (3)** An introduction to the empirical study of communication that includes research design, data collection and analysis, and writing research reports. Examines univariate and bivariate statistical models and their application to research problems. Prerequisite: MATH 103 and COMM 225 or permission of instructor.

**COMM 389 Family Communication (3)** Study of intra-family communication patterns and relationships; examination of communication themes and conflicts in various family settings; effects of communication in traditional and non-traditional family units. Survey of research in the field. Prerequisite: COMM 105A or 227 or permission of instructor.

**COMM 405 Human Communication Theory (3)** Human interaction viewed from an interdisciplinary perspective. Empirical and theoretical approaches to the study of verbal and non-verbal communication behavior. Symbolic interaction; defensive/supportive communication; role and gender contributions to communication; person perception; general systems theory. Survey of research in the field. Prerequisite: Junior or Senior Standing.

**COMM 415 Communication in Conflict (3)** Approaches to the identification and management of intrapersonal, interpersonal, and intra-group conflict, focusing on the role played by communication in generating, escalating, and reducing conflict. Prerequisite: COMM 105A or 315 or permission of instructor.

**COMM 425 Gender in Communication (3)** Study of gender-related issues in human communication. Perceptions of gender reflected in verbal and non-verbal interpersonal communication; language behaviors of females and males; gender images suggested by media messages; gender-specific management of conflict, assertion and self-disclosure; role stereotyping. Prerequisite: COMM 105A or permission of instructor.

**COMM 435 Communication in the Classroom (3)** Integrates research from various disciplines. Concentrates on verbal and nonverbal dynamics operating in the classroom environment. Focuses on human motivation, relationship development, communication styles, audience analysis, grading, listening, oral presentation skills, and criticism.

**COMM 445 Managerial Communication (3)** Focuses on behavioral communication processes and communication skills primary to managerial roles. Humanistic and social scientific approaches to such topics as management styles, human motivation, leadership, rumor management, and interviewing. The course combines theory and application. An oral performance is required. Prerequisite: COMM 105A or permission of instructor.

**COMM 455 Intercultural Communication (3)** Study of the impact of culture on the communication process, with emphasis on the theory and research of how values, attitudes and beliefs influence communication among people from different cultural backgrounds. Prerequisite: COMM 105A or permission of instructor.

**COMM 475 Communication and Popular Culture (3)** Considers how people use media and popular culture to construct their identities and relationships. Students look at how media are used in the everyday contexts of home, workplace, school and public places. Specific topics include how fans define themselves by collecting and manipulating media texts, and how media fit into parent-child relationships.

**COMM 490 Selected Topics in Communication (1-4)** Upper division or highly specialized seminar or laboratory. Prerequisite: Permission of instructor.

**COMM 494 Independent Study in Communication (1-4)** Before enrolling, the student must submit a plan of study for approval. Prerequisite: Permission of instructor.

## Computer Information Systems

**CIS 284 COBOL Programming in Business Applications (4)** This course presents a thorough coverage of programming in COBOL. The COBOL 85 syntax, as used in business today, is thoroughly covered within the context of structured programming. Students who take this course should have a prior understanding of basic business functions. Prerequisite: CS 116.

**CIS 301 Data Communication and Network Administration (4)** The course provides an introduction to data communication from a business-oriented standpoint. Topics include: Layered network architecture models; physical media construction; signaling methods; bandwidth limitations; network protocols; error detection and correction; medium access control; routing; internetworking; IP; networking application and programming software; networking hardware; management of local area networks. Prerequisite: CS 216 and ECON 235.

**CIS 311 WINDOWS Programming Using Visual Basic (4)** This course presents an introduction to writing windows applications using Visual Basic. Topics include control structures, data structures, event-driven programming, graphical user interface, error handling, debugging, sequential file processing, records and random-access files, ActiveX, database management, images, animation, and audio. Prerequisite: CS 216.

**CIS 333 Introduction to System Software (4)** The conceptual foundations of distributed computer systems will be established through a review of hardware, software/program execution, and operating systems. Building on an understanding of basic performance issues and tradeoffs, we will develop the concepts of distributed systems, data communications and relate them to database and multimedia. Projects will apply the concepts to specific real world situations. Prerequisite: CS 216.

**CIS 355 Web Design and Development (3)** This course will examine how to create, develop, design, publish and maintain web sites. Technologies including HyperText Markup Language (HTML), Cascading Style Sheets (CSS), DHTML and scripting languages will be focused upon. Students will utilize software tools that create web pages and web graphics. Additional topics also will be examined, including embedding ActiveX controls, applets and multimedia. Prerequisite: CIS 311.

**CIS 371 Storage Devices and File Manipulation Techniques (4)** This course presents an overview of the methods used to organize data on data storage devices. Topics include an overview of file organization and access methods, blocking and buffering, external storage devices, file processing with C++ I/O stream class, analysis of internal and external sorts and search techniques. Prerequisite: CS 216 and ECON 235.

**CIS 386 Database Management Systems (4)** This course presents an overview of database management system components and their functions. Topics include logical and physical database design, database implementation, relational, network, hierarchical, and object-oriented database models, database administration functions, and current trends in database systems. Prerequisite: CS 216.

**CIS 422 Systems Analysis and Design Concepts and Techniques (4)** Topics for this course include systems analysis, computer system engineering, problem identification, system development methodologies, feasibility studies, software project planning, and requirements analysis and documents. This course is a study of systems analysis and design techniques applicable to the analysis and requirements phases of the life cycle, including estimation, scheduling, diagramming and prototyping. The student will learn the key points of planning, implementing, and managing a software system. Prerequisite: CIS 311 and CIS 386, or permission of instructor. Also recommended: ACCT 213 and MGT 325.

**CIS 424 System Detailed Design, Implementation and Management (4)** This course will present software design fundamentals and design methods, including data flow, data structure, object and real-time. Programming languages and coding, software maintenance, software quality, CASE, and configuration management will also be covered. This course will focus on the design, coding, and testing phases. Students will discuss standards development and use, quality assurance and control issues, implementing system reviews, software testing, organization and planning, functionality testing, unit and system testing, and user acceptance testing. Structured walk-throughs, desk checking, and data flow analysis will be covered. Prerequisite: CIS 422 and MGT 325. Also recommended: ACCT 214, MGT 324, CIS 386 and CIS 301.

**CIS 425 Decision Support Systems (3)** The analysis and design of information systems permitting the computer to become an integral part of the decision making process. This course will examine various systems ranging from optimization problem solvers through artificially intelligent systems that support the decision making process. In particular, optimization-problem solving packages, language processing systems, expert systems and genetic algorithms will be examined. Prerequisite: CIS 311, ECON 235 and Senior standing. Recommended prerequisite: MGT 324.

**CIS 486 Data Warehousing and Enterprise Database Systems (3)** This course will examine how large amounts of data are stored, processed and managed in large, complex environments such as healthcare systems, manufacturing systems and educational systems. Students will cover topics including enterprise resource planning (ERP) systems, object-oriented databases and semantic modeling through metadata. In addition, new technologies related to data exchange, such as XML and SOAP will be studied. Prerequisite: CIS 386.

## Computer Science

**CS 101 Using the Internet (3)** Introduction to the Internet, including policies, addressing, servers and clients. How to search for information using Archie, Gopher, Lynx, Veronica, WAIS and WWW browser. Using the library through the net. How to use E-mail, FTP, TELNET, and a WWW browser.

**CS 105 Introduction to Computers and Programming (4)** Introduction to computer capabilities, limitations and applications; computer system organization; input, output and secondary storage devices; CPU components; data communication systems; Database management system; operating systems; computer's impact on society; problem solving with computers including algorithm development, structured programming and top-down design.

**CS 110 C++ Programming (3)** Introduction to computer systems, problem solving, algorithm development and the Unix operating system; constants and variables; arithmetic and logical expressions; control structures; stream input/output; functions; strings, arrays and structs; introduction to data abstraction and objects. Not applicable to CS or CIS majors and minors. Prerequisite: MATH 103.

**CS 116 Computer Programming I (4)** This course presents an introduction to the concepts and techniques of computer programming. Emphasis is placed on developing the student's ability to apply problem-solving strategies to design algorithms and to implement these algorithms in the C++ language. Prerequisite: MATH 103 or equivalent.

**CS 129 Data Representation, Analysis and Manipulation (4)** Constructing charts, manipulating, analyzing, and transforming data, exchanging data between different kinds of documents, algorithm design, and development. Both oral and written reports in which scientific visualization is used to support conclusions drawn from data will be required. Prerequisite: MATH 103 or above.

**CS 146 Visual BASIC Programming (3)** Algorithm and problem-solving methods; design and development of modular, event-driven programs using the Visual BASIC Language including numeric and string operations, input and output operations, decision constructs, repetitive constructs, array processing, graphics, and sequential and random file processing.

**CS 147 FORTRAN Programming (3)** Introduction to computer systems, computer programming, and operating system commands; constants, variables and expressions; conditional and iterative constructs, formatted I/O and character data; arrays; subprograms; computed goto and assigned goto; common storage; equivalent statements; files and additional topics. Prerequisite MATH 103.

**CS 160 Micro Computer Software (3)** Introduction to micro-computer software including the operating system, a word processor, a spread sheet, and a database.

**CS 190 Topics in Computer Science (1-3)** Elementary topics in computer science. Topics may include an introduction to higher level computer languages other than those listed. The course content must be approved by the department. Prerequisite: Permission of the instructor. Cross-listed with ENG 210.

**CS 216 Computer Programming II (4)** This course continues the development of computer programming techniques introduced in CS 116. Topics include data abstraction, object-oriented programming, linear and nonlinear data structures, and analysis of sort and search routines, including inheritance, polymorphism, pointers, recursion, lists, linked-lists, stacks, queues, and binary trees. Prerequisites: CS 116 and MATH 120B or MATH 140.

**CS 316 Data Structures and Algorithm Analysis (4)** This course presents an introduction to advanced data structures using object oriented C++ language features. Topics include abstract levels of data type, classes, member functions, access ability, recursion, AVL-trees, B-trees and

general trees, graphs, sorting, searching, hashing, complexity and efficiency of algorithms, data compressions, and memory management. Prerequisite: MATH 300 (may be taken concurrently) and CS 216.

**CS 331 Computer Organization and Assembly Language (4)** This course presents an introduction to low-level computer architecture and its relationship to assembly language programming. Topics include number systems, Boolean algebra, logic gates, simplification of Boolean functions, combinational logic, sequential logic, machine organization, assembly language programming, the interface of low-level language to the architecture and to higher-level programming languages, the assembly/link/loading process, and machine representation of data/instructions. Prerequisite: CS 216.

**CS 345 UNIX System Administration (3)** This course presents a study of the administration of a programming-oriented UNIX system. Topics include the UNIX file structure, configuration files in UNIX, daemons, cron/crontab, e-mail, backup and restore, Perl, Java, C-shell, Bourne shell, UNIX commands and command-line options, and UNIX system security. Prerequisite: CS 216.

**CS 381 File and Database Processing (4)** This course presents an introduction to file structure concepts and database processing. Topics include fundamental file processing operations, physical characteristics of secondary storage, sorting of large files, multilevel indexing and B-tree, hashing and extendible hashing, database systems concepts and architecture, and the relational data model. Prerequisite: CS 316.

**CS 401 Computer Networks I (4)** This course presents the theoretical concepts necessary to understand the complex problem of computer networking. Topics include computer network architectures and models, bandwidth limitations of physical media, analog and digital signaling methods, data link protocols, error detection and correction, medium access control in broadcast networks, routing algorithms, internetworking, the Internet Protocol, connection management, transport services including TCP/UDP, network applications, local-area and wide-area networks. Prerequisite: CS 316.

**CS 402 Advanced Computer Networks II (4)** This course presents advanced concepts in computer networking by extending theoretical knowledge gained in CS 401. Topics include the common gateway interface, network security and network monitoring, scripting and programming languages for computer networks, electronic commerce techniques, web graphics, virtual private networks, construction and administration of internet servers, and the interface to network-connected databases. Prerequisite: CS 401.

**CS 411 Database Systems (4)** This course presents concepts in database systems. Topics include the relational data model and relational algebra, the network, hierarchical, and object-oriented data models, normalization and the database design process, database implementation techniques, advanced and emerging trends. Prerequisite: CS 316.

**CS 416 Algorithms and Complexity (4)** This course presents advanced concepts in algorithm analysis. Algorithmic topics include the design and analysis of computer algorithms, divide and conquer techniques, dynamic programming, the greedy method, backtracking, algorithms for sorting and searching, graph computations, pattern matching, and NP-complete problems. Topics in the analysis of algorithms include the fundamentals of the theory of computation and complexity theory, computability, logic, the relationships between complexity classes, NP-completeness, P-completeness, and randomized computation. Prerequisite: CS 316.

**CS 421 Object-Oriented Design and Development I (4)** This course presents advanced techniques in reusable object-oriented design. Topics include UML, using object-oriented libraries, designing with inheritance, debugging and testing, user interface design, and creating object libraries. Prerequisite: CS 316.

**CS 422 Object-Oriented Design and Development II (4)** This course continues the development of advanced techniques in object-oriented design, implementation, and testing, introduced in CS 421. Software systems of increasing complexity are developed and tested. Topics include the role of UML in software system definition, design, programming, and testing. Also studied is the creation and use of object-oriented libraries and other techniques for code and experience reuse. Prerequisite: CS 421.

**CS 431 Computer Architecture (4)** This course presents an exploration of many aspects of the internal architecture and organization of a com-

puter. Topics include the history of computer system architecture, buses, internal/external memory, I/O devices, computer arithmetic, instruction sets, CPU structure, reduced instruction set computers vs. complex instruction set computers, microprogrammed vs. hard-wired control unit operation, advanced performance-enhancing features, parallel computer architecture, and an overview of digital logic. Prerequisite: CS 331.

**CS 446 Operating Systems (4)** This course presents an introduction to the design and implementation of both traditional and distributed operating systems. Topics include processes, memory management, file systems, I/O, deadlocks, distributed systems, synchronization, distributed file systems, and case studies. Prerequisite: CS 316.

**CS 451 Programming Languages and Compiler Construction (4)** This course presents a study of computer programming languages and a comparison in terms of features such as application, type checking, and encapsulation. Topics include a study of grammar, languages, BNF, finite state automata, top-down and bottom-up parsing methods, parsing with and without back ups, operator precedence grammars, LL(k), and LR(k) parsers. The course also presents an introduction to compiler development including scanners, syntax checking, and code generators. Prerequisites: CS 331, CS 316.

**CS 476 Computer Graphics (4)** This course presents the basic concepts of computer graphics generation, software and hardware requirements for graphics, and its applications. Topics include the X window system, graphics computation over networks, functions of the client and server, graphics input and output devices, interactive program development, graphical and text attributes, construction of panels and buttons, algorithmic techniques for window clipping & viewport transformation, 2-D object transformation, 3-D object modeling and animation, and graphics applications. Prerequisite: CS 316.

**CS 477 Networked Multimedia Programming (4)** This course presents a study of programming techniques used to exploit the numerous enabling technologies for multimedia. Topics include the representations of text, images/graphics, audio, and motion video, network programming techniques, the use of graphical Java, OpenGL and/or ActiveX, VRML, web programming techniques, the use of multimedia-oriented application software packages, and assembly-level multimedia instructions. Prerequisite: CS 316.

**CS 482 Artificial Intelligence and Expert Systems (4)** This course presents a study of artificial intelligence and expert systems. Topics include PROLOG programming, search methods, knowledge acquisition, knowledge representation including belief networks, knowledge validation, neural networks, expert system development including uncertainty management methods such as statistical, symbolic, and fuzzy logic, expert system shell, survey of current expert systems, and future trends. Prerequisite: CS 316.

## Criminal Justice

**CJ 201 Introduction to Criminal Justice (3)** A survey of the philosophical and historical origins of criminal justice. Development of the American criminal justice system.

**CJ 250 Forensic Science (4)** An introduction to the application of science to law. Topics will include: physical evidence, scientific tools and techniques, crime scene, physical properties, chemical analysis and others. Prerequisite: BIOL 105A or NS 122 recommended. This course is intended principally for criminal justice majors. (3-2). (Cross-listed with BIOL 250.)

**CJ 301 Criminal Justice System in the U.S.A. (3)** Analysis of the role, processes and function of the major components within the criminal justice system. Identification of relationships and areas in need of further coordination.

**CJ 305 Criminal Law (3)** The study of the authority of government to regulate conduct within constitutional limitations. Primary emphasis will be on learning the principles (i.e., elements) of traditional crimes, finite legal distinctions among various offenses, and applicable defenses.

**CJ 315 Security Systems Administration (3)** The role of security and the security industry in criminal justice. Administrative, personnel and physical aspects of the security field. Loss prevention management in proprietary and governmental institutions.

**CJ 326 Research Applications in Criminal Justice (3)** An introduction to the techniques used by researchers in studying crime phenomena; the

logic of research and basic methods of hypothesis testing in criminal justice are examined. Prerequisite: PS 225 or equivalent, or permission of instructor.

**CJ 330 American Constitutional Law (3)** The history and development of the United States constitutional and legal system. Emphasis upon the development of basic principles, the judicial system and judicial/political behavior. Includes in-depth analysis of selected Supreme Court decisions. (Cross-listed with PS 330.)

**CJ 340 Correctional Policy and Treatment (3)** The varying styles and functions of professional correctional treatment programs in the United States, with emphasis on the prison commitments. Prerequisite: CJ 201 and 301, or permission of instructor.

**CJ 345 Correctional Practice (3)** An introduction to the post-conviction process. The development of a correctional philosophy, theory and practice. Prerequisite: CJ 340 or permission of instructor.

**CJ 350 The Juvenile Justice System (3)** Problems of juvenile delinquency. Study of programs and organizations that prevent, evaluate and treat specific youth problems. Prerequisite: SOC 346 or permission of instructor.

**CJ 360 Evidence and Criminal Procedure (3)** A review of procedural and evidentiary rules and cases relating to the admissibility of criminal evidence. Search warrants, probable cause, investigative stops, identification procedures (e.g., line-ups), interrogation requirements, and the intricacies of hearsay are examples of focal topics. Prerequisite: CJ 201.

**CJ 370 Federal and State Courts (3)** A study of the structure and process of Federal and State Courts. (Cross-listed with PS 370.)

**CJ 380 Social and Political Problems in Law Enforcement (3)** A broad approach to the dilemmas of law enforcement in a free society. The nature and extent of police authority. Specific problems in the light of legal principles, philosophy and the Constitution. Prerequisite: CJ 201 and 301.

**CJ 381 Human Relations in Criminal Justice (3)** Examination of the complex variables related to criminal justice and community relations. Problems of police interactions with the community.

**CJ 385 Comparative Criminal Justice System (3)** A cross-national analysis and evaluation of selected criminal justice and legal systems with emphasis upon the effects of diverse political ideologies on theory and practice. It is recommended that PS 335, Political Ideologies, be completed before or taken concurrently to enroll in this course.

**CJ 388 Elderly Offender (3)** This course examines the growing problem of the elderly criminal and how our criminal justice system is responding to this emergent social problem.

**CJ 401 Community Corrections (3)** Analysis of rehabilitation and reintegration programs based in the community. Examination of rationale, structures and procedures. Problems of implementation and evaluation. Prerequisite: CJ 345.

**CJ 402 Case Law Studies (3)** An analysis of Court of Appeals and Supreme Court cases relating to a variety of substantive criminal laws, evidence, and procedure. Course is designed to expand students' knowledge of continually evolving legal concepts, competing points of view, and the reasoning processes of the courts. Students submit written case summaries and brief oral presentations. Prerequisite: CJ 305 or 360.

**CJ 410 Criminology (3)** An investigation of the complex phenomena of crime and deviance in the United States, which emphasizes attempts at the scientific study of cultural, social and behavioral factors. (Cross-listed with SOC 410.) Prerequisite: SOC 211.

**CJ 490 Selected Topics in Criminal Justice (1-4)** Forum for special course offering focusing upon selected topics of particular significance or current importance or interest.

**CJ 491 Seminar in Criminal Justice Administration (3)** An investigation of current trends and issues in criminal justice administration. Special emphasis will be placed on administrative process, organizational decision-making and supervisory practices in criminal justice organizations. Prerequisite: Junior or Senior standing.

**CJ 493 Directed Reading in Criminal Justice (1-4)** Selection and completion of specific research project in criminal justice. Prerequisite: Permission of instructor.

**CJ 494 Directed Research in Criminal Justice (1-4)** Selection and

completion of specific research project in criminal justice. Prerequisite: Permission of instructor.

**CJ 496 Field Work (3)** Students will be assigned, after mutual agreement and definition of tasks, to a department or agency involved in or related to criminal justice. Supervised experience and work with clients as appropriate. Pass/Fail. May enroll in this course twice.

**CJ 497 Police Academy Training (12)** Students in the course will attend Northeastern Michigan Regional Police Academy at Delta College. To obtain SVSU academic credits, students must successfully meet the academy standards. Prerequisite: Permission of instructor.

## Economics

**ECON 125 Introduction to Economics (3)** An introduction to basic concepts and methods of economics. These concepts and methods are illustrated by application to the contemporary economy of the United States.

**ECON 151 Computer Application in Business (2)** Introductory course using standard software programs that frequently are encountered in business and management situations. Taught through microcomputers and terminals.

**ECON 200 International Economic Issues (3)** This course has two principle objectives: 1) to acquaint the student with the importance of cultural and political issues in world trade matters, and 2) to review and analyze key current economic issues such as OPEC, the international debt crisis, challenges to the global monetary order, the multinational corporation as a challenge to the international system, economic development (aid relations between rich and poor states), trade wars, the rise of global competition for resources and markets, and other timely issues.

**ECON 214 World Production and Resource Use (3)** The course examines world population, resource use, production, consumption, trade, and transportation in different sectors such as agriculture, manufacturing, and service. Further, it analyzes the possible impact of current and changing economic situations of the world on our domestic economy.

**ECON 221 Principles of Macroeconomics (4)** An introduction to macroeconomics, with emphasis on the institutions that affect our well-being. The major "economic tools" are introduced, including the laws of supply and demand, mainstream macroeconomic theories, and models of international trade and development. Issues of national income determination, employment, inflation, and monetary and fiscal policies receive significant attention. Ethical considerations of established and alternative social institutions are weighed.

**ECON 222 Principles of Economics II (4)** A continuation of ECON 221 with major emphasis upon microeconomics. Areas covered will include the economics of the firm and resource allocation, current domestic economic problems, international economics, the underdeveloped countries and the challenge of alternative economic systems. Prerequisite: ECON 221.

**ECON 235 Introductory Statistics (4)** Collection, analysis and statistical interpretation of data that include description of data, elementary probability theory, sampling, statistical estimation and inference. Prerequisite: MATH 103 or satisfactory score on pretest.

**ECON 301 Money, Credit and Banking (3)** A basic course dealing in money through the study of monetary theory and finance institutions, monetary history of the United States, the international money system and current problems in monetary policy. Prerequisite: ECON 222, ECON/MKT 236 and Junior standing.

**ECON 303 The Economics of Environmental Pollution (2-3)** This course will be concerned with the application of the tools of economic analysis from the areas of value theory and employment theory to particular environmental problems, such as air and water pollution and recycling. Prerequisite: ECON 222 and Junior standing.

**ECON 304 Income and Employment Theory (4)** An examination of the forces that determine the general level of prices, employment and output. Prerequisite: ECON 222 and Junior standing.

**ECON 315 The Price System (4)** A study of the role of price in organizing economic activity. Prerequisite: ECON 222 and Junior standing.

**ECON 324 Economics of Labor (2-4)** Development of labor organizations from the early association of workers to the present. Analysis of the problems of control over wages, hours and working conditions and the

means to obtain and exercise this control by labor organizations. Prerequisite: ECON 222 and Junior standing.

**ECON 335 Applied Statistics (2)** Application of statistical techniques to forecasting and other business and economics problems. Topics covered are regression, correlation, analysis of variance, time series and index numbers, some nonparametric techniques and Bayes' Theorem. Prerequisite: ECON 235.

**ECON 353 The History of Economic Ideas (4)** This course searches for the origin of many of our current economic policies in the writings of original contributors to economic theory. The original works of Adam Smith, Karl Marx and many others are stressed. Prerequisite: Junior standing.

**ECON 360 Business Calculus (3)** This course develops an intuitive understanding of calculus concepts while emphasizing the usefulness of calculus to solve managerial, financial and economic problems. Covers calculus topics most applicable to business situations. Prerequisite: ECON 222 and MATH 120B.

**ECON 361 Mathematical Economics I (4)** Functions, analytical geometry, differentiation, integration, differential equations and their application in economics. Recommended for students preparing for graduate study. Not intended for students who have had MATH 162. Prerequisite: ECON 222 and Junior standing.

**ECON 363 Business and Economic Forecasting (4)** Theories and analysis of fluctuation in economic activity. Forecasting techniques and formulation of short-term and long-term models for business and government. Prerequisite: ECON 222, ECON 335 and Junior standing.

**ECON 370 Regional Economics (3)** The application of economic analysis to the location decisions of firms, households and governments. Analysis of the level, distribution, stability and growth of income and employment in economic regions. The course will include a resource base as a class project. Prerequisite: ECON 222 and Junior standing.

**ECON 375 Managerial Economics (4)** The role and function of business firms in the economy and the application of economic theory to managerial decisions, including theoretical models, practical business cases and implications for public policy. Prerequisite: ECON 222, ECON 335 and Junior standing.

**ECON 390 Current Economics Problems (2-4)** An examination of the contributions that economic analysis can make to the solution of a diverse set of problems currently facing the society. While the specific topics covered will vary, some typical examples might include the energy crisis, exploitation and discrimination, income distribution, unemployment, inflation, poverty and the negative income tax. Prerequisite: Junior standing.

**ECON 402 Public Finance (4)** A theoretical and institutional approach to government finance organized around the allocation, distribution, stabilization and growth functions. Prerequisite: ECON 222 and Junior standing.

**ECON 424 Industrial Organization (3)** The structure of industry is studied in terms of business performance, behavior, and competitiveness. Topics include pricing strategies, integration of business enterprises, and international comparisons. Economic efficiency is contrasted with current antitrust laws. Prerequisite: ECON 222 and Junior standing.

**ECON 441 International Economics (3)** A general course in the field of international economic relations with emphasis on the fundamentals of international trade theory. Prerequisite: ECON 222 and Junior standing.

**ECON 461 Introduction to Econometrics (3)** The formulation of models of economic behavior and methods of estimating and testing these models. Some of the topics included are: time series, cross section and factor analysis data, demand analysis and macroeconomic models. Prerequisite: Junior standing and ECON 335 plus adequate mathematical background.

**ECON 465 Economic Development (4)** A study of economic development problems and programs including a review of economic planning techniques. Prerequisite: ECON 222 and Junior standing or permission of the instructor.

**ECON 493 Directed Reading in Economics (1-4)** Student must submit a plan of study for approval before enrolling. Prerequisite: Junior standing and permission of instructor.

**ECON 497 Senior Thesis (1-4)** Student must submit a plan of study for approval before enrolling. Prerequisite: Junior standing and permission of instructor.

## Educational Leadership and Services

**EDL 300 Foundations of Education: K-12 (3)** This course is a survey of the historical, philosophical and social foundations of education used as a means for understanding educational thought and practices. Prerequisites: Students must be accepted into the College of Education. Secondary students take EDL 300 in conjunction with TE 302. Elementary Education students take in conjunction with any methods class.

**EDL 305 Computer Applications in the Secondary and Middle Schools (3)** Introduces students to teaching methods that work well when combined with the microcomputer and associated applications software. Students may work on the Internet, participate in video conferences and learn to employ several digital communications tools. Recommended: concurrent enrollment in TE 302. Prerequisite: Acceptance to the Teacher Education Program.

## Electrical and Computer Engineering

**ECE 101 Engineering Careers and Concepts (2)** Introduction to engineering careers, including the ethical, social, professional and economic environment in which engineering is practiced today. Students also will be introduced to fundamental concepts and modern methods for solving engineering problems through a semester-long design project. (2-0). Prerequisite: Completion of Math Basic Skills requirement. (Cross-listed with ME 101.)

**ECE 216 Digital Circuits (3)** Binary number system; Boolean algebra, Karnaugh maps, basic logic gates, combinational circuits and designs, sequential circuit design using flip-flops, counters and shift registers, digital arithmetic, memory devices and basic structures of a microprocessor. (3-0).

**ECE 216L Digital Circuits Lab (1)** Laboratory experiments to follow the ECE 216 course material requiring design and implementation of logic functions; design and implementation of sequential circuits using counters, shift registers and digital arithmetic elements. (0-3).

**ECE 235 Circuits I (3)** Techniques of circuit analysis, network theorems, sinusoidal analysis, the phasor concept, alternating current steady state analysis, average and RMS values and power. (3-0). Prerequisite: MATH 122, 140 or MATH 150. Corequisite: ECE 235L.

**ECE 235L Circuits I Lab (1)** DC transient circuits, concepts of impedance and admittance, RLC circuit analysis, polyphase circuits, network analysis, resonance and frequency response. (0-3). Corequisite: ECE 235.

**ECE 302 Engineering Analysis (3)** Applications of mathematical and computational techniques in engineering and science. Topics include probability, statistics, complex variables, discrete mathematics, Fourier analysis, and partial differential equations. Cross listed with ME 302. Prerequisite: MATH 262.

**ECE 318 Electronic Circuits I (3)** Diode circuits and applications, operation and characteristics of transistors, small signal analysis and design, multi-stage amplifier design, frequency response, differential amplifiers. Prerequisite: ECE 235 and MATH 161. Corequisite: ECE 318L.

**ECE 318L Electronic Circuits I Lab (1)** Diode characteristics and applications, design of BJT and FET biasing circuits and small signal amplifiers; measurement of gain and I/O resistances. (0-3). Corequisite: ECE 318.

**ECE 335 Circuits II (3)** Polyphase circuits, resonance and frequency response, complex frequency. Transient and forced response of RL, RC and RLC circuits, application of unit step forcing function. Fourier analysis, Fourier transform, Laplace transform techniques. (3-0). Prerequisite: ECE 235 and MATH 161.

**ECE 341 Electrical Machinery (3)** Steady state analysis and design concepts of transformers, AC and DC rotating machines. Introduction to dynamic modeling of electric machines, cold-state and computer-based motion control. (3-0). Prerequisite: ECE 235 and MATH 161. Corequisite: ECE 341L.

**ECE 341L Electrical Machinery Lab (1)** Experimental investigation of the characteristics and operating parameters of DC generators and motors, single-phase and three-phase induction motors, synchronous motors and alternators. Single-phase and three-phase transformers and magnetic circuits. Emphasis is placed on control techniques and model simulation. (0-3). Corequisite: ECE 341.

**ECE 355 Microprocessors/Microcomputers (3)** Microprocessor architecture; functional operation of solid state memories, assembly language software development, microprocessor I/O interface design, selection of microprocessor system, examples of microprocessor based system design. (3-0). Prerequisites: ECE 216. Corequisite: ECE 355L.

**ECE 355L Microprocessors/Microcomputers Lab (1)** Experimental investigation of microprocessor architecture and, assembly language software design, I/O interface techniques, microprocessor-based application system design. Corequisite: ECE 355.

**ECE 358 Electronic Circuits II (3)** Operational amplifier analysis and design, multi-stage amplifiers, feedback amplifiers and oscillators, analog filter oscillators and phase-locked loops. Prerequisite: ECE 318. Corequisite: ECE 358L.

**ECE 358L Electronic Circuits II Lab (1)** Computer-aided design of BJT-, FET-, and Op. Amp.-based single and multi-stage amplifiers; small-signal and large-signal amplifiers; feedback amplifiers; active filters; Op. Amp.-circuits and applications. (0-3). Corequisite: ECE 358.

**ECE 360 Automatic Control Systems (3)** Characteristics of open-loop and closed-loop control systems, performance specifications. Mathematical modeling of physical systems; stability; root locus, Nyquist and frequency response. Controller design using root locus and frequency response methods. (3-0). Prerequisite: MATH 262 and ECE 335.

**ECE 368 Computer Engineering I (3)** Generic PLD and FPGA based digital design; sequential circuit design and finite-state machine design. Processor and control design. Design and analysis of computer algorithms. Design and implementation of practical computer systems with emphasis on data path and bus designs. The course and laboratory will include advanced digital and computer design experience. Prerequisite: ECE 216. Corequisite: ECE 368L.

**ECE 368L Computer Engineering I Lab (1)** The laboratory will include experiments as related to advanced digital and computer design, sequential logic circuit design and applications; experiments related to computer peripheral interfacing and real-time applications of computers. (0-3). Corequisite: ECE 368.

**ECE 436 Measurement and Instrumentation (2)** Theory of measurement and errors. DC and AC indicating instrumentation; oscilloscopes; generation of waveforms; frequency counters and spectrum analyzers. Microprocessor-based instrumentation; A/D and D/A converters; transducers and input signal conditioning; modern instrumentation concepts. (3-0). Prerequisite: ECE 358. Corequisite: ECE 436L.

**ECE 436L Measurement and Instrumentation Lab (1)** Experiments in the techniques of integrating electronic devices, transducers, and circuit components into instrumentation systems. (0-3). Corequisite: ECE 436.

**ECE 440 Linear System Analysis (3)** Two-port network parameters; interconnection of two-port networks, active network synthesis, state variable representation of electrical networks, solution of state equation, discrete time networks; linear system analysis and design; computer aided circuit design. Prerequisite: ECE 335.

**ECE 441 Electric Power Systems (3)** Generation of electrical power, transmission of power, inductance and capacitance of transmission lines. Analysis of short, medium and long lines. System modeling, load-flow solution and control. Economic operation of power systems. Symmetrical and unsymmetrical faults and system protection. (3-0). Prerequisite: ECE 235 and 341.

**ECE 445 Electromagnetic Fields (3)** Review of vector concepts, Gauss's law, boundary value problems in electrostatics, Ampere's law, magnetostatics, Faraday's law, Lorentz force. Dielectric and magnetic media. Maxwell's equations. Electromagnetic waves. Prerequisite: PHYS 212 and ECE/ME 302.

**ECE 450 Digital Signal Processing (3)** General concepts of digital signal processing, continuous-time and discrete-time system analysis, frequency response of discrete-time systems, discrete transforms and their applications, filter structures and design. Prerequisite: ECE/ME 302.

**ECE 451 Applications of Microcomputers (3)** Applications of microcomputers in engineering disciplines, software and hardware trade offs, selection of microcomputers, and microcomputer-based systems design.

**ECE 453 Electronic Communications (3)** Communication signals and systems; mathematical analysis of signals used in communication systems; amplitude, phase and frequency modulation; modulation and

demodulation techniques; selected topics and applications in communication systems. Prerequisite: ECE 358 and MATH 262. Corequisite: ECE 453L.

**ECE 453L Electronic Communications Lab (1)** Function generator, voltage controlled oscillator, phase-locked loop, AM and FM modulators and demodulators, pulse modulation, frequency shift keying modulator and demodulator and time division multiplexing. (0-3) Corequisite: ECE 453.

**ECE 455 Data Communication (3)** Data transmission through a medium, encoding and decoding of analog and digital data, digital data communication techniques, data link controls for reliable communication, multiplexing, selected topics in data and computer communication systems. Prerequisite: Senior standing or permission of instructor.

**ECE 458 Power Electronics (3)** Principles and concepts of power semiconductor devices/circuits and their application to the control of motion drives and high voltage energy systems. Prerequisite: ECE 318.

**ECE 460 Digital Control Systems (3)** Concepts and techniques involved in the analysis and design of digital control systems. Topics include: discrete-time systems; Z-transform and state-variable analysis; open- and closed-loop discrete-time systems; stability analysis in the Z-plane; compensation and digital-controller design; pole-assignment and state estimation; digital filter design. (3-0). Prerequisite: ECE 360. Corequisite: ECE 460L.

**ECE 460L Digital Control Systems Lab (1)** Use of the digital computer for the analysis and design of discrete time control systems. Design of digital controllers for specific performance indices. Microprocessor control of stepper and servomotors and introduction to programmable controllers. (0-3). Corequisite: ECE 460.

**ECE 461 Modern Control Systems Design (3)** Design of analog and digital control systems using state-space techniques. Topics include: state and output feedback design, multi variable and optimal control methods, nonlinear and adaptive control. Prerequisite: ECE 360.

**ECE 468 Computer Engineering II (3)** Advanced topics in computer design that include analytical models for computer system architectures; architectural simulations; and basics of parallel architectures. Design and analysis of algorithm specific computer architectures; FPGA implementation for computer hardware design and the concept of distributed computing system. The course will include a major computer design project. Prerequisite: ECE 302, ECE 355 and ECE 368.

**ECE 470 Robot Dynamics and Control (3)** Analysis and design of computer-controlled robotic manipulators. Topics include: coordinate system transformations, development of robot kinematics and dynamic modes. Trajectory planning and linear control of industrial robots. Prerequisite: ECE 355 or 360.

**ECE 471 Computer Applications to Power Systems (3)** Computer-aided design, analysis and control of power systems. Algorithms for formulation and modification of network matrices, three-phase network matrices, short-circuit analysis programs, load flow studies, programs for economic dispatch and automatic generation and control, transient stability studies, system simulation and design for stability improvement. Prerequisite: ECE 441 or permission of instructor.

**ECE 478 Introduction to VLSI (3)** MOS device characteristics and circuit techniques; VLSI fabrication techniques. VLSI design methods; logic and circuit simulations. Algorithm specific VLSI arrays. VLSI synthesis tools and VLSI architectures for practical computer systems. The course will include a major group custom VLSI design project. Prerequisite: ECE 318 and 368.

**ECE 485 Digital and Satellite Communications (3)** Satellite system configurations and link calculations; signal processing and multiplexing in terrestrial interface subsystems; baseband transmission systems; power efficient modulation techniques for linear and nonlinear satellite channels; and spectral efficient modulation techniques for satellite systems. (3-0) Prerequisite ECE 453 or permission of instructor.

**ECE 490 Special Topics (1-4)** Topics of special value to students are offered periodically.

**ECE 496 Engineering Field Work (3)** Students will be assigned, after mutual agreement and definition of tasks, to an engineering-related position in a private company or public agency. A co-op or internship position arranged through the SVSU co-op program is the required format. A student will be assigned a faculty advisor who will be available for consulta-

tion and guidance and who will visit the work site at least once each semester. A written paper or report will be required. (May enroll twice but only one enrollment will apply to the program.)

**ECE 497 Senior Design Project I (2)** Students will complete a capstone design project over a two-course sequence (ECE 497 and ECE 499) incorporating all aspects of the design process. This course will emphasize project planning, feasibility studies and technical report writing. (1-3). Prerequisite: Senior standing.

**ECE 499 Senior Design Project II (2)** Continuation of ECE 497. This course will emphasize prototype construction and project documentation. The completed project will incorporate engineering standards and realistic constraints, including most of the following considerations: sustainability, health and safety, and economic, ethical, social and political aspects of design. (0-6). Prerequisite: ECE 497.

## Engineering Technology Management

**ETM 315 Industrial Instrumentation (2)** Fundamentals of measurement and measuring devices and systems of electrical, mechanical or electro-mechanical nature. Instrument characteristics and usage, data and error analysis and calibration. Design and implementation of measurement projects using modern instrumentation techniques applied to a variety of practical situations. (1-3). Prerequisite: PHYS 112 or equivalent.

**ETM 333 Introduction to Industrial Engineering (3)** Study of the basic techniques used by industrial engineers such as plant layout, plant location, materials handling, cost and value, methods engineering and time study, job evaluation and wage payment, purchasing and inventory control, manufacturing engineering and industrial relations.

**ETM 364 Quality Control and Assurance (3)** Study of various aspects of quality, organization for quality, quality costs and improvement, designing for quality, vendor relations, inspection testing and sampling, statistical methods, customer relations; and product safety codes for local, State and Federal. Corporate standards.

**ETM 415 Senior Design Lecture/Laboratory (3)** A single project or design task will be carried out by the student. A prospectus must be submitted for approval before the actual work is started. A final written report will be required. (1-3). Prerequisite: Senior standing or permission of instructor.

**ETM 490 Special Topics (1-4)** Topics of special value to students are offered periodically.

**ETM 497 Senior Research Project (1-5)** Senior research project for which students must submit a plan of study before enrollment. Prerequisite: Senior standing and permission of instructor.

## English

**ENGL 080 Writing Skills (3)** Emphasis on the recognition and elimination of errors in usage and sentence structure. Practice in generating clear and correct short units of English discourse—the sentence, the paragraph and the short essay. Attention to individual needs. Pass/no credit. See note under Basic Skills.

**ENGL 082 Foundations for College Reading and Learning (3)** An intensive, individualized course for students needing extensive preparation in reading and vocabulary development. Includes laboratory practice as well as instruction. To be taken in the first year of college study. A grade of “P” enables students to register for English 103. Pass/No credit (2-3). See note under Basic Skills.

**ENGL 101 English as a Second Language (3)** A course designed for students for whom English is a second language; individualized attention to aspects of the written and spoken language that present difficulties to non-native students. Offered for pass/no credit.

**ENGL 103 College Reading and Learning (3)** An intensive, individualized course in effective college reading and learning strategies. Emphasizes critical reading, reading efficiency, and vocabulary development. Includes laboratory practice as well as instruction. Fulfills the basic skills requirement in reading. Prerequisite: a grade of “P” in English 082 or satisfactory score on the Basic Skills Test in reading, or junior class standing. (2-3). See note under Basic Skills.

**ENGL 104 Strategies for Academic Success (3)** A University-level learning and reading strategies course. Major topics include goal setting, time management, efficient and critical reading, notetaking, concentration

and memory development, study techniques, test taking and vocabulary development. Fulfills the basic skills requirement in reading. Prerequisite: Satisfactory performance on the Basic Skills Test in Reading. (3-0) See note under Basic Skills.

**ENGL 111 Composition I (3)** Frequent writing assignments to produce informal and formal texts, with emphasis on academic thinking and writing. Develops effective writing processes, from inventing and investigating through organizing, drafting, revising and editing. Helps students meet the needs of their readers. Includes workshop approaches to develop students’ ability to analyze and evaluate their own writings as well as the writings of others. Prerequisite: “P” grade in ENGL 080 or satisfactory performance on Course Placement Test in Writing.

**ENGL 112 Composition II (3)** Expands academic writing practices begun in Composition I, especially processes of critical reading and writing. Frequent writing assignments for different audiences, with attention to disciplinary conventions and rhetorical strategies. Workshop approaches. Includes work in developing research questions and using library and electronic sources. Refines abilities to analyze both student and professional work. May be offered as a topics course. Prerequisite: “C” grade or better in ENGL 111 or satisfactory performance on Course Placement Test in writing.

**ENGL 200 Literary Interpretation (3)** Understanding and appreciation of some major texts from several genres—novels, short stories, poems, plays, film and nonfiction prose. Prerequisite: ENGL 080, 082, 103 or 104, and 111 or waiver thereof.

**ENGL 201 Introduction to Literary Studies (3)** Emphasis on defining literature as a field of study, and acquaintance with literary genres and critical terms. Practice in talking, reading, and writing about literature. Exploration of canonical and non-canonical texts and disciplinary debates. Prerequisite: ENGL 111.

**ENGL 202 Literary Genre (3)** Literary Genre is the grouping of literary works by common features, such as form, structure, purpose and effect. This communication-intensive course studies major works organized in terms of one or more literary genres. (The title in the Course Schedule will reflect the specific subject matter of the course.) Prerequisite: ENGL 111.

**ENGL 203 Historical Approaches to Literature (3)** Study of the relationships between works of literature and their historical and cultural contexts. This communication-intensive course may involve study of historically influential works, or study of the development of specific bodies of literature in particular cultural or historical contexts. (The title in the Course Schedule will reflect the specific subject matter of the course.) Prerequisite: ENGL 111.

**ENGL 204 Thematic Approaches to Literature (3)** This communication-intensive course studies works of literature chosen on the basis of specific themes or topics. (The title in the Course Schedule will reflect the specific subject matter of the course.) Prerequisite: ENGL 111.

**ENGL 205 Studies in World Literature (3)** Students explore literature from multiple cultures through study of works of fiction, poetry, drama and/or film by authors from outside the U.S., Great Britain and English Canada. Works selected on the basis of common theme, genre, historical period and/or geographical area. Literature not originally in English will be studied in translation. (The title in the Course Schedule will reflect the specific subject matter of the course.) Prerequisite: ENGL 111. Cross-listed with MFL 205.

**ENGL 212 Topics in Critical Writing (3)** Emphasizes processes of critical reading and writing, as applied to several modes of communication. Frequent writing assignments for different audiences, with attention to disciplinary conventions and rhetorical strategies for argument in academic discourse. Workshop approaches. Includes work in developing research questions and using library and electronic resources. Refines abilities to analyze both student and professional texts. Specific content for reading may be organized by theme. Sample topics: Introduction of Rhetoric, Reading Meida, Writing About the Holocaust, Writing in Cyberspace. (Cross-listed with ENGL 285.) Prerequisite: ENGL 111 and Sophomore standing.

**ENGL 219 Interpretation of Film (3)** Study of the film as a distinctive art form of the 20th century. Emphasis will be on film appreciation rather than history of the cinema or film making. Viewing and discussion of films by major international directors. (2-2) (Cross listed with HUM 219).

**ENGL 225 Classic Literary Texts (3)** Survey of writings that have had significant historical or cultural influence in the West—for example, classical Greek and Roman works, the Bible, or Medieval and Renaissance texts, or later texts. Prerequisite: ENGL 080, 082, 103 or 104, and 111, or waiver thereof.

**ENGL 229 Literature as Cultural Text (3)** Interpreting literature in conjunction with popular writings or other materials. Examination of ways in which literary texts function culturally. Prerequisite: ENGL 080, 082, 103 or 104, and 111, or waiver thereof.

**ENGL 230 Reading Poetry (3)** Introduction to the arts and purposes of poetry. Discussions of a wide range of shorter poems from several historical periods. Prerequisite: ENGL 080, 082, 103 or 104, and 111 or waiver thereof.

**ENGL 244 Introduction to Language Study (3)** The nature and structures of language; language development and contrastive linguistics; language use in culture and society; fundamental aspect of English language study. Includes selected issues of current significance, such as language and gender, dialects, and language and social class.

**ENGL 250 Gender Studies (3)** Exploration of literature and other cultural texts with emphasis on ways in which concepts of gender have affected the creation of texts and their reception. Prerequisite: ENGL 080, 082, 103 or 104, and 111, or waiver thereof.

**ENGL 253 African Literature (3)** A survey of literature from sub-Saharan Africa. Works not originally in English will be taught in translation.

**ENGL 254 Young Adult Literature (3)** Reading and critical analysis of young adult literature and its role in the secondary school curriculum. (Cross-listed with TE 319).

**ENGL 261 Introduction to Creative Writing (3)** An introduction to writing fiction and poetry. A workshop-based class with frequent writing assignments and small group work. Prerequisite: ENGL 111 or permission of instructor.

**ENGL 262 Introduction to Journalism (3)** News reporting and writing. Emphasis on stylistic elements peculiar to journalism. Prerequisite: ENGL 111.

**ENGL 264 Literature of the Middle East (3)** An exploration of Middle Eastern cultures through indigenous literatures. Survey of the development of Middle Eastern literary traditions, with a focus on selected contemporary issues as portrayed through literature. All readings in English translation.

**ENGL 270 Forms of Popular Literature (3)** An exploration of one or more forms of popular literature, such as fantasy, science fiction, westerns, mysteries, and comedies, among others. Prerequisite: ENGL 080, 082, 103 or 104, and 111, or waiver thereof.

**ENGL 271 American Literature (3)** A survey of major authors and literary movements from the beginning to 1900. Prerequisite: ENGL 080, 082, 103 or 104, and 111, or waiver thereof.

**ENGL 272 American Literature (3)** A study of major authors and literary movements from 1900 to present. Prerequisite: ENGL 080, 082, 103 or 104, and 111, or waiver thereof.

**ENGL 281 British Literature (3)** Survey of British literature from the medieval period through the later 18th century. This course is strongly recommended as a preparation for all 300-400 level literature courses. Prerequisite: ENGL 080, 082, 103 or 104, and 111, or waiver thereof.

**ENGL 282 British Literature (3)** Survey of British literature from the Romantic Period through the later 20th century. This course is strongly recommended as a preparation for all 300-400 level literature courses. Prerequisite: ENGL 080, 082, 103 or 104, and 111, or waiver thereof.

**ENGL 285 Writing in Cyberspace (3)** Facilitates the student's exploration of electronic media through analysis and practice of the various means of electronic communication used in personal, academic and work arenas. Students will have varied opportunities to experience both synchronous and asynchronous communication, improve their writing and speaking competency, and prepare for future employment. Prerequisite: ENGL 111 or placement; sophomore standing.

**ENGL 290 Special Topics in Writing (1-3)** Prerequisite: ENGL 111 or permission of instructor.

**ENGL 296/396 Internship in Professional and Technical Writing (3)** Students secure an internship and work on writing projects under super-

vision of English faculty and a sponsoring organization. Internships must involve 10 to 14 hours a week for a minimum of 10 weeks. Prerequisite: Successful completion of ENGL 300, ART 260, portfolio review, a writing test, and a 3.00 GPA. Pass/no credit.

#### **ENGL 299 Selected Topics in Literature (1-4)**

**ENGL 300 Writing in the Professions (3)** Emphasis on transactional writing – writing to get things done. Focuses on purpose, audience analysis, and writing as problem solving, but also includes work in organization and editing. Prerequisite: ENGL 111 and 212 or other General Education Category 10 course.

**ENGL 301 Writing Interpretive Papers (3)** Developing writing skills appropriate to more extended and in-depth literary interpretations. Emphasis on generating and framing questions for inquiry, supporting ideas, and summarizing and synthesizing secondary sources to develop interpretation. Includes introduction to library resources in English Studies. Prerequisite: ENGL 111 and 212 or other General Education Category 10 course, and ENGL 201 (latter may be taken concurrently). To be taken prior to or concurrently with 300-400 literature courses.

**ENGL 304 Technical Report Writing (3)** Report writing for scientists and engineers. Theory and practice of audience analysis, report organization, revision, editing, oral presentations and visual aids. Prerequisite: ENGL 111 and 212 or other General Education Category 10 course.

**ENGL 305 Creative Writing: Poetry (3)** The writing of poetry in different forms and on different subjects. A workshop-based class with frequent writing assignments and small group work. Prerequisite: ENGL 261 or permission of instructor.

**ENGL 306 Creative Writing: Fiction (3)** The writing of fiction. A workshop-based class with frequent writing assignments and small group work. Prerequisite: ENGL 261 or permission of instructor.

**ENGL 307 Ethnic Literature in the U.S. (3)** A study of the literature of one or more ethnic groups. Specific subject to be announced by instructor. Prerequisite: ENGL 201.

**ENGL 311 Literature of Great Britain and the U.S. I (3)** A study of selected significant authors, genres, and historical trends and cultural influences in British literature and literature of the United States through 1800, with attention to intertextuality. Emphasis upon British literature, with consideration of literature of the United States. Prerequisite: ENGL 201.

**ENGL 312 Literature of Great Britain and the U.S. II (3)** A continuation of English 311 to the present. Emphasis upon literature of the United States, with consideration of British Literature. Prerequisite: ENGL 201.

**ENGL 315 Survey of Shakespeare (3)** A study of representative plays including comedies, tragedies, histories and problem plays. Prerequisite: ENGL 201.

**ENGL 334 Studies in Poetry (3)** Close examination of a particular theme or form of poetry. Prerequisite: ENGL 201.

**ENGL 336 Studies in Fiction (3)** Investigation into a specific aspect of prose narrative, such as technique, form or development. Prerequisite: ENGL 201.

**ENGL 338 Studies in Drama (3)** Close examination of a particular aspect of dramatic literature, such as types of plays or critical issues in drama. Prerequisite: ENGL 201.

**ENGL 340 Writing in Community Organizations (3)** Teaches students to understand the mission, persona and operating patterns of non-profit agencies and use that knowledge to write for various situations and purposes, including institutional development, public relations, fund raising, and services to clients. Provides practice in a variety of genres used in organizations. Includes collaborative writing. Recommended: Completion of ENGL 300, 301 or 304.

**ENGL 341 Contemporary American Fiction (3)** A study of American fiction from 1960 to the present. Prerequisite: ENGL 201.

**ENGL 345 History of the English Language (3)** A study of the origins and development of English.

**ENGL 350 Dialects in Contemporary English (3)** A study of English Dialects around the world with a focus on American varieties. Topics may include social and regional variation, sociolinguistic methodology, English-based creoles, and African-American and Hispanic varieties of English as they may appear in oral and written forms.

**ENGL 355 Language in Society (3)** Exploration of the structure and functions of language in speech communities around the world. Topics include such issues as language, gender, class and ethnicity; the politics and economics of language, language maintenance and shift; and language planning and standard language.

**ENGL 360 Grammar of Contemporary English (3)** A descriptive approach to analyzing the sentence structure of standard written English. Designed to produce a comprehensive understanding of sentence grammar.

**ENGL 365 TESOL I: Introduction to Language Acquisition and Teaching (3)** Fundamental aspects of second-language acquisition and teaching as applied to English as a second or foreign language. Must be taken prior to enrolling in a TESOL practicum. Prerequisite: ENGL 111.

**ENGL 370 Language in Education (3)** This course will focus on language theory, practice and policies; language variety in the classroom and its relationship to speech, writing and reading; and language as it is affected by other sociolinguistic issues.

**ENGL 372 History of Literary Criticism (3)** A selective study of principal ideas in literary criticism from classical to contemporary times. Prerequisite: ENGL 201.

**ENGL 373 Literary Theory (3)** A study of selected 20th century approaches to literature (e.g. formalist, psychoanalytical, reader-response, post-structuralist, feminist). Prerequisite: ENGL 201.

**ENGL 380 Teaching the Art of Writing (3)** This course provides theoretical foundations and practical experiences as a basis for teaching writing. It focuses on contemporary theories and research on the writing process and the ways K-12 students learn to write and can use writing to learn in all disciplines. Prerequisites: ENGL 300 or 301, and admission to College of Education.

**ENGL 383 Tutoring Writing (3)** Study of principles for effective tutoring in writing, models of the writing process, the underlying assumptions of an academic discourse community, and approaches to error analysis. Concurrent tutoring experience required. Prerequisite: ENGL 300, 301 or 304, and permission of the instructor.

**ENGL 400 Style, Editing and Desktop Publishing (3)** Improving style as it relates to purpose, audience and genre. Practice in editing for content, copy editing and document design using desktop publishing techniques. Prerequisite: ENGL 300, 301, 304 or permission of instructor.

**ENGL 410 Topics in Medieval and Early Modern Literature (3)** A semester-long study of a particular theme or subject as it relates to the development of literature in English during the Middle Ages or the Renaissance. Possible topics might include Dream Narratives, Women and Medieval Writing, the legend of King Arthur, Elizabethan Mysteries of Love and Power, or another subject as selected by the instructor. Prerequisite: ENGL 201.

**ENGL 415 Seminar in Selected Author Prior to 1800 (3)** An intensive study of the works of a single canonical figure prior to 1800. Subjects might include a major figure such as Chaucer, Spenser, Shakespeare, Milton or another writer of equal significance. Prerequisite: ENGL 201.

**ENGL 417 Seminar in Selected Author Post 1800 (3)** An intensive study of the works of a single canonical figure after 1800. Subjects might include William Wordsworth, Nathaniel Hawthorne, Charles Dickens, Mark Twain, Jane Austen, Virginia Woolf, William Faulkner, or another writer of equal significance. Prerequisite: ENGL 201.

**ENGL 426 Topics in 17th and 18th Century Literature (3)** A semester-long study of a particular theme or subject as it relates to literature in English written during the 1600s or 1700s. Topics might include Varieties of Songs and Sonnets, Literature of the Journey, Civil War and Restoration Diaries, Comedy and Satire, or another subject as selected by the instructor. (The title in the Course Schedule will reflect the specific subject matter of the course.) Prerequisite: ENGL 201.

**ENGL 431 Topics in 19th Century British Literature (3)** A semester-long study of a particular theme or subject as it relates to the literature of Great Britain written between 1800 and 1900. Topics might include Romantic Poetry, Social Protest Novels, the Literature of Decadence, the Victorian Age, or another subject as selected by the instructor. (The title in the Course Schedule will reflect the specific subject matter of the course.) Prerequisite: ENGL 201.

**ENGL 434 Topics in 20th Century British and Post-Colonial Literature (3)** A semester-long study of a particular theme or subject as it relates to the literature of the British Isles and the Commonwealth since 1900. Topics might include the Spirit of the Modern Age, Plays of Anger and Fear, West Asian and West Indian Voices, Women and Society, or another subject as selected by the instructor. (The title in the Course Schedule will reflect the specific subject matter of the course.) Prerequisite: ENGL 201.

**ENGL 441 Topics in 19th Century American Literature (3)** Variable specialized studies course in some aspect of American literature during the 1800s. Topics might include Horror and the Gothic Tale, African-American Slave Narratives, Realism and Naturalism, the City in Literature, or another topic as determined by the instructor. (The title in the Course Schedule will reflect the specific subject matter of the course.) Prerequisite: ENGL 201.

**ENGL 442 Topics in 20th Century American Literature (3)** Variable specialized studies course in some aspect of American literature during the 1900s. Topics might include the Cult of Experience, Poverty and Wealth, the Lost Generation, Black Women Writers, or another topic as determined by the instructor. (The title in the Course Schedule will reflect the specific subject matter of the course.) Prerequisite: ENGL 201.

**ENGL 461 Seminar in Creative Writing (3)** A seminar on various topics in creative writing. Particular emphasis determined by instructor. Prerequisite: a minimum of six previous credits of creative writing courses. May be repeated once for credit, with permission of instructor.

**ENGL 465 TESOL II: Assessment, Materials and Methods (3)** Applied methodology, resources identification and development, and assessment at all levels of TESOL. Students adapt the content of the course according to the TESOL environment in which they plan to teach. Includes classroom observation and practical experience. Must be taken prior to enrolling in a TESOL practicum. Prerequisite: ENGL 365 or permission of instructor.

**ENGL 480 Studies in Rhetoric (3)** Exploration of historical and contemporary theories of rhetoric as they apply to written, verbal and visual communication. Prerequisite: ENGL 300, 301 or 304.

**ENGL 481 Professional and Technical Documents (3)** Students, working individually and in groups, will create professional documents for users. Activities will include analyzing audiences, conducting research, developing schedules, writing and revising text, incorporating document design and integrating graphics. May include desktop publishing, web page design or multimedia. Prerequisites: ART 260, ENGL 300 or 304, and ENGL 400.

**ENGL 482 Methods of Teaching English (3)** An examination of the components that make up the English curriculum and their integration in secondary English classrooms. These include expository and creative writing, the reading and appreciation of literature, language study, classroom drama, and non-print media. Prerequisite: ENGL 300 or 301, and TE 302.

**ENGL 491 Seminar in Selected Author, Period or Topic (1-4).**

**ENGL 493 Directed Study (1-4)** Intensive study of an author, literary form or period. Prerequisite: Permission of instructor. Student must submit a plan of study for approval before enrolling. Prerequisite: ENGL 201.

**ENGL 496 Practicum in TESOL (1-6)** Supervised work in a setting appropriate to each student's current or future TESOL environment. Required for all students completing the endorsement or certificate programs. Prerequisite: ENGL 244, ENGL 365, ENGL 465 and permission of instructor.

**ENGL 499 English Colloquium: Theory and Practice of English (1)** Capstone for English majors; specific topics will vary. Students will discuss readings in colloquium format, which will assist them in considering English as a discipline and examining their own place within the discipline. Course work will include developing and assessing a portfolio of projects from previous English classes. Prerequisite: Senior class standing, completion of English core and at least three of the four courses required for English concentration.

## Finance

**FIN 104 Consumer Finance (3)** The course will give students a general exposure to the economic and social developments that continue to influence the personal financial planning environment. Topics include financial institutions, financial markets and government financial systems.

**FIN 302 Investment Analysis (3)** Basic concepts relating to security analysis, available investments and portfolio management. Risk and selection are explored in conjunction with market analysis and investment timing. Prerequisite: ECON 222 and Junior standing.

**FIN 303 Financial Institutions (3)** A sources and uses of funds approach is taken to study financial intermediaries such as savings and loan institutions, insurance companies, pension funds and credit unions. Other institutions such as the money and capital markets are treated extensively. The sources and uses of funds approach permits an analysis of the impact of this area of financial operations on the economy. Prerequisite: ECON 222 and Junior standing.

**FIN 304 Financial Management (4)** Basic theoretical framework for decision making in financial management within a corporate, social and political environment. Role of the financial manager in balancing risk and profitability. Financial planning to estimate sources and uses of funds. Fundamentals of capital budgeting and international finance. Case studies are used. Prerequisite: ACCT 214, ECON 235 and Junior standing.

**FIN 305 Principles of Risk and Insurance (3)** A study of risk and risk meeting methods with emphasis on insurance as a mechanism. Legal relationships, types of carriers, principle types of coverage and problems of risk managers. Prerequisite: Junior standing.

**FIN 306 Commercial Banking (3)** Problems of commercial banking discussed from the point of view of bank management; asset management, liability management, credit analysis, capital accounts, investment policies, as well as current topics including bank marketing, branch banking, bank holding companies etc. Prerequisite: ECON 222 and Junior standing.

**FIN 307 Real Estate Finance (3)** An analysis of the various types of real estate investments, the institutions involved in real estate finance and financial options utilized. Emphasis will be on current trade and techniques. Prerequisite: ECON 222 and Junior standing.

**FIN 310 International Finance (3)** A study of contemporary problems in international finance. An analysis of the international money and capital markets, working capital considerations, currency problems, capital budgeting problems as faced by multinational firms and international investments. Prerequisite: ECON 222, FIN 304 and Junior standing.

**FIN 401 Investment Strategy (3)** A study of the role of stocks and bonds in a dynamic economy with analysis of various theories and techniques available to achieve superior selection in management of securities. Prerequisite: FIN 302, FIN 304, ECON 222 and Junior standing or permission of instructor.

**FIN 403 Advanced Financial Management (3)** Case studies in financial management with emphasis placed on current problems and the strategies used by financial managers to solve them. Prerequisite: FIN 304 and Junior standing.

**FIN 405 Financial Policy and Topics (4)** This course is designed to serve as the capstone course in finance. Course topics include dividend policy, valuation of the firm, capital budgeting decisions and other topics of current interest in the financial sector. Prerequisite: FIN 304, LAW 308, and Junior standing or permission of the instructor.

**FIN 493 Directed Readings in Finance (1-4)** A student must submit a plan of study for approval by the faculty member and the dean before enrolling.

## French

**FREN 111 Elementary French I (4)** Introduction to the study of French language and culture, including the skills of reading, writing, listening and speaking. Emphasis on oral communication skills. Includes student work in language laboratory and computer laboratory.

**FREN 112 Elementary French II (4)** Continuation of the study of French language and culture, including the skills of reading, writing, listening and speaking. Emphasis on oral communication skills. Includes student work in language laboratory and computer laboratory. Prerequisite: FREN 111 or the equivalent.

**FREN 121 Spoken French (1)** Maintains and develops the conversational skills acquired in the first semester of the language. Discussions in large and small groups. Graded pass/fail. Will not count for the major or minor. Prerequisite: FREN 111 or equivalent.

**FREN 131 French for Reading Knowledge (3)** This course is for students who plan to pursue graduate studies in their own field. French 131 will prepare students for the Graduate Reading Examination in French. It also will assist any student to gain a reading knowledge of French. No major or minor credit will be given.

**FREN 211 Intermediate French I (4)** Study of French language and culture, including review of the basic elements of the language and further acquisition of communication skills in reading, writing, listening and speaking. Emphasis on French as an international language system and cultural system. Includes student work in language laboratory and computer laboratory. Prerequisite: FREN 112 or the equivalent.

**FREN 212 Intermediate French II (4)** Comprehensive review of French language and culture, and intensive work in written and oral communication. Emphasis on French as an international language system and cultural system. Includes student work in language laboratory and computer laboratory. Prerequisite: FREN 211 or the equivalent.

**FREN 272 French Literature in Translation (3)** Study of major French literary works in English translation. Texts may include those by Corneille, Racine, Moliere, Voltaire, Rousseau, Hugo, Balzac, Stendhal, Baudelaire, Camus, Sartre, de Beauvoir, and Ionesco. Credits earned in this course will not count toward the required number of credits for a major or minor in French.

**FREN 312 Introduction to French Literature (3)** Students read and discuss selected representative works from the Renaissance through the 20th century; also discussed are major literary/artistic movements of these periods. Course work includes readings, papers, exams, presentations. Prerequisite: FREN 212 or permission of instructor.

**FREN 321 French Composition (3)** Stresses the acquisition of grammar skills through original composition. Prerequisite: FREN 212 or permission of instructor.

**FREN 328 Business French (3)** A study of French business practices, terminology, correspondence and oral interactions. Topics such as banking, postal services, exporting, shipping and ordering will be examined. Prerequisite: FREN 212 or permission of instructor.

**FREN 332 French Conversation (3)** Oral proficiency is acquired through both guided and free discussion. Prerequisite: FREN 212 or permission of instructor.

**FREN 334 Phonetics (3)** A study of the rules of French pronunciation by learning the International Phonetic Alphabet. Students learn to perfect their pronunciation by intensive oral exercises. They are required to make tapes in the language laboratory. Prerequisite: FREN 212 or permission of instructor.

**FREN 340 Civilization (3)** Survey course of French culture from the Middle Ages to present time. Prerequisite: FREN 212 or permission of instructor.

**FREN 420 Literature of the 17th and 18th Centuries (3)** The primary focus of the course is reading and discussing selected literary writings of the neo-classical period (17th century) and the Enlightenment (18th century). In addition to intensive reading and discussions, course work includes written papers, presentations, and exams. Prerequisite: completion of one 300-level French course or permission of instructor.

**FREN 425 Literature of the 19th Century (3)** Novel, poetry and drama from Romanticism to Naturalism. Prerequisite: Completion of one 300-level course or permission of instructor.

**FREN 430 Literature of the 20th Century (3)** Novel, poetry and drama from Naturalism to present. Prerequisite: Completion of one 300-level course or permission of instructor.

**FREN 435 Literature of French Canada (3)** A study of representative major works of 19th and 20th century French Canadian literature, including drama, poetry and novels. Emphasis on Quebec writers but Acadian and other French Canadian writers included. Prerequisite: Completion of one 300-level course or permission of instructor.

**FREN 441 Contemporary France (3)** Intensive study of the political, social and artistic life of 20th-century France. Prerequisite: Completion of one 300-level course or permission of instructor.

**FREN 451 Advanced French Composition and Conversation (3)** An in-depth study of French grammar and conversation. Original compositions and free conversation will be stressed. Prerequisite: FREN 321 or 332 or permission of instructor.

**FREN 455 Intensive Language Review (3)** This course is a comprehensive review of the major elements of written and oral French. Course work includes written and oral review exercises, compositions, presentations, and discussions. Prerequisite: FREN 321 or FREN 332 or FREN 451 or permission of instructor.

**FREN 457 French/English Translation (3)** The focus of this course is for students to learn and to apply the techniques of translating selected texts – including commercial, scientific, literary and others – from French to English and from English to French. Prerequisite: FREN 321 or FREN 451 or FREN 455 or permission of instructor.

**FREN 491 Seminar in French Studies (3)** Prerequisite: Permission of instructor.

**FREN 499 Directed Study (1-4)** With the guidance and approval of a member of the French faculty, students may investigate an area of French studies – including literature, culture, and/or language – that is not included in the content of an existing course. Prerequisite: permission of instructor.

## Gender Studies

**GS 100 Introduction to Gender Studies (3)** Core course for Gender Studies minor. An analysis of the significance of gender in our culture, from the perspectives of communication, English, history, philosophy, political science, psychology and sociology.

**GS 494 Capstone Project in Gender Studies (3)** Research culminating in a final paper focused on one issue within the scope of Gender Studies, to be undertaken as an independent study, with the approval and under the supervision of any faculty member regularly offering courses within the Gender Studies Program. The focus of these projects will vary considerably from student to student, depending upon disciplinary orientation.

## Geography

**GEOG 101 Introduction to Physical Geography [CI] (3)** An introduction to Earth's varied climates, environments and landforms. Lectures are accompanied by in-class activities designed to develop specific skills, including navigation and interpretation of topographic maps, climate and weather maps, airphotos and satellite images. Communication skills are developed with oral reports, essays and a term paper. Recommended as students' first course in geography. Prerequisite: ENGL 111 or equivalent.

**GEOG 201 World Cultural/Regional Geography (3)** Surveys the world using concepts from the disciplinary subfields of physical, historical, cultural, political, and economic geography and demography. Emphasis on similarities and differences among world regions, and on developing abilities to evaluate international media coverage.

**GEOG 202 North American Regional Geography (3)** Geographic regions of North America. Special emphasis on role of geographic issues in past and present relations between U.S. and Canada, and Mexico.

**GEOG 290 Selected Topics in Geography (1-3)** A Sophomore-Junior level seminar in selected areas of geographical study.

**GEOG 301 Advanced Physical Geography: People and the Environment (3)** A non-quantitative survey of people-environment interactions from the beginning of the human career to the present. Topics include: prehistoric climatic and environmental change; the influence of environment on economic and cultural development; human impacts on air, water, soil, vegetation, and animals prior to the 20th century; sources of evidence about past environments; contemporary concerns such as global warming, ozone depletion, acid rain, and species diversity; and monitoring the earth from outer space. Prerequisite: GEOG 101 or permission of instructor.

**GEOG 311 Geography of Africa (3)** Examines Africa's great achievements, serious problems, and enormous potential. Topics include prehistory, historical geography, environments, population, food production systems, health and disease, tropical deforestation and desertification, political geography, and economic development strategies.

**GEOG 340 Geographic Information Systems (3)** An introduction to the use of spatial data processors called geographic information systems (GIS). This course covers the utilization and interpretation of geo-referenced spacial data using current GIS software. Lectures and laboratory exercises introduce students to: data models and structures; cartographic representation; and processes for measuring, mapping and analyzing

spatial data. Prerequisite or corequisite: GEOG 101 or permission of instructor.

**GEOG 341 Remote Sensing (3)** A technical course designed to develop the basic remote sensing skills expected of entry-level employees in planning, mapping and natural resource agencies. Lectures explain the essentials of satellite image and airphoto interpretation, which students apply to problems in urban and agricultural land use, natural resource management, terrain evaluation, and archaeology. Thermal infrared, radar, and weather satellite images also are examined. Prerequisite: GEOG 101 or permission of instructor.

## German

**GER 111 Elementary German I (4)** Introduction to the study of German language and culture, including the skills of reading, writing, listening and speaking. Emphasis on oral communication skills. Includes student work in language laboratory and computer laboratory.

**GER 112 Elementary German II (4)** Continuation of the study of German language and culture, including the skills of reading, writing, listening and speaking. Emphasis on oral communication skills. Includes student work in language laboratory and computer laboratory. Prerequisite: GER 111 or the equivalent.

**GER 121 Spoken German (1)** Maintains and develops the conversational skills acquired in the first semester of the language. Discussions in large and small groups. Graded pass/fail. Will not count for the major or minor. Prerequisite: GER 111 or equivalent.

**GER 131 German for Reading Knowledge (3)** Designed for students considering graduate study or desiring reading ability only. Presentation of German grammar, reading techniques and specialized vocabulary in the student's field of interest. No minor credit will be given for this course.

**GER 211 Intermediate German I (4)** Study of German language and culture, including review of the basic elements of the language and further acquisition of communication skills in reading, writing, listening and speaking. Emphasis on German as an international language system and cultural system. Includes student work in language laboratory and computer laboratory. Prerequisite: GER 112 or the equivalent.

**FREN 212 Intermediate German II (4)** Comprehensive review of German language and culture, and intensive work in written and oral communication. Emphasis on German as an international language system and cultural system. Includes student work in language laboratory and computer laboratory. Prerequisite: GER 211 or the equivalent.

**GER 272 German Literature in Translation (3)** Study of major German literary works in English translation. Texts may include those by Lessing, Goethe, Schiller, Heine, Nietzsche, Hauptmann, Hesse, Rilke, T. Mann, Kafka, Brecht, and Böll. Credits earned in this course will not count toward the required number of credits for a minor in German.

**GER 311 Introduction to German Literature I (3)** Presents representative major works from the 18th and 19th centuries (Classical to Realism). Lectures, discussions and readings in German. Prerequisite: GER 212 or permission of instructor.

**GER 312 Introduction to German Literature II (3)** Presents representative major works of the 20th century from Naturalism to the present time. Lectures, discussions and readings in German. Prerequisite: GER 212 or permission of instructor.

**GER 321 German Composition (3)** Stresses the acquisition of grammar skills through original composition. Prerequisite: GER 212 or permission of instructor.

**GER 332 German Conversation (3)** Oral proficiency is to be acquired through both guided and free discussion. Prerequisite: GER 212 or permission of instructor.

**GER 491 Seminar in Germanic Studies (3)** Prerequisite: Permission of instructor.

**GER 499 Directed Study (1-4)** Student must submit a plan of study for approval before enrolling. Intensive study of an author, literary form or period, or some aspect of the German language. Prerequisite: Permission of instructor.

# History

**HIST 100 Historical Surveys (3)** Students learn to think critically about the past through the study of broad narratives of U.S. and World History. They consider issues of reliability and relevance of sources, the development of chronology, the role of individuals and social groups in shaping the past and the diverse ways historians practice their craft. Students may take any or all of the following sections of HIST 100:

**HIST 100A America to 1800 (3)** This course will cover such topics as religious/economic motivations for European Colonization, the emergence of slavery in British America, the Great Awakening and the American Revolution.

**HIST 100B U.S. 1800-1900 (3)** This course will cover such topics as extents and limits of Jacksonian democracy, origins of sectional conflict, the Civil War and Reconstruction, westward expansion and overseas empire.

**HIST 100C U.S. Since 1900 (3)** This course will cover such topics as Progressive Movement, World War I and II, the Civil Rights Movement and the Vietnam War.

**HIST 100D The World to 1500 (3)** This course will cover such topics as the conquests of Alexander, Islamic trade empires, early expansion of Christianity, the first Americans and settlement of Japan.

**HIST 100E The World Since 1500 (3)** This course will cover such topics as the rise of the Ottoman and Qing empires, the development of the Atlantic slave trade, the Industrial Revolution, the Partition of Africa, World War I and II, and life in the Nuclear Age.

**HIST 110 Problems in Modern History [CI] (3)** A communication-intensive examination of the impact of social, political economic and cultural forces on significant problems in modern history. Using a range of written and oral activities, students will: critically analyze historical issues; evaluate the assumptions of the historians' writing on the topic; engage in activities that will provide practice in interpreting and evaluating primary and secondary sources of evidence; and consider methods and develop strategies for treating conflicting arguments on the problem. Prerequisite: ENGL 111.

**HIST 111 Introduction to Historical Study (3)** A survey of historical methodology emphasizing research aids and techniques, writing skills and historical analysis. As a course in the Written Communication category of the General Education Program, HIST 111 assists students in developing greater proficiency in writing effective, researched academic texts in the English language. Prerequisite: ENGL 111.

**HIST 113 United States History to 1865 (3)** A survey of American History from settlement through the Civil War.

**HIST 114 United States History from 1865 (3)** A survey of American History from Reconstruction to the present.

**HIST 115 World Civilization to 1500 (3)** A survey of World Civilization through the Renaissance.

**HIST 116 World Civilization from 1500 (3)** A survey of World Civilization from the Renaissance to the present.

**HIST 117 Colloquium in World History (1)** A detailed study of one or more of the issues presented in HIST 115 or 116. Prerequisite: Concurrent registration in HIST 115 or 116. See "special instructions" in current Course Schedule.

**HIST 213 Survey of South Asian History (3)** An introduction to the history, arts, culture and philosophical and religious ideas of India, Pakistan and the south Asian region, including Hinduism, Buddhism, Islam; also south Asian music, film, literature and customs. Cross-listed with PHIL 213.

**HIST 215 Survey of East Asian History (3)** An introduction to the history, arts, culture, and philosophical and religious ideas of China, Japan and the east Asian region, including Confucianism, Taoism, Shinto, Buddhism, and related traditions; also east Asian music, film, literature and customs. Cross-listed with PHIL 215.

**HIST 220 Survey of European History (3)** An introduction to the history, arts, culture and philosophical and religious ideas of Europe since the Renaissance.

**HIST 222 American Business and Labor History (3)** A survey of developments in business and labor in the 19th and 20th centuries. Topics

include early industrial development, the evolution of the corporation, the use of labor unions, the development of welfare capitalism and government participation in the marketplace.

**HIST 230 Survey of Latin American History (3)** A history of Mexico, South America and the Caribbean from 1492 to the present. The course examines the history of the region as it developed under conditions of European colonization through the emergence of national governments during the 19th and 20th centuries. Issues such as the Atlantic slave trade, Indian/European encounters, revolutionary movements, militarism and economic development will be addressed.

**HIST 241 History of Michigan (3)** A topical survey of the history of the Territory and State of Michigan from the 17th through the 20th centuries.

**HIST 290 Selected Historical Survey (3)** A broad survey course of a world region, offered on a one-time basis.

**HIST 307 Early Latin America-Prehispanic Period to Independence (3)** A history of Mexico, South America and the Caribbean from the prehispanic period through Iberian conquest and colonization. The course examines the history of the region from the perspectives of the various racial, ethnic and class groups that formed Latin American society and will focus on such topics as the Atlantic slave trade, pre-Columbian societies, the nature of colonial regimes and biological transformations.

**HIST 308 History of the Spanish Borderlands (3)** A history of the border regions of Spain's empire in America, this course will trace developments in what is now northern Mexico and the southwestern United States from pre-Hispanic times to the present. It will examine pre-Hispanic cultures, the development of the presidio/mission complex, the Mexican-American War and contemporary issues of importance to the border region.

**HIST 309 History of Mexico (3)** A survey of Mexican civilization from pre-Columbian cultures to the present.

**HIST 310 United States History in the Colonial Period (3)** A survey of the American colonies from their discovery and settlement to 1750.

**HIST 311 United States History During the Revolution (3)** A study of the origins, course and consequences of the American Revolution through the Articles of Confederation.

**HIST 312 United States History During the Early National Period (3)** This course examines the ways in which Americans struggled to define their society, culture and politics in the wake of the American Revolution. Beginning with the debates over the Constitution, the course explores the conflicts over religion, slavery, gender, family and work in the Early Republic, 1789-1815.

**HIST 313 United States History During the Era of Andrew Jackson (3)** A study of the Age of Andrew Jackson from 1815 to 1850.

**HIST 314 United States History During the Civil War and Reconstruction (3)** A study of the conflict between North and South from 1850 through the disputed presidential election of 1876.

**HIST 316 America and the World: 1900-1945 (3)** A history of American war and diplomacy in the first half of the 20th Century.

**HIST 317 America and the World: 1945-Present (3)** A history of American war and diplomacy in the latter half of the 20th Century.

**HIST 318 20th Century American Social Movements (3)** A study of the strategies and goals employed by social movements to change American society in the 20th century. Topics include the labor movement, civil rights, antiwar activism, the counterculture, and the women's movement.

**HIST 319 African-American History (3)** History of African-Americans in the U.S. from 1619 to the present.

**HIST 322 European Intellectual and Cultural History (3)** The relationship between ideas and the social development of European peoples as reflected in material culture from the 17th through the 20th centuries.

**HIST 323 American Intellectual and Cultural History (3)** The relationship between ideas and the social development of the American people as reflected in material culture from the 17th through the early 20th centuries.

**HIST 324 Introduction to Women's History (3)** A survey of women's experiences in the modern world. This course also will look at the basic theoretical issues informing feminist perspectives of history and focus on

a variety of topics that reflect the changing roles of women in contemporary society.

**HIST 325 American Frontier History (3)** A topical survey of the frontier experience of the American people from the 17th through the 19th centuries.

**HIST 329 The Vietnam War (3)** A study of the origins, development and outcome of American involvement in Indo-China from 1946 to 1975.

**HIST 330 Euro-American History in the 20th Century (3)** A course studying the history shared by Europeans and Americans in the first half of the 20th century. The course will cover such topics as American involvement in Europe in World War I and II, Wilson at Versailles, American intellectuals émigrés in Europe, European intellectuals in the United States. United States economic investment in Europe and Dawes and Young plans and American volunteers in the Spanish Civil War.

**HIST 331 History of Tudor-Stuart England, 1485-1688 (3)** A study of the growth of monarchical power and shifting relationships during the Age of Expansion.

**HIST 332 Modern Britain, 1688-1970 (3)** A study of Britain's rise to dominance in the 18th century, world supremacy and demise as a major world power.

**HIST 344 France: 1515-1815 (3)** Includes Louis XIV, Enlightenment, French Revolution and Napoleon.

**HIST 351 History of Modern Germany (3)** A history of Germany in the 19th and 20th centuries. The course will cover Prussian-Austrian rivalry, the 1848 revolutions, Bismarck and the unification of Germany, Germany in World War I, Weimar Germany and the Third Reich.

**HIST 352 History of Modern Russia Since 1801 (3)** A study of Russia in the 19th and 20th centuries including Napoleon in Russia, the serf problem, industrialization, the 1917 Revolution and the Soviet Union under Lenin and Stalin.

**HIST 353 History of Eastern Europe (3)** The social, economic, intellectual, cultural and political history of Eastern Europe. Major issues will be examined within the broad context of the changing nature of Russian/Soviet domination, the vicissitudes of East-West relations, and general trends affecting the entire region. Special emphasis on the causes of the revolutions of 1989 and the problems of post-communist transition.

**HIST 354 History of Poland (3)** A study of Poland from the first partition (1772) to the present. The course will cover such topics as the Partitions, Poland under foreign rule, the re-emergence of Poland and Poland in World War II and the post-war period.

**HIST 355 Modern China (3)** A survey of modern Chinese history from the Opium War to the present, with special focus in the interweaving imperatives of reform and revolution in China's responses to the challenges of the West and the demands of modernity.

**HIST 357 Modern Japan (3)** A survey of modern Japanese history from the Meiji Restoration to the present, with special focus on the evolution of the modern Japanese state—and society—in response to the challenges of modernity.

**HIST 359 Modern India (3)** A survey of modern Indian history from the 18th century to the present, with special focus on the responses to western imperialism in the 19th century, and the challenges of economic development, and state and nation building in the 20th century.

**HIST 361 Early Middle Ages, 300-1050 (3)** Late Roman empire and its transition from a Mediterranean civilization to three new societies: Western Europe, Byzantium and Islam.

**HIST 362 Europe in the High Middle Ages, 1050-1350 (3)** Medieval civilization at its zenith. Emphasis upon Germany, France, Italy, Low Countries and Spain.

**HIST 363 Renaissance, 1350-1515 (3)** Western Europe from the Hundred Years War to Erasmus.

**HIST 364 The Age of Reformation, 1515-1715 (3)** A study of the Reformation in its intellectual, political and social aspects from Luther through Louis XIV. Special emphasis will be given to the impact of reform upon the emerging national state, the expansion of Europe and the crisis of the 17th century.

**HIST 365 The Age of Democratic Revolution, 1715-1815 (3)** A study of aristocratic Europe and the challenge to it by the Enlightenment and the world-wide impact of the American and French Revolutions.

**HIST 366 History of Europe in the 19th Century, 1815-1914 (3)** A study of Europe from the fall of Napoleon to the end of the 19th century. The course will cover such political events as the Revolutions of 1848 and the Unification of Germany, such economic developments as industrialism and early socialist theory and such intellectual movements as Romanticism and materialism.

**HIST 367 History of Europe from 1914-1945 (3)** A study of Europe from World War I to 1945. The course covers both world wars, communism in Russia, fascism in Italy and Germany, political conflict in France and conservatism in England during the interwar period.

**HIST 368 History of Postwar Europe, 1945-1970 (3)** A study of Eastern and Western Europe throughout the cold war period. An analysis of European recovery after World War II, the Common Market, the Communist bloc, U.S. influence, East European revolts, the major West European democracies and the Soviet Union since 1945.

**HIST 372 Ancient Near East to 300 B.C. (3)** Study of Mesopotamia, Egypt of the Pharaohs, Greece and Hellenistic world at the time of Alexander. Will include archeology, mythology, pyramids, art, Greek theater, political systems and sports.

**HIST 373 Ancient Roman Republic and Empire to AD 300 (3)** Includes study of Roman expansion, army, historians, Julius Caesar, art, literature, mythology, technology and early Christianity.

**HIST 390A-C Special Topics in History (1-4)** A Junior-level seminar in selected areas of historical study, as follows: A—United States; B—Europe; C—World.

**HIST 494 Independent Writing in History (1-4)**

**HIST 496 Cooperative Education in History (1-6)** A campus-based individually designed course of supervised field study in historical and job-oriented areas. Completion of an SVSU learning contract and permission of faculty advisor, department chairman and dean required.

**HIST 497 Senior Thesis (3)**

**HIST 499 Senior Seminar (3)** A capstone course required of all history majors. The course will integrate knowledge acquired in the student's course of study with advanced research and writing. Students will write a research paper, which will be the final component in their assessment portfolio. Prerequisite: 30 credits of history courses.

## Humanities

Humanities courses approach their subject from the perspective of a variety of the traditional humanities disciplines. Departments offering humanities courses include: Art (ART); Communication (COMM); English (ENGL); History (HIST); Modern Foreign Languages (MFL); Music (MUS); Philosophy (PHIL); and Theatre (THEA).

**HUM 111 (MFL) Great Themes of Western Civilization (4)** Emphasis will be on the classical and medieval periods. Assignments will include novels, poems, essays, films and records. Several papers required.

**HUM 112 (MFL) Great Themes of Western Civilization (4)** A continuation of HUM 111. Emphasis will be on the Renaissance and the 18th century.

**HUM 113 (ENGL) An Interdisciplinary View (4)** Study of a series of topics such as war, love, religion, education, search for identity, man and work and man and nature. Literature, film, art and music will be included. Several papers required.

**HUM 114 (ENGL) An Interdisciplinary View (4)** A continuation of HUM 113.

**HUM 210 Introduction to the Humanities (3)** An interdisciplinary introduction to research and writing in the Humanities. Topics will vary. Through helping students study and appreciate the diversity of human creations, this course will improve students' critical thinking, logical reasoning, and communication abilities (with emphasis on written communication). Prerequisite: ENGL 111.

**HUM 211 (HIST) The Shaping of the Modern Mind (4)** An interdisciplinary study of the philosophy, literature, religion, music and visual arts of the 19th and 20th centuries as they reflect, influence and shape the character of modern western culture.

**HUM 219 Interpretation of Film (3)** Study of the film as a distinctive art form of the 20th century. Emphasis will be on film appreciation rather than history of the cinema or film making. Viewing and discussion of films by major international directors. (2-2). (Cross listed with ENGL 219).

**HUM 225 (ENGL) American Indian Civilization (4)** An exploration of the history and culture of the American Indian people. Emphasis on the creative arts, such as literature and music. Concentration on the "Northern" culture areas (Eastern Woodlands, Plains, Plateau and Northwest Coast.)

**HUM 226 (ENGL) American Indian Civilization (4)** Same as HUM 225, but with concentration on the "Southern" culture areas (Southeast, Great Basin, Southwest and California).

**HUM 235 (MFL) France Today (4)** A study of the society, institutions, art and culture of 20th century France.

**HUM 245 (MFL) Contemporary Canadian Cultures (4)** An introduction to Canadian cultural systems, including native peoples, English-speaking Canadians, French-speaking Canadians and recent immigrants. Topics include the origins of Canadian society, current cultural systems, the arts and contemporary issues.

**HUM 250 Art and Humanities (3)** An interdisciplinary approach to the study of the visual arts, theatre and literature. Focuses particularly on how culture, race and/or ethnicity affect the content, appreciation and creation of art. Students will engage in historical and ongoing debates about art's relationships to human experiences. Prerequisite: ENGL 111.

**HUM 290 (ART, COMM, ENGL, HIST, MFL, MUS, PHIL, THEA) Selected Topics (1-4)** Topics that are not normally a part of departmental programs and integrate two or more areas of knowledge.

**HUM 390 (ART, COMM, ENGL, HIST, MFL, MUS, PHIL, THEA) Selected Topics (1-4)** Topics that are not normally a part of departmental programs and integrate two or more areas of knowledge.

## Latin

**LAT 111 Elementary Latin I (3)** Teaches skills in reading, writing and comprehension of Latin.

**LAT 112 Elementary Latin II (3)** Continuation of LAT 111. Prerequisite: LAT 111.

**LAT 299 Directed Study in Intermediate Latin (3-5)** Prerequisite: LAT 112.

## Law

**LAW 208 Law and Society (3)** The development of law as an expression of man's desire for order in society. The relationship of the individual to the American legal system is examined through criminal and civil law. Prerequisite: ENGL 111.

**LAW 209 Law and the Professions (3)** This course is designed to address professional liability in American law. Following a brief review of the relationship of law to society, professional liability will be selectively addressed in such areas as the natural sciences, social sciences, liberal arts and education. There will be some legal research. (This course is designed for majors outside of the College of Business and Management. Business and management majors will not receive General Education credit for this course.) Prerequisite: Sophomore standing.

**LAW 308 Social, Political and Legal Environment of Business (4)** This course is concerned with the environment in which business actually operates. The major emphasis of the course is on the legal environment with primary emphasis on the relationship of the law to the competitive economic system. Topics include product liability, contracts, forms of business organization, anti-trust, administrative and labor law, how to recognize legal issues, how to prepare for an attorney and the court system. Prerequisite: Junior standing.

**LAW 309 Private Law and Business (3-4)** Primary course emphasis, three credits, relates to the study of real and personal property, trusts and wills, insurance, bailments and liens, sales, negotiable instruments, and banking. Secondary course emphasis, one additional credit, adds private and public law topics associated with the AICPA exam questions. Combined text and case study approach. Prerequisite: Junior standing; Law 308 also is recommended.

**LAW 407 International Business Law (3)** This course will acquaint students with the laws, organizations and principles that impact upon the

transaction of business in the international arena. Private law. Lecture, case study approach. Prerequisite: Junior standing and one course in legal studies.

**LAW 408 Labor Law (3)** A study of the development of collective bargaining law in the United States with emphasis on administrative, judicial and legislative regulation of labor unions. Arbitration is reviewed. Prerequisite: Junior standing and one course in legal studies.

**LAW 493 Directed Readings in Law (1-4)** A student must submit a plan of study for approval by the faculty member and the dean before enrolling.

**LAW 499 Independent Study in Law (2-6)** This course permits a student to engage in legal studies related field work individually or in groups. Program approval and supervision will be administered by the legal studies instructor. Prerequisite: Junior standing, permission of instructor and eight credits from legal studies.

## Management

**MGT 121 Introduction to Business (4)** The place and function of business in modern society. The basic objectives of this course are (a) to introduce the student to the terminology of business, (b) to aid him/her in selecting a major in business and (c) to give him/her a perspective of business in the economic, social and ecological environment. A student may elect a pass/fail grade within the time period to add courses. (See grading.) Not open to Juniors or Seniors majoring in business or management.

**MGT 320 Quantitative Aids for Managerial Decision Making (4)** Although a variety of quantitative aids for decision making are discussed, this course emphasizes the linear programming to develop a basic understanding of the analytical process of abstracting business problems, constructing models of problem situations and manipulating model variables for the purpose of managerial decision making. Prerequisite: MATH 103 and Junior standing.

**MGT 321 Organization and Administration (4)** The study of formal organizations and administration processes necessary for organizational effectiveness. The emphasis is upon understanding the effects of management principles; executives' roles and organizational structure; management information systems; and social, political, economic and international influences. Prerequisite: Junior standing.

**MGT 323 Human Resource Management (3)** Activities involved in planning human resource needs, establishing and maintaining an effective work force and developing abilities are studied. Topics include planning, staffing, appraisal, compensation, training and development, and employee relations. Prerequisite: Junior standing.

**MGT 324 Production and Operations Management (4)** An introduction to the management of operations in manufacturing and service organizations including topics such as product design and process selection, facilities planning and layout, production planning and inventory control, decision theory, optimization techniques, waiting-line methods and simulation. Prerequisite: MATH 120B, ECON 335 and Junior standing.

**MGT 325 Management Information Systems (3)** An introduction to the management of information systems. Topics include: computer hardware, computer software, databases, networks and the Internet and their applications to functional areas such as accounting, marketing, operations management, human resource management, and finance; determination of information requirements for managerial decision making; the manager's role in information system design; and the relationship between organizational objectives and system design. Prerequisite: MGT 321, ECON 151 (or computer cognate) and Junior standing.

**MGT 326 Small Business Management (3)** An examination of the principles and practices pertaining to the operation of small enterprises through selected case histories. Prerequisite: MGT 321 and Junior standing.

**MGT 327 Materials and Purchasing Management (3)** Planning, organizing and controlling materials acquisition in industrial enterprises, institutions and governments. Management of purchasing, materials movement, storage and control, value analysis, purchasing research, vendor relations and purchase forecasting. Prerequisite: MGT 321 and Junior standing.

**MGT 328 Organizational Behavior (4)** Application of psychological, sociological, cultural and other behavioral concepts to understand the behavior of people in organizations. Implications for effective management of organizational performance. Prerequisite: MGT 321 and Junior standing.

**MGT 329 Safety Management (3)** Problems of manpower maintenance in business organizations, organization and operation of safety and health programs, practices and trends in employee benefit plans. Focus on issues and relevant research and techniques. Prerequisite: Junior standing.

**MGT 343 Management of Workforce Diversity in Business (3)** Assessment of the issues managers face as a result of increasing diversity within the U.S. workforce. Students will review current materials and examples of business diversity issues and practices and will develop and assess responses to these issues. Students may also engage in interactive experiences designed to promote greater understanding of the role of personal attitudes and behaviors as they relate to diversity. Prerequisite: MGT 321 or permission of instructor.

**MGT 419 Business & Society (3)** An examination of the sources and development of the values of Western society directed to understanding the impact of these values on business organizations. Readings and cases concerned with social issues in business will be studied. Prerequisite: Junior standing.

**MGT 420 Management Science (3)** The application of a variety of managerial science techniques to problems in business and management. The emphasis is on developing the student's problem defining/problem solving skills in topic areas such as advanced linear programming, integer programming, dynamic programming, queuing and inventory theory and network analysis. Prerequisite: ECON 335, MGT 320 and 321, MATH 122 and Junior standing.

**MGT 421 Labor-Management Relations (3)** Application of procedures for negotiation, mediation, arbitration and court selection of labor problems and the administration of labor agreements. Prerequisite: MGT 323 and Junior standing.

**MGT 422 Advanced Topics in Human Resource Management (3)** An in-depth analysis of selected topics in HRM, such as human resource planning, recruitment and selection, performance appraisal, compensation administration (wage and salary, incentive pay, employee benefits), training and development, labor-management relations, performance management or current issues in HRM. Typically, only two or three topics will be covered per term. Prerequisite: MGT 323.

**MGT 423 Human Resource Development (3)** Presents an understanding in detail of the development and training of Human Resources in organizations. Organization and government constraints are presented. Current laws, policies training techniques and accountability are examined. Prerequisite: MGT 323 and Junior standing.

**MGT 424 Production Planning and Control (3)** Production planning, inventory and quality control systems, machine loading, jobshop scheduling; digital computer simulation to design and study the behavior of production systems. Prerequisite: ECON 151 (or computer cognate), MGT 324 and Junior standing.

**MGT 425 Organizational Development (3)** Interventions in social organizations to increase the effectiveness of their functioning. Theoretical frameworks and research findings related to planned changes in complex organizations are analyzed. Prerequisite: MGT 328 and Junior standing.

**MGT 427 International Management (3)** This course focuses on the international dimensions of management by clarifying and classifying the critical environmental and cultural factors that affect managerial approaches in the international arena. Prerequisite: MGT 321 and Junior standing.

**MGT 428 Problems in Operations Management (3)** Building upon analytical techniques and concepts developed in earlier courses, typical problems facing managers responsible for the operation of manufacturing, merchandising or service organizations are analyzed. Prerequisite: Senior standing, all business and management core courses, and MGT 320 and 324.

**MGT 429 Executive Strategies and Policies (4)** A top management point of view of organizations emphasizing adaptation to external influences and opportunities. Also considered is how e-commerce and concern for the natural environment affect traditional businesses and industries, and open up new opportunities. The course is designed to develop the student's ability to recognize, interpret and respond to social, political, economic, technological and international forces. The course requires students to integrate knowledge from previous business courses.

Prerequisite: Senior standing and all other business and management core courses.

**MGT 490 Special Topics in Management (1-4)** An examination of various special topics in the area of management. Prerequisite: MGT 321 and Junior standing.

## Marketing

**MKT 235 Statistics I (3)** Collection, analysis and statistical interpretation of data that include description of data, elementary probability theory, sampling, statistical estimation and inference. Prerequisite: MATH 120B.

**MKT 236 Statistics II (3)** Application of statistical techniques to forecasting and other business and economics problems. Topics covered are regression, correlation, analysis of variance, time series and index numbers, some nonparametric techniques and Bayes' Theorem. Prerequisite: ECON 235.

**MKT 331 Marketing Principles (4)** Course embraces both micro and macro approaches with emphasis on the former. Content includes: assessment of marketing's role in society; analysis of buyer behavior; administration of domestic and international marketing programs; treatment of marketing information/communication systems; and consideration of socio-economic, political and technical factors affecting marketing decisions. Prerequisite: Junior standing.

**MKT 332 Retail Management (3)** An examination of the essential principles and practices of retail management, including site selection, store design and department layout, merchandise management, sales promotion and customer services. Additionally, the course considers the broad issues of modern marketing and financial strategies as they affect retail distribution and clarifies new influences at work in the retail environment. Prerequisite: MKT 331 and Junior standing.

**MKT 333 Sales Management (3)** Understanding and development of a set of pervasive, relatively universal sales and management concepts, into which different "contents" can be put and applied to different situations. Case and/or field work may be used to illustrate the concepts. Prerequisite: MKT 331 and Junior standing.

**MKT 334 Physical Distribution Management (3)** The orientation of the course is concerned with the efforts of an individual firm's objective to develop an effective and efficient physical distribution system. Parts of the system are studied and analytical tools are presented for selecting those alternatives that will attain the distribution goals of the firm. Prerequisite: MKT 331 and Junior standing.

**MKT 335 Advertising Strategy (3)** An intensive investigation of the underlying ideas, principles and concepts that may be used to inform consumers of the availability and attributes of products and services. Prerequisites: MKT 331 and Junior standing.

**MKT 337 Industrial Marketing (3)** An examination of the problems of marketing industrial goods. Attention is given to market information, marketing planning, methods of distribution, pricing, promotion and distributor/dealer systems. Prerequisite: MKT 331 and Junior standing.

**MKT 339 Field Project in Marketing (3)** Students in this class will manage and operate a retail business in the Fall semester each year. Students will be responsible for customer service, merchandise display, signage creation and placement, point-of-purchase displays, employee training and marketing research. Prerequisite: Junior standing and permission of the instructor.

**MKT 432 International Marketing (3)** Study of global marketing management, international marketing research and overseas personnel policies. Study of marketing systems in the context of overall economic growth. Prerequisite: MKT 331 and Junior standing.

**MKT 434 Consumer Behavior (3)** Investigation of consumer marketing structure and behavior and their impact upon the firm's competitive operations and actions. Prerequisite: MKT 331 and Junior standing.

**MKT 435 Marketing Research (3)** Application of scientific methods for gathering, analyzing and evaluating information regarding marketing problems. Prerequisite: ECON 335 and MKT 331 and Junior standing.

**MKT 436 Marketing Problems (3)** Study and integration of major tasks and decisions involved in developing and marketing products. Comprehensive discussion of cases involving different decisions for a variety of products. Prerequisite: MKT 331 and Junior standing.

**MKT 493 Directed Readings in Marketing (1-4)** A student must submit a plan of study for approval by the faculty member and the dean before enrolling. Prerequisite: MKT 331 and Senior standing.

## Mathematical Sciences

**MATH 081 Basic Mathematical Skills (2)** This course is designed to help students develop requisite skills in addition, subtraction, multiplication, division, decimals and operations using percentages and ratios, and basic linear equations. Not applicable to General Education requirements and/or minor requirements. See note under Basic Skills.

**MATH 082 Beginning Algebra (3)** Introduction to sets, axioms, factoring, first and second degree equations and inequalities, graphs, exponents and radicals. Not applicable to General Education requirements and/or minor requirements. Prerequisite: "C" grade or better in MATH 081 or satisfactory score on the Course Placement Test in math. See note under Basic Skills.

**MATH 103 Intermediate Algebra (4)** Sets, axioms, factoring, functions, first and second degree equations and inequalities, graphs, exponents and radicals. Not applicable to General Education requirements and/or minor requirements. Prerequisite: "C" grade or better in MATH 082 or satisfactory score on the Course Placement Test in math.

**MATH 103A Intermediate Algebra (Part I) (2)** This course covers the first half of the content of MATH 103. Completion of this course with a grade of "C" or better together with the completion of MATH 103B with a grade of "C" or better will satisfy any requirement for MATH 103. MATH 103B should be taken during the next regular semester. Credit for this course cannot be counted if credit is counted for MATH 103. NOT APPLICABLE TO GENERAL EDUCATION REQUIREMENTS AND/OR MINOR REQUIREMENTS. Prerequisite: "C" grade or better in MATH 082 or satisfactory score on the Course Placement Test in Math.

**MATH 103B Intermediate Algebra (Part II) (2)** This course covers the second half of the content of MATH 103. Completion of this course with a grade of "C" or better together with the completion of MATH 103A with a grade of "C" or better will satisfy any requirement for MATH 103. Credit for this course cannot be counted if credit is counted for MATH 103. NOT APPLICABLE TO GENERAL EDUCATION REQUIREMENTS AND/OR MINOR REQUIREMENTS. Prerequisite: grade of "C" or better in MATH 103A.

**MATH 104 Geometry (4)** Angles, measurement, proofs, and congruent triangles, parallel and polygon theorems, right triangles, circles, areas, coordinate geometry, space geometry and non-Euclidean geometry. Not applicable to General Education Requirements. Not applicable to minor except for elementary education majors or mathematics minor for teacher certification. Prerequisite: MATH 103 or equivalent and/or satisfactory score on pretest.

**MATH 105 Statistics (4)** Introductory statistical methodology. Graphical representation of data, probability distributions, hypothesis testing, parametric and non-parametric techniques, regression and correlation, analysis of variance. Prerequisite: MATH 103 or equivalent and/or satisfactory score on pretest.

**MATH 110 Mathematics for Elementary Teachers (4)** This course covers the modern concepts of mathematics to be taught in K-8. Included are the fundamentals of sets, number bases, properties of and operations on rational numbers, percentage, measurement, geometric concepts, probability and statistics and related work. Exercises are coordinated with class work to related mathematical concepts with the physical world. Not applicable to General Education Requirements. Not applicable to minor except for elementary education majors. Prerequisite: MATH 082 or equivalent. Required for students preparing for an elementary teacher's certificate.

**MATH 120 Algebraic Methods (4)** Offered as MATH 120A Algebraic Methods: College Algebra or MATH 120B Algebraic Methods: Finite Mathematics. Using algebraic techniques, students develop analytical reasoning skills to construct mathematical models, solve problems and interpret results. Prerequisite: MATH 103 and/or satisfactory score on placement test.

**MATH 120A College Algebra (4)** Students study algebraic expressions; equations and inequalities; functions, inverse functions and graphs; polynomial and rational functions; systems of equations and inequalities; matrices and determinants.

**MATH 120B Finite Mathematics (4)** Students study equations and inequalities, functions, systems of equations, linear programming including the simplex method, quadratic functions, exponential and logarithmic functions, mathematics of finance, introduction to differential calculus including derivatives and applications. The course emphasizes applications from business and economics.

**MATH 121 College Algebra (4)** Sets of real numbers, exponents, absolute value, inequalities, equations, functions and graphs, theory of equations, exponentials and logarithms and complex numbers. Prerequisite: MATH 103 and/or satisfactory score on placement test.

**MATH 122 College Algebra and Trigonometry (4)** Trigonometric functions and formulas, right triangle trigonometry, inverse functions, systems of equations, binomial theorem, matrices, determinants, combinations and permutations. Prerequisite: MATH 121 or MATH 120A and/or satisfactory score on placement test.

**MATH 125 Contemporary Mathematics (4)** A liberal arts course providing an introduction to logical inference, statistics, probability, management science, social choice, concepts of size and shape, algorithmic processes and consumer mathematics. Emphasis on understanding rather than computational expertise. Includes a library and writing component. Prerequisite: MATH 103 and/or satisfactory score on placement test.

**MATH 130 Biostatistics (4)** Introductory statistical methodology with applications in biological and health sciences. Graphical presentation of data; probability distributions; hypothesis testing; parametric and non-parametric technique; regression and correlation; analysis of variance. Intended for students in nursing and biological sciences. Prerequisite: MATH 103 and/or satisfactory score on placement test.

**MATH 132 Statistical Methods (4)** Offered as MATH 132A Statistical Methods: General Statistics or MATH 132B Statistical Methods: Biostatistics. In this introduction to statistical methodology, students identify methods of acquiring, organizing and analyzing data so as to make decisions and respond to arguments. Topics include graphical representation of data, probability distributions, confidence intervals and hypothesis tests, parametric and non-parametric techniques, regression and correlation, and analysis of variance. Prerequisite: Math 103 and/or satisfactory score on placement test.

**MATH 132A General Statistics (4)** Applications from many arenas, such as business, politics, medicine and health, the social and behavioral sciences, education and environmental science.

**MATH 132B Biostatistics (4)** Special emphasis on applications from biology and the health sciences.

**MATH 140 Introductory Mathematical Analysis (4)** Introductory topics in mathematical analysis with special emphasis on functions including logarithmic, exponential and trigonometric functions. Prerequisite: MATH 120A or MATH 121, and/or satisfactory score on placement test.

**MATH 141 Finite Mathematics (4)** Mathematical techniques in economic and business analysis: topics in algebra, introduction to linear programming and to calculus. Prerequisite: MATH 103 or satisfactory score on pretest.

**MATH 150 Precalculus Mathematics (4)** A concentrated review of topics from algebra, trigonometry and other areas. Includes study of graphs, equations and inequalities; and exponential, logarithmic, trigonometric, absolute value and inverse functions. Prerequisite: Satisfactory score on placement test.

**MATH 161 Calculus with Analytic Geometry I (4)** Introduction to limits, continuity, derivatives, and integrals. Applications of derivatives and integrals. Prerequisite: MATH 122, 140 or 150 and/or satisfactory score on placement test.

**MATH 162 Calculus with Analytic Geometry II (4)** Derivatives and integrals of non-algebraic functions. Techniques of integration. Improper integrals. Further applications of derivatives and integrals. Parametric equations and polar coordinates. Analytic geometry and conic sections. Infinite sequences and series. Prerequisite: MATH 161.

**MATH 190 Special Topics (1-3)** Topics of special or current interest are offered periodically. The credit allowed for the particular course will be set by the department. Appropriate prerequisites and contents will vary with the nature of the course offering and will be determined by the department.

**MATH 241 Elementary Numerical Analysis (3)** Numerical solution of a single non-linear equation and of a system of simultaneous linear equa-

tions; curve fitting and function approximation; interpolation; numerical differentiation and integration; calculation of eigenvectors and eigenvalues. This course assumes only one year of calculus. Prerequisite: MATH 162 and a structured programming language suitable for mathematics.

**MATH 261 Calculus with Analytic Geometry III (4)** Three dimensional analytic geometry and vectors. Limits and continuity of functions of several variables. Partial derivatives, multiple integrals, vector calculus, and applications. Prerequisite: MATH 162.

**MATH 262 Introduction to Differential Equations (4)** Exact solutions of common types of first-order ordinary differential equations, linear equations of higher order, power series solutions, Laplace transforms, linear systems including matrix methods, graphical and numerical techniques and applications of differential equations. Prerequisite: MATH 261.

**MATH 263 Elementary Linear Algebra (3)** Emphasis is on applicable linear algebra: matrix arithmetic, Gaussian elimination, determinants, similarity, eigenvalues and quadratic forms. Applications include: Markov chains, geometry, game theory, linear programming and networks. Prerequisite: MATH 162.

**MATH 290 Special Topics (1-3)** Topics of special or current interest are offered periodically. The credit allowed for the particular course will be set by the department. Appropriate prerequisites and contents will vary with the nature of the course offering and will be determined by the department.

**MATH 293 Readings in Mathematics (1-4)** The course content must be submitted by the student to the department for approval before the student may enroll. Cooperative work experience may qualify for credit under this number with approval of the department. Not applicable to minor. Prerequisite: Permission of the instructor.

**MATH 300 Discrete Mathematical Structures (3)** Sets, logic and induction, combinations and permutations, graph theory, functions and relations, Boolean algebras and other structures, isomorphisms, homomorphisms, finite state machines. Prerequisite: MATH 161 and a structured programming language suitable for mathematics.

**MATH 302 Introduction to Modern Mathematics (3)** Historical development of the major concepts in geometry, algebra and logic. The nature of geometric and algebraic systems. Prerequisite: MATH 261 or a 300-level mathematics course.

**MATH 304 Applied Probability and Statistics (3)** Intended for students who have had one year of calculus. Basic probability theory, applications using combinations, continuous and discrete random variables, estimation, test of hypotheses, correlation and regression, and confidence intervals. Prerequisite: MATH 162.

**MATH 313 Elementary Number Theory (3)** An elementary introduction to the theory of numbers. Topics may include prime factorization, Euclidean algorithm, congruences, diophantine equations, distribution of primes, quadratic residues and continued fractions. Prerequisite: MATH 261.

**MATH 323 Linear Algebra (3)** Matrices over a field. Vector spaces and linear transformations. Derivation of the standard canonical forms. Includes probability and statistical applications and other related topics. Prerequisite: MATH 262.

**MATH 370 Set Theory (3)** An axiomatic exposition of set theory as the foundation of mathematics. Topics include mathematical logic, relations, functions, orderings, cardinality, the axiom of choice and applications. Prerequisite: MATH 262.

**MATH 390 Special Topics (1-3)** Topics of special or current interest are offered periodically. The credit allowed for the particular course will be set by the department. Appropriate prerequisites and contents will vary with the nature of the course offering and will be determined by the department.

**MATH 393 Readings in Mathematics (1-4)** The course content must be submitted by student to department for approval before the student may enroll. Prerequisite: A 3.00 average and approval of the instructor.

**MATH 401 Advanced Calculus (3)** Properties of the real numbers, continuity and uniform continuity, differentiation and integration, line and surface integrals, infinite series. Includes probability and statistical applications and other related topics. Other topics as time permits. Prerequisite: MATH 262.

**MATH 403 Introduction to Complex Variables (3)** Properties of complex

functions. Cauchy-Riemann equations, analytic functions, mappings, Cauchy-Goursat Theorem, Taylor and Laurent series, residues and poles, conformal mapping. Prerequisite: MATH 262.

**MATH 405 Introduction to Real Analysis (3)** A detailed study of the real number system; functions, limits, continuity, uniform continuity; point sets: open, closed, compact and connected; differentiation and integration. Prerequisite: MATH 262 and one 300-level mathematics course.

**MATH 420 Abstract Algebra (3)** Group theory, ring theory and field theory, isomorphism theorems. Polynomial rings. Prerequisite: MATH 262 and a 300-level mathematics course.

**MATH 441 Numerical Analysis I (3)** Theory of matrices. Numerical solution of linear and non-linear algebraic equations and eigenvalue problems; curve fitting; interpolation theory; numerical integration; differentiation and solution of differential equations; algorithms and computer programming. Prerequisite: MATH 262 and a structured programming language suitable for mathematics.

**MATH 442 Numerical Analysis II (3)** Continuation of MATH 441. Prerequisite: MATH 441.

**MATH 454 Probability and Statistics I (3)** Mathematical probability as a basis of statistics. Discrete and continuous probability models, conditional probability and independence, random variables, central limit theorem, sampling distributions, estimation, confidence intervals, test of hypothesis. Prerequisite: MATH 262.

**MATH 455 Probability and Statistics II (3)** Multiple linear regression, analysis of variance, goodness of fit test, certain non-parametric tests. Prerequisite: MATH 454.

**MATH 471 Abstract Geometry (3)** An axiomatic approach to geometry. Selected geometries studied in depth. Prerequisite: MATH 162 and MATH 300 or 302.

**MATH 476 Content and Concepts: Secondary School Mathematics (2)** Connections between content of college mathematics courses and secondary school mathematics, exploration of various approaches, view of mathematics as a dynamic body of knowledge. Restricted to majors in Mathematics Teacher Certification. Prerequisite: A 400-level mathematics course or permission of instructor.

**MATH 480 Senior Seminar in Math (1)** Problem solving using selected topics from the common courses required in the majors offered by the Department of Mathematical Sciences. Prerequisite: Senior standing or permission of instructor.

**MATH 490 Special Topics (1-3)** Topics of special or current interest are offered periodically. The credit allowed for the particular course will be set by the department. Appropriate prerequisites and contents will vary with the nature of the course offering and will be determined by the department.

**MATH 493 Readings in Math (1-4)** The course content must be submitted by student to department for approval before the student may enroll. Prerequisite: A 3.00 average and approval of the instructor.

## Mechanical Engineering

**ME 101 Engineering Careers and Concepts (2)** Introduction to engineering careers, including the ethical, social, professional and economic environment in which engineering is practiced today. Students also will be introduced to fundamental concepts and modern methods for solving engineering problems through a semester-long design project. (2-0). Prerequisite: Completion of Math Basic Skills requirement. (Cross-listed with ECE 101.)

**ME 220 Computer-aided Design (3)** Principles of engineering drawing and basic principles of graphical communication as a language and as a design tool for engineers. Construction of orthographic and pictorial views using freehand sketching, followed by utilization of computer-aided design techniques, using a CAD system on a personal computer to create 2-D and 3-D drawings and solid modeling presentations. (2-3). Prerequisite: ECE 101 or ME 101.

**ME 250 Principles of Engineering Materials (3)** Introduction to atomic bonding and crystallography. The fundamental types of engineering materials including metals and alloys, ceramics, polymers and composites. Physical, chemical and mechanical properties of materials and their role in the selection of materials for design. X-ray diffraction, diffusion and dislocation in crystals. Phase diagrams and their significance. Corrosion and

failure of materials and methods for prevention. (3-0). Prerequisite: MATH 161 and CHEM 111.

**ME 250L Engineering Materials Lab (1)** Mechanical, physical and chemical properties of materials such as metals and alloys, ceramics, plastics and composites are evaluated. Tests of both destructive (tensile, impact, creep and cold work) and nondestructive (hardness, X-ray diffraction and microscopic tests) nature are conducted. Annealing, precipitation hardening and heat treatment processes are included. (0-3). Prerequisite: ME 250 or taken concurrently.

**ME 251 Engineering Statics (3)** Static force analysis by means of vector algebra. Deals with force systems, moments and couples with emphasis on the use of free-body diagrams for solving applied equilibrium problems in engineering. (3-0). Prerequisites: MATH 161 and PHYS 211.

**ME 252 Engineering Dynamics (3)** The kinematics and kinetics of particles and rigid bodies using vector analysis. The solving of applied problems with Newton's Second Law, work-energy and impulse-momentum methods for both translational and rotational motions with emphasis on planar motion problems. (3-0). Prerequisite: MATH 162, ME 251 and PHYS 211.

**ME 290 Special Topics (1-4)** Lower division level topics in the field of mechanical engineering are offered as needed.

**ME 302 Engineering Analysis (3)** Applications of mathematical and computational techniques in engineering and science. Topics include probability, statistics, complex variables, discrete mathematics, Fourier analysis, and partial differential equations. Cross listed with ECE 302. Prerequisite: MATH 262.

**ME 304 Computer Applications (3)** Computer representation of numbers and roundoff errors. Statistical analysis of data. Mathematical modeling and fundamentals of numerical methods. Computer-based solutions for problems leading to nonlinear equations, matrices, interpolation, integration and differential equations. Engineering applications including problems in structural mechanics, circuits, dynamics, fluids and heat transfer. Engineering software development and design projects. (3-0). Prerequisite: MATH 262 and a high-level programming language.

**ME 311 Thermodynamics I (3)** First and Second Laws of Thermodynamics, properties of pure substances, equations of state, state diagrams, simple process analysis and concept of entropy. Emphasis on the use of property tables and charts in applying the First and Second Laws to analyze changes occurring in both open and closed systems. (3-0). Prerequisites: CHEM 111, MATH 162 and PHYS 211.

**ME 315 Engineering Measurements (2)** Principles of analysis and design of a measurement system emphasizing analog signal information. Topics include description of the basic measurement problem: definition and standards of measurement; design, analysis, calibration and component selection for a system; sources and propagation of error; analysis of data; and confidence limits and uncertainty. Emphasis on electronic system components. (2-0). Prerequisites: PHYS 212 and 212L.

**ME 315L Engineering Measurements Lab (1)** Design, assembly, and operation of typical measurement systems. Selection and performance testing of off-the-shelf components. Analysis, presentation and evaluation of data. Measurements include displacement, velocity, acceleration, force, pressure, strain, temperature and natural frequency. Emphasis on electronic components. (0-3). Prerequisite: ME 315 or taken concurrently.

**ME 353 Mechanics of Materials (3)** Compression, tension, shear, torsion and bending forces in structural members, including distribution of stress, deflections, buckling and fatigue on solid materials. Role of mechanics of materials in design. (3-0). Prerequisite: ME 250 (or taken concurrently) and ME 251.

**ME 353L Solid Mechanics Lab (1)** A laboratory course to provide hands-on experiences to illustrate principles presented in ME 353. A design project involving solid mechanics included. (0-3). Prerequisite: ME 353 or taken concurrently.

**ME 356 Fluid Mechanics (4)** Engineering applications, experiments, and design involving viscosity, statics (manometers, forces on submerged surfaces), kinematics, Bernoulli equations, conservation equations (mass, momentum, energy), dimensional analysis, the boundary layer and separation, duct flow, drag/lift forces, turbomachinery and flow measurement. (3-3). Prerequisite: MATH 262 and ME 252. One or both may be taken concurrently.

**ME 356L Fluid Mechanics Lab (1)** A laboratory course to provide hands-on experience to illustrate principles presented in ME 356. (0-3). Prerequisite: ME 315 and ME 356. One or both may be taken concurrently.

**ME 370 Physical and Mechanical Metallurgy (3)** Structures and properties of materials, destructive and nondestructive tests. Fundamentals of phase diagrams and thermodynamics of phases. Strengthening mechanisms, applications and correlation techniques. Diffusion, defects and defect prevention techniques. Elastic and plastic deformations, manufacturing and metal forming processes. Material selection as an integral part of design. Computer and lab projects. (3-0). Prerequisite: ME 250, ME 353. ME 353 may be taken concurrently.

**ME 380 Manufacturing Processes and Systems (3)** An introduction to manufacturing processes and systems. Processing of metals, polymers, ceramics and composites. Selection of appropriate materials, processes, and systems in conjunction with an engineering design is emphasized. Design for manufacturability, concurrent engineering, and quality method fundamentals are introduced. (3-0). Prerequisite: ME 250, ME 353.

**ME 406 Engineering Cost Analysis (3)** Cost comparisons for engineering and technology. Time value of money related to capital investment, equipment replacement, production costs and other problems involving selection between alternatives for solving engineering and technology problems. (3-0). Prerequisite: Junior standing.

**ME 411 Thermodynamics II (3)** Ideal gas mixtures, psychrometrics, combustion. Thermodynamics design and applications to vapor/gas power cycles and refrigeration systems. Emphasis on the use of property tables in cycle analysis. The use of thermodynamics software for cycle design. (3-0). Prerequisite: ME 311.

**ME 416 Power Plant Engineering (3)** Introduction to power generation, conventional and nuclear power plants, review of power cycles, economic and performance considerations, steam power plants, gas turbines, combined cycles, cogeneration, waste heat recovery units, selecting an optimized power generating system (3-0). Prerequisite: ME 411.

**ME 420 Heat Transfer (3)** Fundamentals of conduction, convection and radiation heat transfer. Use of analytical, numerical and experimental methods to solve practical problems. Applications to fins, heat exchangers. Design project (3-0). Prerequisite: ME 311 and ME 356.

**ME 420L Heat Transfer Lab (1)** A laboratory course to provide hands-on experiences to illustrate principles presented in ME 420. A design project involving heat transfer included. (0-3). Prerequisite: ME 304 and ME 420 or one or both taken concurrently.

**ME 430 Heating, Ventilating, Air Conditioning System Design (3)** Introduction to the overall system, indoor/outdoor design conditions, heating/cooling loads, application of psychrometry, components and distribution systems, control systems, application to practical projects. (3-0). Prerequisite: ME 420 or taken concurrently.

**ME 444 Kinematics of Machines (3)** Analysis and synthesis of the kinematics of motion (position, velocity and acceleration) of machine members utilizing both vector algebra and graphical methods. Design assignments will be included. (3-0). Prerequisite: ME 252.

**ME 445 Mechanical Vibrations (3)** Introduction to free and forced vibrations for undamped and damped systems. Single- and multi-degree-of-freedom systems. Vibration measurements and vibration isolation. Numerical treatment of discrete as well as continuous systems. Design and computer projects included. (3-0). Prerequisites: MATH 262, and ME 252, 353, 353L.

**ME 451 Machine Design (3)** Fundamentals of load and deformation analysis. Materials considerations in component design, yield criteria, stability, reliability, factors of safety, surface damage, fatigue and impact. Applications including fasteners, shaft design, power screws, lubrication, bearings, gears and power transmission components. Computer applications and design projects. (3-0). Prerequisite: ME 353.

**ME 453 Finite Element Analysis (3)** Introduction of finite element method as a contemporary tool in engineering and industry. Mathematical modeling and formulation techniques of finite element equations. Solution strategies and applications of finite element method in structural mechanics (trusses, beams, frames), elasticity and scalar fields (fluid flow, torsion, heat transfer, electromagnetic). Hands-on workshop sessions to illustrate various theoretical concepts. Computer and design projects. (3-0). Prerequisite: MATH 262 (or equivalent), ME 353, or permission of instructor.

**ME 456 Aerodynamics (3)** Flight history, prediction, measurement and modification of lift and drag forces, flow separation, gas dynamics, turbulence characteristics and aerodynamic design. (3-0). Prerequisite: ME 311 and ME 356.

**ME 460 Automatic Control Systems (3)** Fundamentals of control theory, block diagrams, transfer functions and controllers. Mathematical modeling of steady-state and transient behaviors. Analysis, design and synthesis of dynamic systems. Errors, stability criteria and compensation techniques. Design and computer projects. (3-0). Prerequisite: ME 252, MATH 262, ME 315. ME 315 may be taken concurrently.

**ME 470 Fracture and Fatigue (3)** Microscopic and macroscopic aspects of fracture and fatigue, fatigue crack propagation and factors affecting failure of materials. Stress intensity factors, fracture toughness and design philosophy concepts. Transition temperatures, fracture and fatigue tests and correlation techniques. Statistical and reliability analysis using Weibull distribution. Analysis of case histories of structural failure. Design and computer projects. (3-0). Prerequisite: ME 250 and ME 353.

**ME 480 Senior Design I (3)** Students design and present a viable engineering project to be implemented in ME 481 Senior Design II. Students work in teams on a semester-long project proposal. Plans, schedules, resource requirements, several concepts, concept evaluations, drawings, schematics, budgets, formal written reports, and formal presentations are required. Students must take ME 480 Senior Design I and ME 481 Senior Design II in sequence in consecutive semesters. (2-3). Prerequisites: ME 451 and ME 420.

**ME 481 Senior Design II (2)** Students execute a viable engineering design project planned in ME 480 Senior Design I on time and on budget. Students work in teams on a semester-long implementation of a project proposal. Physical prototypes will be fabricated and tested. Written progress reports, design review presentations, a physical prototype, a physical acceptance test, and a formal written engineering report are required. Students must take ME 480 and ME 481 in sequence in consecutive semesters. (0-6). Prerequisite: ME 480.

**ME 490 Advanced Special Topics (1-4)** Upper division level topics in the field of mechanical engineering are offered as needed.

**ME 497 Senior Research Project (1-4)** Theoretical or practical research project in the major area. Students must submit a plan of study before enrollment. Prerequisites: Senior standing and permission of the instructor.

## Modern Foreign Languages

**MFL 205 Studies in World Literature (3)** Students explore literature from multiple cultures through study of works of fiction, poetry, drama and/or film by authors from outside the U.S., Great Britain and English Canada. Works selected on the basis of common theme, genre, historical period and/or geographical area. Literature not originally in English will be studied in translation. (The title in the Course Schedule will reflect the specific subject matter of the course.) Prerequisite: ENGL 111. Cross-listed with ENGL 205. May be taken more than once for credit.

**MFL 290 Selected Topics (1-4)** Topics may vary but include: French, German, Polish and Spanish philosophy; introduction to languages not currently taught; introduction to descriptive linguistics. Course is taught in English or in the target language and includes work in the language laboratory where applicable.

**MFL 465 Elementary Foreign Language Methods (3)** A study of elementary level foreign language pedagogy, emphasizing methods to teach listening, speaking, and culture; including methods to teach reading and writing; as well as class preparation, testing, use of language laboratory and media equipment, observation of classes, and practice in teaching. Prerequisite: FREN 321 or SPAN 311 or permission of department.

**MFL 466 Secondary Foreign Language Methods (3)** A study of secondary foreign language pedagogy, including methods to teach listening, speaking, reading, writing, and culture; as well as class preparation, testing, use of language laboratory and other media equipment, observation of classes, and practice in teaching. Prerequisite: FREN 321 or SPAN 311 or permission of department.

## Music

**MUS 100 Music Fundamentals (3)** An introduction to music materials: notation, sight-singing and understanding musical terms, using music of

various historical styles. This course is designed for non-musicians and does not satisfy major requirements.

**MUS 101 Guitar Class (3)** An introduction to the mechanics and rudiments of the guitar in a class situation. Students will play materials designed for guitar ensemble and will be involved in both classical and jazz styles.

**MUS 103 Voice Class (2)** An introduction to singing and vocal techniques. This course is designed for students who wish to learn the correct method of singing and should be taken before enrolling in applied music if the student has had no previous vocal training.

**MUS 104 Improvisation Class (2)** An introduction to techniques of improvisation. The course will cover elementary music theory as it applies to making up music on the spot. This course is specifically designed for players and singers who wish to extend their horizons beyond traditional music.

**MUS 107 Applied Music (1)** Private instruction in voice or instrument. A special fee is required. For enrollment, students should obtain an Applied Music Enrollment Form from the Fine Arts faculty secretary. Teachers will be assigned and posted at the beginning of each semester.

**MUS 108 Applied Music (1)** Continuation of applied music in the same medium as taken in 107.

**MUS 111 Music Theory and Ear Training I (4)** An introduction to the basic materials of music; notation, rhythm, scales, key signatures, intervals, transposition and triads. Ear training, sight singing and elementary part writing will begin. Prerequisite: Theory assessment and acceptance as music or music education major or minor.

**MUS 117 The Musical Experience (3)** A study of a variety of musical compositions, styles and genres from different historical periods and cultures. Topics of study will include:

**MUS 117A Classical Music (3)** A study of western classical music from the 18th century to the present.

**MUS 117B Non-Western Music (3)** A survey of non-Western music covering the music of Asia, Africa and other non-Western cultures.

**MUS 117C Music in the United States (3)** A study of American music from the Colonial period to the present, including art, folk and popular styles.

**MUS 117D The Piano (3)** An introduction to the rudiments of playing the piano and keyboard theory. Students also will study the piano from its origins to the present, including important composers, performers and piano compositions. This course is designed for those with little or no piano experience.

**MUS 117E Listening for the Elements (3)** This course is intended to help develop the music listening skills of students by focusing on the elements of music as they are used in the music of a variety of cultures, styles and eras.

**MUS 121 Applied Piano I (1)** Private instruction in piano. A special fee is required for enrollment, students should obtain an Applied Enrollment Form from the Fine Arts Faculty Secretary. Teachers will be assigned and posted at the beginning of the semester. Prerequisite: MUS 102 or equivalent.

**MUS 122 Applied Piano II (1)** Continuation of Applied Piano I. Prerequisite: MUS 121 or equivalent.

**MUS 150 Introductory Music Studies (3)** Introduction to skills and materials necessary for college level study of music. Basic study of genres, styles and performing ensembles central to classical music, and techniques of listening, analysis and criticism. Required in their first fall semester of all music and music education majors and minors. Others may enroll with instructor's permission. Transfer students may apply to the department for exemption.

**MUS 181 Concert Choir (1)**

**MUS 182 Chamber Choir (1)**

**MUS 183 Concert Band (1)**

**MUS 184 Marching Band (1)**

**MUS 185 Stage Band (1)**

**MUS 186 Chamber Music (1)**

**MUS 187 Ensemble (1)** To be announced.

**MUS 188 Collegium Musicum (1)**

**MUS 189 Flute Choir (1)** Prerequisite: A basic background in flute.

**MUS 207 Applied Music (1)** Continuation of MUS 108.

**MUS 208 Applied Music (1)** Continuation of MUS 207.

**MUS 211 Music Theory and Ear Training II (4)** Study of common practice harmony of the 17th and 18th centuries, four-part writing, cadences, nonharmonic tones, harmonic progressions and seventh chords. Continuation of ear training and sight singing. Prerequisite: MUS 111 or permission of instructor.

**MUS 212 Keyboard Harmony (2)** An emphasis on keyboard skills rather than developing solo piano technique. The course will focus on keyboard harmony, playing from chord nomenclature, improvising accompaniments and simple score reading. Prerequisite: MUS 107: Piano, or equivalent. Limited to music and music education majors or minors, or by permission of instructor.

**MUS 221 Applied Piano III (1)** Continuation of Applied Piano II. Prerequisite: MUS 122 or equivalent.

**MUS 222 Applied Piano IV (1)** Continuation of Applied Piano III. Prerequisite: MUS 221 or equivalent.

**MUS 291 Sophomore Seminar (1-4)** Seminar in selected topics for general students and/or music majors/minors, for example, resident artist course(s) or interdisciplinary curriculum.

**MUS 307 Applied Music (1)** Continuation of MUS 208.

**MUS 308 Applied Music (1)** Continuation of MUS 307.

**MUS 311 Music Theory and Ear Training III (4)** Study of chromatic harmony and modulatory procedures of the Baroque and Classical periods, of extended chromaticism of the Romantic period, and of early non-tonal techniques. Students will compose exercises, analyze excerpts from musical literature, identify melodic and harmonic progressions aurally, and transcribe short extracts by ear, and sight singing. Prerequisite: MUS 211 or permission of instructor.

**MUS 312 Musical Analysis (3)** Students will study a selection of musical compositions that share some fundamental similarities, yet require different approaches to analysis. Examples would be symphonic works, operas or chamber works. The course is designed both to teach methods of musical analysis and to give students an in-depth understanding of a particular body of musical literature. Prerequisite: MUS 311.

**MUS 313 Composition (3)** Introduction of composition techniques. Students will have specific styles and forms of composition assigned, but also will be given an opportunity to compose in any media they choose. Students will present their works for performance at some time during the course (may be taped). Prerequisite: MUS 211 or permission of instructor.

**MUS 320 Music History and Literature I (4)** A study of the history and literature of art music from Medieval, Renaissance and early Baroque periods. The course will emphasize the development of various musical genres, relationships between music and society, and a study of individual composers' styles through analysis, study of the theoretical premises of each period, and short compositional exercises in each style. Prerequisite: MUS 211.

**MUS 321 Music History and Literature II (4)** A study of the history and literature of art music from the late Baroque, Classical and Romantic periods. The course will emphasize the development of various musical genres, relationships between music and society and a study of composers' individual styles through analysis. In addition, the segment on the late Baroque period will include theoretical exercises in contrapuntal techniques. Prerequisite: MUS 311.

**MUS 332 Vocal Pedagogy (2)** The study of voice teaching techniques. The course will include language diction, vocal production, physical anatomy, vocal problems and basic vocal skills.

**MUS 334 Conducting I (3)** This course presents the theory and practice of conducting - instrumental and vocal. Students will be given a variety of practical assignments and will be expected to do some conducting with one of the SVSU ensembles.

**MUS 399 Directed Study (1-4)** Directed study will be approved for the student who has discovered some specific topic of interest within a program emphasis that is mutually shared by a music faculty member. This will normally be the logical extension of subject initially encountered with

in a regularly scheduled course. Prerequisite: Junior standing, completion of relevant courses and permission of instructor.

**MUS 407 Applied Music (1)** Continuation of MUS 308.

**MUS 408 Applied Music (1)** Continuation of MUS 407.

**MUS 411 Theory Seminar (3)** This course will be offered according to student demand and will deal with an area of music theory of that the student has a particular interest. May involve composing, arranging, analysis or study of a particular composer or style. Prerequisite: Senior standing, MUS 111, 211, 311, 312 or permission of instructor.

**MUS 412 History Seminar (3)** This course will be offered according to student demand and will deal with some specific musicological problem or development. It is expected that the student will be aiming toward graduate study in music in order to take this course. Prerequisite: Senior standing, MUS 320, 321 and permission of instructor.

**MUS 421 20th Century Music (3)** The course will treat 20th Century music from both theoretical and historical standpoints. Students will learn the basis of each theoretical system (such as serialism, neoclassicism or minimalism), compose their own exercises in that system, and study the musical literature written in that system from both analytical and historical perspectives. Prerequisite: MUS 312 and MUS 321.

**MUS 434 Conducting II (2)** Continuation of MUS 334, including increasingly complex technical problems and emphasis on the communication of musical intentions through physical gestures. Students will view videotapes of their own conducting and will also conduct an SVSU ensemble. Prerequisite: MUS 334.

**MUS 497 Senior Project (3)** This includes recitals, research, major composition(s) or other Senior level projects. Prerequisite: Senior music major and unanimous approval of music faculty.

## Music Education

**MUSE 203 Woodwinds Class (2)** An introduction to the theory and practice of playing woodwind instruments. Students will be introduced to each instrument, learn how to start young students on them, and will learn to play selected instruments. All woodwinds will be covered.

**MUSE 204 Brass Class (2)** An introduction to the theory and practice of playing brass instruments. Students will be introduced to each instrument, learn how to start young students on them, and will learn to play selected instruments. All brass instruments will be covered.

**MUSE 205 Strings Class (2)** An introduction to the theory and practice of playing orchestral string instruments. Students will learn to play all bowed stringed instruments, and will learn the skills necessary for directing a school string ensemble, such as arranging, bowing and basic string maintenance.

**MUSE 206 Percussion Class (2)** An introduction to the theory and practice of the percussion instruments. Students will be exposed to non-pitched drums and keyboard percussion instruments. Students also will be exposed to tuned drums and the tympani.

**MUSE 303 Teaching Elementary School Music (3)** The study of developmentally appropriate materials, methods and skills for teaching music in the elementary school. Topics include singing, listening, creative activities and the use of instruments in the general music classroom. Lesson planning and teaching are done in class and in practicum experiences. Limited to music education majors and minors, or permission of the instructor.

**MUSE 304 Teaching Middle School Music (2)** The study of developmentally appropriate materials, methods and skills for teaching music in the middle school. Topics include singing, including the changing voice, the development of critical listening skills, creative activities, including music composition, and appropriate ensemble experiences for this level. Lesson planning and teaching are done in class and in practicum experiences. Prerequisite: MUS 303.

**MUSE 305 Teaching Secondary Music Ensembles (3)** Examines problems in the teaching and administration of contemporary instrumental and choral music classes. Topics include program goals and objectives, inventory management, rehearsals, selection of developmentally appropriate materials and techniques for the teaching of musical concepts in performance classes. Limited to music education majors and minors, or by permission of the instructor.

**MUSE 306 Technology in Music Education (3)** This course introduces students to computers and software used in the teaching and administration of school music programs. Topics include MIDI applications, synthesizers and keyboards, and music instructional programs. Limited to music education majors and minors, or by permission of the instructor.

**MUSE 309 Arranging and Charting for School Music Ensembles (3)** This course introduces students to the basic concepts used in arranging and charting for school music ensembles. Students will use computer sequencers and notational programs to create arrangements appropriate for public school instrumental and vocal ensembles. Students also will create and chart marching band shows for bands of various sizes, using dedicated computer charting programs. Prerequisite: MUSE 306.

**MUSE 314 Foundations of Music Education (3)** An examination of the philosophical and psychological foundations of contemporary music education. Topics include aesthetic theories and their implications for music education, as well as a study of the application of learning and developmental theories of students (elementary, middle and secondary) to the teaching and learning of music.

**MUSE 413 Music Education Seminar (3)** This course will be offered according to student demand and will deal with research in music education and curriculum. It is expected that the student will apply this course toward graduate work in music education or credits beyond the credential or a master's degree. Prerequisite: Senior standing, permission of instructor and completion or concurrent enrollment in student teaching in music.

## Natural Science

**NS 108 Computers and Society (2)** A non-programming survey course in the uses and limits of computers in business, education and industry.

**NS 109 Mathematics of Human Affairs (2)** Cultural aspects of mathematics. (Inductive and deductive reasoning and other special topics.)

**NS 112 Chemistry and Society (3)** A study of the contributions chemistry makes to our civilization from the standpoint of the individual and of society as a whole. Substances examined include those found in the cosmos, living organisms and the material world. The roles of substances and materials in the modern world are assessed with respect to benefit and risk.

**NS 113 Concepts of Matter (4)** The importance of matter in relation to the development of man in society. Basic concepts and developments of atoms and molecules, including relevant examples of ecology, industry and research. (3-2). (Not recommended for chemistry majors.)

**NS 123 Plants and Civilization (3)** The importance of plants in human society is the emphasis of this course. Topics to be covered include: beginnings of agriculture; agricultural systems; medicinal plants; ecological role of plants; and industrial uses of plants.

## Nursing

Course sequencing requirements are explained in the catalog section on Undergraduate Programs.

**NURS 100 Nursing as a Health Profession (2)** Meets the learning needs of students interested in the profession of nursing. The professional nursing role is explored via classroom discussion, presentations by current practitioners and visitation of health care settings. This is an elective course, not required for the major.

**NURS 270 Core Phenomena and Nursing Interventions (4)** Explores origins, dynamics and theories related to human experiences such as safety, comfort, and motion. Examines perspectives for nursing interventions as they relate to these experiences.

**NURS 272 Critical Thinking and Communication in Nursing I (3)** Focuses on critical thinking and communication as major components of the organizing framework for nursing. Supporting processes such as leadership and the nursing process are explored, using an empowerment perspective.

**NURS 274 Nursing Practicum I (5)** Develops competence in nursing practice through interventions with humans as individual persons. Focuses on knowledge unique to nursing as it is utilized in practice. Students begin to identify with the role of the professional nurse.

**NURS 290 Selected Topics in Nursing (1-4)** Selected topics related to nursing and the nursing profession.

**NURS 300 Transition (4)** Explores communication and critical thinking as major components of the organizing framework for nursing. Introduces nursing phenomena as they occur in individuals and families. Focuses on professional transition processes and research/theory-based nursing practice using an empowerment perspective. Prerequisite: Michigan RN License. This course is strongly recommended as the first in which RNs should enroll upon admission to SVSU.

**NURS 360 Human Experience of Health Phenomena and Nursing Interventions (3)** Explores cognition, perception, and regulation as responses within altered life processes. Examines nursing interventions as they relate to these responses.

**NURS 362 Critical Thinking and Communication in Nursing II (4)** Applies a critical thinking perspective to the research and teaching-learning processes. Expands understanding of communication to include groups. RN Prerequisite or Corequisite: MATH 132A or B or the equivalent and NURS 300.

**NURS 364 Nursing Practicum II (5)** Expands competence in nursing practice through intervention with humans as individuals in varying contexts. Focuses on developing and testing of knowledge unique to nursing. Refines students' identification with role of professional nursing.

**NURS 370 Family Health Phenomena and Nursing Interventions (3)** Explores health as it is experienced by families. Major influences on the health of families such as culture, poverty, self-care and wellness are examined. Interventions affecting family health are identified. RN Prerequisites: NURS 300.

**NURS 372 Health of Populations I (3)** Explores human responses of families as they experience significant health events. Health issues of selected aggregates related to the family are examined. Focuses on interventions with the family.

**NURS 374 Nursing Practicum III (5)** Develops competence in nursing practice through interventions with families. Focuses on knowledge unique to nursing as it is utilized in practice with families. Expands the professional nurse role identity to acknowledge a family as client perspective.

**NURS 460 Community Health Phenomena and Nursing Interventions (3)** Explores health as it relates to the community. Major influences on health of communities such as poverty, violence, and communicable diseases are examined. Interventions affecting community health are identified. RN Prerequisites: NURS 362 and NURS 370.

**NURS 462 Health of Populations II (3)** Examines the human response related to health issues of selected aggregates across the population. Focuses on nursing interventions as they relate to these aggregates.

**NURS 463 Family and Community Health Phenomena and Nursing Interventions (4)** Explores health as it is experienced by families and communities. Relationship between families and communities is examined, including the major influences on and between each. Interventions affecting family and community health are identified. Enrollment limited to RN students. Prerequisite: NURS 362.

**NURS 464 Nursing Practicum IV (4-5)** Expands competence in nursing practice through intervention at the aggregate and community levels. Focuses on nursing knowledge as it is developed, utilized and tested in practice with families, aggregates, and the community. Refines the professional nurse role identity to address the complexity of human need.

**NURS 466 RN Practicum I (4)** Expands competence in nursing practice through intervention at the aggregate and community levels. Focuses on nursing knowledge as it is developed, utilized and tested in practice with families, aggregates and the community. Refines the professional nurse role identity to address the complexity of human need. RN prerequisite: NURS 300 and prerequisite or corequisite: NURS 463. Required to register during the early registration period.

**NURS 470 International Health Care (4)** An international experience in health care that is outside the U.S.A., with both theoretical and fieldwork components. Cross-listed with AH 470. Prerequisite: Permission from the College of Nursing and Allied Health Sciences.

**NURS 480 Professional Role Development (3)** Integrates the process and major components of nursing within the professional role. A transformational perspective in enacting the role is emphasized. RN Prerequisite: NURS 466.

**NURS 482 Professional Issues (3)** Examines current issues as they relate to the nursing profession, health care and society. Emphasis is on

issue analysis and resolution, utilizing processes and theories related to ethics, law, power and politics. RN Prerequisite: NURS 466.

**NURS 483 Integration of Professional Role and Issues (4)** Examines the professional role within the context of nursing standards, a transformational perspective and the issues relevant to the profession. Issue analysis and resolution is emphasized within the role, utilizing processes and theories related to ethics, law, power and politics. Enrollment limited to RN students. Prerequisite: NURS 466.

**NURS 484 Nursing Practicum V (4-5)** Refines competence in nursing practice through enactment of selected roles. Focuses on nursing knowledge as it is developed, utilized and tested in nursing practice with selected populations. Begins internalization process of the role of the professional nurse.

**NURS 486 RN Practicum II (4)** Refines competence in nursing practice through enactment of selected roles. Focuses on nursing knowledge as it is developed, utilized and tested in nursing practice with selected populations. Begins internalization process of the role of the professional nurse. RN Prerequisite: NURS 466 and prerequisite or corequisite: NURS 483. Required to register during the early registration period.

**NURS 499 Advanced Studies in Nursing (1-4)** Theoretical and/or applied study of selected topics within a specific area of nursing science. Prerequisite: Permission of instructor.

## Occupational Therapy

**OT 200 Orientation to Occupational Therapy (2)** An introduction to occupational therapy practice, the history of the profession, current professional roles, issues and trends, the referral process, treatment sequence, ethics, liability, standards of practice. Emphasis on interviewing skills and therapeutic relationships. Clinical experience will be scheduled to offer observations and development of therapeutic skills. Prerequisite: Sophomore standing.

**OT 299 Selected Topics in Occupational Therapy (1-6)** Selected topics related to occupational therapy and the profession of occupational therapy. Prerequisite: Permission of instructor.

**OT 302 Foundations in Occupational Therapy (3)** Integrates the concept of occupational performance with the influence of cultural and environmental demands. Includes learning theories, developmental transitions, supervision theories, performance evaluation and behavioral objectives. Emphasis on multicultural and societal factors influencing delivery of occupational therapy in rural areas and their influence on clinical reasoning. Students must successfully complete an eight (8) hour Level I fieldwork experience arranged by the instructor. Prerequisite: Admission to the program.

**OT 308 Therapeutic Use of Activities (4)** The role of activity to influence change in human performance; task analysis, use of activities as treatment modalities, analysis of specific activities for practical application. Emphasis on the balance of work, play, and self-maintenance necessary for wellness across the lifespan. (3-2; 2 hours simulated clinical and 8 hours clinical weekly). Prerequisite: ART 210.

**OT 326 Conditions and Approaches to Orthopedics (4)** A study of the orthopedic conditions encountered by occupational therapists. Etiology, assessment, management and treatment of orthopedic conditions are studied. Clinical experience presenting functional treatment approaches to orthopedic conditions, emphasis on hand evaluation, treatment, and splinting. (3-3; 3 hours simulated clinical and 8 hours clinical weekly). Prerequisite: OT 302 or permission of instructor.

**OT 328 Conditions and Approaches to Physical Dysfunction (3)** Musculo-skeletal, neurological and neuro-muscular systems are studied with selected physical conditions including etiology, symptoms, and functional deficits resulting from disease or injury treated in occupational therapy practice. Emphasis on normal and abnormal function over the lifespan. Prerequisite: OT 302 or permission of instructor.

**OT 330 Professional Reasoning and Communication (3)** An introduction to documentation of occupational therapy services including effective oral, written, and nonverbal communication to facilitate accountability and service provision with patients and their families, occupational therapy personnel, other health care providers and the public. Also includes initial exposure to clinical documentation of testing methods for assessment and evaluation including the selection, administration, and interpretation

of representative standardized and nonstandardized measures. Prerequisite: OT 302, OT 308, or permission of instructor.

**OT 350 Occupational Therapy Treatment of Physical Disabilities (6)** Evaluation and basic treatment for neurology, orthopedic, traumatic and degenerative conditions; current theories and concepts of occupational therapy intervention; application of occupational therapy treatment approaches to specific disabilities. Experiential learning in health care facilities will be included. (3-2-1; 6 hours of clinical affiliation weekly, 3 hours simulated clinical experience weekly). Prerequisite: OT 308 or permission of instructor.

**OT 400 Transitions in Occupational Therapy Practice (3)** Frames of reference, models and theories used to integrate the practice of occupational therapy are studied. Examination of selected theoretical constructs used in occupational therapy practice and delivery and the integration of occupational therapy into the health care system. National and international health care and cultural issues and trends will be addressed with specific attention to ethical decision making. Prerequisite: OT 350 or permission of instructor.

**OT 410 Conditions and Approaches to Pediatric Occupational Therapy (4)** Theories and principles of evaluation and therapeutic intervention for clients from birth to age 18; emphasis on growth and development, congenital and acquired conditions of childhood, educational terminology, roles and functions of the occupational therapists in educational settings are examined. Students must successfully complete an 8 hour Level I Fieldwork experience arranged by the instructor. (3-1; 3 hours simulated clinical experience weekly. Prerequisite: OT 308 or permission of instructor.

**OT 420 Conditions and Approaches to Psychosocial Dysfunction (3)** Review of the etiology, symptomatology and functional sequelae of major psychiatric disorders treated in occupational therapy practice. Review of psychopathology, theoretical frames of reference, evaluation, treatment and management of psychiatric and developmentally disabling conditions. Prerequisite: OT 308 or permission of instructor.

**OT 422 Therapeutic Adaptations and Technology for the Handicapped (4)** Analysis, design and construction of adapted equipment to facilitate daily living skills in disabled; use of adaptive and augmentative technology, computers, and environmental controls; planning to restructure the setting to assist in self-care. (3-1; 3 hours simulated clinical weekly). Prerequisite: Successful completion of OT 450 or permission of instructor.

**OT 430 Clinical Research (3)** An examination of methods of scientific inquiry and empirical techniques with emphasis on occupational therapy. Review of the research process: problem definition, literature review, research design and data collection, analysis and interpretation and research reporting. Research evaluation and development of research proposal. Prerequisite: OT 422 and OT 450 or permission of instructor.

**OT 440 Occupational Therapy Treatment of Psychosocial Dysfunction (5)** The study of principles of psychiatric occupational therapy practice in the evaluation and treatment of individuals with developmental disabilities or psychosocial dysfunction. Review of psychopathology and theoretical frames of reference in occupational therapy intervention and treatment. Experiential learning will be scheduled in occupational therapy mental health and various community treatment programs. (3-2; 6 hours of clinical affiliation weekly) Prerequisite: OT 422 or permission of instructor.

**OT 444 Professional Issues in Occupational Therapy (3)** An evaluation of the environmental, sociological, practice, and policy issues impacting the profession and delivery of OT services. To explore solutions and to develop strategies for systems change related to occupational therapy practice and the profession. Prerequisite: OT 400, OT 450, or permission of instructor.

**OT 450 Level II Fieldwork - Physical Disabilities (6)** Full-time clinical experience in an approved occupational therapy center emphasizing treatment of individuals with physical disabilities. Students will conduct evaluation and treatment, management of assigned caseload of clients of varying ages and disabilities under clinical supervision. Prerequisite: Permission of instructor.

**OT 460 Level II Fieldwork - Psychosocial Disabilities (6)** Full-time clinical experience in an approved occupational therapy community mental health treatment program. Fieldwork under the clinical supervision of an occupational therapist provides an opportunity for the student to assume progressive responsibilities in the treatment and management of patients. Prerequisite: Permission of instructor.

**OT 470 Advanced Internship Elective (1-6)** Two or three months of supervised practice in an area of occupational therapy supervision. Requires successful completion of OT 450.

**OT 499 Selected Topics in Occupational Therapy (1-6)** Selected topics related to occupational therapy and the profession of occupational therapy. Prerequisite: Permission of instructor.

## Philosophy

**PHIL 114 Introduction to Logic (3)** An introduction to critical thinking and writing with an emphasis on improving students' skills in developing and evaluating logical arguments. Topics include basic logical relationships, use of evidence and sources, precise definition, informal fallacies, analogical arguments, and writing persuasive and critical papers. Prerequisite: ENGL 111.

**PHIL 123 Introduction to Western Philosophy (3)** An interdisciplinary introduction to Western history, arts, culture and ideas emphasizing philosophical contributions. The major philosophical traditions and problems originating between the Presocratic period and the 17th century will be emphasized.

**PHIL 190 Selected Topics in Introductory Philosophy (1-4)**

**PHIL 205 Professional Ethics (3)** This course combines a survey of important ethical and public policy issues with a thorough grounding in the ethical traditions that have guided serious discussion of these issues historically, and the development of skills necessary to develop, articulate and defend logically a range of individual positions on these and related issues. The focus of the topics for each section will vary, but, following discussion of ethical theory, will include issues related either to business or health care. Prerequisite: ENGL 111.

**PHIL 205A Professional Ethics: Business [CI] (3)** An introduction to moral theory, with special attention to major ethical issues that arise in the practice of American business. These may include the morality of the free market, the nature of property, product liability, advertising, management versus employee rights, whistle-blowing, health and safety issues, affirmative action, comparable worth and the environment.

**PHIL 205B Professional Ethics: Health Care [CI] (3)** An introduction to moral theory, with special attention to moral issues that arise in the practices of nursing and medicine. These may include such issues as informed consent and proxy decision making, euthanasia, abortion, social justice and health care, concepts of health and disease, allocation of resources, and professional responsibilities and relationships.

**PHIL 210 Applied Ethics (3)** An introduction to moral theory with special attention to: (a) social policies concerning life and death issues, or (b) issues in engineering and computer technologies

**PHIL 210A Applied Ethics in Law and Society (3)** Ethical issues considered may include abortion, euthanasia, war, animal rights, issues in social and criminal justice, and responsibilities to future generations.

**PHIL 210B Applied Ethics in Engineering and Computer Technologies (3)** Ethical issues considered may include codes of ethics, corporate and social responsibilities, conflicts of interest, safety and risk assessment, and whistle blowing.

**PHIL 213 South Asian Civilizations (3)** An introduction to the history, arts, culture and philosophical and religious ideas of India, Pakistan and the south Asian region, including Hinduism, Buddhism, Islam and related traditions such as Jainism and Sikhism; also south Asian music, film, literature and customs. (Cross-listed with HIST 213)

**PHIL 214 Symbolic Logic (3)** An introduction to elementary symbolic logic, the vocabulary and the rules for manipulating the items in this vocabulary and the rules for translating from logic to English and English to logic.

**PHIL 215 East Asian Civilizations (3)** An introduction to the history, arts, culture and philosophical and religious ideas of China, Japan and the east Asian region, including Confucianism, Taoism, Shinto, Buddhism and related traditions; also east Asian music, film, literature and customs. (Cross-listed with HIST 215)

**PHIL 220 Philosophical Themes in Literature (3)** Selected readings from important works of world literature in which philosophical issues are

treated. May include works of Sophocles, Aeschylus, Dante, Dostoyevsky, Camus, Sartre, Borges, and others; focus will vary. PHIL 123 recommended but not required.

**PHIL 230 Introduction to Social and Political Philosophy (3)** An examination of the origins and development of theories of law, personal rights and personal property, with emphasis on their relations to theories of human nature. Alternative theories of social structure will be examined, including communism, totalitarianism and democracy. PHIL 123 recommended but not required.

**PHIL 240 Philosophy and Feminism (3)** An examination of philosophical issues raised by the women's movement, and of the theories underlying these issues. Topics to be discussed include abortion, pornography, affirmative action, comparable worth, and the moral development of women. Readings include theoretical works by contemporary philosophers. PHIL 123 recommended but not required.

**PHIL 280 Introduction to Philosophy of Science (3)** An introduction to the history and philosophy of science, including the nature of "scientific explanation," scientific laws and their role in explanation, and the relation between science and religion. Readings will focus on great achievements in science such as the Copernican Revolution, Newtonian mechanics, Einstein's Theory of Relativity, and Darwinian evolution. Prerequisite: One course in philosophy recommended but not required.

**PHIL 290 Selected Topics in Philosophy (1-4)** Prerequisite: Any 100- or 200-level course in philosophy or permission of instructor.

**PHIL 300 History of Ancient Philosophy—The Greeks (3)** A survey of philosophical thought in the West from its mythopoetic origins through late Greek and Roman Neo-Platonism. Primary emphasis will be on the works of Plato and Aristotle, and such problems as the nature of justice, the good state, knowing, change, the origins of science, the place of reason and irrationality in the good life, the nature of reality and the encounter between Classical and early Christian thinkers. PHIL 123 recommended but not required.

**PHIL 305 History of Philosophy—Modern (3)** A survey of Western philosophy from the 17th century to the 20th, emphasizing the contributions of Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant, Hegel, and Nietzsche. Epistemology, social and political philosophy, and ethics are stressed. PHIL 123 recommended but not required.

**PHIL 311 Theory of Knowledge (3)** An examination of some of the philosophical problems pertinent to human knowledge (e.g., knowledge of others, self-knowledge, faith, belief and truth). Readings include selections from Descartes, Locke, Russell, Ayer and Austin. PHIL 123 recommended but not required.

**PHIL 315 Philosophy of Religion (3)** Major issues in the philosophy of religion include monotheism vs. polytheism, the attributes of God, arguments for belief in God, grounds for disbelief in God, direct experience of the Divine, the reliability of scriptural sources, faith without proof, problems of religious language, verifiability, religion as attitude, alternatives to anthropomorphism in religion, theist vs. non-theist religious belief and immorality. Readings will be included from scriptural and philosophical sources. PHIL 123 recommended but not required.

**PHIL 320 Philosophy of the Arts (3)** An examination of conceptual problems in the arts, including questions about what art is, the creative process, appreciation, interpretation and judgment, the standards by which art may be evaluated, the function of art and the mechanics of artistic effects. Exposure to various works of film, music, literature and other media is an intrinsic part of this course, as is participation in some limited creative and critical activity. PHIL 123 recommended but not required; some experience with at least one of the arts.

**PHIL 331 Law, Liberty and Morality (3)** An examination of the use of the law to enforce public and private morality, particularly sexual morality and of the influence of public morality upon the law. Special emphasis will be reserved for a study of the relationship of the individual to society and for an exploration of the concept of anarchism. Readings from Hart, Devlin, Michigan Compiled Laws Annotated, Wolfe and others. PHIL 123 is recommended but not required.

**PHIL 350 Ethical Theory (3)** Critical discussion of fundamental moral questions at the theoretical level: What makes an action morally right? What makes a person morally good? Are there moral rights? Who has moral rights? When is a person morally responsible for her or his behavior? What is the good life? Prerequisite: PHIL 205A or PHIL 205B.

**PHIL 380 Topics in Philosophy of Science (3)** Critical discussion of questions in contemporary philosophy of science: What is the relation between theory and observation? What distinguishes science from non-science? Are unobservable entities (e.g., quarks) real or merely devices for making predictions? What is the relation between physics and the other natural sciences? PHIL 211 or 280 strongly recommended but not required.

**PHIL 390 Selected Topics in Philosophy (1-4)** Prerequisite: Any 200- or 300-level course in philosophy or permission of instructor.

## Physical and Health Education

Activity Courses: Non-majors/minors, as well as PHE department majors, are encouraged to take as many as four credits of physical activities courses (PHE 101-163) to apply toward the 124-credit hour graduation requirement.

**PHE 101 Golf (1)**

**PHE 102 Golf - Badminton (1)**

**PHE 103 Handball - Racquetball (1)**

**PHE 104 Tennis - Badminton (1)**

**PHE 107 Conditioning & Weight Training (1)**

**PHE 109 Bowling (1)**

**PHE 110 Selected Topics (1)**

**PHE 111 Tennis (1)**

**PHE 112 Archery (1)**

**PHE 113 Badminton (1)**

**PHE 115 Volleyball (1)**

**PHE 116 Canoeing/Bicycle Touring (1)**

**PHE 118 Orienteering/Hiking/Camping (1)**

**PHE 119-123 Horseback Riding (1)**

**PHE 125 Beginning Swimming (1)**

**PHE 126 Aquacise (1)**

**PHE 127 Fitness Swim (1)**

**PHE 128 Springboard Diving (1)**

**PHE 132 Self Defense (1)**

**PHE 133 Karate (1)**

**PHE 137 Skiing (1)**

**PHE 140 Basic Dance Technique I (1)**

**PHE 142 Ballet Technique I (1)**

**PHE 149 Folk Dance (1)**

**PHE 154 Creative Movement Methods I (1)**

**PHE 155 Creative Movement Methods II (1)**

**PHE 162 Jazz Dance (1)**

**PHE 163 Aerobics (1)**

**Theory Courses:** Non-majors/minors also may count theoretical courses (PHE 211-490) as electives toward graduation in addition to the physical activities courses.

**PHE 201 Fitness and Movement Fundamentals (2)** Students will develop knowledge and skill to the intermediate level through participation in a variety of teaching progressions as well as develop simple lesson plans and perform introductory peer teaching in basic locomotor, stability, and manipulative skills, and basic fitness tests. Students will be introduced to the AFAA's "Practical Teaching Skills" and "Primary Aerobic Instructor" certification. Prerequisite: PHE majors/minors only.

**PHE 202 Dance and Rhythms (2)** Students will develop knowledge and skill to the intermediate level through participation in a variety of teaching progressions as well as develop simple lesson plans and perform introductory peer teaching in a variety of dance forms and basic rhythms. Prerequisite: PHE majors/minors only.

**PHE 203 Individual Sports and Leisure Activities (2)** Students will develop knowledge and skill to the intermediate level through participation

in a variety of teaching progressions as well as develop simple lesson plans and perform introductory peer teaching in a variety of individual sports and non-competitive leisure activities. Prerequisite: PHE majors/minors only.

**PHE 204 Team Sports and Games (2)** Students will develop knowledge and skill to the intermediate level through participation in a variety of teaching progressions as well as develop simple lesson plans and perform introductory peer teaching in a variety of team sports and non-competitive games. Prerequisite: PHE majors/minors only.

**PHE 205 Water Safety Instruction (WSI) (2)** This course introduces the student to American Red Cross instructional techniques, aquatic skills and programs. Successful completion of this course offers certification in WSI. The main focus of the course is to prepare prospective teachers of swimming and water safety. Prerequisite: PHE 125 or permission of instructor.

**PHE 206 Exploring Teaching Physical and Health Education (1)** Students are provided exploratory experiences of teaching physical education and health education as a profession. This course is designed to help students examine self in relationship to the social and psychological dynamics of the physical education and health education teaching profession. Field-based experiences in surrounding school districts including observation in rural, suburban, urban, and special needs schools are required. Prerequisite: PHE and HEAT majors/minors only.

**PHE 207 Professional Orientation to Fitness and Sport Management (1)** Students are provided with exploratory experiences in fitness and sport management as a profession. Observational experiences will be done in club, corporate, community and clinical settings. Examination of self in relation to the different professional demands of fitness vs sport management in these settings will be done. Prerequisite: Fitness and sports management majors only; required for fitness and sport management majors.

**PHE 211A First Aid and CPR for the Professional Rescuer (2)** Purpose of this course is to provide candidates with the skills and knowledge to prevent, recognize and respond to emergencies and to provide care for injuries and sudden illnesses until advanced medical personnel take over. Candidates have the opportunity to obtain the following American Red Cross certifications: Sport and Safety Training; CPR-PR; Automated External Defibrillation; Oxygen Administration; and Preventing Disease Transmission.

**PHE 211B Lifeguard Training (1)** The primary purpose of the American Red Cross Lifeguard Training Program is to provide entry-level lifeguard candidates with the skills and knowledge to prevent, recognize, and respond to emergencies and to provide care for injuries and sudden illnesses until advanced medical personnel take over. Candidates have the opportunity to obtain the following American Red Cross Certification: Lifeguard Training. Prerequisite: PHE 211A or permission from instructor.

**PHE 212 Introduction to Athletic Training (3)** Prevention, protection and first aid evaluation of injuries occurring in athletics. Experience in management of athletic training room and practical experience in care of athletic teams in game situations.

**PHE 221 Health Science (3)** This course will examine the personal health and social values concerning sexuality, smoking, alcohol, drugs, weight control, mental health, exercise and aging.

**PHE 231 Athletic Training Practicum I (1)** Introduction to the practical application of the NATA Athletic Training Clinical Proficiencies on Risk Management and Injury Prevention, under the supervision of a clinical instructor in the athletic training education program. Prerequisite: AT and HEAT majors only.

**PHE 232 Athletic Training Practicum II (1)** Introduction to the practical application of the NATA Athletic Training Clinical Proficiencies on Acute Care of Injury and Illness, Pharmacology, General Medical Conditions and Disabilities, and Nutritional Aspects of Injury and Illness. Prerequisite: PHE 231; admitted AT and HEAT majors only.

**PHE 240 Foundations of Physical Education (3)** Students will be exposed to significant historical developments relating to physical education and sport in our public schools during the 19th and 20th centuries. After gaining sufficient background relating to the heritage of physical education and sport, students will evaluate and analyze philosophies that have guided our profession. Armed with historical and philosophical understanding of physical education, students will assess and critique contemporary physical education.

**PHE 250 Community Health Concerns (3)** This course will examine the interrelationships among health programs of the community, state and nation. Course also examines the prevention, recognition and treatment of health problems of school children.

**PHE 260 Officiating Sports (1-4)** Students will gain valuable knowledge and insight about the philosophy and psychological dynamics of officiating. The mechanics and rules of selected sports and activities will be taught and discussed. General principles and guidelines of officiating will be presented. Actual game scenarios will be observed.

**PHE 264 Organization and Administration of Physical Education (3)** Students will be exposed to various aspects of administrative theory and the management process of physical education and activity programs. The specific considerations are leadership and technical issues.

**PHE 282 Adapted Physical Education (2)** Students will be exposed to various aspects of adaptive physical education in a program of instruction. Specific consideration is given to methodology in teaching students with disabilities.

**PHE 300 Fitness: College and Life (2)** Students will explore the four primary areas of health-related fitness (cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition) including their significance and what motivates individuals to incorporate these four factors appropriately into a lifelong pursuit.

**PHE 300L Fitness: College and Life Lab (1)** Students will develop a personal profile and exercise prescription based upon tests in the four fitness areas: cardiorespiratory endurance; muscular strength and endurance; flexibility; and body composition. Students also will develop an exercise motivational strategy based upon the transtheoretical model of behavior change. (0-2).

**PHE 310 Health/Fitness Programming for Apparently Healthy Populations (3)** Students will learn risk factor and health history identification, exercise testing, prescription, and programming for the apparently healthy population through both lecture and laboratory experiences. Prerequisite: PHE 201, PHE 203 and PHE 212 or permission of instructor.

**PHE 311 Emergency Response (3)** To train those individuals who have a duty to respond in emergency situations (first responders) with the knowledge and skills necessary to help sustain life, reduce pain and minimize the consequences of injury or sudden illness until advanced medical help arrives. Prerequisite: PHE 211A or equivalent.

**PHE 312 Athletic Injury & Illness Assessment (3)** Study of athletic injury and illness assessment principles and techniques with an emphasis on the systematic approach to the performance of a neuromusculoskeletal assessment. Specific anatomical areas include: foot/ankle/lower leg, knee, hip, head, spine, chest, and abdomen. Prerequisite: BIOL 231, BIOL 390; AT majors, HEAT majors, or by permission of instructor.

**PHE 314 Health Conditions & Drugs (3)** Study of pharmacologic applications, including awareness of indications, contraindications, precautions, and interactions of medications. This course also includes the study of the general medical conditions and disabilities of athletes and others involved in physical activity. Prerequisite: PHE 221; or permission of instructor.

**PHE 320 Health/Fitness Programming for Special Populations (3)** Students will learn risk factor and health history identification, exercise testing, and prescription, and programming for populations with various special conditions (e.g. arthritis, diabetes, pregnancy, etc) through both lecture and laboratory experiences. Prerequisite: PHE 221, PHE 310.

**PHE 321 Materials and Methods of Teaching Physical Education 7-12 (3)** A practical course designed to acquaint the prospective teacher with materials, skills and knowledge required for planning and preparing for instruction. An examination of learning theories, curriculum development, lesson development and evaluation procedures for secondary schools will be presented. Prerequisite: PHE 201, PHE 202, PHE 204, PHE 206 or TE 100, PHE 240.

**PHE 322 Creative Dance (2)** Students will be assigned projects in dance composition that will be performed in class workshops for criticism. At the discretion of the instructor, student projects may be performed in college performances.

**PHE 330 Sport Management (3)** Students will be exposed to concepts concerning legal, marketing, finance, promotional, economic systems, communication, governance, and technological theories as they apply to

non-profit and for-profit sport related organizations (e.g. college, professional and community type sports, civic arenas, etc).

**PHE 333 Athletic Training Practicum III (1)** Introduction to the practical application of the NATA Athletic Training Clinical Proficiencies on Therapeutic Modalities, Therapeutic Exercise, Psychosocial Intervention and Referral, Health Care Administration, and Professional Development and Responsibilities. Prerequisite: PHE 232; admitted AT and HEAT majors only.

**PHE 334 Athletic Training Practicum IV (1)** Introduction to the practical application of the NATA Athletic Training Clinical Proficiencies on Assessment and Evaluation. Prerequisite: PHE 333; admitted AT and HEAT majors only.

**PHE 345 Assessment and Program Planning for Students with Special Needs (3)** Students will receive instruction in assessment and programming for students with disabilities. Course will require practical experience with students across the continuum of services. Prerequisite: PHE 282.

**PHE 350 School Health Education (3)** This course examines the role of school health education and the school health program. It will include the study of health education curricula, principles and development and evaluation of course material. Designed for teachers, nurses and other professionals. Prerequisite: PHE 221, PHE 250 and PHE 264.

**PHE 355 Motor Learning and Development (3)** Students will be presented with the primary theories of motor learning and motor development throughout the lifespan. Students will develop and implement a motor learning/development performance based project. Prerequisite: Limited to PHE majors/minors, and OT majors formally admitted to program, or permission of instructor.

**PHE 360 Scientific Principles of Athletic Coaching (3)** The student will study and interpret the different scientific principles of athletic coaching including a basic knowledge of physiological systems, exercise and conditioning, proper nutrition, philosophical issues, motivational concerns, and the application of specific competitive tactics and strategies. Prerequisite: PHE 212.

**PHE 361 Athletic Coaching Theories and Practices (3)** The student will study and interpret the different theories and practices of athletic coaching focusing specifically on philosophy, legal issues and risk management, development of skills, tactics, and strategies, administrative concepts, and professional preparation and development. Prerequisite: PSYC 100, PHE 260.

**PHE 365 Adapted Aquatics (2)** Students will be exposed to various aspects of teaching aquatic skills to students with special needs. Emphasis will be given to the acquisition of skills and knowledge necessary to teach students with disabilities in an aquatic environment.

**PHE 375 Kinesiology (2)** Theories relating to anatomical and mechanical principles of human movement will be reviewed with applications to physical education, sports medicine and occupational therapy. Focus on origin, insertion, actions and innervations of the most used skeletal muscles will be given. Prerequisite: BIOL 231, Limited to PHE majors/minors, and OT majors formally admitted to program, or permission of instructor.

**PHE 375L Kinesiology Lab (1)** Administration of and participation in various tests, measurements and evaluation of the anatomical and mechanical aspects of both simple and complex physical performance will be the method by which students will evaluate the primary theories of kinesiology relative to practical applications of human movement. Corequisite: Must be taken concurrently with PHE 375. Prerequisite: BIOL 231, Limited to PHE majors/minors, and OT majors formally admitted to program, or permission of instructor.

**PHE 376 Physiology of Exercise (2)** Theories relating to both acute and chronic adaptations to exercise of all the body organs and systems will be reviewed from the viewpoint of rapidly changing current and future technology. Prerequisite: BIOL 231, PHE 211A, PHE 375. Limited to PHE majors/minors, and OT majors formally admitted to program, or permission of instructor.

**PHE 376L Physiology of Exercise Lab (1)** Administration of and participation in actual tests, measurements and evaluation of each physiological system of the body will be the method by which students will evaluate the primary theories of physiology of exercise relative to practical applications in physical education, sports medicine and occupational therapy. Corequisite: Must be taken concurrently with PHE 376. Prerequisite: BIOL

231, PHE 211A. Limited to PHE majors/minors, and OT majors formally admitted to program, or permission of instructor.

**PHE 385 Administration of Athletic Training Programs (3)** Study of management principles used in the Athletic Training Profession. Facility design; budget and inventory control; pre-participation examination and screening; insurance; risk management; personnel management; medical documentation and confidentiality; psychosocial intervention and referral; professional development and responsibilities. (AT and HEAT majors with Junior or Senior standing.)

**PHE 398 Therapeutic Exercise (3)** Study of principles and techniques used to plan, implement, document, and evaluate the efficacy of therapeutic exercise programs for the rehabilitation and reconditioning of the injuries and illnesses of athletes and others involved in physical activity. Prerequisite: PHE 312, AH 436.

**PHE 410 Applied Technology and Training (2)** Students will be presented with theoretical background and methods of providing testing and programming using current technology. Students will work through the SVSU Human Performance Laboratory and use current technology in an actual training program. Prerequisite: Junior standing or above and completion of General Education Category 4.

**PHE 430 Field Experiences with Students with Special Needs (4)** The course is designed to provide the student with experience with children who have a variety of physical, mental, and emotional needs in the physical education environment.

**PHE 440 Tests and Measurement in Physical Education (3)** The student will be introduced to the quantitative tests, measurements and evaluation tools utilized in evaluating the cognitive, affective and psychomotor aspects of physical performance. Prerequisite: PHE 240.

**PHE 450 Contemporary Issues in Physical Education (2)** An investigation and discussion of selective major issues of interest to contemporary physical education. New trends and controversial issues will be explored. Prerequisite: Senior standing.

**PHE 470 Humanistic Concerns in Physical Education (3)** Students will be exposed to the sociological and psychological aspects of physical activity relevant to physical education in schools. Knowledge of the goals and values in physical activity on individuals and society will be included. Prerequisite: PHE 240, SOC 111.

**PHE 480 Athletic Coaching Internship (3)** In this course students will develop coaching skills through participation in approximately 40 hours of internship as a coach's assistant in a relevant sport activity. Additionally, students will construct a season plan, utilize a variety of coaching strategies, and expand their coaching knowledge/ resource base for application in the sport activity. Prerequisite: PHE 361.

**PHE 490 Special Topics in Health and Physical Education (1-4)** Check current schedule for specific course titles.

**PHE 496 Field Work in Fitness and Sport Management (3)** Students will be assigned, after a definition of tasks, to a fitness/sport business facility in the Tri-County area. A weekly seminar is required. Prerequisite: PHE 207 and Senior standing.

## Physics

**PHYS 106 Earth and Space Science (4)** This introductory-level course covers basic concepts of earth and space science, and the consequences of these scientific principles. The course consists of a survey of the processes that take place on Earth, in the atmosphere, or in space, along with the techniques scientists use in studying these systems, and some history of the field.

**PHYS 106A Physical Geology (4)** A study of the structure and composition of the Earth, the rocks that form its crust and the geological processes that have shaped and are shaping its surface such as water, wind and ice. Laboratory study of common rocks, minerals and fossils is included. A laboratory is included. Possible field trips. (3-2).

**PHYS 106B Meteorology (4)** An examination of the wonders and science of the atmosphere that surrounds us. Topics include: description and causes of the local weather and climate, how weather forecasts are made, thunderstorms, tornadoes, hurricanes, blizzards and other violent weather, climate change and the effect of weather on human activities. (4-0).

**PHYS 106C Astronomy (4)** A descriptive study of the methods and principles of modern astronomy. Topics include: planets, moons, asteroids, comets, meteors, sun, stars, nebulae, galaxies, cosmology and subjects of current interest such as quasars, pulsars and black holes. (4-0).

**PHYS 107 Our Physical World (4)** A survey of the universe and the laws that govern it. This course will introduce the students to the scientific method, physical principles, and applications of these principles that are interesting and relevant to modern society. The course also may include historical, cultural, and environmental aspects of physics. The student must be comfortable with simple algebra skills. A laboratory is included. (3-2).

**PHYS 111 General Physics I (4)** Introductory physics without using calculus. Concept of vectors, one and two dimensional motion of a particle. Newton's laws of motion, law of gravitation, conservation laws of linear momentum, angular momentum and energy, ideal gases, heat and thermodynamics are treated systematically with emphasis in practical applications. Recommended for majors in biology and health sciences. (4-0). Prerequisite: MATH 122 or MATH 140.

**PHYS 111L General Physics Lab I (1)** Experiments related to topics covered in PHYS 111. (0-3). Corequisite: PHYS 111.

**PHYS 112 General Physics II (4)** Continuation of PHYS 111. Coulomb's Law, the concept of electrical fields, electric current and Ohm's Law, magnetic fields due to electric currents, the force on a current in a magnetic field. Some ideas in modern physics such as relativity and quantum theory are introduced. (4-0). Prerequisite: PHYS 111.

**PHYS 112L General Physics Lab II (1)** Experiments related to topics covered in PHYS 112. (0-3). Corequisite: PHYS 112.

**PHYS 190 Selected Topics (1-4)** Topics will be selected from modern physics, mathematical physics, solid state physics or computer physics. Other interesting topics may be offered upon request from the students. Prerequisite: Permission of instructor.

**PHYS 211 Analytical Physics I (4)** Introductory college physics using calculus, mechanics, wave motion, thermodynamics and kinetic theory of gases. Recommended for majors in physics, chemistry, mathematics, engineering and technology. (4-0). Prerequisite: MATH 161.

**PHYS 211L Introductory Physics Lab I (1)** Experiments related to topics covered in PHYS 211. (0-3). Corequisite: PHYS 211.

**PHYS 212 Analytical Physics II (4)** Continuation of PHYS 211. Electricity and magnetism, optics and modern physics. (4-0). Prerequisite: PHYS 211.

**PHYS 212L Introductory Physics Lab II (1)** Experiments related to topics covered in PHYS 212. (0-3). Corequisite: PHYS 212.

**PHYS 290 Selected Topics (1-4)** Topics will be selected from modern physics, mathematical physics, solid-state physics or computer physics. Other topics may be offered upon request from the students. Prerequisite: Permission of instructor.

**PHYS 301 Theoretical Mechanics I (3)** To show the mathematical structure of Newtonian physics and the physical interpretation of the mathematical solution. Topics included are: elements of Newtonian physics, linear motion of a particle, motion of a particle in two or three dimensions and the motion of a system of particles. (3-0). Prerequisite: PHYS 212.

**PHYS 302 Electricity and Magnetism (3)** DC and AC circuits, Maxwell's equations, electrostatics, magnetostatics and introduction to electrodynamics. (3-0). Prerequisite: PHYS 212.

**PHYS 309 Introduction to Modern Physics (4)** Relativity, particle and wave properties, atomic structure, quantum mechanics, atomic nucleus and nuclear transformation. (4-0). Prerequisite: PHYS 112 or PHYS 212.

**PHYS 312 Thermodynamics (3)** Laws of thermodynamics and elements of kinetic theory of gases. (3-0). Prerequisite: PHYS 112 and MATH 162 or PHYS 212.

**PHYS 313 Mathematical Methods (3)** Topics selected from vector analysis, Fourier series, special functions & partial differential equations, complex variables, probability and statistics, Laplace transforms and Fourier transforms, with emphasis on physical and engineering applications. (3-0). Prerequisite: MATH 262 or permission of instructor.

**PHYS 314 Electronics (4)** Circuit theory, transistors, power supplies, linear amplifiers, feedback and oscillators both in theory and practical circuits. (3-2). Prerequisite: PHYS 112.

**PHYS 320 Junior Lab (1)** Experiments designed to illustrate basic principles of physics and the application of current physics laboratory techniques. (0-4). Prerequisite: PHYS 309.

**PHYS 332 Modern Optics and Holography (3)** Diffraction and interference, Fourier optical transformations, optical information processing, holography, rainbow holography and applications, holographic interferometry, fiber optics. (2-3). Prerequisite: PHYS 112 or PHYS 212.

**PHYS 390 Selected Topics (1-4)** Topics will be selected from modern physics, mathematical physics, solid-state physics or computer physics. Other topics may be offered upon request from the students. Prerequisite: Permission of instructor.

**PHYS 400 Senior Lab (1)** Experiments in physical optics and modern physics. (0-4). Prerequisite: PHYS 309 and 320.

**PHYS 401 Theoretical Mechanics II (3)** Continuation of PHYS 301. Topics included are: mechanics of rigid bodies, gravitational fields and potential, moving coordinate systems, generalized coordinate systems, Lagrange's and Hamilton's equations, mechanics of continuous media, tensor algebra and the rotation of a rigid body. (3-0). Prerequisite: PHYS 301.

**PHYS 402 Physical Optics (3)** Optical image formation, diffraction and interference of light, light polarization; optical transformations, interaction of light with matter. Prerequisite: PHYS 212.

**PHYS 403 Introduction to Quantum Mechanics (3)** Wave mechanics, Schrodinger equation, hydrogen atom, angular momentum, perturbation theory and applications. Recommended for students planning graduate study. (3-0). Prerequisite: PHYS 301 and 302.

**PHYS 404 Solid State Physics (3)** Structural and physical properties of solids, band theory of metals, semiconductors and applications. (3-0). Prerequisite: PHYS 309.

**PHYS 432 Introduction to Fourier Optics (3)** Covers topics of the scalar wave theory of light, Fraunhofer and Fresnel diffractions, optical Fourier transform, optical filtering and paraxial theory of holography. Prerequisite: PHYS 212.

**PHYS 442 Laser Physics and Optoelectronics (3)** Principle of lasers, laser spectra, optoelectronics devices, light modulators, display devices, fiber optics, optical communication systems. Prerequisite: PHYS 212.

**PHYS 490 Selected Topics (1-4)** Topics will be selected from modern physics, mathematical physics, solid-state physics or computer physics. Other topics may be offered upon request from the students. Prerequisite: Permission of instructor.

**PHYS 497 Senior Research (1-4)** Research project for majors in various degree programs. Prerequisite: Permission of instructor.

## Polish

**PLSH 111 Elementary Polish I (4)** Introduction to the study of Polish language and culture, including the skills of reading, writing, listening and speaking. Emphasis on oral communication skills. Includes student work in language laboratory and computer laboratory.

**PLSH 112 Elementary Polish II (4)** Continuation of the study of Polish language and culture, including the skills of reading, writing, listening and speaking. Emphasis on oral communication skills. Includes student work in language laboratory and computer laboratory. Prerequisite: PLSH 111 or the equivalent.

**PLSH 121 Spoken Polish (1)** Maintains and develops the conversational skills acquired in the first semester of the language. Discussions in large and small groups. Graded pass/fail. Will not count for the minor. Prerequisite: PLSH 111 or equivalent.

**PLSH 204 The Polish-American Experience (3)** A presentation of lifestyles of Polish-Americans from 1608 to present. Comprehending the political, religious, social, educational and economic facets of their contributions and development.

**PLSH 211 Intermediate Polish I (4)** Study of Polish language and culture, including review of the basic elements of the language and further acquisition of communication skills in reading, writing, listening and

speaking. Emphasis on Polish as an international language system and cultural system. Includes student work in language laboratory and computer laboratory. Prerequisite: PLSH 112 or the equivalent.

**FREN 212 Intermediate Polish II (4)** Comprehensive review of Polish language and culture, and intensive work in written and oral communication. Emphasis on Polish as an international language system and cultural system. Includes student work in language laboratory and computer laboratory. Prerequisite: PLSH 211 or the equivalent.

**PLSH 241 Contemporary Poland (3)** Intensive study of the political system, social problems and artistic life of post-World War II from 1945 to present. Taught in English.

**PLSH 272 Polish Literature in Translation (3)** Study of major Polish literary works in English translation. Texts may include those by Rej, Mickiewicz, Konopnicka, Zeromski, Slonimski, Milisz. Credits earned in this course will not count toward the required number of credits for a minor in Polish, but will count toward a minor in Polish Studies.

**PLSH 290 Selected Topics (3)** Specific topics are presented within the area of Polish studies.

**PLSH 317 Readings in Polish Literature, 16th and 18th Centuries (3)** Selections from Rej, Kochanowski, Skarga (Renaissance and Reformation); Pasek (17th century), Krasicki, Trembecki, Konarski, (Stanislavian period). Prerequisite: PLSH 212 or permission of instructor.

**PLSH 318 Readings in Polish Literature, 19th Century to 1945 (3)** Selections from Mickiewicz, Slowacki, (Romanticism); Prus, Sienkiewicz (Positivism); Asnyk, Dabrowska, Broniewski (first half of the 20th century). Prerequisite: PLSH 212 or permission of instructor.

**PLSH 321 Polish Composition (3)** Stresses the acquisition of grammar skills through original composition. Prerequisite: PLSH 212 or permission of instructor.

**PLSH 332 Polish Conversation (3)** Oral proficiency is to be acquired through both guided and free discussion. Prerequisite: PLSH 212 or permission of instructor.

**PLSH 491 Seminar in Polish Studies (3)** Prerequisite: Permission of instructor.

**PLSH 499 Directed Study (1-4)** Student must submit a plan of study for approval before enrolling. Prerequisite: Permission of instructor.

## Political Science

**PS 112 Writing and Politics (3)** Focusing on a single, accessible political science topic (e.g., the politics of Afghanistan, environmental policy), students will develop their proficiency in writing effective, research texts. No prior knowledge of political science is required or expected. Prerequisite: ENGL 111.

**PS 118 Introduction to Political Science [CI] (3)** A general introduction to basic concepts and methods of study. Required of those wishing to major in political science. Prerequisite: ENGL 111.

**PS 123 The American Political System (3)** Survey of the development of the American political system. Emphasis upon political process. Includes review of executive, legislative, judicial and local governmental processes, as well as public opinion, interest groups, communications and political parties.

**PS 130 World Politics [CI] (3)** An introductory, communication-intensive exploration of the nature and structure of world politics with emphasis upon the nature and sources of international and transnational political behavior. Selected contemporary issues will be examined. Prerequisite: ENGL 111.

**PS 205 Comparative Government (3)** An examination and comparison of politics and governments of various contemporary states.

**PS 220 Art and Politics (3)** Explores the relationship between art and politics through the examination of such topics as ideology and art, state sponsorship of art, the politics of representation, and art as a nonvoting form of politics. Multiple art forms will be considered, as will various historical periods and cultural contexts.

**PS 225 Statistics [CI] (4)** Introductory, communication-intensive, statistical methodology course. Methods covered include descriptive statistics, Chi square, t-tests, anova correlations and regression. The course is intended to enhance the ability to understand and manipulate numerical

data, and the ability to respond to arguments and positions based on numbers and statistics. Satisfactory completion of this course meets the statistics prerequisite for the Master of Arts in Leadership and Public Administration. Prerequisites: MATH 103 or higher, and ENGL 111.

**PS 240 U.S. Parties and Interest Groups (3)** An examination of the growth, development and functions of political parties and interest groups within the American system.

**PS 260 Understanding and Managing the Bureaucracy (3)** Organization theory, the decision-making process, administration and social change and the environment of administration.

**PS 262 State and Local Government—Politics/Public Policy (3)** An analysis of the organization, powers and processes of American state and local governments, emphasizing their roles in policy determination and implementation as well as the major contemporary problems confronting them.

**PS 270 Race & U.S. Political System (3)** An examination of the central role that race relations plays in the U.S. political system. Topics covered include the Civil Rights Movement, voting behavior, public policy and Affirmative Action.

**PS 290 Selected Topics in Political Science (1-3)** Subject matter and credit offered will be listed in current published schedules.

**PS 307 Russia and Neighbors (3)** A study of historical origins, development, practices and collapse of the former Soviet Union. Includes analysis of how Russia and its neighboring states are adapting to an array of post Cold-War challenges.

**PS 319 Gender and Politics (3)** Examines contemporary American women's and men's relationship to politics by analyzing their connections to the state, their status as citizens, and their political interests and activism. The course focuses on a range of topics including gender differences in political behavior, specific public policies for which women have worked, and the impact and interests of men and women from the Religious Right.

**PS 325 Native American Politics (3)** The study of Native American nations' political relationships with the U.S. government and its non-native citizens. Uses concept of tribal sovereignty as a lens through which to examine tribal, state and federal policy making, as well as cultural politics. Considers related topics such as Native American political movements, Indian gaming, artifact repatriation, and natural resources management.

**PS 330 American Constitutional Law (3)** The history and development of the United States' constitutional and legal system. Emphasis upon the development of basic principles, the judicial system and judicial/political behavior. Includes in-depth analysis of selected Supreme Court decisions. (Cross-listed with CJ 330.)

**PS 331 The American Presidency and Congress (3)** Comprehensive analysis of the powers of the president and Congress. Special attention will be given to relationships with the Supreme Court and the federal bureaucracy. The accomplishments of major presidents will be studied at length and compared to the modern presidency. When studying Congress, students will examine the committee system, pressure groups, lobbyist activity, and the resulting flow of policy formulation.

**PS 334 American Democratic Political Thought (3)** A review of classical to modern theories and views of democracy. The course will particularly examine the ways that democratic political thought has manifested itself in the U.S. by examining a range of political theorists' understandings of the meanings of democracy.

**PS 345 Public Policy Making in the U.S. (3)** An in-depth review of the public policy making process within the American political system.

**PS 351 Current/Future U.S. Political Issues (3)** An advanced, focused discussion of selected contemporary issues with an emphasis on those considered likely to be of future significance. Stress will be placed upon theoretical, conceptual and empirical methods of analysis and how they become politically salient.

**PS 355 Public Budgeting and Finance (3)** The organization, techniques, and politics of budget preparation with a focus on legislative appropriation and the control systems used in budget execution.

**PS 365 Public Human Resource Management (3)** An examination of the various aspects of public personnel administration. Topics covered include the merit principle, civil service systems, job analysis and evalua-

tion, testing, collective bargaining, ethics and accountability. Prerequisite: PS 260 or permission of instructor.

**PS 370 Federal and State Courts (3)** A study of the structure and process of federal and state courts. (Cross-listed with CJ 370.)

**PS 400 Political Ideologies (3)** An in-depth review of the major political ideologies at work in the modern world. Includes discussion and analysis of conservatism, liberalism, socialism, capitalism and communism.

**PS 461 American Foreign Policy and World Politics (3)** The theory and practice of United States foreign policy in light of recent history and current problems.

**PS 496 Field Work in Public Affairs (3)** Credit will be given for supervised work in a public office or agency of direct relevance to the study of political science and/or public administration and undertaken according to the requirements of the public administration concentration and/or the policies of the department.

## Psychology

**PSYC 100 General Psychology (4)** Introduction to principles and methods utilized in the scientific study of human behavior. Emphasis will be on surveying the principles of sensation and perception, learning, motivation, emotion, intelligence, psychological testing, abnormal behavior, social psychology and the physiological bases of behavior. The format of this course is variable. Some sections will have a large lecture-small recitations format. Other sections will be single section classes.

**PSYC 205 Career Development in Psychology (2)** Introduction to career management for psychology majors. Students will investigate occupations appropriate for those with either undergraduate or graduate degrees in psychology. They will develop skills needed for choosing an occupation, conducting a job search, choosing a graduate program, applying to a graduate program, and managing their careers after graduation. Does not count toward a minor in psychology. Prerequisite: PSYC 100.

**PSYC 210 Applications in Human Development (4)** A summary of the stages of human development including both cognitive and social changes. Not applicable to the psychology major, required for nursing majors.

**PSYC 255 Personal and Social Adjustment (4)** The dynamics of personal and social adjustment with an emphasis on stress, friendship, sexual needs, marriage, family, occupation and environment. Not applicable to the psychology major.

**PSYC 299 Statistics (4)** Methods of descriptive and inferential statistics as applied to psychology. Measures of central tendency and variability, graphic presentation of data, T-test, chi-square, analysis of variance and correlation. Prerequisite: MATH 103 or equivalent. Psychology majors must take concurrently with PSYC 302.

**PSYC 302 Computer Application in Data Analysis (2)** Introduction to the use of statistical software packages for performing data analysis. Emphasis will be on the types of procedures typically associated with psychological research. Topics include: basics of using microcomputers, data input, data manipulation, descriptive statistics, and the major parametric and nonparametric inferential statistical tests. Prerequisite: Psychology majors must take concurrently with PSYC 299.

**PSYC 305 Experimental Psychology (4)** Introduction to quantitative and experimental techniques of psychology as a natural and social science. Course work covers experimental designs, data collection, evaluation and interpretation of results. Laboratory investigation of selected problems will be conducted in order that the student learn the principles involved in the design, execution and formal reporting of experiments. (3-2). Prerequisite: PSYC 299 and PSYC 302 or permission of instructor.

**PSYC 310 Child Psychology (3)** The development of human behavior and the factors that underlie that development. The course will cover the entire period of childhood with emphasis on behavior during the prenatal and infant periods, preschool years and school years up to puberty. Among topics treated are perception, emotion, language, intelligence, social behavior and thinking. Prerequisite: PSYC 100.

**PSYC 312 Exceptional Child (3)** The psychology of children who are mentally, emotionally, or physically impaired; or who are gifted academically or talented in other areas. There will be consideration of conditions leading to impairments, as well as the social and psychological results of

impairment or exceptional talent. Prerequisite: PSYC 310 or permission of instructor.

**PSYC 315 Adolescent Psychology (3)** This course will introduce the student to the personality dynamics involved in the developmental phenomena of the teen years and with the significance of adolescence in the total life span. The physical, emotional, intellectual, educational, vocational, social and sexual areas of the adolescent's life are evaluated in light of recent experimental studies and of clinical experience. Special attention is paid to the impact of 20th century American culture and society on individual development, drawing on anthropological and sociological research for comparative data. Prerequisite: PSYC 100.

**PSYC 317 Educational Psychology (3)** Students are introduced to the major principles of laboratory learning as applied to conceptual learning, problem solving and the development of emotional behavior, attitudes, values and acquisition of skills. The major variables affecting efficiency of learning in the school learning-teaching situation will be studied. Instructional techniques based on psychological principles affecting motivation, learning, retention and transfer, as well as techniques for the measurement of student abilities and achievement will be studied. Prerequisite: PSYC 100.

**PSYC 320 Psychology of Learning (3)** An examination of the principles of conditioning, trial and error learning, problem-solving, conceptual learning, retention and forgetting. Prerequisites: PSYC 100 or permission of instructor.

**PSYC 320L Lab in Psychology of Learning (1)** The laboratory includes an introduction to basic methodology and laboratory techniques used to establish these principles and the completion of assigned experiments dealing with selected problems in learning. (0-2.) Prerequisite: PSYC 305 and 320, or PSYC 305 and concurrent enrollment in PSYC 320.

**PSYC 330 Motivation (3)** A concentration on mainline motivation theories, primary types of motivation, recurrent issues in the history of motivational psychology and content areas of major interest. The course applies the systematic approach of psychological motivation to content areas of aggression, sexuality, achievement, affiliation and human gaming behavior. Prerequisite: PSYC 100 and Junior or Senior status in psychology or permission of instructor.

**PSYC 330L Lab in Motivation (1)** Basic experimental procedures for investigating motivational processes under controlled and natural conditions. The traditional methodologies used are replications of procedures in major psychological and cognitive systems and are carried out in the laboratory setting. Students also are directed to developing variations of tried techniques for projects carried on outside the laboratory. (0-2). Prerequisite: PSYC 305 and concurrent or prior enrollment in PSYC 320 or PSYC 330, or permission of instructor.

**PSYC 335 Comparative Psychology (3)** This course uses the study of animals in their natural environment as a model for understanding human behavior. As animal behavior and physiology can be understood as the result of natural selection, so too can human behavior and physiology. By so doing such topics as parental care, mate choice, communication, social behavior, territoriality, aggression and altruism are explored. Prerequisite: PSYC 100.

**PSYC 335L Comparative Psychology Lab (1)** The laboratory will focus on the study of animals in their natural environment, including humans. This will include field observations, literature reviews, and replications of human studies. Prerequisite: PSYC 305 and PSYC 335, or PSYC 305 and concurrent enrollment in PSYC 335, or permission of instructor.

**PSYC 340 Physiological Psychology (4)** A functional integrative approach to psychophysiological mechanisms underlying behavior and mental processes. Emphasis will be on psychophysiological mechanisms, integrative action of the nervous system and the neurophysiological mechanisms involved in learning, perception, sensation, motivation and emotions. Prerequisite: PSYC 100 or permission of instructor.

**PSYC 340L Lab in Physiological Psychology (1)** Laboratory will include a study of selected problems in the areas of sensory-perceptual, learning, motivational problems relative to the participation of neurophysiological processes. (0-2). Prerequisite: PSYC 305 and concurrent or prior enrollment in PSYC 340, PSYC 345 or PSYC 346, or permission of instructor.

**PSYC 345 Sensation and Perception (3)** Emphasis will be on the methods and results of psychophysical, physiological and social approaches to

the investigations of sensation and perception. Prerequisite: PSYC 100 or permission of instructor.

**PSYC 345L Lab in Sensation and Perception (1)** Laboratory investigations of selected problems in vision, audition and perception will be conducted in order to introduce the student to the basic principles involved in the design and execution of psychological experiments dealing with sensory-perceptual processes. (0-2). Prerequisite: PSYC 305 and concurrent or prior enrollment in PSYC 340, PSYC 345 or PSYC 425, or permission of instructor.

**PSYC 346 Neuropsychology (4)** Introduction to basic anatomical, neurological and biochemical mechanisms of behavior. Emphasis will be on neuroanatomy, endocrinology, psychochemistry, sensory-motor mechanisms and the internal environment. Prerequisite: PSYC 100. Prior familiarity with anatomy and physiology also is recommended.

**PSYC 350 Social Psychology (3)** An introductory study of the individual in society. Attention will be given to the concepts of role, attitude, interpersonal interaction, group membership and culture as determinants of individual actions. Prejudice, interpersonal attraction, power, leadership, mass phenomena and group efficiency will be considered. Prerequisite: PSYC 100 or permission of instructor.

**PSYC 350L Lab in Social Psychology (1)** This laboratory includes an introduction to basic research methodology in social psychology, both experimental and field. Participation requires completion of projects that involve design, data collection, analysis and written reports. (0-2). Prerequisite: PSYC 305 and concurrent or prior enrollment in PSYC 350 or PSYC 370, or permission of instructor.

**PSYC 362 Community Outreach I-Pre-Professional Volunteer Services (2-4)** The students choose among a variety of community-service projects exhibiting the applications of psychological principles in natural settings. Discussions, in-field instruction and end-of-term report. Prerequisite: PSYC 100 or permission of instructor.

**PSYC 367 Behavior Modification I (3)** A lecture course in which the students are exposed to the theoretical underpinning of behavior modification. Students contract for whichever grade they wish to earn. Points are awarded for steps of progress toward fulfillment of the contract. A self-modification project demonstrates to each student that he or she can bring some element of his or her own behavior under conscious control. (2-2). Prerequisite: PSYC 100 or permission of instructor.

**PSYC 370 Theories of Personality (3)** A survey of the major theories of personality with reference to supporting empirical data. Psychoanalytic, biological, social, factor analytic, field, stimulus-response, constitutional and biosocial theories will be considered. Prerequisite: PSYC 100 or permission of instructor.

**PSYC 370L Lab in Personality (1)** A laboratory course concerned with the experimental investigation of personality dynamics and the effects of individual differences on social interaction; stress and anxiety; response set; cognitive styles, risk-taking and subjective probabilities. Laboratory demonstrations and experiments conducted by the students are designed to clarify issues in the experimental study of personality and to provide experience with a wide variety of investigative techniques. (0-2). Prerequisite: PSYC 305 and concurrent or prior enrollment in PSYC 350 or PSYC 370, or permission of instructor.

**PSYC 372 Abnormal Psychology (3)** Introduction to major neurotic, psychotic, psychosomatic and organic syndromes. Examination of the nature, extent, causes, conditions and treatment of abnormal behavior. Prerequisite: PSYC 370 or 430 or permission of instructor.

**PSYC 373 Interviewing (3)** An introduction to the basic principles of clinical interviewing. The various major systems of psychotherapy are reviewed. Basic interviewing skills also are acquired through the use of role plays, simulations and videotaped practice interviews. Prerequisite: PSYC 370, PSYC 372, or PSYC 430; or concurrent enrollment in PSYC 370, PSYC 372, or PSYC 430; or permission of instructor. Must register for PSYC 373L concurrently.

**PSYC 373L Interviewing Lab (1)** A laboratory experience that provides opportunities to practice interviewing skills. Prerequisite: Concurrent registration with PSYC 373.

**PSYC 374 Psychological Disorders of Childhood and Adolescence (3)** Consideration of childhood and adolescent psychological disorders and their development. Major emphases are the relationship of psychological disorders to psychological development, and to subsequent adult

disorders. Prerequisite: PSYC 210, or PSYC 410, or both PSYC 310 and PSYC 315. Recommended: PSYC 370 and PSYC 372.

**PSYC 375 Psychological Assessment (4)** An introduction to the principles and methods of psychological assessment in the measurement of human traits and abilities. The fundamental concepts of test theory and test construction, as well as the evaluation and interpretation of test results will be considered for tests in areas of intelligence, aptitude, achievement and personality. Prerequisite: PSYC 100 and PSYC 299.

**PSYC 385 Psychology of Sex, Gender & Sexuality (4)** This course will discuss sex, gender, and sexuality on the basis of psychological research and theory. Coverage will include psychobiological, psychological, and social bases of sexual behavior, reproductive function across the lifespan, sexual dimorphism, social roles and gender identity. These topics will be discussed from a variety of perspectives, including social, comparative and developmental psychology, sociobiology, and developmental psychobiology. Prerequisite: PSYC 100 or permission of instructor.

**PSYC 400 Advanced Statistics (4)** A second course in statistics that considers such topics as advanced analysis of variance and related analyses, non-parametric techniques and regression analysis. Prerequisite: PSYC 299 or permission of instructor.

**PSYC 410 Life Span Human Development (3)** A survey of human development over the total life span, from conception to death. Emphasis on psychosocial development, with additional discussion of biological and sociocultural contexts; methods for studying human development; and theories that address developmental changes on cognition, behavior, personality, social roles and interpersonal relationships. Prerequisite: Junior or Senior status in psychology, education, social work or permission of instructor. Recommended prior completion of one of the following: PSYC 210, PSYC 310, PSYC 315, or PSYC 373.

**PSYC 411 Field Study in Life Span Human Development (1)** Students are involved in voluntary semi-professional service, directed observation or supervised research in a local agency for young children or for the aged, or in an agency that assists adults who are experiencing a major life event or life transition. Time commitment varies depending on the needs of the specific field site. Students spend time in class preparatory to service and receive training at the agency. Prerequisite: Prior completion of or concurrent enrollment in PSYC 410.

**PSYC 415 Psychology of Adulthood & Aging (3)** This course provides students with current information on development in adulthood and aging. Topics include demographic trends; research methods, psychological theories of aging, physical, cognitive, social, and personality development over the adult lifespan, and issues of mental health. Useful for gerontology minor, and all those intending to provide services to older adults. Prerequisite: PSYC 100 and one of the following: PSYC 210, PSYC 310, PSYC 315, PSYC 410.

**PSYC 425 Cognitive Processes (3)** The main purpose of this course is to enable the student to examine critically the theories and related research in the area of complex human behavior. The course will explore the following areas: verbal learning and language development, formation and use of concepts, problem solving approaches and strategies, creative thinking, judgment, and decision making. The emphasis will be on research methodology and research findings in these areas. Prerequisite: PSYC 100. Also recommended: PSYC 305.

**PSYC 425L Lab in Cognitive Processes (1)** An advanced laboratory dealing with research techniques in cognitive processes. (0-2). Prerequisite: PSYC 305 and concurrent or prior enrollment in PSYC 345 or PSYC 425, or permission of instructor.

**PSYC 430 Psychoanalytic Theory (3)** A study of psychoanalytic theory, both as a theory of personality and motivation, and as a treatment modality for emotional disorders. Case material will be included to illustrate the use of psychoanalysis in treatment. Prerequisite: PSYC 330 or 372 or 373, or permission of instructor.

**PSYC 453 Industrial/Organizational Psychology (3)** Survey of theories of individual behavior in complex organizations, including job analysis, personnel selection and appraisal, satisfaction, morale, leadership, organizational and social context of human work, physical and psychological environments and consumer behavior. Prerequisite: PSYC 100 or Junior status.

**PSYC 455 Group Dynamics (3)** Forces influencing the behavior of a group's members, cohesiveness, social structure, emotional factors, lead-

ership and the development of groups. Students will be given the opportunity to practice skills of group membership, including various leadership functions. Prerequisite: PSYC 350 or permission of instructor.

**PSYC 462 Community Outreach II—Professional Work Services (2-4)** An experimental consideration of the interface between the student's general undergraduate education in psychology and her/his usual employment in community, social or mental health services. Systematic observation of psychological principles that are explicitly or implicitly applied in on-the-job settings. Observation, oral presentation, anecdotal reporting and thematic seminars led by students and their guests. This course is intended for students who have independently secured and maintained their own employment in local community services, social services and mental health agencies. Prerequisite: PSYC 100 or permission of instructor.

**PSYC 470 Health Psychology (3)** Explores links between health and our behavior, thoughts, emotions and social relationships. It uses methods of psychology research and practice to help prevent disease, promote recovery and promote adaptation with ongoing health problems. The course covers research methods, personality as related to stress and coping, health behaviors, several specific medical conditions, rehabilitation, health communication and the social construction of health and illness. Prerequisite: PSYC 100 and junior standing.

**PSYC 473 Introduction to Clinical Psychology (3)** The nature and scope of clinical psychology and the role of the clinician. Assessment and behavior modification will be emphasized. Prerequisite: PSYC 372 or permission of instructor.

**PSYC 482 Field Placement Seminar (2)** Seminar-discussion dealing with mechanics, structures, functions, values and attitudes critical to an understanding of organization of field placement. Prerequisite: Junior or Senior in psychology or permission of instructor.

**PSYC 483 Field Placement Experience (1-4)** Students will be involved in field experiences related to various areas in psychology. Prerequisite: Concurrent enrollment in PSYC 482 or permission of instructor.

**PSYC 484 Ethical, Professional and Philosophical Problems in Psychology (2)** A consideration of ethics, professional responsibility and philosophy of science as the psychologist confronts them in research, teaching, consultation, private practice and clinical settings. Prerequisite: 20 credits of psychology or permission of instructor.

**PSYC 488 History and Systems of Psychology (4)** Major areas of psychology will be traced from their origins in early Greek philosophy; survival through the dogmas of the Dark and Middle ages; and their post-Renaissance emergence as principles of behavior distinct from philosophy. Emphasis will be on the evolution of scientific psychological thinking from 'devil theory' to classical empiricism, and from the Aristotelian method to the Galilean mode of empirical science. This is a project- and writing-intensive course that serves as a capstone course and involves assessment of majors' mastery of both content and reasoning skills in psychology. Prerequisite: Senior standing and completion of psychology core requirements.

**PSYC 490 Selected Topics in Psychology (1-4)** A study of specific topics within any given area of psychology or the application of some selected area of psychology to other areas within the social and/or natural sciences or humanities. Prerequisite: Permission of instructor.

**PSYC 491 Workshop (Title to be Announced) (1-4)** Study of problem-oriented subjects for people already working in psychological services with the intent of continuing their professional growth. Prerequisite: Permission of instructor.

**PSYC 493 Directed Reading in Psychology (1-4)** Student must submit a plan of study for approval before enrolling. Prerequisite: Permission of instructor.

**PSYC 494 Senior Research (1-4)** Student must submit a plan of study before enrolling. Prerequisite: Permission of instructor.

**PSYC 497 Senior Seminar (2)** An overview of current major issues and research in personality, learning, perception-cognition, social psychology and motivation. Each major issue will be integrated with seminars developed in conjunction with guest lectures and field experiences in relevant settings. Prerequisite: Senior status and completion of core requirements in psychology or permission of instructor.

**PSYC 499 Teaching of Psychology (4)** Learning how to teach through participation in the instructional process. (1-4). Prerequisite: Permission of instructor and a major in psychology.

## Social Studies

**SST 401 Senior Seminar (1)** A multi-disciplinary capstone course required for social studies majors, organized around the major themes of the Social Studies curriculum, which are examined in the context of education as an institution in American society. The course integrates content material with K-12 pedagogy. Prerequisite: Completion of foundation courses in social studies or permission of instructor.

## Social Work

**SW 215 Introduction to Social Welfare/Social Work (3)** A survey of social welfare services and the profession of social work. The student will become familiar with the duties, responsibilities and ethics of the social work profession through classroom activities as well as volunteer activity in local human services agencies.

**SW 300 Interviewing and the Helping Relationship (3)** This course establishes beginning social work interviewing and relationship skills as well as awareness of the use of self in the helping relationship. Specific interviewing strategies for generalist social work practice will be presented. The student will participate in practice sessions that include role plays, videotapes, and self-awareness exercises.

**SW 304 Introduction to Gerontology (3)** This course will enhance students' personal understanding of their own and others' aging. It will introduce students to the major concepts and trends in regard to the aging process so that these will be useful to a wide range of disciplines including nursing, social work, sociology, psychology, health education, the allied health and law enforcement professions. Prerequisite: SOC 211.

**SW 311 Chemical Dependency: An Overview (3)** An overview of substance abuse and chemical dependency as social problems. The psychosocial, cultural, economic and medical aspects of substance abuse are explored. The role of the social worker in assessment and intervention is examined relative to social work practice issues.

**SW 313 Social Work and Health Care (3)** Social work practice in health care settings. Health care policy and its impact on social work practice with individuals and families will be examined. Prerequisites: SW 215 or permission of instructor.

**SW 314 Sexual Assault (3)** An overview of various aspects of sexual assault. Underlying dynamics, effects on victims and the culture, intervention strategies, and the social worker's role in working with sexual assault cases will be covered. Prerequisite: SW 300 or permission of the instructor.

**SW 316 Social Welfare Policy I (4)** Historical and philosophical perspective of social welfare policy, organizational and program development from Elizabethan Poor Laws to the welfare state; an overview of social, political, and economic institutions relevant to disadvantaged and culturally diverse populations, and social work practice in organizations and communities. Prerequisite: PS 118 or 123; departmental permission; admitted majors only.

**SW 318 Social Work Practice I (4)** Students are introduced to the art and science of generalist social work, systems and problem-solving approaches needed for direct professional practice, and underlying theories of intervention. Skills in interviewing, problem identification, and communication are emphasized, with a primary focus on individuals, especially those who are disadvantaged. Prerequisite: Admitted majors only.

**SW 320 Human Behavior in the Social Environment I (4)** Social systems theory is utilized to understand the interaction between human behavior and social environmental systems. Socio-cultural, biological and psychological factors of human diversity are studied. The student acquires an understanding of the problem-solving methods and social work practice as related to various vulnerable and/or disadvantaged populations. Prerequisite: PSYC 100 and BIOL 201 (or equivalent) or permission of instructor.

**SW 329 Research Methods and Social Work Practice (4)** Scientific and analytic approaches for building knowledge and evaluating service delivery in all areas of practice including qualitative and quantitative methodologies and understanding statistical data useful for generalist social work

practice will be presented. Writing research reports, computer applications, the traditional scientific method and alternative methods drawn from direct experiences and perspectives relevant to human diversity will be introduced. Prerequisite: SW 215.

**SW 330 Human Behavior/Social Environment II (4)** This course builds upon SW 320. Students study the person's development through the life cycle. Social work practice is related to environmental, developmental and behavioral stresses within the person's life cycle. Mental health and issues relevant to those who are culturally diverse and disadvantaged will be addressed. Prerequisite: SW 320.

**SW 347 Social Work with the Aging (3)** Development and current status of social welfare policy related to the elderly will be presented. Social services delivery system, which provides services to Seniors, will be examined. Implications of social work practice concepts for working with the elderly will be studied.

**SW 401 Social Work Practice II (4)** This course continues the emphasis of SW 318. The problem-solving method is studied in depth and applied to dyad, family and group client systems, with an emphasis on culturally diverse and disadvantaged populations, utilizing role plays and fieldwork experience. Identification with the profession and beginning competencies for generalist practice are enhanced. Prerequisite: Prerequisite: SW 318 and SW 329; taken concurrently with SW 483 and SW 485.

**SW 403 Social Welfare Policy II (4)** Community based social welfare organizations will be analyzed in depth with emphasis on developing change strategies for communities and organizations to respond to the needs of client systems, including individuals, families and groups, which are culturally diverse, at risk, or discriminated against. Policy intervention techniques will be introduced and utilized. Prerequisite: Prerequisite: SW 316 and SW 401. Taken concurrently with SW 484.

**SW 483 Social Work Field Instruction I (6)** The program's field placement coordinator and the agency's instructor must approve the placement for two days a week in a social services setting. Agency schedule followed (minimum 15-hour week), on and off campus meetings with faculty. Opportunity to apply classroom learning and develop practice skills in a professional setting. Prerequisite: Prerequisite: SW 316 and SW 318. Taken concurrently with SW 401 and SW 485.

**SW 484 Social Work Field Instruction II (6)** Students continue with the schedule and practice requirements of SW 483. Builds on prior skill development and evaluates demonstration of beginning competencies in working with individuals, families, groups and communities. Prerequisite: SW 401 and SW 483; taken concurrently with SW 403.

**SW 485 Integrative Social Work Senior Seminar (2)** This summative course will involve faculty, field instructors, and students in studying selected areas of social work practice and field experiences related to General Education and the Liberal Arts perspective. It is designed to integrate the student's academic classes, field learning and professional development as a generalist practitioner. Prerequisite: Taken concurrently with SW 401 and SW 483.

**SW 490 Selected Topics (1-4)** Study of selected topics of particular significance or current importance and interest to the social work profession, such as Social Work and the Law, Substance Abuse, etc. Prerequisite: Junior or Senior standing.

**SW 496 Field Placement in Gerontology (1-3)** Gerontology minor field placement in instructor-approved human services agency serving older adults for a minimum of two hours per week to a maximum of eight hours per week, plus bi-monthly consultation with instructor and completion of written research project. Prerequisite: SOC 305 or SW 347.

## Sociology

**SOC 111 Introduction to Sociology (3)** An introduction to the sociological perspective as it applies to understanding the social forces that shape peoples' lives, interests and personalities. Examination of forms of social organizations, social interaction, and major social institutions such as family, religion and government. Introduction to major concepts and processes, theoretical perspectives, and research methodologies used in studying society.

**SOC 112 Introduction to Anthropology (3)** Overview of the discipline of anthropology with concentration on socio-cultural and linguistic anthropology. Emphasis on both cultural and linguistic universals and variability among contemporary peoples.

**SOC 125 Global Cultures [CI] (3)** An examination of global cultures as defined by interactive systems involving the accelerating transnational movement of people, technology, finance, mass media, and ideologies. At least three specific global cultures are analyzed holistically with respect to how they are influenced by and are influencing these global cultural systems.

**SOC 225 Statistics (4)** Introduction to statistical techniques and their application to problems in social research. Includes tabular and graphical presentation of data, measures of central tendency and dispersion, measures of association, and tests of significance. Prerequisite: MATH 103 or equivalent.

**SOC 236 Social Problems (3)** Analysis of current social problems. Special attention directed toward problems of minority groups, poverty, family, adolescence and the aged, drug and alcohol abuse, crime and juvenile delinquency. Prerequisite: SOC 111 or permission of instructor.

**SOC 240 Black People in American Society (3)** A study of lifestyles, family organization, social movements, accomplishments and aims of black people in America from a sociological perspective. Prerequisite: SOC 111.

**SOC 252 Physical Anthropology and Archaeology (3)** An introduction to two of the subfields of anthropology with emphasis on the evolution of humans and culture and human physical variation today.

**SOC 275 The Sociology of Children and Youth (3)** An analysis of the socialization process, status in society and its institutions and role expectations as these issues relate to children and youth. Special attention will be focused upon the conflicts and changes in these areas. Prerequisite: SOC 111.

**SOC 277 Majority-Minority Relations: Global Perspective (3)** International examination of the dynamics of majority-minority relations in a range of social, economic and political settings. International evidence will be used to compare and contrast patterns of intergroup relations. Some topics to be considered include the effects of modernization and urbanization on intergroup relations, ethnic and racial harmony and conflict, dynamics of prejudice and discrimination, and forms of social change.

**SOC 286 Sociology of Deviant Behavior (3)** An introduction to the sociological study of deviant behavior and social control. Consideration given to social control processes and institutions and to the relationships between social structure, social institutions, social control and deviant behavior. Topics covered include: individual, family, community and societal disorganization such as crime, prostitution, drug abuse, mental illness, suicide, sexual variance. Prerequisite: SOC 111.

**SOC 290 Selected Topics in Sociology (1-3)** Special areas within the field of sociology selected because of their timely or topical nature.

**SOC 300 Social Inequality and Human Diversity (3)** Exploration of human diversity in the US. Focused analysis of systems of inequality rooted in the interconnections among race, ethnicity, class, and gender. Forms of individual and social activism which characterize people's attempts to resist and change oppressive conditions in their lives. Prerequisite: SOC 111 or SOC 112 or permission of instructor.

**SOC 301 Applied Anthropology (3)** A survey of the uses of the research methods and knowledge of the four subfields — biological, archaeological, linguistic and socio-cultural — of anthropology to identify, evaluate and solve practical, contemporary problems in the U.S. and abroad. Topics may include cultural survival, health practices, economic development, environmental degradation and cultural resource management. Prerequisite: SOC 112 or permission of instructor.

**SOC 305 Sociology of Aging (3)** Explores the changing life cycle and growing old; special emphasis on the social, political, economic and individual factors affecting the elderly in contemporary U.S. society; also, problems of the aging and proposed solutions. Prerequisite: SOC 111.

**SOC 307 Sociology of Medicine (3)** A sociological analysis of health and medical institutions, including mental health care. Topics include: practitioner-patient relationships, cultural factors determining health and illness, medical education, the cost and organization of medical care delivery systems, innovation in providing health care. Prerequisite: SOC 111 or permission of instructor.

**SOC 308 Sociology of Mental Health (3)** A sociological analysis of mental health and mental illness. The course examines such topics as the

institutional basis of mental health and illness, patterns of definition and labeling of the mentally ill, and the social epidemiology of mental illness. Prerequisite: SOC 111.

**SOC 310 Hispanic People in United States Society (3)** Cultural, social and social-psychological factors affecting Hispanic people in United States society. A comparison of English- and Spanish-speaking groups relative to family and community structure, roles and expectations and socio-cultural factors influencing learning and other behavior. Prerequisite: SOC 111.

**SOC 312 Archaeology (3-6)** Introduction to the methods used to reconstruct the daily lifestyles of former human cultures with special emphasis on prehistoric and early historic peoples of the Michigan/Great Lakes area. Students will receive hands-on experience in the field or laboratory. Prerequisite: SOC 112 or permission of instructor.

**SOC 315 Cross-Cultural Aging (3)** An overview of the cultural, social, and historical differences in the status, treatment, lifestyle, social condition, etc. of the older population of various societies around the world. Emphasis will be upon the elders of societies other than the United States and will include both developed and Third World societies.

**SOC 320 Community Organization (3)** Community structure in folk and modern society with particular emphasis on division of labor, social stratification and the interdependence of various segments of the community. Prerequisite: SOC 111 or permission of instructor.

**SOC 326 Research Methods (3)** An introduction to the empirical study of society; techniques of collecting, analyzing, interpreting and reporting data. Prerequisite: SOC 225 or permission of instructor; may not be taken concurrently with SOC 225.

**SOC 327 Social Psychology (3)** An introductory study of interaction among individuals in social systems. Attention will be given to the concepts of role, attitude, group membership, and culture as determinants of individual actions. The problems of prejudice, mass phenomena and group efficiency will be considered. Prerequisite: SOC 111.

**SOC 328 Group Dynamics (3)** Forces influencing the behavior of a group's members. Cohesiveness, social structure, emotional factors, leadership and the development of groups. Student will be given an opportunity to practice skills of group membership, including various leadership functions. Prerequisite: SOC 111 and 327.

**SOC 331 Population (3)** Population theory, vital phenomena, changes in populations, size and composition and their social and economic implications, national and international migrations, policies of control, techniques of estimating population projections and related matters. Prerequisite: SOC 111 or permission of instructor.

**SOC 333 Sociology of Gender (3)** This course explores the social, economic, political and technological factors that have led to changing roles for women and men; examines patterns of female and male socialization and development; and focuses analysis on race, class and gender with attention paid to nonwestern women and men cross-culturally. Prerequisite: SOC 111 or permission of instructor.

**SOC 335 Computers in Social Research (3)** An introduction to the use of computers for the collection and analysis of data in the social sciences. No previous experience operating computers is required. Prerequisite: SOC 225 or permission of instructor.

**SOC 340 Black Women in America (3)** This course examines the sociopolitical impact on Black women on the Black community and the United States. Key institutions have evolved from the environment and experience of Black women. The course seeks to develop an analysis of the social, political and cultural role of Black women in American society from interdisciplinary perspectives, blending historical linkages with social systems and institutions. Prerequisite: SOC 111.

**SOC 345 Urban Sociology (3)** A study of the form and development of the modern urban community with respect to the demographic structure, spatial and temporal patterns and functional organization. Changes in population distribution and their effect on the urban center and hinterland. Role of social planning and problems in the urban community. Prerequisite: SOC 111 or permission of instructor.

**SOC 346 Juvenile Delinquency (3)** The nature and extent of delinquency, theories of delinquency causation, the juvenile justice system in the societal context, theories of delinquency control.

**SOC 350 The Family (3)** Analysis of the family as a social institution. Emphasis on structure, processes and problems of the modern American family system. Prerequisite: SOC 111.

**SOC 351 Interpersonal Communication (3)** Skills and knowledge which contribute to an understanding of the role of communication in the initiation, maintenance, and dissolution of human relationships in both dyadic and group situations. Prerequisite: COMM 105 or permission of instructor. (Cross-listed with COMM 351.)

**SOC 352 Organizational Communications (3)** Principles and practice in the management of communication systems within formal organizations, with emphasis on information exchange, information management and conflict resolution. Prerequisite: SOC 111 or permission of instructor. (Cross-listed with COMM 352.)

**SOC 355 Sociology of Education (3)** Study of educational organizations such as schools, universities and professional associations. Attention to relations among educational institutions and other institutions such as governments. Comparisons between American and other systems of education. Prerequisite: SOC 111.

**SOC 360 Sociology of Religion (3)** The nature of religion as a social phenomenon, with special reference to its place in American society. Prerequisite: SOC 111 or permission of instructor.

**SOC 365 Modern Africa (3)** An anthropological survey of contemporary Africa focusing on the holistic analysis of African peoples, cultures, and societies and their experiences with colonialism, postcolonialism, tradition, modernity, and globalization. Prerequisite: SOC 111 or SOC 112 or permission of instructor.

**SOC 370 The Family Cross-Culturally (3)** Comparison of the family institution in various cultures. Attention given to backgrounds of Black, Spanish-speaking, and other ethnic-American families. Prerequisite: SOC 111.

**SOC 380 Culture and Personality (3)** Cross-cultural examination of the influence of culture on aspects of development, personality, perception, mental health, and cognition. Prerequisite: Any one of the following: PSYC 100, SOC 111, SOC 112 or permission of instructor.

**SOC 401 Advanced Research Project (1)** Preparation and completion of an advanced research project and research report under the direction of the professor responsible for the concurrent upper division course in which the student is enrolled. Two copies must be submitted; one will be retained. May enroll three times. Prerequisite: Sociology majors only who have completed 12 credits of sociology, concurrent enrollment in related upper division sociology course.

**SOC 405 Cross-Cultural Relations (3)** Study of selected aspects of world politics, cultures and subcultures. Analysis and exploration of cultural differences and their effects upon interpersonal and organizational communication and interaction. Especially useful for international business students and for those dealing with various subcultures within one society.

**SOC 410 Criminology (3)** An investigation of the complex phenomena of crime and deviance in the United States, which emphasizes attempts at the scientific study of cultural, social and behavioral factors. (Cross-listed with CJ 410.) Prerequisite: SOC 111.

**SOC 415 Industrial Sociology (3)** Theories of industrial society and industrialization; industrial roles and subcultures; industrial organizations; union, management, and community interactions; human relations in the industrial setting. Prerequisite: SOC 111 or permission of instructor.

**SOC 420 Social Stratification–Power and Inequality in Society (3)** Analysis of structured inequality and stratification in society; theories of social class and social mobility; origins and consequences of differences in power, status, income, education, style of life and occupational prestige. Prerequisite: SOC 111 and 112 or permission of instructor.

**SOC 425 Social Change (3)** A study of the relations between social movements, ideologies and utopian thought. Prerequisite: Two courses in sociology.

**SOC 435 Environmental Sociology (3)** Analysis of the interrelationships between physical and social environments, spatial distribution of people and activities, urban environments, and planned communities. Prerequisite: SOC 111 or permission of instructor.

**SOC 440 Complex Organizations (3)** The origins and functioning of complex organizations, bureaucracies and large formal groups, organiza-

tional goals, recruitment, socialization, and change; formal and informal structures; institutional dynamics of corporations, government agencies, schools, prisons, churches, hospitals and the military; is bureaucracy inevitable? Prerequisite: SOC 111 or permission of instructor.

**SOC 450 Sociological Theories (3)** A survey of classical ideas and current theories in sociology. Intended for Juniors and Seniors who are majors or minors in sociology. Prerequisite: Three courses in sociology or permission of instructor.

**SOC 490 Special Topics in Sociology (1-4)** In-depth study of special areas within the field of sociology and/or the application of sociological perspectives to other areas or disciplines. Special topics will be chosen on the basis of their timely or topical nature. Prerequisite: Permission of instructor.

**SOC 493 Directed Reading in Sociology (1-3)** Student must submit a plan of study for approval before enrolling. Prerequisite: Permission of instructor.

**SOC 496 Field Work (3)** Students who have substantially completed major requirements may request assignments to community service agencies of special interest to them that present an opportunity for further academic study of a particular problem. A student will be assigned an academic advisor who will be available for consultation and guidance. A written paper or report will be required. (May enroll twice.)

**SOC 497 Senior Research (1-4)** Student must submit a plan before enrolling. Prerequisite: Permission of instructor.

**SOC 499 Senior Seminar (2-4)** In-depth study of selected subject in sociology. Prerequisite: Senior status and completion of core requirements in sociology.

## Spanish

**SPAN 111 Elementary Spanish I (4)** Introduction to the study of Spanish language and culture, including the skills of reading, writing, listening and speaking. Emphasis on oral communication skills. Includes student work in language laboratory and computer laboratory.

**SPAN 112 Elementary Spanish II (4)** Continuation of the study of Spanish language and culture, including the skills of reading, writing, listening and speaking. Emphasis on oral communication skills. Includes student work in language laboratory and computer laboratory. Prerequisite: SPAN 111 or the equivalent.

**SPAN 121 Spoken Spanish (1)** Maintains and develops the conversational skills acquired in the first semester of the language. Discussions in large and small groups. Graded pass/fail. Will not count for the major or minor. Prerequisite: SPAN 111 or equivalent.

**SPAN 211 Intermediate Spanish I (4)** Study of Spanish language and culture, including review of the basic elements of the language and further acquisition of communication skills in reading, writing, listening and speaking. Emphasis on Spanish as an international language system and cultural system. Includes student work in language laboratory and computer laboratory. Prerequisite: SPAN 112 or the equivalent.

**SPAN 212 Intermediate Spanish II (4)** Comprehensive review of Spanish language and culture, and intensive work in written and oral communication. Emphasis on Spanish as an international language system and cultural system. Includes student work in language laboratory and computer laboratory. Prerequisite: SPAN 211 or the equivalent.

**SPAN 272 Spanish/Spanish American Literature in Translation (3)** Study of major Spanish literary works in English translation. Texts may include those by Lope de Vega, Cervantes, Quevedo, Galdós, Unamuno, Ortega, Borges, Cortázar, Fuentes, García Márquez and Vargas Llosa. Credits earned in this course will not count toward the required number of credits for a major or minor in Spanish.

**SPAN 302 Spanish Conversation (3)** Oral proficiency is to be acquired through both guided and free discussion. Prerequisite: SPAN 212 or permission of instructor.

**SPAN 311 Spanish Composition (3)** Stresses the acquisition of grammar skills through original composition. Prerequisite: SPAN 212 or permission of instructor.

**SPAN 313 Introduction to Spanish Literature I (3)** Presents a restricted number of representative works from the Middle Ages through the

Spanish Golden Age. Readings, discussions and lectures in Spanish. Prerequisite: SPAN 311 or permission of instructor.

**SPAN 314 Introduction to Spanish Literature II (3)** Presents a restricted number of representative works from the 18th century to contemporary authors. Readings, discussions and lectures in Spanish. Prerequisite: SPAN 311 or permission of instructor.

**SPAN 317 Introduction to Spanish-American Literature I (3)** A survey of Spanish-American literature from its origins to Modernism. Prerequisite: SPAN 311 or permission of instructor.

**SPAN 318 Introduction to Spanish-American Literature II (3)** A continuation of SPAN 317 from Modernism to the present. Prerequisite: SPAN 311 or permission of instructor.

**SPAN 319 Introduction to U.S. Hispanic Literature (3)** Presents a restricted number of representative works with emphasis on Mexican-American, Cuban-American and Puerto Rican authors. Readings in Spanish and English, discussions and lectures in Spanish. Prerequisite: SPAN 311 or permission of instructor.

**SPAN 336 Spanish for the Professions (3)** Oral proficiency and composition practice stressing terminology used in medicine, law, criminal justice, business and social work. Prerequisite: SPAN 212 or permission of instructor.

**SPAN 340 Spanish Civilization (3)** Survey course of Spanish culture from the Middle Ages to the present time. Readings, discussions and lectures in Spanish. Prerequisite: SPAN 302 or permission of instructor.

**SPAN 341 Spanish-American Civilization (3)** Survey of the cultures of the Spanish-American nations from pre-Columbian times to the present. Readings, discussions and lectures in Spanish. Prerequisite: SPAN 302 or permission of instructor.

**SPAN 344 United States Hispanic Civilization (3)** A survey course of U.S. Hispanic culture. Readings in Spanish and English, discussions and lectures in Spanish. Prerequisite: SPAN 302 or permission of instructor.

**SPAN 419 Advanced Composition and Conversation (3)** An intense study of Spanish grammar, stylistics and pronunciation through readings, lectures, guided and free discussion and composition. Prerequisite: SPAN 302 and 311 or permission of instructor.

**SPAN 420 The Spanish Golden Age (3)** A study of Renaissance and Baroque Spanish literature. Readings in poetry, novel and theatre from Garcilaso to Góngora and from Cervantes and Lope de Vega to Quevedo and Calderón de la Barca. Prerequisite: Completion of at least one 300-level Spanish course.

**SPAN 430 Modern Spanish Literature (3)** A study of contemporary Spanish thought and literature. Topics will include: the rise of the modern Spanish novel, the generation of 27, poetry and drama since the Civil War. Prerequisite: Completion of at least one 300-level Spanish course.

**SPAN 440 Contemporary Spanish-American Prose (3)** A study of the 20th century major Spanish-American prose writers including: Garcia Marquez, Vargas Llosa, Rulfo, Carpentier and others. Prerequisite: Completion of at least one 300-level Spanish course or permission of instructor.

**SPAN 450 Spanish-American Poetry (3)** A study of 19th and 20th century poetry including Gauchesca, Modernism, Afro-American and contemporary poetry. Prerequisite: Completion of at least one 300-level Spanish course or permission of instructor.

**SPAN 456 Introduction to Linguistics (3)** A study of the fundamentals of descriptive linguistics including a comparative analysis of Spanish and English as to structure, sound systems and semantics. Prerequisite: SPAN 311 or permission of instructor.

**SPAN 467 United States Spanish (3)** A study of the vocabulary, morphology and sound system of modern Spanish as spoken in the U.S. This course requires work in the language laboratory. Prerequisite: SPAN 456 or permission of instructor.

**SPAN 469 Teaching English as a Second Language for Spanish Speakers (3)** A study of the various techniques used in teaching English as a second language to Spanish speakers, including the development of teaching materials and evaluation techniques. Prerequisite: SPAN 456 or permission of instructor.

**SPAN 471 Bilingual-Bicultural Methodology in Bilingual Education (3)** A study of classroom management, testing and evaluation for bilin-

gual-bicultural children and of the materials available for classroom use and for research. Prerequisite: SPAN 469 or permission of instructor.

**SPAN 472 Curriculum Development in Bilingual Education (3)** A study of curriculum development for bilingual education. Prerequisite: SPAN 471 or permission of instructor.

**SPAN 491 Seminar in Hispanic Studies (3)** Prerequisite: Permission of instructor.

**SPAN 499 Directed Study (1-4)** For a directed study in literature a student must present a detailed program of his/her project to be approved by the instructor by the end of the preceding semester. For a directed study in the methods of teaching Spanish a detailed program will be formulated by the student and the professor directing the project by the end of the preceding semester.

## Teacher Education

**TE 100 Exploring Teaching: K-12 (1)** This course provides students with exploratory experiences of teaching as a profession. It is designed to help the student examine self in relation to education. Field-based experiences in surrounding school districts including observations in urban and suburban schools are required. TE 100 must be completed prior to admission to College of Education.

**Note:** Students may not enroll in any 300-level Education courses until they have been formally admitted to the College of Education or have been given special permission to enroll in a specific course. Details and forms regarding admissions procedures are available in the Admissions and Certification Office.

**TE 301 Methods of Teaching Children's Literature: K-8 (3)** Provides students with an overview of different genres of contemporary children's literature as they apply to language arts concepts. Students will study literary response and literary analysis. Course material includes: planning literature activities, and preparing a literature/language arts project that meets the State of Michigan Benchmarks in Language Arts.

**TE 302 General Methods for Teaching in the Secondary and Middle Schools (3)** Provides secondary education students with the basic planning, organizational and instructional skills needed to function effectively in secondary and middle schools. Course material includes lesson and unit planning, classroom management, evaluation, teaching strategies that address a variety of learning styles, and the exceptional and culturally different adolescent. Field work is required. Recommended: concurrent enrollment in EDL 305. Prerequisite: acceptance to Teacher Education Program.

**TE 303 Teaching Music in Grades K-8 (3)** The study of developmentally appropriate materials, methods and skills for teaching music in the elementary and middle school grades. Topics include singing, rhythm, listening, creative activities and the use of instruments in the classroom. Lesson planning and teaching are done in class and in practicum experiences. Limited to music majors. (Cross-listed with MUS 303.)

**TE 304 The Transescent Years (3)** Acquaint participants with the philosophy of a middle level school. Provides an in-depth overview of educational practice specific to the needs of the middle level student. The emphasis is on curriculum models and instructional strategies and their appropriateness to the development of the student in the middle level grades. Included in the course is field work in a middle level school. Prerequisite: Admission to the elementary or secondary teacher preparation program.

**TE 305 Middle Level Classroom Management and Assessment (3)** Designed to provide middle level teacher education students with knowledge and application of accepted theories of effective classroom management and assessment in middle level settings. Effective classroom management and assessment within the context of the middle school concept will be explored. Field work in a middle level school is required. Prerequisite: TE 304.

**TE 306 Literacy in the Middle Level Classroom (3)** Explores a balance of reading, writing, and the other language arts with focus on instructional practices specific to middle level students. Topics will include: Multiple Intelligences, critical reading strategies, computer software in the literacy program, writing, listening and speaking activities. Prerequisite: TE 304.

**TE 308 Advanced Methods for Teaching in the Secondary and Middle Schools (3)** Provides prospective secondary and middle school teachers

with advanced teaching strategies in their subject area specialization. Additionally, students learn to integrate educational technology into their classrooms. Special attention is given to differentiating instruction to meet the needs of students from varied cultural backgrounds and with special learning needs. Students complete a field experience with a content specialist in either their teaching major or minor. Recommended: concurrent enrollment in TE 312. Prerequisite: acceptance into the Secondary Teacher Education Program and completion of TE 302 and EDL 305 with a grade of "C" or higher.

**TE 310 Methods of Teaching of Reading: K-8 (6)** A survey of current practices and problems in teaching reading. This course focuses upon the teaching of developmental and content reading as well as providing an introduction to informal diagnostic techniques and materials. Prerequisite: PSYC 310, ENGL 380 and must be taken within the last 13 credits of the professional methods course sequence.

**TE 312 Teaching Reading in the Content Areas of Secondary and Middle Schools (3)** Develops an understanding of the reading process as it applies to effective instruction in secondary and middle school subject matter classes. Teaches strategies in vocabulary development, comprehension and study skills. The reading problems of students with special needs and of those from diverse cultural backgrounds also are addressed. Students complete a field experience with a content specialist in either their teaching major or minor. Recommended: concurrent enrollment in TE 308. Prerequisite: acceptance into the Secondary Teacher Education Program and completion of TE 302 and EDL 305 with a grade of "C" or higher.

**TE 319 Young Adult Literature (3)** Reading and critical analysis of young adult literature. Attention to selecting and teaching novels, short stories, poetry and drama to adolescents. (Cross-listed with ENGL 254.)

**TE 322 Methods of Teaching in the Arts: K-8 (3)** This course explores strategies for integrating art, music and drama activities into elementary and middle school classrooms. It offers practical experiences in the creation and teaching of arts activities and provides students with an educationally oriented philosophy for utilization of creative activities in instructional settings.

**TE 325 Methods of Teaching Physical and Health Education: K-8 (3)** Physical development of elementary and middle school children, diagnosis and remediation of psycho-motor problems, appropriate games and other physical activities for children and an examination of a problem-solving approach to wellness/health are areas of study.

**TE 330 Methods of Teaching Science: K-8 (4)** An introduction to the methods and materials appropriate for elementary and middle school classroom activities, with emphasis on inquiry development. Field work is required. Prerequisite: 8 credits of science.

**TE 331 Methods of Teaching Mathematics: K-8 (4)** An introduction to the methods and materials appropriate for elementary and middle school instruction with emphasis on inquiry development. Field work is required. Prerequisite: MATH 110 or permission of instructor.

**TE 334 Computer Applications in Schools: K-8 (2)** Introduction to current usages of computers in elementary school. Students will develop skills with current software (e.g., Power Point, HyperStudio, word processing) and how to effectively integrate these tools into the classroom for teaching and learning.

**TE 341 Methods of Teaching Social Studies: K-8 (4)** An introduction to methods and materials appropriate for an issues approach to the teaching of social studies. Emphasis will be placed on developing methods that will obtain the goal of preparing a responsible citizenry. Field work is required.

**TE 342 Teaching and Managing the Diverse Classroom: K-8 (4)** This course provides the knowledge, methods and experience to effectively teach and manage the K-8 classroom that exhibits a broad range of students' intellectual, emotional physical and learning needs. Emphasis will be placed on the adaptation and integration of services, curriculum, and technology. Prerequisite: PSYC 310 and must be taken within the last 13 credits of the professional methods sequence.

**TE 380 Developmental Learning (6)** Diagnosis of learning disabilities, educational prescription writing, prescription teaching, evaluation. Extensive work with children under close supervision.

**TE 381 Teaching the Exceptional Child (3)** Dynamics of individual behavior, theories of development, methods of teaching appropriate to the regular classroom. Observation included.

**TE 393 Directed Study in Education (1-5)** Student must submit a plan of study for approval before enrolling. Prerequisite: permission of instructor.

**TE 410 Student Teaching Seminar: K-8 (2)** Discussion of significant aspects of elementary and middle school education as they become relevant to student teachers. Must be taken concurrently with Student Teaching (TE 420). Pass/Fail.

**TE 412 Seminar in Secondary Teaching (2)** Discussion of significant aspects of secondary education as they become relevant to student teachers. Must be taken concurrently with Student Teaching (TE 422). Pass/Fail.

**TE 420 Student Teaching: K-8 (3-12)** See Student Teaching requirements. Completion of teacher education program and approval of the director of student teaching.

**TE 422 Secondary Student Teaching (3-12)** See Student Teaching requirements. Prerequisite: Completion of all requirements for Secondary Education and approval of the director of clinical experiences.

**TE 423 Field Project for Bilingual Bicultural Education in Spanish (3-6)** Field project designed on an individual basis that will include direct participation in an elementary or secondary bilingual classroom and work with community resources. Pass/Fail. Prerequisite: SPAN 471 or permission of instructor.

**TE 424 Middle Level Internship (2)** Last course in the Middle Level Education minor. Students will work with a teacher in a middle level classroom. Internship emphasizes concepts learned by students throughout the program in Middle level Education. Prerequisite: Satisfactory completion (C or better) of SOC 350 or SOC 370, PSYC 310, PSYC 315, TE 304, TE 305, TE 306.

**TE 430 Educating Exceptional Learners (3)** Introduction to students atypical in terms of physical, sensory, intellectual or social/emotional characteristics. Psychological, academic, cognitive and social needs unique to exceptional learners are presented with current techniques for meeting these needs. Philosophical and legal foundations of special education, the rights of the handicapped and school and community resources are presented.

**TE 431 Educating Children with Emotional/Behavioral Impairments (3)** This course provides a basis for understanding the theoretical, legal and historical perspectives of emotional/behavioral impairments. The contributing factors, characteristics and intervention and instructional strategies are examined in light of these perspectives.

**TE 432 Introduction to Learning Disabilities (3)** An examination of the history, definition and etiology of learning disabilities. The course will address the characteristics of the learning disabled, methods of identification, instruction, programming and current issues related to each of these topics.

**TE 445 Seminar Special Education (2)** A Seminar related to the students' directed teaching experience in the Special Education classroom. Designed to enhance skills and abilities in classroom management, instruction, curriculum, and teaching style. Emphasis will be given to student advocacy, responsibility, and ethical professional behavior.

**TE 446 Cultural Differences in Education (3)** A study of the impact of cultural differences in United States society on students and on the educational system and how those differences can enhance the educational experiences of all students.

**TE 460 Student Teaching—Special Education (6-10)** For special education majors and endorsement students only. Student must meet Department of Teacher Education standards to begin directed teaching assignment.

**TE 465 Creative Drama (3)** The study of drama as a creative and educational tool in school, clinical and recreational settings. Demonstrates the values of creative drama in the development of the whole child. Provides opportunity for students to design materials, as well as to understand the use of creative drama techniques. (Cross-listed with THEA 465.)

**TE 470 Theatre for Children (3)** History and theories of theatre staged by adults for child audiences. Provides practical experience in selecting and staging plays for children. Examines performance and content standards, educational and theatrical considerations, the nature of the audience, aesthetic values. (Cross-listed with THEA 470.)

**TE 480 Introduction to Early Childhood Education (4)** Physical, social, emotional and cognitive growth and development of children from birth to 9 years are emphasized. Significant approaches to early childhood programs are studied. Both typical and atypical behaviors of young children are interpreted and recorded through planned and guided observations. Opportunities for the observation and recording of children's behavior is provided in varied group settings. Fieldwork required in an early childhood setting. Prerequisite: PSYC 310.

**TE 481 Curriculum Development in Early Childhood Programs (4)** Developmentally appropriate integrated learning experiences for preprimary and primary age children are selected, planned, implemented and evaluated. Learning environments are planned to meet the individual needs of young children. A variety of curriculum models are presented. Opportunities for creating developmentally appropriate learning experiences for children in a variety of group settings is provided. Fieldwork required in an early childhood setting. Prerequisite: TE 480.

**TE 482 Assessment of Children in Early Childhood Programs (4)** An examination of best practices and tools for assessing children from infancy through 8 years. A focus on the understanding of the assessment process and the development of assessment skills. Addresses program planning and monitoring progress with special attention to special needs children. Fieldwork required in an early childhood setting. Prerequisite: TE 480.

**TE 487 The Young Child in the Home, School and Community (4)** This course provides an overview of current research and practices relating to young children's experiences in the context of family, school and community. Application of knowledge of cultural and linguistic diversity and the significance of sociocultural contexts for development and learning are addressed. Models for teaming with parents are explored. Field work is required.

**TE 489 Internship in Preprimary Programs (4)** Internship includes a supervised, successful teaching experience in a preprimary (before kindergarten) setting. Family involvement and communications with staff as an instructional team are emphasized. Guidance and management techniques for the young child are explored, implemented and evaluated. Seminar meetings provide opportunities for analysis, evaluation and discussion of the internship experience. Prerequisite: TE 420 or permission of instructor.

**TE 490 Special Topics in Education (1-6)** Check current schedule for specific course titles.

## Theatre

**THEA 128A Introduction to Theatre (3)** A survey of the basic elements of theatre in which students explore the processes of play production from script analysis through performance. Introduction to important artists and plays, and development of theatre appreciation. Recommended for students wishing to fulfill the arts requirement for General Education.

**THEA 128B Theatre in Performance [CI] (3)** An introduction to theatre as an art form utilizing live performance. Students explore the nature of theatre, develop skills in dramatic criticism, and develop understanding of the role of theatre as a culturally enriching experience. Students are required to attend performances. Recommended for students wishing to fulfill the arts communication intensive requirement of the General Education program. Prerequisite: ENGL 111.

**THEA 136 Introduction to Acting (3)** A first course in acting that explores the actor's psychological strategies for playing character and style in ensemble. Introduction to physical and vocal techniques. Exercises to stimulate imagination and creativity.

**THEA 220 Introduction to Performance Studies (3)** A beginning course in the analysis and performance of aesthetic texts, grounded in, but not limited to, traditional literary forms (prose, poetry, drama). Performance texts may derive from a variety of aesthetic communication acts. Primarily individual performance; may involve some study of group performance. (Cross-listed with COMM 220.)

**THEA 230 Voice and Articulation (3)** An applied approach to developing the student's vocal capabilities through analysis and classroom exercises. Voices will be refined for conversational as well as theatrical purposes. Dialect and local color will also be analyzed and applied to a variety of vocal "types." Emphasis will be placed upon improving individual voices in a classroom practicum. (Cross-listed with COMM 230.)

**THEA 255 Introduction to Directing (3)** Problem-solving and decision making for the director in interpretation, composition, style and performance. Production organization and artistic coordination. Begins with an introduction to the history and function of the director.

**THEA 260 Introduction to Stagecraft and Theatre Design (3)** A beginning course in technical theatre production with a component in design for the theatre. Focus on basic equipment and materials as well as technical theatre conventions. Laboratory work on University Theatre productions will serve as practical application of theory taught in the course. (Lab fee)

**THEA 290 Selected Topics in Theatre (1-4)** A first or intermediate level seminar or laboratory.

**THEA 299 Applied Theatre (1)** A student who participates under the supervision of a faculty member in an extracurricular theatre activity may receive one hour of credit in a single activity during one semester. Admission to the activity does not constitute permission or insure credit. May be repeated for up to 8 credits. Credits used to satisfy the requirement in THEA 299 for the theatre major must be earned on campus. Prerequisite: Permission of instructor.

**THEA 336 Intermediate Acting (3)** A continuation of the first course in acting, which will stress the development and application of performance techniques in more difficult problems of characterization, ensemble and style. Vocal and physical training are continued. Prerequisite: THEA 136 or permission of instructor.

**THEA 355 Intermediate Directing (3)** A continuation of the first course in directing, which will stress problem-solving and decision making at more difficult or specialized levels. These include period staging, special styles or conventions, and performance problems. Prerequisite: THEA 255 or permission of instructor.

**THEA 360 Scene Design (3)** Explores the art of scenography, covering the design of stage settings and properties in relation to the unified stage production. Mechanical drawing and computer generated designs will be major components. Practical application on University Theatre productions is included. Prerequisite: THEA 260 or permission of instructor. (Lab fee)

**THEA 370 Costume and Makeup Design (3)** Theory and practice in costume design and construction, and in straight and character makeup, in relation to the unified stage production. An overview of the history of dress and stage costume. Laboratory work in University Theatre is included. Prerequisite: THEA 260 or permission of instructor. (Lab fee)

**THEA 375 Theatre History I (3)** A survey of theatre history from ancient Greece through mid-19th century (approximately 1850, coincident with the appearance of "Realism" in drama). Study of major periods, plays and artists. Focused study in selected topics. Prerequisite: THEA 128 or permission of instructor.

**THEA 380 Theatre History II (3)** A survey of theatre history from mid-19th century (approximately 1850, coincident with the appearance of "Realism" in drama) through the contemporary era. Study of major periods, plays and artists. Focused study in selected topics. Prerequisite: THEA 128 or permission of instructor.

**THEA 385 Principles and Practices in Arts Management (3)** Emphasis on current theory and practice in arts administration and organization; exploration of business management and related career opportunities in the arts; current practices in front-of-house operation, promotion, and funding options. An advanced level introductory course.

**THEA 460 Light and Sound Design (3)** This course focuses on the designing of lighting and sound for live theatre and the practical application of those designs to the stage. The course includes laboratory work on University Theatre productions. Prerequisite: THEA 260 or permission of instructor. (Lab fee)

**THEA 465 Creative Drama (3)** The study of drama as a creative and educational tool in school, clinical and recreational settings. Demonstrates the values of creative drama in the development of the whole child. Provides opportunity for students to design materials, as well as to understand the use of creative drama techniques. (Cross-listed with TE 465.)

**THEA 470 Theatre for Children (3)** History and theories of theatre staged by adults for child audiences. Provides practical experience in selecting and staging plays for children. Examines performance and content standards, educational and theatrical considerations, the nature of the audience and aesthetic values. (Cross-listed with TE 470.)

**THEA 490 Selected Topics in Theatre (1-4)** An advanced or highly specialized seminar or laboratory. Prerequisite: Permission of instructor.

**THEA 495 Independent Study in Theatre (1-4)** Before enrolling, the student must submit a plan of study for approval. Prerequisite: Permission of instructor.

**THEA 496 Field Work: Theatre Tour (3)** This course is designed to give students experience with touring theatre. It is a performance and production laboratory. Students engage in multiple performances at differing sites. Content allows for all phases of production including development of technical and pedagogical materials. Prerequisite: THEA 136 or THEA 470 or permission of instructor.

**THEA 497 Senior Project in Theatre (3 or 6)** Student must submit a detailed and substantiated proposal for approval. Prerequisite: Written and oral presentation of the proposal for departmental approval one semester prior to registration for the course. Forms available from faculty advisor.

## Youth Services

**YS 300 Child Welfare Policies and Procedures (3)** Concepts, policies and practices in the child welfare field will be presented. The student will become familiar with historical aspects of child welfare concerns, with the broad scope of child welfare relating to the child in his/her varied environment and with organizational structure and service.

**YS 330 Child Abuse and Neglect (3)** An intensive study of the problem of child abuse and neglect as it extends throughout our country. Areas of focus include: law enforcement, medical, sociological, educational, preventive and interventive aspects. Prerequisite: CJ 301 or SW 215.

**YS 347 Problems of American Youth (3)** A study of the social, psychological and personal problems of age in America. Areas of focus include: childhood and youth as social inventions; socialization processes; anxiety, identity, authority and life goals; the amelioration of personal problems and growth in social maturity, with emphasis on strategies and treatment.

**YS 348 Social Services for Youth (3)** A review of present organized efforts to solve the personal and social problems of youth, newer approaches and the needs that they try to meet; conventional agencies and programs; modifications required by new lifestyles and the subcultures of youth; the impact of schools, recent approaches to group work; and community resources for youth involvement. Prerequisite: CJ 301 or SW 215.

**YS 349 Group Work with Youth (3)** Theory and skills for working with youth through groups. Principles and strategies of intervention, problem assessment, use of group and programming and intervention tools, select appropriate methods/skills. Stages of group development, goal planning with groups, assessment of race, ethnic origin and socio-economic status of group members. The use of group programming as a viable means for individual change. Prerequisite: CJ 301 or SW 215.

**YS 405 Group Facilitation (3)** Developmental group activities with parents and children at risk and in need of service as identified in cooperation with Protective Services of the Department of Social Services. Group work as an intervention with problem families in need of a nurturing, supportive environment will be used to remediate inappropriate parent-child interactions. Prerequisite: CJ 301 or SW 215.

**YS 490 Selected Topics (1-4)** Study of selected topics of particular significance or current importance and interest to the youth services area such as Interviewing Children and Adolescents, Youth in Residential Care, and Administration of Youth Services. Prerequisite: Junior or Senior status.

# Graduate Programs



# Office of Graduate Admissions

The Office of Graduate Admissions assists prospective graduate students with admission and academic program information, as well as career advising for the following graduate programs:

- Master of Arts/Communication and Multimedia
- Master of Arts/Leadership and Public Administration
- Master of Business Administration
- Master of Science in Nursing
- Master of Science/Technological Processes

Campus visits and meetings with faculty also can be arranged through the office.

The office, located on first floor Wickes Hall, is open Monday, Thursday, and Friday from 8 a.m. to 4:30 p.m.; on Tuesday and Wednesday, the office is open from 8 a.m. to 6 p.m.

For information, or to schedule an appointment, call (989) 964-6096, or send E-mail to gradadm@svsu.edu.

For information regarding the following Education programs of study, see the College of Education section of this catalog:

- Master of Arts in Teaching
- Master of Education
- Education Specialist
- Teacher Certification

The College of Education Admissions and Certification Office, located in the College of Education Building on Pierce Road, (989) 964-4057, assists prospective students interested in these programs of study.

## Admission Requirements

Admissions requirements for the Master of Arts/Communication and Multimedia, Master of Arts/Leadership and Public Administration, Master of Business Administration, Master of Science in Nursing and Master of Science/Technological Processes programs are listed on the following pages. For admissions requirements for Education programs, see the Education section of this catalog, beginning on Page 119.

## Application Procedures

Applications for graduate admissions, including the application fee and all accompanying materials, are to be submitted to the Office of Graduate Admissions for the following programs of study: Master of Arts/Communication and Multimedia, Master of Arts/Leadership and Public Administration, Master of Business Administration, Master of Science in Nursing and Master of Science/Technological Processes.

For application procedures for all Education programs of study, see the College of Education section of this catalog, beginning on Page 119.

## Terms of Admission

Applications are accepted for the Master of Arts/Leadership and Public Administration, Master of Business Administration, and the Master of Science/Technological Processes programs for the Fall (late August), Winter (early January), Spring (mid-May), and Summer (late June) semesters. Applications are accepted for the Fall and Winter semesters for the Master of Science in Nursing program; and for the Fall semester only for the Master of Arts/Communication and Multimedia program (may be extended to include other semesters).

For Terms of Admission for all Education programs of study, see the College of Education section of this catalog, beginning on Page 119.

## Financial Assistance

For more information on financial assistance programs, contact the Office of Graduate Admissions. Among the financial assistance programs available to SVSU graduate students are:

## Graduate Fellowships

A limited number of Graduate Fellowships are available to qualified students. The award waives the tuition and fees for the final six credits completed in the program. A recipient must have a minimum undergraduate grade point average of 3.00, must be enrolled full time (minimum of nine credits) each semester of attendance, complete the degree within 12 months, and maintain a cumulative grade point average of 3.25. The selection of recipients is competitive, and the assessment of the candidates includes the quality of their academic records and their qualifications.

## Graduate Assistantships

A limited number of Graduate Assistantships are available to qualified students. Each assistantship provides a \$5,000 stipend and the waiver of tuition and fees for a maximum of nine credits each for fall and winter semesters. A graduate assistant must be full time (minimum of nine credits) and will perform various administrative duties for 20 hours per week each semester. While graduate assistantships do not involve teaching, these positions are intended to provide a work experience that complements the graduate education of each student. The selection of graduate assistants is competitive and the assessment of the candidates includes the quality of their academic records, their qualifications for the placement and how the placement would complement their graduate education.

## Private Scholarships

A limited number of private scholarships are available to qualified full- and part-time graduate students. Selection criteria differ for each scholarship as the scholarships are competitive.

## Tuition Reimbursement

Many companies reimburse employees for graduate-level course work. Students should check with their employer's Human Resources Department for further information on this benefit.

## Michigan Graduate Work-Study

A limited number of students are eligible to work under this program. Students must apply for financial aid on the Free Application for Federal Student Aid, must establish financial need and must be able to prove that they are a Michigan resident.

## Federal Family Education Loan Program

Graduate students enrolled at half time (five credits) may borrow up to the cost of attendance at SVSU through the Federal Family Education Loan Program. This program consists of two types of loans — subsidized and unsubsidized Stafford Loans. To be eligible for a subsidized Stafford Loan, students first must establish financial need. Students who qualify for a subsidized loan then may borrow up to \$8,500. The interest on this type of loan is paid by the federal government while the student is attending school. Students who do not demonstrate financial need may borrow through the unsubsidized Stafford Loan program. The interest on an unsubsidized loan is the responsibility of the student, and may be paid while in school, or may be added to the loan principle. To apply for either Stafford Loan, students must complete the Free Application for Federal Student Aid.

# Master of Arts Communication and Multimedia

This interdisciplinary program, offered through the College of Arts and Behavioral Sciences, provides educational and professional development for people seeking advanced preparation in the theory, practice and technology of contemporary organizational communication. The program offers graduate training for professionals in many fields where multimedia applications are desired, and will draw on diverse specializations from several disciplines across the University.

## Objectives

It is expected that the graduates of this program will demonstrate the ability to:

1. Develop and produce professional, artistic and commercial multimedia presentations and materials.
2. Analyze organizational communications processes for the purposes of enhancement and problem solving.
3. Integrate multimedia technologies into complex work environments.

It is expected that each student, in every course, will progress toward these abilities and integrate the knowledge and experience gained into a final Capstone Project that involves the demonstration of significant elements of research and the creative application of acquired knowledge and skills in a final presentation before a faculty panel. Each course in the program will include elements intended to contribute to successful completion of the Capstone Project. This program offers graduate training for professionals in a diversity of fields where multimedia applications are desired. Application is open to anyone who has earned a baccalaureate degree from a recognized institution of higher education without restriction as to discipline. Admission is limited in number: individual admissions will be determined by the Program Coordinator and/or Dean of the College of Arts and Behavioral Sciences based on the admissions criteria specified below.

## Admission Requirements

1. A bachelor's degree from an accredited college or University with a cumulative GPA of 2.75.
2. A demonstrable working knowledge of personal computer usage and applications is required. Knowledge of programming is desirable, but not a requirement for admission.

## Application Procedures

1. A completed application for graduate admission (\$25 non-refundable application fee required).
2. Official copies of all undergraduate and graduate transcripts.
3. A current resumé.
4. A one-page statement of accomplishments and academic goals.
5. Three letters of professional reference.
6. Applicants whose native language is not English must demonstrate competence in English. The College accepts a score of 525 or higher on the Test of English as a Foreign Language (TOEFL), or a grade of "B" or better for at least one year of English composition or its equivalent in an accredited U.S. college or university.
7. International students must submit Evidence of Financial Support.

## Admissions Status

Full admission may be granted to applicants who have fully satisfied all the admissions requirements.

Probationary admission may be granted, if warranted by other considerations, to:

1. Applicants whose undergraduate GPA is below listed requirements. Transfer to full admission status may be achieved upon completion of not less than nine credits of upper division courses approved by the

Program Coordinator before registration. Such work will not count toward the M.A. degree. Applicants whose undergraduate GPA is lower than 2.50 will not be considered for admission.

2. Applicants who lack prerequisites; such applicants must make up any deficiency before accumulating three or more credits in the program. Credit applied to prerequisite deficiencies do not count toward M.A. degree requirements.

Provisional admission may be granted to applicants whose files are incomplete and who otherwise are qualified. A student will not be permitted to register for more than one semester without qualifying for full admission.

Special admission may be granted to SVSU seniors with a GPA of 3.25 or better who otherwise meet admission requirements and are recommended by members of the appropriate SVSU faculty. Such students may enroll for up to nine credits of graduate credit in the M.A. program beyond the requirements for the baccalaureate.

## Transfer Credit

Transfer credit may be granted for up to nine credits of equivalent graduate course work at other institutions upon recommendation of the Program Coordinator and approval by the Dean of Arts and Behavioral Sciences. Transfer credits must reflect a minimum GPA of 3.00.

## Advising

Advising will be conducted by the Program Coordinator or designee.

A project advisor will be selected by mutual agreement between the student and faculty member, based on student request and interest and faculty availability. If the student does not request an advisor, the Program Coordinator will assign a faculty member, who will become the Permanent Advisor at the start of the student's second term of study. Advisors may be changed by the Program Coordinator at the request of the student and/or the advisor.

An advisory committee composed of the Program Coordinator (or designee) and the Project Advisor will be responsible for approving the Capstone Project. The Program Coordinator will approve both Capstone Project topics and applications for graduation in consultation with the student's Permanent Advisor/Capstone Advisor. Project Advisors will be selected from faculty offering courses in the program.

## Academic Regulations

A maximum of nine graduate credits may be accepted by transfer upon admission; a minimum of 21 credits must be taken at SVSU. Transfer credit will not be granted for the Capstone Project.

A minimum grade point average of 3.00 ("B") is required for graduation. No "D" or "F" may be counted toward the degree. A "B" or better is required to pass CM 690, the Capstone Project. Students earning a "C," "D," or "F" may repeat a course only once and the second grade will become official.

If the cumulative GPA falls below 3.00 at any time after accumulation of 12 credits at SVSU; if the student fails to demonstrate acceptable levels of expression in oral or written English; if the student has accumulated six credits of "D" or "F" grades the first time a course is taken; or if special conditions of admission are not met, the student may, based on the circumstances of the individual, be dismissed from the program.

The maximum load for a full-time student is 12 credits during the fall or winter semesters and three credits during the spring or summer sessions (reduced by the sum of graduate credits with the grade of "I"). The maximum load for a part-time student is six credits during the fall or winter semesters and three credits during the spring or summer sessions (reduced by the sum of graduate credits with the grade of "I"). Under special circumstances the Program Coordinator may waive load restrictions for individual students for the semester or session in question.

Full-time or part-time status will be determined upon admission and may be altered by the Program Coordinator as circumstances permit. Full-time students may complete the program within one calendar year by enrolling in four consecutive terms: Fall, Winter, Spring and Summer.

The degree must be completed within six years after initial enrollment or credits will be lost.

### Program Requirements (30 credits required)

CM 530	Media, Meaning and Audience . . . . .	.3 cr
CM 541	Information Design . . . . .	.3 cr
CM 550	Data Representation and Interfaces . . . . .	.3 cr
CM 560	Applied Graphic Design . . . . .	.3 cr
CM 570	Intercultural Communication . . . . .	.3 cr
CM 590	Special Topics in Communication and Multimedia . . . . .	.3 cr
CM 620	Theories of Organizational Communication . . . . .	.3 cr
CM 630	Multimedia Applications Development . . . . .	.3 cr
CM 640	Collaborative Project Design . . . . .	.3 cr
CM 650	Advanced Project Research and Design . . . . .	.3 cr
CM 690	Capstone Project . . . . .	.3 cr

At the discretion of the program coordinator, students may substitute one elective course from another graduate program within the University.

## Master of Arts Leadership and Public Administration

This is an interdisciplinary program offered by the Criminal Justice and Political Science departments with emphases on public service, agency administration, leadership and criminal justice. The objective of the Master of Arts/Leadership and Public Administration is to provide educational and professional development for people employed or seeking employment and advancement to leadership positions in the public or private sectors, such as those in law enforcement or public and non-profit agency administration and leadership, and for students of public affairs. The program is designed and primarily intended for those who have earned baccalaureate degrees in liberal arts, criminal justice, political science and other social sciences. Those who have earned degrees in other disciplines are welcome to apply. However, those seeking advanced training in business administration should consider the Master of Business Administration at SVSU.

### Objectives

The graduate of this program is expected to have demonstrated the following:

1. The development of administrative skills and a mature sense of leadership.
2. A high level of personal and professional ethics.
3. A substantial awareness of human values and behavior and of the individual's moral responsibility for the actions of organizations of which he or she is a part.
4. An understanding and mature appreciation of major elements of the social and political environment.
5. Knowledge of contemporary methods of research and data analysis.
6. Proficiency in written and oral expression.

It is expected that each student, in every course, will progress toward the satisfaction of these six expectations and will work toward an integration of knowledge and experience.

### Admission Requirements

1. A bachelor's degree from an accredited college or university with a cumulative GPA of 2.75.
2. Undergraduate prerequisites include not less than three credits in statistics and/or research methods.
3. A completed application for graduate admission (\$25 non-refundable application fee required).
4. Official copies of all undergraduate and graduate transcripts.
5. A current résumé.
6. A one-page statement of accomplishments and academic goals.
7. Two letters of professional reference.
8. International students must show a grade of "B" or better for at least one year of English composition or its equivalent. Applicants whose

native language is not English must demonstrate competence in English. The College accepts a score of 580 or higher on the Test of English as a Foreign Language (TOEFL), or a passing score on an alternative test as determined by the College. SVSU's English Language Program is available for students without a TOEFL score or whose TOEFL score is below the required minimum. Successful completion of the English Language Program does not guarantee acceptance to a graduate program at SVSU.

9. International students must submit Evidence of Financial Support.

### Admission Status

Full Admission may be granted to applicants who have fully satisfied all the admissions requirements. Conditional Admission may be granted to graduate students who do not meet admission standards if such action is warranted by other considerations.

1. Applicants who have an undergraduate cumulative GPA of 2.74, or below and/or a GPA of 2.9 or less in their major, must present a Graduate Record Examination score of at least 800 (English and math combined) to achieve Full Admission status. The official score must be sent directly to SVSU from the Educational Testing Service. Applicants presenting lower GRE scores may be considered for admissions on probationary status if such action is warranted by other considerations. If such probationary status is granted, such students must maintain a 3.0 graduate GPA for the first 12 credits (four courses) taken to remain in the program.
2. Applicants who have an undergraduate cumulative GPA of 2.74 or below may opt to take and complete additional undergraduate courses in criminal justice or political science without having to present a Graduate Record Examination score. At least three such undergraduate courses must result in a grade of "B" or better, and the cumulative undergraduate GPA must be raised to at least 2.75. Such students are encouraged to reapply to the graduate program for Full Admission status.
3. Applicants who lack prerequisites must make up any deficiency before accumulating 9 or more credits in the program. Credits applied to prerequisite deficiencies do not count toward degree requirements.

Provisional Admission may be granted to applicants whose files are incomplete and who are otherwise qualified. Special Admission may be granted to SVSU seniors with a GPA of 3.25 or better who otherwise meet admission requirements and are recommended by members of the criminal justice/political science faculty or by other appropriate SVSU faculty. Such students may enroll for up to nine credits of graduate credit in the M.A. program beyond the requirements for the baccalaureate.

### Transfer Credit

Transfer Credit may be granted for up to 12 credits of equivalent graduate course work at other institutions on recommendation of the Program Coordinator and approval by the Dean of Arts and Behavioral Sciences.

### Academic Regulations

Students have two options to complete the MLPA program: the Capstone Track or the Specialization Track. Upon completing/passing the core 30 credits of MLPA course work, the student will register for MLPA 650, which will be directed study with the Capstone advisor as instructor of record. The student would be completing 33 credits of graduate work under this option. Students who opt not to do the Capstone Project must choose one of two Specialization Tracks: Criminal Justice Management or Human Service Management. Each track comprises two advanced graduate courses for a total of 6 credits. The student would be completing 36 credits of graduate work under this option.

A maximum of 12 graduate credits may be accepted by transfer at first admission, and a minimum of 18 credits must be taken at SVSU. Transfer credit will not be granted for MLPA 650. A minimum grade point average of 3.00 ("B") is required for graduation. No "D" or "F" may be counted toward the degree. A "B" or better is required to pass MLPA 650, the Capstone Project. Students earning a "C", "D", or "F" may repeat a course only one time and the second grade will become official. If the cumulative GPA falls below 3.00 at any time after accumulation of 12 credits at SVSU; if the student fails to demonstrate acceptable levels of expression in oral or written English; if the student has accumulated six credits of "D" or "F" grades the first time a course is taken; or if special conditions of admis-

sion are not met, the student may, based on the circumstances or the individual, be dismissed from the program.

The maximum load for a full-time student is 15 credits during the fall or winter semesters and six credits during the spring or summer sessions, reduced by the sum of graduate credits with the grade of "I". The maximum load for a part-time student is six credits during the fall or winter semesters and three credits during the spring or summer sessions reduced by the sum of graduate credits with the grade of "I". Under special circumstances, such as the offering of short-term courses during a semester in which the student has a full load, the Program Coordinator may waive load restrictions for individual students for the semester or session in question.

Full-time or part-time status will be determined on admission and may be altered by the Program Coordinator as circumstances permit.

The degree must be completed within six years after initial enrollment.

## Advising

Advising will be conducted by members of the faculty and/or by the Program Coordinator.

Upon admission the Program Coordinator, or designated advisor, should be consulted prior to first registration so that the student may officially choose one of the two curriculum tracks.

For students in the capstone track, a project advisor is determined by mutual agreement between the student and faculty member, based on student desires and interest and faculty availability. If the student does not inform the Program Coordinator to the contrary, a project advisor will be assigned. Advisors may be changed by the Program Coordinator at the request of the student and/or the advisor.

An advisory committee composed of the Program Coordinator (or designee) and the Project Advisor will be responsible for approving or disapproving the Capstone Project. The Program Coordinator will approve applicants for graduation in consultation with the student's project Advisor. Capstone Project Advisors may include faculty from various disciplines.

**Program Requirements** (33 credits required in the Capstone Track, or 36 credits in the Specialization Track)

**Core Courses** (Practica to be taken concurrently with designated seminar)

MLPA 510	Administration Seminar . . . . .	.2 cr
	(Students should take this in their first semester)	
MLPA 511	Practicum and Research in Administration . . . . .	.1 cr
	(Students should take this in their first semester)	
MLPA 520	Elements in Communications . . . . .	.3 cr
MLPA 540	Gender, Race and the Organization . . . . .	.3 cr
MLPA 560	Conflict Management . . . . .	.3 cr
MLPA 580	Public Human Resource Management . . . . .	.2 cr
MLPA 581	Practicum and Research in Public Human Resource Management . . . . .	.1 cr
MLPA 610	Professional Ethics . . . . .	.2 cr
MLPA 611	Practicum and Research in Professional Ethics . . . . .	.1 cr
MLPA 620	Materials and Methods . . . . .	.3 cr
MLPA 625	Research Methods . . . . .	.3 cr
MLPA 630	The Organizational Budgeting Process . . . . .	.3 cr
MLPA 640	Leadership Seminar . . . . .	.2 cr
MLPA 641	Practicum and Research in Leadership . . . . .	.1 cr

**Capstone Project Track**

MLPA 650	Capstone Project Directed Study . . . . .	.3 cr
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**Specialization Track**

MLPA 660	Administrative Law for Criminal Justice Organizations . . . . .	.3 cr
MLPA 670	Criminal Justice Management . . . . .	.3 cr
	or	
MLPA 665	Human Services Administration . . . . .	.3 cr
MLPA 675	Program Development for Human Services Organizations . . . . .	.3 cr

# Master of Business Administration

## Objectives

The Master of Business Administration program promotes the development of potential executives for business, government and other organizations. The program is designed for men and women who hold baccalaureate degrees in business administration as well as for those who have earned degrees in other disciplines.

The program creates and disseminates knowledge necessary for the students to become leaders in profit and non-profit organizations operating in a complex global economy. The objective of the program is to produce graduates who:

1. Have a comprehensive view of the firm;
2. Are able to use complex methodologies and tools for analyzing data to support managerial decisions;
3. Have the creative and critical thinking skills necessary for decision making and problem solving;
4. Have effective written and oral skills and the ability to work in a team;
5. Understand the impact of demographic diversity and the influence of ethical, political, social, legal, environmental, and global issues on organizations.

## Admission Status

An applicant to the M.B.A. program at Saginaw Valley State University may be granted full or provisional admission.

An applicant may be granted full admission by submitting the M.B.A. admission portfolio to the Office of Graduate Admissions. Approval will be determined by the Graduate Admissions committee of the College of Business and Management. The portfolio must include the following:

1. A completed application form, including a written statement of purpose
2. An undergraduate transcript
3. Results of the GMAT (Graduate Management Admission Test)
4. Letters of recommendation that address competence and the ability of the applicant to complete the M.B.A. program
5. Results of the TOEFL (Test of English as a Foreign Language) from students whose native language is not English
6. Transcripts of relevant graduate work (if any)
7. Statement of work experience and professional achievements (if any)

An applicant may be granted admission on a provisional basis if the student satisfies one of the following criteria:

1. The student has an undergraduate degree with a cumulative GPA of at least 3.00 from an accredited college or university but does not have a fully-completed M.B.A. admission portfolio. The student's admission status will be adjusted to full when an approved M.B.A. admission portfolio is submitted to the Office of the Dean of the College of Business and Management.
2. An applicant with an undergraduate degree and with a cumulative GPA of 2.00 to 3.00, or a graduate from a non-accredited college or university, may be admitted by the Dean of the College of Business and Management on a provisional status. The student's admission status will be changed to full admission when nine SVSU graduate credits are completed toward the M.B.A. with a cumulative GPA of 3.00 or better, and when the student has submitted an approved M.B.A. admission portfolio to the Office of the Dean of the College of Business and Management.

Provisional students must complete their admission portfolio within one year of admission to the M.B.A. program. The Dean may extend the time requirements if the student can demonstrate any unusual circumstances that have hindered the completion of the admission package.

## Special Admission

Students who are working on an undergraduate degree in accounting at

SVSU may elect, at the end of their junior year, to apply for admission to the M.B.A. program. After completing both the four-year accounting degree requirements and the M.B.A. requirements, the student will be awarded both a B.B.A. and an M.B.A. Students completing this program are required to take CBM 695 but not MGT 429. The waiver, or exemption, from MGT 429 will be approved only after the student is admitted to the M.B.A. program and provides satisfactory evidence of successful completion of CBM 695.

## Degree Requirements

The M.B.A. program consists of a core of 25 credits plus three graduate level business elective courses. Students lacking the appropriate undergraduate course work in business administration and economics or who are deficient in certain functional areas of business administration or other basic skills, may be required to take additional basic skills or foundation course work.

A minimum of 24 credits above the foundation level (including CBM 695) must be taken at SVSU. Elective courses may be chosen from several functional areas or concentrated in a single area. Students electing to concentrate in one functional area (i.e., accounting, economics, finance, management or marketing) must complete a minimum of four graduate level business elective courses in the functional area chosen.

A final grade point average of 3.00 is required for graduation. No credit toward graduation is granted for courses with grades below "C." A student may be dismissed from the program if the cumulative grade point average falls below 3.00 after 12 credits have been accumulated at SVSU.

### Business & Management Core (25 credits required)

CBM 600	Global Business	.2 cr
MGT 601	Social Responsibility and Ethics in Business	.2 cr
ACCT 612	Managerial Accounting	.3 cr
ECON 650	Macroeconomics for Managerial Decisions	.3 cr
FIN 604	Managerial Finance	.3 cr
MGT 621	Organizational Behavior and Leadership	.3 cr
CBM 639	Business Process Design	.3 cr
MKT 631	Integrated Marketing Management	.3 cr
CBM 695	Strategic Management of Global Corporations	.3 cr

### Electives

Three 600-level business courses

Basic skills required of entering M.B.A. students include competency in mathematics and written English, and computer literacy. Mathematics competency is required to the level of advanced college algebra or pre-calculus. Competency in written English should equal or exceed the level required of an upper level undergraduate writing course. Demonstration of computer literacy includes a knowledge of basic spreadsheet operations, word processing, and data base manipulation. Deficiencies in the basic skills are to be remedied by taking appropriate course work as determined by the College of Business and Management prior to taking M.B.A. course work.

### Foundation Courses (16 credits required, unless waived)

ACCT 511	Foundations of Accounting	.2 cr
ECON 522	Foundations of Economics	.2 cr
ECON 536	Statistical Methods	.2 cr
FIN 504	Principles of Finance	.2 cr
LAW 508	Legal Environment of Business	.2 cr
MGT 521	Organization and Administration	.2 cr
MGT 524	Foundations of Operations Management	.2 cr
MKT 531	Foundations of Marketing	.2 cr

## Certificate in International Business

A Certificate in International Business will be awarded upon satisfactory completion of the following requirements:

**Electives** (five courses, minimum 12 credits, and from a minimum of four functional areas)

ACCT 619	International Accounting	.2 cr
ECON 641	International Trade Policy	.3 cr
FIN 607	International Finance	.3 cr
LAW 608	International Legal Environment	.3 cr
MGT 629	International Management	.3 cr
MKT 633	Global Business-to-Business Marketing	.3 cr

MKT 636	Multinational Marketing	.3 cr
SOC 650	Cross-Cultural Relations	.3 cr

These courses may be used simultaneously to satisfy the three courses of "Electives" required for the M.B.A. Students who already have obtained an M.B.A. and who desire to obtain a Certificate in International Business may do so by completing the courses that are not part of their official transcripts. The certificate will be awarded upon completion of the requirements. Additional international business special topics courses can be designated as satisfying certificate requirements prior to the time the courses are offered.

## Graduate Programs in Education

The graduate program of the College of Education offers the Master of Arts in Teaching (M.A.T.) degree (36 credits), the Master of Education (M.Ed.) degree (33 credits) in educational administration and supervision, and the Education Specialist (Ed.S.) degree (30 credits). The major function of the graduate program is to provide opportunities for academic preparation and professional renewal for practicing educators. The M.A.T. program increases elementary and secondary teachers' knowledge and understanding of the learning process and their repertoire of teaching methods and skills. In addition, the M.A.T. programs offer teachers the opportunity to increase their competence in various subject area specializations. The M.Ed. program provides a theoretical background and practical experiences in school leadership with the major emphasis on educational administration and supervision.

## Policies and Procedures for Graduate Degree Programs

### General Admissions Policies and Procedures

1. A student must have earned an undergraduate cumulative GPA of at least 3.00 from a regionally accredited college or university. A student with a 2.00 to 3.00 cumulative GPA or a graduate from a non-accredited college or university may be admitted on a probationary status by the Dean of the College of Education.
2. A probationary student may be considered for full admission when he or she has completed nine SVSU credits at the graduate level with a grade of "B" or higher in each of the courses.
3. A maximum of nine transfer credits from a regionally-accredited college or university may be applied to a graduate degree program. A grade of "B" or higher must have been earned in each transfer course.
4. A student who has already completed a master's degree at SVSU or another institution may not transfer any credits that were used toward his/her first master's degree. Courses may not be duplicated. The advisor, department chair and the dean must approve all course substitutions.
5. Any SVSU graduate student who for seven consecutive semesters (including summer) has not been enrolled in the College of Education must apply for readmission. A readmitted student is subject to all regulations and requirements for the current catalog at the time of his/her readmission.
6. Since degree programs are often highly structured, it is strongly advised that a graduate student apply for admission to a specific degree program no later than the completion of nine credits of graduate course work to avoid loss of credit for courses that do not fit into a program structure. Credits will apply only if they meet proper departmental requirements at SVSU.
7. Each student will be assigned to an advisor in the appropriate department in the College of Education upon admission to a specific program. A student who is admitted to the M.A.T. — Academic Major Program in Secondary Education also will be assigned to an advisor from the appropriate subject area department.

### Specific Admissions Policies and Procedures for the M.A.T.

36/38 credits required for Early Childhood Education, Elementary Classroom Teaching, Learning and Behavioral Disorders, Middle School

Classroom Teaching, Reading, and Secondary Classroom Teaching. After 9 credits of SVSU graduate credit in the College of Education, full admission to the M.A.T. will be based upon evaluation of the following:

1. Application submitted to the College of Education
2. M.A.T. Purpose Statement (specific directions for the Purpose Statement may be obtained from the College of Education)
3. Official transcripts from undergraduate baccalaureate degree and any graduate courses
4. Copy of an earned teaching certificate or approval from the appropriate program
5. Letters of recommendation from two professional educators with whom the applicant has worked, addressing competence or potential competence in the applicant's area of teaching.
6. Letters of recommendation from two faculty members addressing competence or potential competence in the applicant's area of graduate study.

### **Specific Admissions Policies and Procedures for the M.Ed.**

33 credits are required.

1. Recommendations that address competence or potential competence in the applicant's area of concentration must be submitted from two professional educators with whom the applicant has worked.
2. Recommendations that address a record of competence or potential competence in the applicant's area of study must be submitted from two faculty members.
3. Applicants must provide evidence of an earned teaching certificate or gain approval from the Department of Educational Leadership and Services.

### **Program Requirements**

1. All credits and requirements toward a master's degree, including transfer credits, must be completed within seven years prior to the date on which the degree is to be conferred. SVSU credits remain valid for a maximum of seven years.
2. Each student must maintain a minimum of a 3.00 GPA in graduate study. Only grades of "A," "B" or "C" may be certified toward graduation.
3. Whenever a GPA drops below a 3.00, or a student receives two "C" grades in the program, the student will be placed on academic probation. A student on probation must have records reviewed by a departmental committee. Continuation in the program and graduation will depend upon the recommendation of that committee and the approval of the dean.
4. Courses taken as continuing education units (CEUs) may not count toward a master's degree unless the course is endorsed for college credit in advance of advertisement by the corresponding department and by the Dean of the College of Education.
5. A maximum of six credits for TE 509 and TE 601\* courses in the M.A.T. program may count toward the degree.
6. A maximum of six credits of independent study may count toward the degree.
7. Each student must successfully complete a designated "capstone" course or thesis option during his/her last six credits of graduate study.
8. Exit from the program will include a degree check, a review of GPA, and successful completion of the "capstone" course and/or thesis option.

\*Applies to M.A.T. Elementary

### **Program Management**

1. The student will file a graduate degree plan with the College of Education's Office of Admissions and Records before the completion of nine credits.
2. For any person who is employed on a full-time basis, the course load during fall and winter semesters is a maximum of six credits or two courses.

3. Completion of the program will not necessarily qualify a student for a teaching or administrative certificate.
4. The M.A.T. is available with a major emphasis in the academic major of biology. Course work in the major (15 credits of 400-500 level courses) must be planned with the academic advisor in the biology department. Courses that have not been approved will not satisfy graduation requirements. A written plan of study must be on file in the College of Education.
5. The M.A.T. is available with a major emphasis in the academic major of chemistry. Course work in the major (15 credits of 400-500 level courses) must be planned with the academic advisor in the chemistry department. Courses that have not been approved will not satisfy graduation requirements. A written plan of study must be on file in the College of Education.

All courses listed under Chemical Education are open to undergraduate chemistry majors (with the consent of the instructor) but do not satisfy the 400-level course requirement for a degree in chemistry; however, such courses would count toward the required 40 credits of upper division work.

6. The M.A.T. is available with a major emphasis in the academic major of English. Course work in the major (15 credits of 400-500 level courses) must be planned with the academic advisor in the English department. Courses that have not been approved will not satisfy graduation requirements. A written plan of study must be on file in the College of Education.
7. The M.A.T. is available with a major emphasis in the academic major in mathematics. Course work in the major (15 credits of 400-500 level courses) must be planned with the academic advisor in the mathematics department. Courses that have not been approved will not satisfy graduation requirements. A written plan of study must be on file in the College of Education.
8. The M.A.T. is available with a major emphasis in the academic major of physics. Course work in the major (15 credits of 400-500 level courses) must be planned with the academic advisor in the physics department. Candidates without a B.S. degree in physics are recommended to choose courses from the following: PHYS 400, 401, 402; any 500-level course. Courses that have not been approved will not satisfy graduation requirements. A written plan of study must be on file in the College of Education.

## **Post-Baccalaureate Admission**

### **Initial Teacher Certification**

Applicants who hold a baccalaureate degree and wish to complete professional requirements for teacher certification must follow the admissions procedures for Initial Teacher Certification described under College of Education.

### **Continuing Certification**

Eighteen credits of planned programs are available for certified teachers seeking continuing certification. Candidates should see the Certification Officer, College of Education, for further information and advisement.

## **Endorsements**

### **Special Education Endorsements**

Certified teachers (elementary or secondary) may receive an endorsement to teach in Special Education programs requiring approval in either Learning Disabilities or Emotionally Impaired by completing the required courses within the endorsement programs listed below. Michigan Special Education Administrative Rules require teachers to complete a minimum of 30 credits and 10 weeks of student teaching for initial special education endorsements and 30 credits (half of which must be unduplicated credits) with 180 hours of practical experience for each additional endorsement. For additional information contact the College of Education.

## Learning Disabilities (K-12)

### Support Core (9 credits required)

PSYC 310	Child Psychology	.3 cr
	or	
PSYC 315	Adolescent Psychology	.3 cr
PSYC 320	Psychology of Learning*	.3 cr
*TE 505 is an acceptable substitute for this course		
TE 516	Classroom Management Techniques	.3 cr

### Special Education Core (13 credits required)

TE 430	Educating Exceptional Learners	.3 cr
TE 532	Assessment and Planning in Special Education	.3 cr
TE 535	Consultation and Integrated Programming in Special Education	.3 cr
TE 541	Special Education Curriculum and Methods: K-12	.4 cr

### Learning Disabilities Core (9 credits required)

TE 432	Introduction to Learning Disabilities	.3 cr
TE 537	Advanced Theory and Method: Learning Disabilities	.3 cr
TE 545	Language Development and Dysfunction Clinical Experience	.3 cr
TE 445	Seminar in Special Education: K-12 and	.2 cr
TE 460	Student Teaching: Special Education	.6 cr
	or	
TE 660	Practicum in Special Education: K-12	.4 cr
Students must submit an application for Student Teaching or Practicum. Students may pick up an application form in the Office of Clinical Experiences in September for winter semester, and in January for fall semester.		

## Emotionally Impaired (K-12)

### Support Core (9 credits required)

PSYC 310	Child Psychology	.3 cr
	or	
PSYC 315	Adolescent Psychology	.3 cr
PSYC 374	Psychological Disorders of Childhood and Adolescence	.3 cr
TE 516	Classroom Management Techniques	.3 cr

### Special Education Core (13 credits required)

TE 430	Educating Exceptional Learners	.3 cr
TE 532	Assessment and Planning in Special Education	.3 cr
TE 535	Consultation and Integrated Programming in Special Education	.3 cr
TE 541	Special Education Curriculum and Methods: K-12	.4 cr

### Emotionally Impaired Core (9 credits required)

TE 431	Introduction to Emotionally/ Behaviorally Impaired	.3 cr
TE 432	Introduction to Learning Disabilities	.3 cr
TE 536	Advanced Theory and Method: Emotionally Impaired	.3 cr

### Clinical Experience

TE 445	Seminar in Special Education: K-12 and	.2 cr
TE 460	Student Teaching: Special Education	.6 cr
	or	
TE 660	Practicum in Special Education: K-12	.4 cr
Students must submit an application for Student Teaching or Practicum. Students may pick up an application form in the Office of Clinical Experiences in September for winter semester, and in January for fall semester.		

## Bilingual-Bicultural Education in Spanish

Certified teachers (elementary or secondary) may receive an endorsement as a bilingual teacher (Spanish) by completing the required courses indicated below. Before taking SPAN 456, students must demonstrate proficiency in basic standard Spanish by successfully completing SPAN 211, 212, 302 and 311, or by demonstrating knowledge of the material by way of an examination given by the Department of Modern Foreign Languages. Students seeking endorsement in elementary bilingual-bicultural education will have their field project (TE 423) designed to involve an elementary education field experience. Those students seeking endorsement in secondary bilingual-bicultural education will have their field project designed to involve a secondary education field experience.

### Required Courses (24 credits required)

SOC 310	Hispanic Peoples in United States Society	.3 cr
SPAN 456	Introduction to Linguistics	.3 cr
SPAN 467	United States Spanish	.3 cr
SPAN 469	Teaching English as a Second Language for Spanish Speakers	.3 cr
TE 346	Cultural Differences in Education	.3 cr
SPAN 471	Bilingual-Bicultural Methodology in Bilingual Education	.3 cr
TE 423	Field Project for Bilingual-Bicultural Education in Spanish	.3 cr
One of the following:		
SPAN 344	United States Hispanic Civilization	.3 cr
HIST 260	History of the Spanish Borderlands	.3 cr
SPAN 341	Spanish-American Civilization	.3 cr
HIST 261	History of Mexico	.3 cr

## Computer Science Endorsement for Secondary Teachers

A current teaching certificate is required. This program is offered as an endorsement for certified secondary teachers and is not currently available for secondary education undergraduate students. For specific requirements see Certification Officer, College of Education.

## Other Endorsements

Additional endorsements are available for certified teachers through the College of Education. Candidates should see the Certification Officer, College of Education, for information and advisement.

## Master of Arts in Teaching Elementary Classroom Teaching

### I. Foundations (6 credits required)

TE 504	Foundations in Teacher Education	.3
TE 505	Learning Theories	.3
(Must be taken before the capstone)		

### II. Classroom Teaching Core (12 credits required. Select one course from each category.)

#### Literacy

TE 510	Methods in Elementary Instruction for Readers and Writers	.3
TE 520	Reading in the Content Areas	.3
TE 521	Teaching Writing in the Content Areas	.3
ENGL 535	The Writing Process	.3

#### Technology

TE 571	Technology in Education	.3
TE 587	Technology in Early Childhood	.3

#### Teaching Diverse Populations

TE 516	Classroom Management	.3
TE 546	Multicultural Education	.3
TE 547	Exceptional Children in Regular Education Settings	.3

#### Curriculum

TE 572	Elementary School Curriculum	.3
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**III. Cognate** (9 credits required. Graduate students will focus on developing a deeper understanding of a particular area of specialization related to one's career role. Approved electives may be selected by students to focus on one of the following cognates: Literacy, Mathematics, Science, and Social Studies.)

**A. Literacy** (Pick three courses from one of the following three areas: Writing, Literature, Language Arts)

**Writing**

TE 508	Special Methods in Content Areas - Writing	.3
TE 509	Special Topics in Teacher Education	1-6 (Must be approved by Advisor)
TE 521	Teaching Writing in the Content Areas	.3
ENGL 535	Writing Process	.3
ENGL 536	Writing Workshop	1-4

**Literature**

TE 508	Special Methods in Content Areas - Literature	.3
TE 509	Special Topics in Teacher Education	1-6 (Must be approved by advisor)
TE 511	Advanced Study in Children's Literature	.3
TE 526	Teaching Reading with Children's Literature	.3
TE 527	Storytelling in the Reading Program K-8	.3
TE 528	Historical Fiction/Biography/Non-Fiction	.3
TE 586	Integrating Children's Literature in Early Childhood	.3

**Language Arts**

TE 508	Special Methods in Content Areas- Language Arts	.3
TE 509	Special Topics in Teacher Education	1-6 (Must be approved by advisor)
TE 510	Methods in Elementary Instruction for Readers and Writers	.3
TE 518	Teaching Language Arts in Elementary School	.3
TE 528	Historical Fiction/Biography/Non-Fiction	.3
TE 596	Literacy Development for Young Children	.3

**B. Mathematics** (Pick three courses from the following:)

TE 508	Special Methods in Content Area - Mathematics	.3
TE 508	Special Methods in Content Area - Geometry	.3
TE 508	Special Methods in Content Area - Data Analysis	.3
TE 508	Special Methods in Content Area - Patterns and Algebraic Reasoning	.3
TE 509	Special Topics in Teacher Education	1-6 (Must be approved by advisor)
TE 529	New Directions in Mathematics	.3
TE 531	Elementary Mathematics Curricula	.3
TE 593	Mathematics/Science Experiences for Young Children (PreK-3)	.3
NS 640	Mathematics Science	1-5
NS 670	Molve	1-5

**C. Science** (Pick three courses from the following:)

TE 508	Special Methods in Content Area - Science	.3
TE 508	Special Methods in Content Area - Life Science	.3
TE 508	Special Methods in Content Areas - Physical Science	.3
TE 508	Special Methods in Content Areas - Earth Science	.3
TE 509	Special Topics in Teacher Education	1-6 (Must be approved by advisor)
TE 530	New Directions in Science	.3
TE 593	Mathematics/Science Experiences for Young Children (PreK-3)	.3
EDL 630	Demonstrations in Science	.3
NS 600	Life Science	1-5
NS 620	Physical Science	1-5
NS 630	Earth Science	1-5
NS 670	Solve	1-5

**D. Social Studies** (Pick three courses from the following:)

TE 508	Special Methods of Social Studies Instruction - History	.3
TE 508	Special Methods of Social Studies Instruction - Geography	.3
TE 508	Special Methods of Social Studies Instruction - Economics	.3
TE 508	Special Methods of Social Studies Instruction - Civics	.3

TE 509	Special Topics in Teacher Education	1-6 (Must be approved by advisor)
TE 528	Historical Fiction/Biography/Non-Fiction	.3
TE 540	Teaching Community and State History	.3
TE 542	Methods of Teaching Social Studies, K-8	.3

**IV. Electives** (3 credits required. A 3-credit elective may be selected with the approval of your advisor.)

**V. Integrated Curriculum** (12 credits required. Pick one course from each of the above four cognates: Literacy, Mathematics, Science, and Social Studies.)

**VI. Capstone** (6 credits required. Must be taken within the last 9 credits of the program.)

TE 605	Introduction to Research in the Elementary Classroom	.3
TE 606	Research in Elementary Education	.3

## Master of Arts in Teaching

### Middle School Classroom Teaching

**Foundations** (9 credits required; must be taken with first 15 credits.)

TE 504	Foundations of Education	.3 cr
TE 505	Educational Learning Theories for Teachers	.3 cr
TE 506	Introduction to Educational Research	.3 cr

**Middle School Core** (12 to 15 credits required; choose one course from each area.)

**Reading** (6 credits required; this requirement may be satisfied by previous reading course work taken at either the undergraduate or graduate level. See the Certification Officer for advisement.)

TE 510	Methods in Elementary Instruction for Readers and Writers	.3 cr
TE 520	Reading in the Content Areas	.3 cr

**Instructional Technology** (3 credits required)

TE 571	Technology in Education	.3 cr
EDL 622	Micro-Computers in the Classroom	.3 cr

**Special Needs/Multicultural** (3 credits required)

TE 546	Multicultural Education	.3 cr
TE 547	Exceptional Children in the Regular Classroom	.3 cr

**Curriculum** (3 credits required)

EDL 602	Middle School Curriculum	.3 cr
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**Cognate** (9 credits required)

**Methods**

TE 508	Special Methods in Content Areas	.3 cr
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Must be approved by student's program advisor.

TE 521	Teaching Writing in the Content Areas	.3 cr
TE 578	Learning Styles in the Classroom	.3 cr
TE 579	Teaching Thinking Skills	.3 cr

**Development**

TE 576	The Transescent	.3 cr
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**Classroom Management**

TE 516	Classroom Management Techniques for Effective Instruction	.3 cr
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**Elective** (0 to 3 credits required only if reading requirement has been fulfilled; must be approved by student's program advisor.)

**Capstone** (3 credits required; must be taken with the last 6 credits of the program)

TE 607	Classroom Teaching: Middle School Seminar	.3 cr
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**Note:** Elementary school teachers may need to take additional course work in the academic areas in which they intend to teach. Teachers must have a minimum of two teaching minors or a teaching major and minor to complete this endorsement.

# Master of Arts in Teaching

## Secondary Classroom Teaching

**Foundations** (9 credits required; must be taken with first 15 credits)

TE 504	Foundations of Education	.3 cr
TE 505	Educational Learning Theories for Teachers	.3 cr
TE 506	Introduction to Educational Research	.3 cr

**Classroom Teaching Core** (12 credits required; choose one course in each area; courses listed in more than one category can only be counted once.)

**Reading/Writing** (3 credits required)

TE 512	Methods in Secondary Reading Instruction	.3 cr
TE 520	Reading in the Content Areas	.3 cr
TE 521	Teaching Writing in the Content Areas	.3 cr
ENGL 535	The Writing Process	.3 cr

**Instructional Technology** (3 credits required)

TE 571	Technology in Education	.3 cr
EDL 622	Micro-Computers in the Classroom	.3 cr

**Special Needs/Multicultural** (3 credits required)

TE 546	Multicultural Education	.3 cr
TE 547	Exceptional Children in the Regular Classroom	.3 cr
TE 548	Exceptional Adolescent	.3 cr

**Curriculum** (3 credits required)

EDL 603	Secondary School Curriculum	.3 cr
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**Cognate** (9 credits required; select a cognate in either secondary teaching or one of the subject matter areas, and take 9 credits in that cognate area only; consult your advisor.)

**Secondary Teaching Subject Matter** (6 credits required; in consultation with an advisor, select appropriate courses according to your teaching majors and minors.)

**English**

ENGL 501	Approaches to the Teaching of Language and Literature	.3 cr
ENGL 511	Seminar in American Literature	.3 cr
ENGL 521	Seminar in British Literature	.3 cr
ENGL 531	Grammar and Composition	.3 cr
ENGL 535	The Writing Process	.3 cr
ENGL 536	Writing Workshop	.1-3 cr
ENGL 540	Literary Criticism	.3 cr
ENGL 551	Seminar in Special Topics	.1-3 cr
ENGL 591	Directed Study	.1-3 cr

**Biology**

BIOL 510	Selected Topics in Biology	.3-5 cr
BIOL 550	Experimental Biology	.3 cr
BIOL 570	Research in Biology	.2-5 cr
BIOL 590	Graduate Seminar: Science in Society	.3 cr

**Note:** A customized program will be designed for each student by the biology chairperson. BIOL 590 is the capstone experience and will be taken last.

**Chemistry**

CHEM 510	Selected Topics in Chemistry	.3-5 cr
CHEM 550	Experimental Chemistry	.3 cr
CHEM 570	Research in Chemistry	.2-5 cr
CHEM 590	Graduate Seminar: Science in Society	.3 cr

**Note:** A customized program will be designed for each student by the chemistry chairperson. CHEM 590 is the capstone experience and will be taken last.

**Physics**

PHYS 502	Developments in Modern Physics	.3 cr
PHYS 510	Selected Topics in Physics	.3-5 cr
PHYS 550	Experimental Physics	.3 cr
PHYS 551	Advanced Selected Topics	.1-4 cr
PHYS 570	Research in Physics	.2-5 cr
PHYS 590	Graduate Seminar: Science in Society	.3 cr

**Note:** A customized program will be designed for each student by the physics chairperson. PHYS 590 is the capstone experience and will be taken last.

**Math**

MATH 515	Discrete Mathematics and Applications	.3 cr
MATH 525	Mathematical Problem Solving	.3 cr
MATH 590	Special Topics	.1-4 cr

**Methodology** (3 credits required)

TE 508	Special Methods in Content Areas	.3 cr
TE 512	Methods in Secondary Reading Instruction	.3 cr
TE 516	Classroom Management Techniques for Effective Instruction	.3 cr
TE 520	Reading in the Content Areas	.3 cr
TE 521	Teaching Writing in the Content Areas	.3 cr
TE 578	Learning Styles in the Classroom	.3 cr
TE 579	Teaching Thinking Skills	.3 cr

All other teaching majors will fulfill this cognate with 9 credits of methodology.

**Subject Matter Areas** (9 credits in one area required; all such majors who desire or need advanced courses in their subject matter will be advised to select this cognate. Consult with your advisor.)

**English**

ENGL 501	Approaches to the Teaching of Language and Literature	.3 cr
ENGL 511	Seminar in American Literature	.3 cr
ENGL 521	Seminar in British Literature	.3 cr
ENGL 531	Grammar and Composition	.3 cr
ENGL 535	The Writing Process	.3 cr
ENGL 536	Writing Workshop	.1-3 cr
ENGL 540	Literary Criticism	.3 cr
ENGL 551	Seminar in Special Topics	.1-3 cr
ENGL 591	Directed Study	.1-3 cr

**Biology**

BIOL 510	Selected Topics in Biology	.3-5 cr
BIOL 550	Experimental Biology	.3 cr
BIOL 570	Research in Biology	.2-5 cr
BIOL 590	Graduate Seminar: Science in Society	.3 cr

**Note:** A customized program will be designed for each student by the biology chairperson. BIOL 590 is the capstone experience and will be taken last.

**Chemistry**

CHEM 510	Selected Topics in Chemistry	.3-5 cr
CHEM 550	Experimental Chemistry	.3 cr
CHEM 570	Research in Chemistry	.2-5 cr
CHEM 590	Graduate Seminar: Science in Society	.3 cr

**Note:** A customized program will be designed for each student by the chemistry chairperson. CHEM 590 is the capstone experience and will be taken last.

**Physics**

PHYS 502	Developments in Modern Physics	.3 cr
PHYS 510	Selected Topics in Physics	.3-5 cr
PHYS 550	Experimental Physics	.3 cr
PHYS 551	Advanced Selected Topics	.1-4 cr
PHYS 570	Research in Physics	.2-5 cr
PHYS 590	Graduate Seminar: Science in Society	.3 cr

**Note:** A customized program will be designed for each student by the physics chairperson. PHYS 590 is the capstone experience and will be taken last.

**Math**

MATH 515	Discrete Mathematics and Applications	.3 cr
MATH 525	Mathematical Problem Solving	.3 cr
MATH 590	Special Topics	.1-4 cr

**Note:** Only one TE 509 course may be applied to a cognate area. The TE 509 course may be applied only with approval of the student's advisor, chair and dean.

**Electives** (3 credits required; must be approved by student's program advisor)

**Capstone** (3 credits required; must be taken with the last 6 credits of the program)

TE 608	Classroom Teaching: Secondary School Seminar	.3 cr
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# Master of Arts in Teaching

## K-12 Reading Classroom Teaching

**Foundations** (9 credits required; must be taken within the first 15 credits)

TE 504	Foundations of Education	.3 cr
TE 505	Educational Learning Theories for Teachers	.3 cr
TE 506	Introduction to Educational Research	.3 cr

**Reading Core Courses** (9 credits required)

TE 510	Methods in Elementary Reading Instruction	.3 cr
TE 512	Methods in Secondary Reading Instruction	.3 cr
TE 520	Reading in the Content Areas	.3 cr

**Cognate** (9 credits required, of which 3 credits must be in a designated literature-based reading course. Cognate courses must be approved by the advisor.)

**The Young Reader** (for pre-school and primary teachers who seek a strong foundation in the research and theories of emerging literacy as well as in developmental programs for beginning reading and writing.)

TE 508	Special Methods in Content Areas	.3 cr
TE 509	Special Topics in Teacher Education	1-3 cr
TE 511	Advanced Study in Children's Literature	.3 cr
TE 526	Teaching Reading with Children's Literature	.3 cr
TE 527	Storytelling in the Reading Program	.3 cr
TE 591	Assessing the Young Child	.3 cr
TE 596	Literacy Development for Young Children	.3 cr

**The At-Risk Reader** (for teachers of any grade level who want to increase their knowledge of the research, theories and practices for working with students who have reading difficulties.)

TE 508	Special Methods in Content Areas	.3 cr
TE 509	Special Topics in Teacher Education	1-3 cr
TE 511	Advanced Study in Children's Literature	.3 cr
TE 513	Literacy Development from a Holistic Perspective	.3 cr
TE 518	Teaching Language Arts in Elementary School	.3 cr
TE 519	Meeting Individual Needs in Literacy Instruction	.3 cr
TE 522	Teaching Young Adult Literature	.3 cr
TE 526	Teaching Reading with Children's Literature	.3 cr
TE 527	Storytelling in the Reading Program	.3 cr
TE 547	Exceptional Children in the Regular Classroom	.3 cr
TE 578	Learning Styles in the Classroom	.3 cr

**The Skillful Reader** (for upper elementary, middle, junior high and high school teachers who want a more in-depth understanding of current research and practice in using reading and writing as tools for learning content knowledge.)

TE 508	Special Methods in Content Areas	.3 cr
TE 509	Special Topics in Teacher Education	1-3 cr
TE 511	Advanced Study in Children's Literature	.3 cr
TE 519	Meeting Individual Needs in Literacy Instruction	.3 cr
TE 521	Teaching Writing in the Content Areas	.3 cr
TE 522	Teaching Young Adult Literature	.3 cr
TE 528	Historical Fiction/Biography/Non-Fiction	.3 cr
TE 578	Learning Styles in the Classroom	.3 cr
TE 579	Teaching Thinking Skills	.3 cr

**Elective** (3 credits required; must be approved by advisor; TE 508 and TE 509 require advisor approval.)

**Capstone** (6 credits required; TE 615 and 617 are the capstone courses for the program. They must be taken in sequence within the last 9 credits of the total 36-credit program.)

TE 615	Practicum Diagnosis of Reading Difficulties	.3 cr
TE 617	Practicum in Correction of Reading Difficulties	.3 cr

# Master of Arts in Teaching

## Early Childhood Classroom Teaching

**Foundations** (6 credits required)

TE 504	Foundations in Teacher Education	.3 cr
TE 505	Learning Theories	.3 cr

**Early Childhood Core** (15 credits required)

TE 590	Early Childhood Education	.3 cr
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TE 592	Early Childhood Curriculum	.3 cr
TE 596	Literacy Development for Young Children	.3 cr
TE 597	The Young Child in the Home, School and Community	.3 cr
TE 598	Practicum in Early Childhood*	.3 cr

\*Prerequisite: TE 590 and TE 592

**Advanced Early Childhood Core** (For graduate students who hold a state of Michigan early childhood endorsement or its equivalent; 15 credits required)

TE 596	Literacy Development for Young Children	.3 cr
TE 690	Advanced Study of Cognitive Development	.3 cr
TE 692	Contemporary Issues in Early Childhood Curriculum	.3 cr
TE 697	Family and Culture	.3 cr
TE 698	Leadership in Early Childhood	.3 cr

**Specialization** (9 credits required; graduate students will focus on developing a deeper understanding of a particular area of specialization related to one's career role. Approved electives may be selected by students to focus on one of the following specializations: Infant/Toddler, Preprimary, Primary.)

### Infant-Toddler Specialization

1. Required: TE 595 Infants/Toddlers (offered once every two years)
2. Electives: Choose two courses from TE 545, 588, 509 (with advisor approval), 591, 594 or 599

### Preprimary Specialization

1. Required: TE 591 Assessing Young Children
2. Electives: Choose two courses from TE 586, 587, 588, 509 (with advisor approval), 593, 594 or 599

### Primary Grade Specialization

1. Required: TE 593 or 587
2. Electives: Choose three courses from TE 586, 587, 588, 509 (with advisor approval), 591, 593 or 599

### Electives for the Early Childhood Specializations

TE 509	Special Topics	.3 cr
TE 545	Language Acquisition/Dysfunction	.3 cr
TE 586	Integrating Children's Literature in Early Childhood Programs	.3 cr
TE 587	Technology in Early Childhood	.3 cr
TE 588	Teaching Strategies for Diverse Learners in Early Childhood	.3 cr
TE 591	Assessing Young Children	.3 cr
TE 593	Math/Science Experiences for Young Children	.3 cr
TE 594	Administration of Early Childhood Programs	.3 cr
TE 599	Individual Child Study	1-3 cr

**Capstone** (6 credits, which must be taken within the last nine credits of the program)

TE 610	Professionalism and Inquiry in Early Childhood Education*	.3 cr
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\*Offered Fall semester

TE 611	Research in Early Childhood Education*	.3 cr
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\*Prerequisite: TE 610; offered Winter semester

# Master of Arts in Teaching

## Learning and Behavior Disorders Classroom Teaching

### Special Education Professional Studies Requirements

**Foundations** (6 credits required)

TE 504	Foundations in Education	.3 cr
TE 505	Educational Learning Theory for Teachers	.3 cr

**Special Education Core** (22 credits required)

TE 516	Classroom Management Techniques	.3 cr
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TE 532	Assessment and Planning in Special Education . . .	.3 cr
TE 535	Consultation and Integrated Programming in Special Education . . . . .	.3 cr
TE 536	Advanced Theory and Method: Emotionally Impaired . . . . .	.3 cr
TE 537	Advanced Theory and Method: Learning Disabilities . . . . .	.3 cr
TE 541	Special Education Curriculum and Methods: K-12 . . . . .	.4 cr
TE 545	Language Development and Dysfunction . . . . .	.3 cr

**Electives** (3 credits approved by program advisor)

**Capstone** (7 credits required, taken as final course)

TE 620	Special Education Research and Practice . . . . .	.3 cr then
TE 621	Applications in Special Education Research . . . . .	.4 cr or
TE 660	Special Education Practicum: K-12 . . . . .	.4 cr

Students must submit an application for Student Teaching or Practicum. Students may pick up an application form in the Office of Clinical Experiences in September for winter semester, and in January for fall semester.

**Note:** Students may simultaneously complete endorsements to teach the learning disabled and/or emotionally impaired by meeting state requirements and course of study; see endorsement section.

## Master of Arts in Teaching

### Natural Science Teaching, Elementary, Middle Grades or Secondary

#### Objectives

The objective of the Master of Natural Science — Elementary, Middle Grades or Secondary is to provide educational and professional development growth for teaching professionals. The program is designed for professionals possessing at least a baccalaureate teaching degree who wish to update and increase their science and/or mathematics competency to better meet the educational needs of all students.

The graduate of this program is expected to have demonstrated the following:

1. An awareness, understanding and ability to implement the latest reforms in mathematics and/or science education.
2. An increased knowledge in mathematics and/or science content.
3. An ability to apply this heightened content knowledge to the K-12 classroom.
4. Proficiency in written and oral communication.

#### Admission Requirements

Applicants to this graduate program must have:

1. A completed application.
2. Official transcripts from all previously attended institutions.
3. An earned undergraduate teaching degree at an accredited college or university. For secondary mathematics teachers an undergraduate degree in mathematics is required, or at least the full calculus sequence plus differential equations, and one upper level course. For a secondary mathematics degree, a proficiency test would be required.
4. A minimum undergraduate GPA of 3.00 (based on a 4.00 scale).
5. A valid teaching certificate or a commitment to earning certification.
6. At least one year of teaching experience in a K-12 classroom.
7. Three letters of professional reference.
8. Personal interview.

#### Admission Status

Full admission may be granted to applicants who have fully satisfied all

the admission requirements.

Provisional admission may be granted to:

1. Applicants whose files are incomplete (i.e., missing transcript, missing a recommendation, etc.) and who otherwise are qualified. The files must be complete before enrollment for a second semester
2. Applicants who are currently enrolled in the SVSU Mathematics and Science Certificate Program
3. Applicants with special circumstances (i.e., lack of teaching experience, low GPA) may be admitted by the Dean of Science, Engineering & Technology and the Dean of Education with the recommendation of the admissions committee on a provisional status (secondary mathematics teachers must pass the proficiency test).

The student's admission status will be changed to full admission when he/she has completed nine or more SVSU graduate credits toward the degree in science or mathematics content classes with a cumulative GPA of 3.00 or better.

#### Admission Procedure

Inquiries, an application form and other required items should be directed to the Executive Director of the Center for Mathematics and Science Education, or the Office of the Dean, College of Science, Engineering and Technology, or the Dean of the College of Education, Saginaw Valley State University, University Center, Michigan 48710-0001. A completed application includes an application form, official transcripts from all undergraduate and graduate institutions attended, copies of an earned teaching certificate, and letters of recommendation from at least three people in a position to evaluate an applicant's potential for this program. At least one letter should come from a building or district administrator of the teacher applicant.

#### Advising

This program is designed to complement the student's past educational experiences. Therefore, the student must work closely with the Program Advisor in course selection and total program design.

Each student's degree program will address individual educational needs. No student will receive graduate credit for courses previously taken at the undergraduate level.

#### Degree Requirements

The Master of Natural Science Teaching program consists of 33 credits (three to six credits of foundation classes; a three-credit science or mathematics or education research course for K-12 teachers; a three-credit capstone seminar titled Mathematics, Science, and Technology in Society; and 21 to 24 credits in mathematics and/or science courses individually selected to meet the professional needs of each enrolled teacher). Submission of a portfolio of copies of satisfactory teaching units, research projects or papers developed by each teacher in their content classes is required for graduation. These materials will serve as a resource for area teachers.

Classes taken at SVSU for the Certificate Program in Mathematics and Science Education will apply to this program. A maximum of nine graduate credits may be accepted by transfer from another accredited institution at first admission. A minimum of 24 credits must be taken at SVSU.

#### Foundation Courses (3 or 6 credits required)

TE 529	New Directions in Mathematics Education . . . . .	.3 cr and/or
TE 530	New Directions in Science . . . . .	.3 cr

#### Research Course (3 credits required)

TE 506	Introduction to Educational Research . . . . .	.3 cr
NS 680	Science Research for K-12 Teachers . . . . .	.3 cr
NS 685	Research in Mathematics Teaching for K-12 Teachers . . . . .	.3 cr

#### Capstone Course (3 credits required)

NS 690	Graduate Seminar: Mathematics, Science and Technology in Society* . . . . .	.3 cr
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\*BIOL 590, CHEM 590, PHYS 590, MATH 590 with appropriate content may be substituted.

**Content Courses** (21 to 24 credits required; students will enroll in undergraduate courses selected under these numbers with an independent study contract. The contract will specify the additional work required to receive graduate credit. The transcript will reflect the specific content of the undergraduate course, e.g., NS 610 Chemical Science – Inorganic Chemistry.)

NS 600	Life Science (Biological Sciences) (Specify content, e.g. Botany, Zoology, Developmental Biology, etc.)
NS 610	Chemical Science (Specify content, e.g. General Chemistry, Inorganic, Organic, etc.)
NS 620	Physical Science (Specify content, e.g. Physics, Optics, etc.)
NS 630	Earth Science (Specify content, e.g. Astronomy, Geology, Meteorology, etc.)
NS 640	Mathematical Science (Specify content, e.g. Algebra, Trigonometry, Discrete Mathematics, etc.)
NS 650	Computer Science (Specify content, e.g. Basic, Programming, Micro Computers, etc.)
NS 660	Engineering Science (Specify content, e.g. Electrical, Mechanical, etc.)
NS 670	Special Topics (Specify content)

**Cognate Educational Electives** (up to two of the following electives may be substituted for the content classes when appropriate to meet the needs of the teacher; EDL 622 is the only course appropriate for secondary mathematics teachers.)

EDL 622	Microcomputers in the Classroom . . . . .	.3 cr
EDL 630	Demonstrations in Science . . . . .	.3 cr
TE 531	Elementary Math Curriculum . . . . .	.3 cr
TE 593	Mathematical Science Experience for the Young Child . . . . .	.3 cr

### Content Course Options

1. Students sign up for a graduate level independent study with an approved faculty member. The student takes the normally scheduled undergraduate course and satisfies all the requirements for that class. In addition, the student in this program is required to develop three thematic teaching units based on the content of the class which could be utilized in the appropriate grade level (K-12) classroom and/or do a research project or paper as determined by the instructor or department. In the thematic teaching unit option, the mathematics and/or scientific content of the teaching units will be evaluated by the content undergraduate faculty involved in the course. The appropriateness of the teaching units will be evaluated by a qualified education professional. With satisfactory completion of the class and teaching units or other agreed upon requirements, the student would receive the appropriate graduate credit in the content area of the course, e.g. undergraduate astronomy course satisfactorily completed by the student would receive graduate credit under the NS 630 number with the content specified as astronomy, when thematic teaching units and/or other requirements are added.
2. Students may select graduate level mathematics and science courses specifically designed to meet their educational needs, e.g. new graduate courses developed by the University faculty.

## Degrees Granted

### M.A.T./Natural Science Teaching — Elementary

This degree is for those K-5 teachers who want to increase their knowledge and skills in mathematics and/or science. The New Directions in Science Education course (TE 530) and/or the New Directions in Mathematics Education course (TE 508), one of the research courses (NS 680, NS 685, TE 506), and the Capstone Seminar (NS 690) are required for the degree (nine to 12 credits). The remaining 21 credits are selected from the undergraduate or graduate mathematics and/or science content

courses that would meet their individualized graduate degree program plan for professional growth.

Teachers may select a mathematics emphasis by completing the TE 508 New Directions in Mathematics Education course, the NS 685 Mathematics Research Course/or TE 506, and 24 credits of mathematics content courses.

or

Teachers may select a science emphasis by completing the TE 530 New Directions in Science Education course, the NS 680 Science Research course/or TE 506, and 24 credits of science content courses.

### M.A.T./Natural Science Teaching — Middle Grades

This degree is for those grade 5-8 teachers who want to increase their knowledge and skills in mathematics and/or science. The New Directions in Science Education course (TE 530) and/or the New Directions in Mathematics Education course (TE 508), one of the research courses (NS 680, NS 685, TE 506), and the Capstone Seminar (NS 690) are required for the degree (nine to 12 credits). The remaining 21 credits are selected from the undergraduate or graduate mathematics and/or science content courses that would meet their individualized graduate degree program plan for professional growth. The Transescent course (TE 576) is recommended for those who have not had a similar course as part of their professional training.

Teachers may select a mathematics emphasis by completing the TE 508 New Directions in Mathematics Education course, the NS 685 Mathematics Research Course/or TE 506, and 24 credits of mathematics content courses.

or

Teachers may select a science emphasis by completing the TE 530 New Directions in Science Education course, the NS 680 Science Research course/or TE 506, and 24 credits of science content courses.

### M.A.T./Natural Science Teaching — Secondary

This degree is for those grade 9-12 teachers who want to increase their knowledge and skills in mathematics and/or science. The New Directions in Science Education course (TE 530) and/or the New Directions in Mathematics Education course (TE 508), one of the research courses (NS 680, NS 685, TE 506), and the Capstone Seminar (NS 690) are required for the degree (nine to 12 credits). The remaining 21 credits are selected from the undergraduate or graduate mathematics and/or science content courses that would meet their individualized graduate degree program plan for professional growth.

Teachers may select a mathematics emphasis by completing the TE 508 New Directions in Mathematics Education course, the NS 685 Mathematics Research Course or TE 506, and 24 credits selected from the mathematics content courses at the upper division and/or graduate level not already taken as an undergraduate.

or

Teachers may select a science emphasis by completing the TE 530 New Directions in Science Education course, the NS 680 Science Research course or TE 506, and 24 credits selected from the science content courses in areas other than the student's major/minor, or upper division and/or graduate courses in their science content specialty not already taken as an undergraduate.

## Educational Leadership and Services

### Department Faculty

Jerry Baker, Marna Beard, Robert Cheek, Gamal A. Elashhab, Art Frock, Elizabeth Hansen, Thomas McManus, Robert W. Meadows, Paul Novak, Cindy Sager, Norman R. Sterchele

The mission of the Educational Leadership and Services Department encompasses the following:

1. Administering the Education Specialist degree and the Master of Education degree with the major emphasis in educational administration and supervision.

2. Designing and coordinating in-service and staff development programs for school administrative personnel.
3. Designing and providing special services courses and programs such as those for educational technology, computer services and counseling.
4. Establishing school study councils and/or leadership academies.
5. Developing and coordinating a program for international education.

## Master of Education (M.Ed.)

### Educational Leadership

The Master of Education degree is available with the major emphasis in four cognate areas that are designed to fulfill and correspond to the categories of school "Administrator Certification Code" No. 308 of the state of Michigan. The M.Ed. four cognates are:

1. Educational Leadership: Designed to prepare curriculum leaders and central office leaders.
2. Principalships: Designed to prepare elementary, middle and secondary school principals and assistant principals.
3. Chief School Business Official: Designed in cooperation with the College of Business to prepare the chief business official.
4. Superintendency: Designed to prepare school system superintendents and their assistants.

### M.Ed. Graduation Requirements

33 credits required.

#### Core (18 credits required)

EDL 550	Leadership Theories and Practices	.3 cr
EDL 551	Personnel Administration	.3 cr
EDL 552	Curriculum Development	.3 cr
EDL 553	School Law	.3 cr
EDL 554	Administrative Microcomputing	.3 cr
EDL 555	Educational Research and Program Evaluation	.3 cr

**Cognates** (12 credits required under one cognate; each student and his/her advisor will plan a cognate selected from the following [substitution may be made in accordance with University policy])

#### Educational Leadership (curriculum leaders and central office administrators)

TE 572	Elementary School Curriculum	.3 cr
EDL 600	Special Topics in Education	.1-6 cr
EDL 602	Middle School Curriculum	.3 cr
EDL 603	Secondary School Curriculum	.3 cr
EDL 604	Collaborative Learning	.3 cr
EDL 605	Principles of Educational Supervision	.3 cr
EDL 606	Community Schools	.3 cr
EDL 607	Issues in Transnational Education	.3 cr
EDL 608	Counseling Skills	.3 cr
EDL 640	Special Education Administration	.3 cr
EDL 641	Special Education Law	.3 cr
EDL 642	Special Education Finance & Budgeting	.3 cr
EDL 654	Educator as Caretaker	.3 cr

#### Principalship

TE 572	Elementary School Curriculum	.3 cr
EDL 600	Special Topics in Education	.1-6 cr
EDL 602	Middle School Curriculum	.3 cr
EDL 603	Secondary School Curriculum	.3 cr
EDL 604	Collaborative Learning	.3 cr
EDL 605	Principles of Educational Supervision	.3 cr
EDL 606	Community Schools	.3 cr
EDL 608	Counseling Skills	.3 cr
EDL 650	Administration of Elementary Schools	.3 cr
EDL 651	Administration of Middle Schools	.3 cr
EDL 652	Administration of Secondary Schools	.3 cr
EDL 654	Educator as Caretaker	.3 cr

**Chief School Business Official** (based on background and career goals, each student and his/her advisor from the Educational Leadership and Services Department and the College of Business and

Management observing section R380.108 of the State "Administrator Certification Code" will plan a program for his/her cognate selected from the following courses.)

EDL 551	Personnel Administration	.3 cr
EDL 600	Special Topics in Education	.1-6 cr
EDL 609	Public School Finance	.3 cr
EDL 611	Education Facilities Planning	.3 cr
ACCT 511	Foundations of Accounting	.2 cr
ACCT 612	Managerial Accounting	.3 cr
FIN 504	Principles of Finance	.3 cr
FIN 605	Investments	.3 cr
MGT 521	Organization and Administration	.3 cr
MGT 623	Personnel Management	.3 cr

#### The Superintendency

TE 572	Elementary School Curriculum	.3 cr
EDL 600	Special Topics in Education	.1-6 cr
EDL 602	Middle School Curriculum	.3 cr
EDL 603	Secondary School Curriculum	.3 cr
EDL 604	Collaborative Learning	.3 cr
EDL 605	Principles of Educational Supervision	.3 cr
EDL 606	Community Schools	.3 cr
EDL 608	Counseling Skills	.3 cr
EDL 609	Public School Finance	.3 cr
EDL 610	Policies and Politics of Education	.3 cr
EDL 611	Education Facilities Planning	.3 cr
EDL 650	Administration of Elementary Schools	.3 cr
EDL 651	Administration of Middle Schools	.3 cr
EDL 652	Administration of Secondary Schools	.3 cr
EDL 653	Public School Superintendency	.3 cr
EDL 654	Educator as Caretaker	.3 cr

#### Capstone Course (3 credits required)

EDL 660	Administrative Field Experience	.3 cr
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**Note:** This course should be completed during the last six credits of all four cognates. It is designed to integrate the state certification components and culminate the degree. Please see course description.

## Special Education Director

30 credits required. State approval as Director of Special Education, required courses:

TE 535	Consultation & Integrated Program Special Education	.3 cr
EDL 554	Microcomputing for Administrators	.3 cr
EDL 605	Principles of Educational Supervision	.3 cr
EDL 640	Special Education Administration	.3 cr
EDL 641	Special Education Law	.3 cr
EDL 642	Special Education Finance & Budgeting	.3 cr
EDL 703	Strategic Planning in School Administration	.3 cr
EDL 706	Personnel Administration & Development	.3 cr
EDL 710	Specialty Colloquium	.3 cr
EDL 720	Internship in Specialty Area	.3 cr

## Special Education Supervisor

12 credits required. State approval as Supervisor of Special Education, required courses:

TE 530	Special Education Curriculum and Methods (K-12)	.3 cr
TE 535	Consultation & Integrated Program Special Education	.3 cr
EDL 554	Microcomputing for Administrators	.3 cr
EDL 640	Special Education Administration	.3 cr

## Education Specialist (Ed.S.)

### Educational Leadership

The Education Specialist degree (Ed.S.) provides a planned program of graduate studies beyond the master's degree. It is designed to enhance the academic knowledge and skills of a cadre of educational leaders prepared to meet the increasingly complex challenges of the 21st century. The degree plan requires the completion of 30 semester credits beyond a master's degree from an accredited graduate institution.

The degree has two components of 15 credits each:

1. Core courses
2. Cognate courses.

The Ed.S. degree serves the following specialty areas:

1. Superintendent and Central Office Personnel
2. Principalship
3. Directorship of Athletics
4. Directorship of Curriculum
5. Directorship of Early Childhood Programs.

### Admission

The Educational Specialist degree admission council will screen candidates in six areas after the following have been received:

1. Official transcripts of undergraduate and graduate work with a master's degree in education from an accredited institution. A minimum GPA of 3.30 in the graduate work is required
2. Two letters of recommendation from professional educators or supervisors familiar with candidate's career achievements
3. One letter of recommendation from a faculty member of the candidate's graduate level work
4. A statement of personal goals, career aspirations and educational philosophy
5. A professional portfolio encompassing samples of graduate papers, creative work or current professional projects. Portfolio also should include a current professional vita
6. A written commitment to complete the program in a maximum of three academic years from the date of admission to the first semester.

Candidates who have limited school administration background are required to complete EDL 550, Leadership Theory and Practice, and EDL 553, School Law, before applying for admission. They must contact the chairperson for assessment and approval before enrolling in these two classes.

Candidates also will be interviewed by the Ed.S. admission council. Admission to the program will be made only for the fall semester. Application materials must be received by the Office of the Dean of Education by June 1.

### Degree Requirements

Thirty credits are required for the Ed.S. degree; 15 credits are core courses common to all specialty areas. The remaining 15 credits serve specific cognate specialties.

#### Required Core Courses

EDL 702	Foundations of Education and Leadership	. . . . .	.3 cr
EDL 703	Strategic Planning in School Administration	. . . . .	.3 cr
EDL 704	Year-long Action Research Project	. . . . .	.3 cr
EDL 705	Crucial Issues in Education and Leadership	. . . . .	.3 cr
EDL 706	Personnel Administration and Development	. . . . .	.3 cr

#### Cognate Courses in Area of Specialty (five specialty courses required)

EDL 710	Specialty Colloquium	. . . . .	.3 cr
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Plus, a planned program of three specialty courses not taken in the previous degree and selected from the following:

- Central Office and Superintendent: EDL 605, 610, 611, 653, 700 or 701
- Principalship: EDL 605, 608, 610, 650, 651, 652, 700 or 701
- Athletic Directorship: EDL 605, 606, 608, 700 or 701
- Curriculum Directorship: TE 572, 602, 603, 604, 622, 700 or 701
- Early Childhood Directorship: TE 590, 591, 592, 594, 597, 611, EDL 700 or EDL 701
- Technology Specialist: EDL 664, 665, 666, 700 or 701

#### EDL 720 Internship in Administering Specialty Area (3 credits required)

	Sequence of Courses		
	Fall Semester	Winter Semester	Summer Semester
<b>First Year Core Courses</b>	EDL 702	EDL 703	EDL 705 + EDL 706
	EDL 704 (Fall registration for a year-long Action Research Project)		
<b>Second Year Cognate Courses</b>	EDL 710	A cognate area course	2 cognate courses
	EDL 720 (Fall registration for a year-long Internship)		

A cohort team of 25 students will be admitted to the two-year program from qualified candidates committed to the program calendar before the fall semester.

## Master of Science in Nursing

The Master of Science in Nursing program prepares registered professional nurses for leadership roles in advanced nursing practice. Within the program, students select one of two concentrations which contain specific role options. One concentration involves roles in the areas of management, education, and informatics. The other involves the roles of nurse practitioner and clinical nurse specialist. The graduate program assumes a foundation of concepts and skills acquired in undergraduate programs in nursing. The M.S.N. program facilitates acquisition of knowledge and expertise in the following:

1. Advanced concepts related to nursing phenomena.
2. Theoretical knowledge as a basis for practice.
3. A selected area of advanced nursing practice.
4. An enactment of advanced role specific interventions for populations.
5. Critical analysis and utilization of research-based knowledge.
6. Transformation of nursing and health care through ongoing analysis, challenge, and/or reformulation of assumptions.
7. Strategic communication to facilitate transformational leadership.

### Admission Requirements

1. A bachelor's degree in nursing unless at Step 1 of the RN to M.S.N. program.
2. A minimum cumulative undergraduate grade point average of 3.00 (based on a 4.00 scale) is also preferred.
3. Successful completion (grade of "C" or better) of a course in statistical methods, including correlation, regression analysis of variance, T-test and chi square, and a course in physical assessment, its equivalent or a validation examination.
4. Current licensure to practice nursing in the United States; eligible for Michigan licensure.
5. A completed application for graduate admission to include the non-refundable application fee.
6. Official copies of all undergraduate and graduate transcripts.
7. Official results of the Graduate Record Examinations (GRE) General Test sent to SVSU by the Education Testing Service.
8. A current, detailed resume.
9. A one-page personal statement of academic goals.
10. Three letters of professional reference.
11. A personal interview.
12. Applicants whose native language is not English must demonstrate competence in English. The college accepts a score of 525 or higher on the Test of English as a Foreign Language (TOEFL), or a passing score on an alternative test determined by the College. SVSU's English Language Program is available for student without a TOEFL score or whose TOEFL score is below the required minimum. Successful completion of the English Language Program does not guarantee acceptance into a graduate program at SVSU.
13. International students must apply to the Commission on Graduates of Foreign Nursing Schools\* and have a report of their credentials review

submitted to the Crystal M. Lange College of Nursing and Health Sciences.

14. International students must submit Evidence of Financial Support.

\*Commission on Graduates of Foreign Nursing Schools; 3600 Market Street; Suite 400; Philadelphia, PA; 19104-2651. Telephone: (215) 222-8454.

Applications to the M.S.N. program are accepted by the Office of Graduate Admissions and processed for admission by the Crystal M. Lange College of Nursing and Health Sciences throughout the year. The options for granting admission status to applicants include:

1. Full admission — all admission requirements have been completed successfully.
2. Conditional admission — student is recommended by the Selection Committee in spite of an identified deficit. Students with this admission status may take up to two core nursing courses. Change to full status is contingent upon successful completion of those courses.
3. Provisional admission — student's file is missing certain admission requirements; when all of these are received, review for admission can be completed. Students with this admission status may take up to two core nursing courses while they fulfill the admission requirements.
4. Post-master's admission — a student with a master's degree in nursing is admitted to complete the requirements for a concentration and receive a certificate to that effect.

## Program Requirements

The M.S.N. program at Saginaw Valley State University consists of a minimum of 39 credits of required and elective courses. Students who have prior graduate credits may be able to enter with advanced standing. A minimum of 19 credits must be completed in nursing at the graduate level at Saginaw Valley State University. The time limit for completing the degree is seven years from the beginning of the first course in which credit was earned toward the M.S.N. at SVSU.

Other specific requirements students must meet to complete the M.S.N. program include:

1. To register for any practicum course (N660 and N674), a student must provide a) a copy of their current Michigan license, b) a health form reflecting a recent health examination, and c) evidence of professional liability insurance.
2. To register for NURS 671 in the Advanced Clinical Practice concentration, the equivalent of 3 years of full time work experience as a registered nurse is a prerequisite.

## Academic Regulations

1. In graduate nursing courses, only grades of "A" or "B" may be credited toward graduation.
2. Only 6 credits of non-nursing course work at the "C" level or above will be credited toward graduation. A student may be dismissed from the program if the cumulative GPA falls below 3.00 after 12 credits have been accumulated at SVSU. No student will be allowed to repeat more than two courses. A course may be repeated only one time.
3. Each student will have an assigned academic advisor and an approved plan of study.

## M.S.N. Program Curriculum

### Core and Capstone Courses

All students in the M.S.N. program complete the following Core and Capstone Courses (19 credits required)

#### Core

NURS 630	Theory and Conceptual Models in Nursing	. . . . .	.3 cr
NURS 634	Knowledge Development for Advanced Nursing Practice	. . . . .	.3 cr
NURS 640	Organizational Relationships in Health Care	. . . . .	.3 cr
NURS 646	Leadership and Role Development in Nursing	. . . . .	.3 cr
NURS 648	Research in Advanced Nursing Practice	. . . . .	.3 cr

### Capstone

NURS 689	Transforming Nursing and Health Systems Through Research: Field Study	. . . . .	.4 cr
or			
NURS 699	Transforming Nursing and Health Systems Through Research: Thesis	. . . . .	.4 cr

### Concentrations

**Health System Nurse Specialist:** total of 39-40 credits required (including the 19 credits of core courses).

Students may choose one of several role options in this concentration: Management, Education, Informatics, Management/Education, Management/Informatics or Education/Informatics.

For any role option the following Nursing Concentration Courses are required (9 credits):

NURS 660	Nursing in Partnership with Community and Health Systems	. . . . .	.3 cr
NURS 661	Health Systems Transformation	. . . . .	.3 cr
NURS 663	Field Experience in Health Systems Transformation	. . . . .	.3 cr

For any role option in this concentration, 9 credits of advisor approved, graduate level Cognate Courses and 2 to 3 credits of Elective Courses must be completed from the appropriate college (Arts and Behavioral Sciences, Business and Management, or Education). Students should consult their advisor for recommended courses and development of a plan of study.

### Advanced Clinical Practice

**Clinical Nurse Specialist:** total of 40 credits required (including the 19 credits of core courses)

or

**Nurse Practitioner:** total of 46 credits required (including the 19 credits of core courses)

Specialty available at SVSU is the community oriented family focus. Other specialty options are available at affiliated universities and requirements vary according to specialty selected. Consult the dean's office for details and process.

NURS 671	Community Oriented Family Care I	. . . . .	.3 cr
NURS 672	Community Oriented Family Care II	. . . . .	.3 cr
NURS 673	Community Oriented Family Care III	. . . . .	.3 cr
NURS 674	Advanced Practicum (CNS 6, NP 12)	. . . . .	.6/12 cr

### Cognates

AH 610	Pharmacotherapeutics I	. . . . .	.3 cr
AH 612	Pharmacotherapeutics II	. . . . .	.3 cr

## RN to M.S.N. Program

The RN to M.S.N. Program at SVSU allows selected students to enter the M.S.N. Program without having been awarded the B.S.N. degree. A registered nurse licensed to practice in the state of Michigan with a minimum cumulative GPA of 3.00 from an ADN/Diploma program can begin the application process outlined below. Nurses who received their initial nursing education outside of the United States may be eligible for this program, but additional qualifying criteria may be required of such applicants.

### Step 1: Gain undergraduate admission to SVSU and complete:

#### Prerequisite Course

MATH 132A or B, PSYC 299, PS 225 or equivalent statistics course

#### Core Courses (19 credits required)

NURS 300	Transition	. . . . .	.4 cr
	(Strongly recommended as first course in which to enroll upon admission to SVSU)		
NURS 362	Critical Thinking & Communication in Nursing II	. . . . .	.4 cr
NURS 463	Family and Community Health Phenomena and Nursing Interventions	. . . . .	.4 cr
NURS 466	RN Practicum I	. . . . .	.4 cr
NURS TBA	Elective	. . . . .	.3 cr
	(Course selected from options offered)		

**Electives** (Two upper division non-required courses; total of 4 credits minimum.)

**Step 2: Complete the Graduate Record exam and the application process required for admission to the RN to M.S.N. Program. If admitted to the RN to M.S.N. Program, the following courses must be completed before enrolling in the remaining required graduate nursing courses:**

**Undergraduate Courses**

NURS 486 RN Practicum II . . . . . 4 cr

**Graduate Courses** (6 credits required)

NURS 640 Organizational Change in Health Care . . . . . 3 cr

NURS 646 Leadership and Role Development . . . . . 3 cr

Students who are not admitted to the RN to M.S.N. Program may complete the remaining requirements for the B.S.N. degree.

## Master of Science Technological Processes

This interdisciplinary program, offered through the College of Science, Engineering and Technology, provides the technical professional with the skills, knowledge and experience to be more effective and productive, and to be eligible to advance within the modern technical workplace. The program is designed for those who have earned baccalaureate degrees in life or physical sciences, engineering, computer or information science, mathematics and other closely related disciplines.

### Objectives

Program objectives are to develop in the technical professional: 1) the technical knowledge and expertise to become more effective and productive in a technically complex workplace; 2) leadership and management strategies for promotion to middle- and upper-level positions; 3) the ability to engage in a personal program of life-long learning; 4) a high level of proficiency in written and oral communication; and 5) an understanding of ethical, regulatory and social responsibilities of public and private sector technical professionals.

All program course work supports one or more of these objectives. The Field Project provides an experience in which all five objectives are integrated and evaluated.

### Admission Requirements

1. A bachelor's degree in physical or life science, engineering, computer or information science, or mathematics from an accredited college or university is preferred.
2. A minimum undergraduate grade point average of 3.00 overall based on a 4.00 scale is preferred.
3. Work experience in a technical position is recommended.
4. A completed application for graduate admission to include the \$25 non-refundable application fee.
5. Official copies of all undergraduate and graduate transcripts.
6. A current résumé.
7. A one-page statement of accomplishments and academic goals.
8. Two letters of professional reference.
9. A personal interview.
10. Applicants whose native language is not English must demonstrate competence in English. The College accepts a score of 525 or higher on the Test of English as a Foreign Language (TOEFL), or a passing score on an alternative test as determined by the College. SVSU's English Language Program is available for students without a TOEFL score or whose TOEFL score is below the required minimum. Successful completion of the English Language Program does not guarantee acceptance to a graduate program at SVSU.
11. International students must submit Evidence of Financial Support.

## Admissions Status

Full admission may be granted to applicants who have fully satisfied all the admissions requirements and have a minimum undergraduate GPA of 3.00 or higher.

Conditional admission may be granted in special cases to applicants who do not meet all admission requirements when warranted by special considerations. Conditional admittees will be permitted to take nine credits of graduate courses and must receive a grade of "B" or better in each to be granted full admission. Failure to meet this requirement will result in disenrollment from the program.

Provisional admission may be granted to applicants whose files are temporarily incomplete but who otherwise are qualified. A student will not be permitted to register for more than one semester without qualifying for full admission.

Special admission may be granted to SVSU seniors with a GPA of 3.25 or higher who otherwise meet admission requirements. Such students may enroll for up to nine credits before completing requirements for their bachelor's degree.

## Advising

Each student will be assigned to a faculty advisor upon admission to the program.

## Transfer Credit

A maximum of nine graduate semester credits of transfer credit from an accredited college or university may be applied to the program, but only for courses in which a grade of "B" or better was earned. Requests for transfer credit will be evaluated by the Graduate Committee, College of Science, Engineering and Technology.

## Academic Regulations

1. Program requirements must be completed with an overall GPA of 3.00 or higher. No credit will be given for grades below a "C." A student may be dismissed from the program if the cumulative GPA falls below 3.00 after 12 credits have been completed in the program.
2. A student who has not been enrolled in program courses for six consecutive semesters (excluding spring/summer) must apply for readmission.
3. The proposal for the capstone Field Project must be approved by the Field Project Faculty Advisor, any non-university special advisor involved and the Graduate Committee, College of Science, Engineering and Technology.
4. A final program requirement is the submission of a portfolio of at least six writing samples (one of which must be the Field Project report) to the Graduate Committee, College of Science, Engineering and Technology.

## Program Requirements

33 credits required.

### Core Courses

 (12 credits required)

MGT 501	Leading and Managing the Technical Organization . . . . .	3 cr
MSTP 502	Safety, Regulatory Issues and Ethics . . . . .	3 cr
MSTP 503	Information Technology and Management . . . . .	3 cr
MSTP 504	Design of Experiments . . . . .	3 cr

**Concentration Track** (12 credits required; each student will select Concentration Track 1 or 2 after consulting with his/her faculty advisor. A significant consideration in Track selection will be the student's career path and career goals.

### Track 1

 (For Manufacturing Professionals)

MSTP 511	Manufacturing Methods . . . . .	3 cr
MSTP 512	Manufacturing Materials . . . . .	3 cr
MSTP 513	Product Design and Development . . . . .	3 cr
FIN 602	Accounting & Finance for Technical Managers . . . . .	3 cr

**Track 2 (For Technical Sector Professionals)**

MSTP 521	Scientific & Engineering Systems & Modeling . . . . .	.3 cr
MSTP 522	Industrial Ecology . . . . .	.3 cr
MSTP 523	Quality Methods in the Technical Organization . . . . .	.3 cr
MLPA 640	Leadership Seminar . . . . .	.3 cr
or		
MGT 621	Organizational Behavior & Leadership . . . . .	.3 cr

**Electives (6 credits required)**

MSTP 531	Special Topics in Science & Engineering . . . . .	.3 cr
MSTP 541	Research in Science & Engineering . . . . .	.3 cr
MSTP 596	Field Experience . . . . .	.3 cr
MGT 524	Foundations of Operations Management . . . . .	.3 cr
MGT 623	Personnel Management . . . . .	.3 cr
MGT 629	International Management . . . . .	.3 cr
LAW 508	Legal Environment of Business . . . . .	.2 cr
LAW 608	International Legal Environment . . . . .	.3 cr
LAW 609	Labor Law and Collective Bargaining . . . . .	.3 cr
MLPA 540	Gender, Race and the Organization . . . . .	.3 cr
MLPA 560	Conflict Management . . . . .	.3 cr
MLPA 610	Professional Ethics . . . . .	.3 cr
SOC 650	Cross-Cultural Relations . . . . .	.3 cr

**Field Project (3 credits required)**

MSTP 551	Project . . . . .	.3 cr
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# Graduate Course Descriptions



## Accounting

**ACCT 511 Foundations of Accounting (2)** Course emphasizes usefulness of information found in basic financial statements: balance sheet, income statement and statement of cash flows. Students write and present analysis of mini-cases that illustrate the integral nature of accounting information. Course introduces accounting controversies and current issues. Course presents adequate foundation for ACCT 612. Prerequisite: Admission to a graduate program.

**ACCT 519 Health Care Accounting and Control (3)** Financial and management accounting topics for health care professionals: Fund accounting; cash flow statements; financial statement analysis; cost behavior; budgeting; current topics in cost allocation techniques; capital investment decision making. Prerequisite: Admission to the M.S.N. program or permission of the instructor. Course does not carry credit toward the M.B.A. degree.

**ACCT 602 Accounting and Finance for Technical Managers (3)** This course will provide the technical manager with a working knowledge of the accounting and financial functions of the corporation. Managers use financial information for decision making, control, performance reporting and strategic planning. Topics studied include interpretation of cost systems, forecasting, budgeting, interpretation of financial statements and capital expenditure analysis. (Cross-listed with FIN 602.) (Must be admitted to the M.S.T.P. Program.)

**ACCT 612 Managerial Accounting (3)** The use of accounting information in planning, control, decision making and employee motivation. The course will use some cases that integrate across the functional areas of business and reflect ethical and social, and international considerations. Prerequisite: ACCT 511.

**ACCT 613 Management Accounting Systems (3)** A study of behavioral and quantitative applications of accounting information for managerial decision making. Systems design and applications will be integrated with the use of accounting information by management. Prerequisite: ACCT 612 or equivalent.

**ACCT 615 Nonprofit Organization (3)** An introduction to accounting standards and financial statements of municipalities, school systems, colleges and universities, hospitals and other not-for-profit entities. Emphasizes the budgeting process, internal control procedures and evaluation of performance by measures other than profit. Prerequisites: ACCT 612 or equivalent.

**ACCT 616 Federal Income Taxation (3)** An overview of Federal Income Taxes for individual, partnerships and corporations. Topics include: gross income, property transactions, business and non-business deductions and tax credits. Frequent reference will be made to the Internal Revenue Code and Regulations. Prerequisite: ACCT 511 or equivalent.

**ACCT 617 Accounting Theory (3)** Surveys evolution of thought in accounting theory. Considers current state of positive and normative theory. Contrasts and compares competing accounting paradigms. Critiques standard setting process. Each student identifies and analyzes a current accounting problem and then resolves it in some appropriate theoretical context. Work is presented to classmates orally and in writing, frequently as a team project. Prerequisite: ACCT 612 or permission of instructor.

**ACCT 619 International Accounting (2)** A study of the international aspects of accounting including financial, tax and management accounting. Topics include patterns of accounting development; comparative financial accounting practices; foreign currency translation; accounting for changing prices; international accounting standards; auditing in an international setting; analyzing foreign financial statements; transfer pricing and international taxation; accounting implications of corporate financial innovations. Prerequisite: ACCT 511 or the equivalent.

**ACCT 680 Special Topics in Accounting (1-3)** An examination of various special topics in accounting. Prerequisite: ACCT 612.

**ACCT 698 Research Techniques (3)** Techniques and methods of theory construction and testing in business and management including research designs, techniques of measurement and analysis of research data. Prerequisite: All M.B.A. foundation courses.

**ACCT 699 Thesis (3)** Prerequisite: ACCT 698.

## Allied Health

**AH 521 Rehabilitation Issues in Health Care (3)** An evaluation of the environmental, sociological, practice, and policy issues affecting the delivery of rehabilitation services in health care and the community. Review of the ethical dimensions and values inherent within professional organizations, associations, and professional relationships. Prerequisite: OT 450, OT 456, OT 458; PHE 390 for Athletic Trainer Majors; or permission of instructor.

**AH 610 Pharmacotherapeutics I (3)** Study of selected drug classifications applicable to primary care. Emphasis will be on the principles of pharmacokinetics and pharmacodynamics for individuals across the life span. Prerequisite: Bachelor of Science in Nursing or related field.

**AH 612 Pharmacotherapeutics II (3)** Continued discussions of selected drug classifications relevant to primary care for individuals across the life span. Emphasis will be on the role of the primary care provider in prescribing and monitoring drug therapy. Prerequisite: AH 610.

**AH 680 Special Topics in Allied Health (1-3)** An examination of special topics in allied health.

## Biology

**BIOL 510 Selected Topics in Biology (3-5)** Topics selected to enhance the background of Biology teachers; offered on demand. Credit allowed for the particular course offered will be set by the department. Appropriate prerequisites will be determined by the department. This course may be taken more than once.

**BIOL 550 Experimental Biology (3)** Provides practical experience in laboratory preparation, presentation and evaluation. The development of new experiments will be encouraged.

**BIOL 570 Research in Biology (2-5)** Students will work directly with a faculty member on an original research project.

**BIOL 590 Graduate Seminar: Science in Society (3)** Interdisciplinary seminar on the interaction of science, technology and society. (This course required of all students in this program.)

## Chemistry

**CHEM 510 Selected Topics in Chemistry (3-5)** Topics selected to enhance the background of Chemistry teachers; offered on demand. Credit allowed for the particular course offered will be set by the department. Appropriate prerequisites will vary with the nature of the course and will be determined by the department. This course may be take more than once.

**CHEM 550 Experimental Chemistry (3)** Provides practical experience in laboratory preparation, presentation and evaluation. The development of new experiments will be encouraged.

**CHEM 570 Research in Chemistry (2-5)** Students will work directly with a faculty member on an original research project.

**CHEM 590 Graduate Seminar: Science in Society (3)** Interdisciplinary seminar on the interaction of science, technology and society. (This course is required of all students in this program.)

## College of Business and Management

**CBM 600 Global Business (2)** This is an introductory course in the strategic management of organizations from a global perspective. The course focuses on development of an analytical framework to evaluate countries a firm wishes to enter, products offered and form of entry. Normally this course should be taken early in the core portion of the M.B.A. Program.

**CBM 639 Business Process Design (3)** This course elaborates on principles of effective process design, including topics associated with quality management, time-based competition and the reengineering movement. Topics include: the impact of variability on process performance, dynamic control of process flows, team based processes and the management of technology and information as it applies to development of processes. Prerequisites: MGT 524 and MGT 521.

**CBM 695 Strategic Management of Global Corporations (3)** This course focuses on the development and implementation of integrated strategies in global business enterprises, with emphasis on the choices

and tradeoffs involved in managing transnational companies in a complex international environment. Prerequisite: All other M.B.A. core courses.

## Communication and Multimedia

**CM 530 Media, Meaning and Audience (3)** Contemporary theories in mass media communication as they relate to the development of ethics, culture, and society. Theories of audience analysis and the impact of electronic media on meanings and values are emphasized.

**CM 541 Information Design (3)** Writing for multimedia. Organization of information for interactive applications. Basic concepts of graphic document design to enhance audience comprehension of information. Exploration of strategies for integrating such elements as text, image, and audio.

**CM 550 Data Representation and Interfaces (3)** Nonlinear viewing and presentation of information (text, images, video, sound drawings, and gestures). Topics will include history and impact of hypermedia, hardware and software, authoring systems, user interfaces, knowledge representation and navigation.

**CM 560 Applied Graphic Design (3)** Introduction to the creative processes and the visual structure behind graphic design. Focus on visual imaging, developing solutions, and refining problem-solving capabilities. Hand graphic and digital design techniques developed. Students with sufficient preparation in graphic design will be guided in independent projects.

**CM 570 Intercultural Communication (3)** Dynamics of communication across cultural contexts. Critical examination of values, traditions, role expectations, perceptions, stereotypes, gender, and relational development. Both verbal and nonverbal communication dimensions will be studied.

**CM 590 Special Topics in Communication and Multimedia (3)** An examination of various special topics in the area of Communication and Multimedia. Prerequisite: Permission of program coordinator or class instructor.

**CM 620 Theories of Organizational Communication (3)** Survey of historical and contemporary theories in organizational communication, including such topics as human motivation, persuasion, relational development, conflict, culture, leadership and networking.

**CM 630 Multimedia Applications Development (3)** Investigates interactive graphic elements to develop effective design interfaces for electronic media. Focus on interactive design solutions for electronic publications, interactive information and learning sequences, presentations, on-line services, and other graphic interfaces. Prerequisite: CM 560.

**CM 640 Collaborative Project Design (3)** Teams of three to five will be formed to identify and develop a multi-media project to include audio, video, graphic and literary content. Prerequisite: CM 550.

**CM 650 Advanced Project Research and Design (3)** Application of project development principles to conceptualize and design multimedia products. Market research strategies including audience analysis and identification of existing multimedia applications. Development of individual project design concepts and content materials for the capstone project. Prerequisites: CM 530, 540, 550, 560, 570, 620, 630, and 640.

**CM 690 Capstone Project (3)** Students will develop a solution to a multimedia problem. Capstone Projects will be juried during the course and completed under the guidance of the Program Coordinator and the Project Advisor. Students will regularly consult with both until the project is completed and presented. Prerequisite: 27 credits in Communication and Multimedia.

## Economics

**ECON 522 Foundations of Economics (2)** An accelerated introduction to microeconomic theories relevant to decision making. Topics include demand, supply, cost, production, market structure and profit maximizing. Prerequisite: Admission to a graduate program.

**ECON 536 Statistical Methods (2)** Application of statistical theory in decision making. Topics include descriptive statistics, hypothesis testing, regression and correlation analysis, decision theory, statistical quality control and analysis of time series data. Prerequisite: Admission to a graduate program.

**ECON 622 Microeconomic Analysis (3)** Analysis of the behavior of consumers and business firms. Topics covered: the theory of demand, production and supply; competitive and monopolistic markets; factor markets; general equilibrium and welfare economics; externality problems and public goods. Prerequisite: ECON 522.

**ECON 641 International Trade Policy (3)** A general course in the field of international economic relations with emphasis on the fundamentals of international trade policy. Key issues such as OPEC, the international debt crisis, the rise of the multinational corporation, economic development, and export-import trade restrictions will be analyzed with respect to policy implications in international trade. Prerequisite: ECON 522.

**ECON 650 Macroeconomics for Managerial Decisions (3)** A course in aggregate economic theory designed to enhance the understanding of the economy as a whole and its implication on managerial decision making. Topics include the components of fiscal and monetary policies, determination of national income, employment and price levels. Prerequisite: ECON 522 or the equivalent.

**ECON 654 Operations Research (3)** Building upon a basic understanding of the analytical process of abstracting business problems, constructing models of the problem situation and manipulating model variables for purposes of managerial decision making. This course covers a variety of management science techniques and problem areas such as advanced topics in linear programming, integer programming, dynamic programming, queuing and inventory theory and network analysis. Prerequisite: ECON 536.

**ECON 660 Money and Banking (3)** Impact of monetary variables on economy. Topics include demand for money and other assets; supply of money; interest rates; linkages between monetary and real variables; goals and history of monetary policy; alternative techniques and decision rules for the monetary authority; models of bank management and banking systems. Prerequisite: ECON 522.

**ECON 663 Business Forecasting (3)** Deals with the identification, analysis and appraisal of forces influencing the course of economic activity and the presentation and critical evaluation of a variety of forecasting and projection techniques. Students are given some opportunity to appraise different approaches to forecasting and to apply these techniques in the preparation of actual forecasts. In particular, the use of econometric models is discussed. Prerequisite: ECON 522 and ECON 536.

**ECON 665 Economic Development (3)** Obstacles to economic growth; theories of economic development; structural change and growth; capital formation; population problem; adaptation to new technology; financing and foreign aid; foreign trade; problems of less-developed countries; UNO and other international institutions; government and developmental planning. Prerequisite: ECON 522.

**ECON 675 Managerial Economics (3)** The application of economic theory to business decision making with emphasis on price theory. Topics include: determination of relevant cost for decisions, pricing, marginal analysis, capital budgeting problems, cost-benefit analysis and the use of statistical decision theory and game theory. Prerequisite: ECON 522 and ECON 536.

**ECON 680 Special Topics in Economics (1-3)** An examination of various special topics in the area of Economics. Prerequisite: ECON 522.

**ECON 699 Thesis (3)**

## Educational Leadership

**EDL 550 Leadership Theories and Practices (3)** An overview of selected theories of leadership. Implications of these theories and related practices to school organization and management are examined. Encompasses goal identification, line and staff concepts, constraints, change, systems of governing and leadership styles.

**EDL 551 Personnel Administration (3)** An overview of personnel administration as a means of working with human resources and keeping a focus on improving instruction. Encompasses recruitment, selection, assignment, induction/orientation, and evaluation of personnel with attention to their professional welfare and in-service improvement. Labor relations, negotiations, and the influence of legal mandates are also explored.

**EDL 552 Curriculum Development (3)** Deals with the social, philosophical, and psychological foundations of curricula. Relations between mission statements, objectives, teaching strategies, evaluation and execution

of plans are examined. Criteria for assessing curricula are developed and utilized in needs assessment. Meeting the special needs of exceptional and multicultural learners is emphasized. Sequence, continuity, and integration of K-12 curricula are emphasized.

**EDL 553 School Law (3)** Introduction to the basic principles of school law. Considers constitutional, statutory, and common law provisions affecting teachers, administrators, Boards of Education, parents and students. Implications of laws relating to students with special needs are discussed. Laws relating to multicultural education are also emphasized.

**EDL 554 Microcomputing for Administrators (3)** An introduction to the computer and to its application software, as well as employing conferencing and Internet activities to facilitate administrative communications. Particular attention paid to giving students technological experience within the framework of school administration. Students also will examine policy and the influence of technology on the goals of education.

**EDL 555 Educational Research and Program Evaluation (3)** Examines educational research and evaluation techniques. Focuses upon implications for collaborative efforts between researchers and evaluators as they strive to develop a cohesive educational assessment program. Issues relating to educational policy and strategic planning are investigated.

**EDL 600 Special Topics in Education (1-6)** Check current schedule for specific course titles.

**EDL 601 Directed Study in Education (1-5)** Student must submit a plan of study for approval before enrolling. Prerequisite: Permission of instructor.

**EDL 602 Middle School Curriculum (3)** An overview of the curriculum building process and the avenues through which learning takes place. Attention is given to ways of organizing curricular and co-curricular activities and the means for evaluating student performance. A study of growth characteristics and needs of young people in their prepubescent and early adolescent stages of development. Means of meeting the needs of students from multicultures and exceptional students are investigated.

**EDL 603 Secondary School Curriculum (3)** A study of factors influencing curriculum development, organization and content. Special attention is given to emerging patterns of secondary school curricula. A study of criteria for their evaluation and approaches for curricular changes are considered. The content of the curriculum in several subject fields and in core also is considered. Means of meeting the needs of students from multicultures and exceptional students are investigated.

**EDL 604 Collaborative Learning (3)** Useful for educational leaders who wish to develop better understandings of non-aversive, productive, and cooperative learning activities suitable for various contents and grade levels. Working from models, participants will develop prototype materials.

**EDL 605 Principles of Educational Supervision (3)** A study of the principles and methods of supervision and an analysis of the supervisory functions. Student will develop a concept of supervision that is compatible with his/her own personality and with the needs of learners, teachers and community at large.

**EDL 606 Community Schools (3)** A study of the characteristics of the community schools, ways of adapting and interpreting the educational program to community needs, coordinating community activities, and planning of community school programs.

**EDL 607 Issues in Transnational Education (3)** The role of education in the development of nations and in enhancing transnational understanding is examined. Exchange of views, data and scholars among nations may constitute some of the experiences in this class.

**EDL 608 Counseling Skills (3)** The application of effective psychological and counseling theory to the role of educational leadership. Students will examine and practice techniques used in counseling, psychology and sociology and will relate them to the achievement of the educational goals of schools. Means of counseling exceptional students and students from multicultural backgrounds are examined.

**EDL 609 Public School Finance (3)** An introduction to school finance with emphasis on current problems in school support, costs of education, sources of school revenue, state and federal support, state and local control in school finance and the legal basis of school finance.

**EDL 610 Policies and Politics of Education (3)** The importance of political processes in key policy decisions and their influences on organization and governance of systems of education are studied. Political issues in

education are examined at the local, regional, state and national levels. Legal, quasi-legal and internal and external forces are identified.

**EDL 611 Education Facilities Planning (3)** Planning, construction, modification/remodeling and maintenance of school building. Includes topics and techniques for developing a building project. Procedures and criteria for long-range planning, e.g. school surveys and community surveys are also included. Legal and financial problems are examined as they relate to capital outlay, design, materials and construction.

**EDL 622 Microcomputers in the Classroom (3)** A course that is designed for the teacher who has very limited computer experience. Students will be introduced to the Macintosh computer and to several applications that are useful to classroom teachers. Students also will have an opportunity to develop lessons that involve the application of a range of technological tools. Illustrations used in this class are directed at the classroom teacher.

**EDL 630 Demonstrations in Science (3)** The role of demonstrations in teaching secondary and elementary science as processes of inquiry. Students plan, exhibit and evaluate demonstrations that enhance problem solving and investigation in classrooms.

**EDL 640 Special Education Administration (3)** Application of administrative principles to special education curriculum and programming, including their evaluation, inservice delivery, personnel supervision and current trends and issues.

**EDL 641 Special Education Law (3)** In-depth study of federal and state legislation regarding special education. Trends and issues concerning the legal responsibilities of school districts and their affect on programming, staffing, and budgeting.

**EDL 642 Special Education Finance & Budgeting (3)** Study of the funding sources for special education, reporting requirements, budgeting, and monitoring.

**EDL 650 Administration of Elementary Schools (3)** The role of the principal as a professional leader in development and operation of the elementary school program. Procedures for planning and scheduling school activities, working with staff and student personnel, providing auxiliary services and developing morale.

**EDL 651 Administration of Middle Schools (3)** Concepts, principles and implementation of administrative policy and functions characteristic of the middle and junior high school. Social, economic and educational forces effecting changes of their programs and clarification of issues facing the administrator working with the various patterns of organization.

**EDL 652 Administration of Secondary Schools (3)** Administrative responsibilities of the secondary principal, procedures for planning programs, scheduling classes and other activities, working with staff and student personnel, providing auxiliary services, developing morale and other phases of the secondary program.

**EDL 653 Public Schools Superintendency (3)** A study of the origin and status of the superintendency. The practical day-to-day role of the superintendent in relation to school boards, central office staff, teachers, pupils, principals and community is examined. The most effective ways to understand, organize and manage the educational enterprise in order to achieve educational excellence are explored.

**EDL 654 Educator as Caretaker (3)** This course examines the literature regarding the character traits and operational strategies of the Transformational Leader. Students will identify approaches used by such a leader to promote growth in faculty, and cultivate the elements of a cohesive school community.

**Capstone Course: EDL 660 Administrative Field Experience (3)** Students will be assigned to work as interns in local school systems under the joint supervision of school administrators and SVSU faculty. Additionally, each student will participate in a seminar designed to relate field experience to academic education and to provide student with the opportunity to interact with other interns.

**EDL 664 Advanced Multimedia Applications for Educators (3)** This is an advanced computer applications and media production course. Students will produce instructional environments using a number of digital and traditional media, such as text, graphics, audio, video, animation and interaction. The focus of the course will be on the use of technology to create instructionally-sound materials, experiences and products.

**EDL 665 Network Systems and The Internet for Educators (3)** This course will research telecommunication systems used in education such as satellites, fiber optics, microwave and other possibilities. Students will explore telecommunication applications in education. Students will learn applications on network systems and design materials to effectively teach using the technology.

**EDL 666 Futures in Education (3)** This is a research-based course that will study technology trends. The course will provide students with skills to research, process, visualize and predict potential technological changes. Students will develop research papers, scenarios and projects to represent future trends.

**EDL 700 Special Topics in Education (1-6)** Check current schedule for specific course titles.

**EDL 701 Directed Study in Education (1-5)** This course number is designated to cover special action research and other directed studies. Student must submit a plan of study for approval by advisor before enrolling. Prerequisite: Permission of instructor.

**EDL 702 Foundations of Education and Leadership (3)** A study of prominent philosophers and educators whose ideas have contributed to the development of the American school system. Implications and applications of their ideas to curriculum development and professional practice are considered.

**EDL 703 Strategic Planning in School Administration (3)** Provides the identification and examination of elements necessary in both short- and long-term organizational plans. Students will examine literature and models related to planning, learn to use the tools of the planner, and develop a strategic plan for an organization. Prerequisite: EDL 702.

**EDL 704 Action Research Project (3)** The candidate will identify a significant research problem, conduct a study and report the findings.

**EDL 705 Crucial Issues in Education and Leadership (3)** Current significant issues in education will be the focus of this seminar. Students will conduct research, discuss, analyze, and apply findings. The role of leadership in enhancing culture, climate, and organization of schools will be addressed. Prerequisite: EDL 702 and 703.

**EDL 706 Personnel Administration and Development (3)** An overview of personnel administration as a means of working with human resources while keeping a focus on improving instruction. Encompasses recruitment, selection, assignment, hiring, orientation and evaluation of personnel, with attention to their professional welfare and in-service improvement. Labor relations, contract negotiations, and the influence of legal mandates also are explored. Prerequisite: EDL 702 and 703.

**EDL 710 Specialty Colloquium (3)** Student research teams will plan a series of weekend or evening seminars, meetings or leadership academies for in-depth study of pertinent issues of the specialty. In the colloquia, the students will conduct research, present findings and publish them in formal proceedings. Prerequisite: EDL 702, 703, 704, 705 and 706.

**EDL 720 Internship in Administering Specialty Area (3)** During a year-long field experience, participants will be paired with practicing administrators as mentors. Field experiences might include shadowing, reflective interviewing, conducting meetings, creative problem solving, assessing programs and teachers, and developing schedules. Prerequisite: The first-year requirements.

## English

**ENGL 501 Approaches to the Teaching of Language and Literature (3)** An analysis of the issues involved in the classroom teaching of English at the secondary level; new methods and techniques will be examined.

**ENGL 511 Seminar in American Literature (3)** An intensive study of some aspect of American literature, such as an author, ethnic group, genre, movement or theme. Specific topic to be announced by the instructor each time. Emphasis in course requirements will be on the student's individual needs.

**ENGL 521 Seminar in British Literature (3)** An intensive study of one or more British writers or of one theme or form of critical interest in English literature.

**ENGL 531 Grammar and Composition (3)** A study of English grammar, of the nature of the English vocabulary and of the art of composition.

**ENGL 535 The Writing Process (3)** An examination of contemporary theories and research on the writing process, such as the work of James Britton, Janet Emig and James Moffett. The course will focus upon the relationships between writing and learning. Students will explore prewriting strategies as well as those for writing and revision and examine the ways in which audience affects writing.

**ENGL 536 Writing Workshop (1-4)** Based on the belief that teachers of English should be writers themselves, this course will allow participants to practice and develop their own writing through a workshop approach.

**ENGL 540 Literary Criticism (3)** A study of the development of critical approaches to literature; emphasis will be placed on specific critics and on principles of criticism.

**ENGL 551 Seminar in Special Topics (1-3)** A seminar in special topics. The instructor will announce the topic and determine the prerequisites.

**ENGL 591 Directed Study (1-3)** Intensive study of a subject in English or the teaching of English. Prerequisite: Permission of instructor.

## Finance

**FIN 504 Principles of Finance (2)** Basic corporate financial issues of analysis of financial statements, time value of money, forecasting, securities valuation, capital budgeting, analysis of risk and return are examined. Prerequisite: Admission to a graduate program.

**FIN 602 Accounting and Finance for Technical Managers (3)** This course will provide the technical manager with a working knowledge of the accounting and financial functions of the corporation. Managers use financial information for decision making, control, performance reporting and strategic planning. Topics studied include interpretation of cost systems, forecasting, budgeting, interpretation of financial statements and capital expenditure analysis. (Cross-listed with ACCT 602.) (Must be admitted to the MSTP Program.)

**FIN 604 Managerial Finance (3)** Topics included in the foundations of finance, plus capital structure and other relevant topics are studied using cases and problem solving techniques. Prerequisite: FIN 504.

**FIN 605 Investments (3)** Security analysis and an introduction to portfolio management. Advanced readings from professional journals in finance relative to current theory will supplement applied analysis techniques learned. Prerequisite: FIN 604.

**FIN 606 Capital Markets and Institutions (3)** Bank as well as non-bank financial intermediaries will be studied to reveal their impact on the U.S. economy. Forces imposing changes on institutional structure will also be discussed. Prerequisite: FIN 604.

**FIN 607 International Finance (3)** The development of international financial markets and corporations will be covered. Emphasis will be on uniquely foreign variables and their impact on institutions operating in the international environment. Prerequisite: FIN 604.

**FIN 610 Corporate Financial Planning (3)** This course deals with the description and analysis of statistical procedures useful in corporate financial planning. The focus is on regression and time series analysis. The emphasis is on application of techniques to applied planning problems. Prerequisite: FIN 604.

**FIN 680 Special Topics in Finance (1-3)** An examination of various special topics in the area of finance. Prerequisite: FIN 604.

**FIN 698 Research Techniques (3)** Techniques and methods of theory construction and testing in business and management including research designs, techniques of measurement and the analysis of research data. Prerequisite: All M.B.A. foundation courses.

**FIN 699 Thesis (3)** Prerequisite: FIN 698.

## Law

**LAW 508 Legal Environment of Business (2)** Introduction to the legal environment of business through study of the nature and functions of public and private United States law. Topics will be interrelated with current legal issues. Prerequisite: Admission to a graduate program.

**LAW 608 International Legal Environment (3)** Analysis of public and private law in the transactions of business within the international environment. Special emphasis upon current law and ethical issues. Combined text and case study approach. Prerequisite: LAW 508.

**LAW 609 Labor Law and Collective Bargaining (3)** Study and practice of labor law with analysis of legal factors affecting negotiations, interpretation and administration of collective bargaining agreements between management and labor. Prerequisite: LAW 508.

**LAW 680 Special Topics in Law (1-3)** An examination of various special topics in the area of law. Prerequisite: LAW 608.

## Leadership and Public Administration

**MLPA 510 Administration Seminar (3)** An exploration of significant issues in the theory and practice of administration with primary, but not exclusive, focus on public, governmental and non-profit organizations. A portion of the seminar will be devoted to issues of fiscal management. In addition, special stress will be placed on the inherent tension between administrative roles and authority and leadership processes.

**MLPA 520 Elements of Communication Effectiveness (3)** Communication dynamics in organizational and professional contexts, including interpersonal, small group, and public address. Based on contemporary human communication theory. Interpersonal communication will examine theories of relational development and conflict management. Small group communication will examine decision making processes, role theory, and climate management. Public address will examine the theoretical foundations for developing effective oral communication.

**MLPA 540 Gender, Race and the Organization (3)** Analyzes gender and race relations in organizations, the affect of public policy, and how gender and race influence the selection and performance of individuals for and in leadership roles. Topics include the relation of women, men, and races to the state, the politics of affirmative action, and issues of workplace sexual harassment. Case studies highlight problems of non-traditional leadership.

**MLPA 560 Conflict Management (3)** An examination of the management of conflict in private and public sector groups and organizations, including mediation, arbitration, administrative hearings, collective bargaining, adjudication, among others. This course does not offer qualification for professional practice as a mediator or arbitrator, but students willing to undertake additional training may qualify as volunteer mediators certified under Michigan standards.

**MLPA 580 Public Human Resources Management (3)** This course deals in the design and application of motivational, educational, and training strategies within organizations. Organizational performance is approached through the problems of human performance in the organizational setting. Stress will be placed on roles and role interaction, program planning and execution as issues of leadership and human performance coordination at all levels of the organization.

**MLPA 610 Professional Ethics (3)** An examination of personal and professional ethics and issues as they arise in the context of public and private sector agencies and organizations. Students will develop a broad understanding of ethical theory, but particular stress will be placed on applications to problems which arise in the practice of administration, and on ethical problem-solving where competing interests are involved.

**MLPA 620 Materials and Methods (3)** Analytical thinking, non-quantitative research methods, and the preparation of written materials. Development of a focus of interest for the required Practicums, culminating in the Capstone Project. Students must demonstrate the skills to successfully complete the Capstone Project.

**MLPA 625 Research Methods (3)** Qualitative and quantitative methods. Qualitative methods include interviewing, field research, and designing focus groups. Quantitative methods emphasize the application of statistical and mathematical methods to administrative and policy issues.

**MLPA 630 The Organizational Budgeting Process (3)** An overview of financial management for public sector and non-profit agencies, focusing on the budgeting process as an instrument of organizational policies and practices. Budget formulation, basic accounting, public reporting/disclosure obligations, overviews of relevant computer information systems, debt and risk management, auditing processes, and leadership strategies for the financial dimension of program development are covered.

**MLPA 640 Leadership Seminar (3)** An exploration of leadership in theory and practice with emphasis on the socio-political nature and significance of leadership in the development and direction of groups and organizations. Special consideration will be given to the role of leaders and leadership in conflict management within and among organizations.

**MLPA 650 Capstone Project Directed Study (3)** The faculty advisor serves as the instructor in this project. Students may only enroll in this course after they have successfully completed all core courses up to and including MLPA 625 (a total of 24 credits: MLPA 510 – 625). MLPA 650, however, should ideally be the last course in which the student in the Capstone Track enrolls. Towards the end of the semester, the student shall make an oral presentation, and will be asked formal questions about the substance of the capstone project.

**MLPA 660 Administrative Law for Criminal Justice Organizations (3)** This course covers the enactment, implementation and interpretation of administrative rules/regulations within criminal justice bureaucracies. Doctrine of delegation of authority, decisional discretion, agency internal investigations and hearings, issues of external judicial review, open information issues, and government liability are examined in the context of managerial leadership.

**MLPA 665 Human Services Administration (3)** This course is designed to provide students with preparation in a variety of administrative styles in human services organizations. There is an emphasis on participatory leadership models. Students will be expected to identify interpersonal characteristics conducive to constructive administrative styles as well as those behaviors and values which are detrimental to effective leadership. Diversity issues are examined as they pertain to both internal and external processes, which includes inter-organizational dimensions.

**MLPA 670 Criminal Justice Management (3)** This course explores the relationship of research (including grant writing) and program development in criminal justice agencies. There is a focus on both initial needs assessment and de facto program evaluation. Students shall be required to conduct applied evaluation research on an existing program within a criminal justice agency in the community. Also covered is the topic of planned change and innovation from both practical and political perspectives.

**MLPA 675 Program Development for Human Services Organizations (3)** Covers the development of efficient and effective service delivery mechanisms in complex human services settings. Students will learn needs assessment and outcome evaluation research designs pursuant to social science methodologies. Planning, personnel training, staffing, and management supervision will be addressed in the context of program development. Models of client-centered evaluation and diversity-based planning are also covered.

## Management

**MGT 501 Leading and Managing the Technical Organization (3)** This course will prepare the student to successfully assume leadership responsibilities in the management of a technical organization. Topics include basic administrative functions, strategic business decision making in a technical unit, staffing and retention of quality technical personnel, creating and maintaining high performance work teams, developing influence networks to accomplish organizational goals and leadership of a professional workforce. (Must be admitted to the M.S.T.P. Program.)

**MGT 521 Organization and Administration (2)** Analysis of the principles and practices which underlie effective management of organizations. Identification of managerial roles and functions that contribute to organizational performance. Topics covered include decision-making, planning, ethics, social responsibility, work and team design, motivation and leadership. Prerequisite: Admission to a graduate program.

**MGT 524 Foundations of Operations Management (2)** The purpose of this class is to introduce the issues and techniques relevant to the management of operations, emphasizing the basic conceptual and analytical skills that are required of managers confronting operational managers in highly competitive global markets. Prerequisite: Admission to a graduate program.

**MGT 601 Social Responsibility and Ethics in Business (2)** An examination of social, ethical, ecological and technological issues that affect business activity and the effect of business decisions on society. Emphasis is on understanding how business organizations can respond responsibly and ethically to social forces. Prerequisite: Admission to M.B.A. Program.

**MGT 613 Management of Workforce Diversity in Business (3)** Assessment of the issues and challenges managers face as a result of increasing diversity within the U.S. workforce. Students will identify and review current and emerging materials and examples of business diversi-

ty issues and practices and will develop and assess responses to these issues. Students will assess personal and organizational attitudes and reactions to diversity in the workforce. Prerequisite: MGT 521 or permission of instructor.

**MGT 620 Quantitative Analysis for Decision Making (3)** The application of quantitative methods to managerial decision making with emphasis upon problem formulation, the analysis of the effects of changes in parameters and other aspects of model interpretation. The application of technique is emphasized. Prerequisite: Admission to M.B.A. Program.

**MGT 621 Organizational Behavior and Leadership (3)** An analysis of human behavior in organizational settings that impacts performance and an examination of the role of leadership in achieving organizational effectiveness. Topics include motivation, team management, communication, conflict management, influence processes, culture, diversity and organizational change. Emphasis is on developing an in-depth understanding of the intricate forces at work in organizations so that effective managerial action can be taken. Prerequisite: MGT 521 or MGT 501 (for M.S.T.P. students).

**MGT 623 Managing Human Resources (3)** The major human resource activities in contemporary organizations are covered, focusing on their skillful use of HR management by both line managers and the human resource department to achieve organizational success. Topics include: strategic human resource management and planning, staffing, training and development, performance appraisal, compensation, union-management relations, and the impact of government legislation on HR practices. Prerequisite: MGT 621.

**MGT 624 Operations Management (3)** The study of the systematic direction and control of the processes that transform inputs into finished goods and services. Management of the operations function and its role within the total organization is the focus of this course. Prerequisite: ECON 536.

**MGT 625 Management Thought and Organizational Theory (3)** Various approaches to the study of management and the analysis of complex organizations are examined, including traditional management theorists as well as the later contributions of sociologists, psychologists and other organizational theorists. Prerequisite: MGT 621.

**MGT 626 Leadership (3)** The impact of leadership on the behavior of people, productivity and organizational effectiveness. A variety of leadership theories, models and measures are critically evaluated and research findings are examined. Prerequisite: MGT 621.

**MGT 627 Organizational Development (3)** An analysis of theory and research relating to planned change within complex organizations. Emphasis is placed on developing practical ways of identifying organizational problems (diagnosis) and on learning and practicing a useful method or organizational consultation. Prerequisite: MGT 621.

**MGT 628 Management Information Systems (3)** Systems concept and the analysis and design of information systems for managerial decision making. Topics include the manager's role in system design, the problem of relating organizational objectives to system design, informative-decision analysis, the importance of system planning and behavioral implications of management information systems. Prerequisite: All M.B.A. foundation courses.

**MGT 629 International Management (3)** A study of the opportunities and complexities involved in the management of international business operations, with special attention given to evaluation of international environments, choice of appropriate organizational structures, and awareness of current issues in international management. Prerequisite: MGT 521 or MGT 501 (for M.S.T.P. students).

**MGT 680 Special Topics in Management (1-3)** An examination of various special topics in the area of management. Prerequisite: MGT 621.

**MGT 698 Research Techniques (3)** Techniques and methods of theory construction and testing in business and management including research designs, techniques of measurement and the analysis of research data. Prerequisite: All M.B.A. foundation courses.

**MGT 699 Thesis (3)** Prerequisite: MGT 698.

## Marketing

**MKT 531 Foundations of Marketing (2)** Provides an accelerated and condensed foundation in marketing concepts and methods. This course

will emphasize the functional micro roles of marketing for the firm, the institutions of marketing within the business system and the macro roles of marketing within both economic and social systems. Prerequisite: Admission to a graduate program.

**MKT 631 Integrated Marketing Management (3)** Applied and integrated use of marketing concepts and methods for business decision making and management. This course also will emphasize the necessary applied integration of other core business functions, such as finance, economics and accounting, into the process of effective marketing and business administration. Prerequisite: MKT 531.

**MKT 633 Global Business-to-Business Marketing (2)** A global perspective for the marketing of products and services to commercial enterprises, governments and other not-for-profit institutions for use in the products and services that these organizations, in turn, produce for others. This course will focus upon the complexity of business-to-business marketing situations in a global context, and relevant alternative tactics and strategies for business marketing and purchasing. Prerequisite: MKT 531 or the equivalent.

**MKT 635 Research for Marketing Management (3)** The analysis of marketing information requirements and the technical issues relevant to data collections methods and the types of analytical procedures used to convert raw data to usable information. Prerequisite: MKT 631 and ECON 536.

**MKT 636 Multinational Marketing (3)** Introduces a systematic treatment of marketing on a global basis. Examines strategies and organization for international business. Considers the impact of social, cultural, political, and economic variables in studying marketing operations in foreign environments. Prerequisite: MKT 631.

**MKT 680 Special Topics in Marketing (1-3)** An examination of various special topics in the area of marketing. Prerequisite: MKT 631.

**MKT 699 Thesis (3)** Prerequisite: MKT 635.

## Master of Science/Technological Processes

**MSTP 502 Safety, Regulatory Issues and Ethics (3)** A study of the responsibility of individuals and companies to provide a safe workplace for employees, and to be aware of societal concerns for product safety, environmental impacts, and professional ethical conduct. Governmental regulatory programs in the area of safety and environmental issues will be examined. The nature of professionalism, codes of ethics, and case studies in ethics will be discussed.

**MSTP 503 Information Technology and Management (3)** Introduction to information storage, retrieval and management. Discussion and studies of computer hardware, software and applications as related to information technology; distributed database applications for information technology and management. Group project.

**MSTP 504 Design of Experiments (3)** Statistics as they relate to experiments, terminology and the experiment design development process. Experiments as aids to optimization, trouble-shooting and reducing lead times in process and product development; bench marking. Several experiment designs will be completed as class projects.

**MSTP 511 Manufacturing Methods (3)** An overview of modern production systems and computer integrated manufacturing. Topics include automation, numerical control, robotics, and programmable logic controllers. Introduction to quality control and inspection systems, statistical process control and Taguchi methods. Manufacturing systems, including cells, group technology, and flexible manufacturing systems. Manufacturing support systems, including process and production planning, lean production and agile manufacturing concepts. (3-0)

**MSTP 512 Manufacturing Materials (3)** Selection of manufacturing materials by analysis of the physical, mechanical and chemical properties. Study of the modification of mechanical properties. Cost analysis studies of raw materials and finished products.

**MSTP 513 Product Design and Development (3)** Development processes and organizations, product planning, identifying customer needs and developing product specifications. Concept generation and selection, testing. Product architecture and industrial design, design for manufacturing, assembly and recycle. Prototyping, economic analysis, and project management. (3-0)

### **MSTP 521 Scientific and Engineering Systems and Modeling (3)**

Introduction to modeling of scientific processes and engineering systems with emphasis on computer applications; use of continuous and discrete mathematical techniques for modeling. Small group computer simulation projects to verify mathematical models with examples drawn from scientific and engineering applications.

**MSTP 522 Industrial Ecology (3)** Study of industry with a special emphasis on the ecology of the work environment. Topics include a historical perspective of workplace environments, global and local environmental concerns, risk assessment, regulatory agencies, minimizing pollution, and business economics. Emphasis is on successful methods to bridge industrial and governmental concerns.

**MSTP 523 Quality Methods in the Technical Organization (3)** Course will survey organizational structure for quality, product and process design to support quality, vendor and customer relations; supporting quality in production, inspection and testing; and the various methods of statistical quality control.

**MSTP 531 Special Topics in Science and Engineering (3)** Course topics are custom designed to meet student needs and faculty interests. Courses are delivered in a small group or independent study format. Topics will be selected to extend experiences developed in the core and track studies or to interface with on-going research projects.

**MSTP 541 Research in Science and Engineering (3)** Students will join research teams in areas of basic and applied science and engineering. This course is designed as a lead-in to MSTP 551.

**MSTP 551 Project (3)** Topics will be determined jointly by the faculty advisor and an industry representative. Approval of the project proposal must be granted by the Graduate Committee, College of Science, Engineering and Technology before registration in this course.

**MSTP 596 Field Experience (3)** Students will be assigned, after mutual agreement and definition of tasks, to a technical position in a private company or public agency. A co-op position arranged through the SVSU Placement Office is the preferred format. A student will be assigned to a faculty advisor who will be available for consultation and guidance and who will visit the work site at least once each semester. A written paper or report will be required. Students already employed are not eligible to enroll in this course. (May enroll twice but only one enrollment will apply to the program.)

## **Mathematical Sciences**

**MATH 505 Statistics for Elementary Teachers (3)** Introductory statistical methodology. Graphical representation of data, probability distributions, hypothesis testing, regression and correlation and analysis of variance. Prerequisite: two years of high school algebra or equivalent.

**MATH 510 Problem Solving for Teachers, K-8 (3)** This course develops logic of mathematical thought together with specific mathematical concepts in the context of problem solving. The course emphasizes progression from concrete to abstract thinking. The student applies this knowledge to devise problem solving criteria for a specific grade level.

**MATH 515 Discrete Mathematics and Applications (3)** A survey of topics including sets, logic, probability, graph theory, as well as the integration of these topics in the secondary curriculum. Prerequisite: A mathematics minor including two semesters of calculus.

**MATH 525 Mathematical Problem Solving (3)** A survey of problem solving techniques for secondary teachers. The course utilizes problems from antiquity to the present to illustrate various problem-solving approaches and to give a sense of the development of mathematics. Some examples of a recreational nature, but with solid mathematical basis, are used. Prerequisite: A mathematics minor including two semesters of calculus.

**MATH 590 Special Topics (1-4)** Topics of special or current interest to students are offered periodically. The course content and number of credits must be submitted to the Department of Mathematical Sciences for approval before the students may enroll. Appropriate prerequisites will vary with the nature of course offering and will be determined by the department.

## **Natural Science**

**NS 600 Life Science (1-5)** Courses selected by teachers (in consultation with their advisor, and aligned with their approved program) to increase their content knowledge and skills in Biology. Teachers are required to develop three thematic teaching units based on course content for application to the K-12 classroom, and/or conduct a research project or paper, as determined by the instructor in the department. The course content will be specified on the transcript, e.g., Life Science (Botany), Life Science (Cell Biology), etc. Prerequisite: permission of instructor.\*

**NS 610 Chemical Science (1-5)** Courses selected by teachers (in consultation with their advisor, and aligned with their approved program) to increase their content knowledge and skills in Chemistry. Teachers are required to develop three thematic teaching units based on course content for application to the K-12 classroom, and/or conduct a research project or paper, as determined by the instructor in the department. The course content will be specified on the transcript, e.g., Chemical Science (Inorganic Chemistry), Chemical Science (Biochemistry), etc. Prerequisite: permission of instructor.\*

**NS 620 Physical Science (1-5)** Courses selected by teachers (in consultation with their advisor, and aligned with their approved program) to increase their content knowledge and skills in Physics. Teachers are required to develop three thematic teaching units based on course content for application to the K-12 classroom, and/or conduct a research project or paper, as determined by the instructor in the department. The course content will be specified on the transcript, e.g., Physical Science (Physics), Physical Science (Optics), etc. Prerequisite: permission of instructor.\*

**NS 630 Earth Science (1-5)** Courses selected by teachers (in consultation with their advisor, and aligned with their approved program) to increase their content knowledge and skills in Earth Science. Teachers are required to develop three thematic teaching units based on course content for application to the K-12 classroom, and/or conduct a research project or paper, as determined by the instructor in the department. The course content will be specified on the transcript, e.g., Earth Science (Astronomy), Earth Science (Geology), etc. Prerequisite: permission of instructor.\*

**NS 640 Mathematical Sciences (1-5)** Courses selected by teachers (in consultation with their advisor, and aligned with their approved program) to increase their content knowledge and skills in Mathematics. Teachers are required to develop three thematic teaching units based on course content for application to the K-12 classroom, and/or conduct a research project or paper, as determined by the instructor in the department. The course content will be specified on the transcript, e.g., Mathematics (Algebra), Mathematics (Discrete Mathematics), etc. Prerequisite: permission of instructor.\*

**NS 650 Computer Science (1-5)** Courses selected by teachers (in consultation with their advisor, and aligned with their approved program) to increase their content knowledge and skills in Computer Science. Teachers are required to develop three thematic teaching units based on course content for application to the K-12 classroom, and/or conduct a research project or paper, as determined by the instructor in the department. The course content will be specified on the transcript, e.g., Computer Science (Programming), Computer Science (Computer Graphics), etc. Prerequisite: permission of instructor.\*

**NS 660 Engineering Science (1-5)** Courses selected by teachers (in consultation with their advisor, and aligned with their approved program) to increase their content knowledge and skills in Engineering Science. Teachers are required to develop three thematic teaching units based on course content for application to the K-12 classroom, and/or conduct a research project or paper, as determined by the instructor in the department. The course content will be specified on the transcript, e.g., Engineering Science (Engineering Materials Laboratory), Engineering Science (Circuits), etc. Prerequisite: permission of instructor.\*

\* NOTE: Cannot receive credit for courses previously taken at the undergraduate level.

**NS 670 Special Topics (1-5)** Courses and workshops designed to meet the special needs of K-12 teachers would receive credit under this number, e.g., workshops approved by the College of Education for graduate credit. The transcript would specify the specific content, e.g., Special Topics (K-4 Mathematics), etc.

**NS 680 Science Research for K-12 Teachers (3)** A course designed for K-12 teachers to teach research design in science with study of measurement and analysis of data. Includes how teachers may conduct basic research in a K-12 classroom (i.e., Saginaw River Project). Prerequisite: permission of instructor.

**NS 685 Research in Mathematics Teaching for K-12 Teachers (3)** A course designed for K-12 teachers to teach research design in mathematics with study of measurement and analysis of data. Includes how teachers may conduct basic research in a K-12 classroom. Prerequisite: permission of instructor.

**NS 690 Graduate Seminar: Mathematics, Science, and Technology in Society (3)** Interdisciplinary seminar on the interaction of mathematics, science, and technology in society. Prerequisite: permission of instructor.

## Nursing

**NURS 630 Theory and Conceptual Models in Nursing (3)** Study of theoretical foundations of nursing. Emphasis is on evaluation and utilization of concepts and theories as the basis for advanced nursing practice. Prerequisite: Admission to graduate program.

**NURS 634 Knowledge Development for Advanced Nursing Practice (3)** Examination of knowledge development in nursing. Health phenomena are explored across disciplines with emphasis on unique nursing perspective. Prerequisite: Admission to graduate program.

**NURS 640 Organizational Relationships in Health Care (3)** Study of nursing and health care at the systems level. Emphasis is on relationships within and among organizations over time and nursing's influence in those relationships. Prerequisite: Admission to graduate program.

**NURS 646 Leadership and Role Development in Nursing (3)** Examination of leadership as a concept and professional expectation. The relationship of leadership to advanced nursing practice roles within systems is emphasized. Prerequisite: Admission to graduate program.

**NURS 648 Research in Advanced Nursing Practice (3)** Study of research design and data analysis appropriate to the investigation of nursing phenomena. Research projects provide opportunities for intervention in advanced nursing practice. Prerequisite: Four previous core courses.

**NURS 660 Nursing in Partnership with Community and Health Systems (3)** Examination of the relationships among systems in health care and communities for advanced nursing practice. Emphasis is on informational transfer to promote the development of partnerships that recognize the lived experience of health in population/communities. Prerequisite: Five core courses and one cognate course.

**NURS 661 Health Systems Transformation (3)** Study of the processes involved in transforming systems for health care outcomes. Emphasis is on nursing's unique perspective and contribution, using management, education, and informatics knowledge. Prerequisite: Five core courses, NURS 660, and two cognate courses.

**NURS 663 Field Experience in Health Systems Transformation (3)** Application of transformational processes in advanced nursing practice in health systems and communities. Synthesis of learning achieved through experiences begun in previous courses is emphasized. Prerequisite: Five core courses, NURS 660, NURS 661, and three cognate courses.

**NURS 671 Community Oriented Family Care I (3)** Phenomena such as protection, maturation, nourishment, and procreation are studied within the frameworks of family and community. Emphasis is on advanced assessment of clients across the lifespan as the foundation for intervention to promote health and prevent disease. Prerequisite: Completion of nursing core courses or permission of instructor, and AH 610 or taken concurrently.

**NURS 672 Community Oriented Family Care II (3)** Phenomena that reflect health concerns for clients across the lifespan, such as pain, chronicity, trauma, and healing, are studied within the frameworks of family and community. Emphasis is an advanced assessment and clinical judgement for intervention related to health maintenance and restoration. Prerequisite: NURS 671 and AH 612 taken concurrently.

**NURS 673 Community Oriented Family Care III (3)** Phenomena that reflect health concerns of aggregates related to the family and community are examined. Emphasis is on intervention to promote health, prevent disease, and maintain and restore health with clients across the lifespan. Prerequisite: NURS 672.

**NURS 674 Advanced Nursing Practice (2-12)** Synthesis or theory, research, and practice in the domains of competence with individuals, families, and/or communities. An empowering perspective with clients across the lifespan is emphasized. Prerequisite: Concurrent with or following NURS 671, NURS 672, and NURS 673 (minimum of two, maximum of a third of the total credits required each time) or following NURS 673 (total credits required).

**NURS 680 Special Topics in Nursing (1-3)** An examination of special topics in the area of nursing.

**NURS 689 Transforming Nursing and Health Systems Through Research: Field Study (4)** Study of a nursing phenomenon applying research techniques under faculty direction. Prerequisite: NURS 648 and candidacy status.

**NURS 699 Transforming Nursing and Health Systems Through Research: Thesis (4)** Individual study of a nursing phenomenon utilizing research methods under faculty direction. Prerequisite: NURS 648 and candidacy status.

## Philosophy

**PHIL 531 Justice, Law, and Punishment (3)** A survey and critical discussion of theories of justice, law and punishment, including the theories of the legal realists, the utilitarians, the idealists, and the positivists, with special attention given to the topics of imprisonment and the death penalty. Ethical issues which arise in the practice of criminal justice will also be addressed.

## Physics

**PHYS 502 Developments in Modern Physics (3)** Recent developments and latest discoveries in modern physics specially designed for physics teaching majors. (3-0). Prerequisite: PHYS 309.

**PHYS 510 Selected Topics in Physics (3)** Topics selected to enhance the background of Physics teachers; offered on demand. Credit allowed for the particular course offered will be set by the department. Appropriate prerequisites will vary with the nature of the course and will be determined by the department. This course may be taken more than once.

**PHYS 541 Physics for Elementary and Secondary School Teachers (1-3)** Selected topics in classroom demonstrations, laboratory exercises and recent developments in physics. Not applicable to the M.A.T. academic major with a concentration in physics.

**PHYS 550 Experimental Physics (3)** Provides practical experience in laboratory preparation, presentation and evaluation. The development of new experiments will be encouraged.

**PHYS 551 Advanced Selected Topics (1-4)** Course content will vary to reflect the instructor's current interest. Prerequisite: Permission of instructor.

**PHYS 570 Research in Physics (2-5)** Students will work directly with a faculty member on an original research project.

**PHYS 590 Graduate Seminar: Science in Society (3)** Interdisciplinary seminar on the interaction of science, technology and society. (This course is required of all students in this program.)

## Sociology

**SOC 555 Special Topics in Sociology (1-4)** Advanced in-depth study of special areas within the field of sociology and/or the application of sociological perspectives to other areas and disciplines. Special topics will be chosen on the basis of their timely or topical nature. Prerequisite: Graduate status and permission of instructor.

**SOC 650 Cross-Cultural Relations (3)** Study of selected aspects of world politics, cultures, and subcultures. Analysis and exploration of cultural differences and their effects upon interpersonal and organizational communication and interaction. Especially useful for international business students and for those dealing with various subcultures within one society. (Cross-listed with PS 650).

## Teacher Education

**TE 501 The Teaching Relationship (3)** Thoughts and techniques from existential, humanistic and reality theories will be discussed and prac-

ticed. Special attention will be given to the use of these theories to upgrade the teacher-student interaction.

**TE 504 Foundations of Teacher Education (3)** This course provides practicing teachers with an in-depth analysis of the Western traditions underlying the American system of public and private education. The influence of major thinkers and theories will be thoroughly examined. Participants will demonstrate their ability to apply course concepts to current issues and problems impacting teacher education.

**TE 505 Educational Learning Theory (3)** An overview of the major theories and principles of human learning. Implications of these theories and principles to curriculum planning, teaching and learning strategies and the design of the learning environment are emphasized.

**TE 506 Introduction to Educational Research (3)** Designed to introduce the process of conducting educational research. Through various exercises and by participating in the designing of a researchable study, the kinds of operations that researchers perform are actively explored. Topics include methods of research, major educational resources, data collection, essentials of research design and its application and the processing and analysis of research data.

**TE 508 Special Methods in Content Areas (3)** An advanced course in the methodology of various academic disciplines. The specific content area will be indicated in the course title as included in the class schedule and will change from semester to semester. The course will concentrate on the relationship between the ways in which knowledge is generated and organized in a subject and the appropriate methodology for teaching the subject.

**TE 509 Special Topics in Teacher Education (1-6)** Check current Course Schedule for specific course titles.

**TE 510 Methods in Elementary Instruction for Readers and Writers (3)** This course surveys the components of a developmental reading and writing program with some attention paid to content area instruction. Current practices and problems also are addressed as well as informal assessment techniques and materials.

**TE 511 Advanced Study in Children's Literature (3)** For experienced teachers. Discussion and evaluation of current research related to children's literature and juvenile books. An in-depth study in one area is required.

**TE 512 Methods in Secondary Reading Instruction (3)** The nature and organization of the junior and senior high school reading program will be explored. Emphasis will be placed on planning, organizing and providing developmental and corrective reading experiences.

**TE 513 Literacy Development from a Holistic Perspective (3)** This course emphasizes the understanding of the social, psychological, physical and sociopsycholinguistic processes that affect the reading and writing development of students. An understanding of these factors gives students opportunities to plan effective lessons that integrate learning in meaningful contexts as well as to reach successfully these hard-to-teach learners.

**TE 516 Classroom Management Techniques for Effective Instruction (3)** An analysis of room arrangement, grouping for instruction and special whole and small group discussion techniques will be emphasized. Application of various management theories also will be discussed in relation to all curriculum subjects.

**TE 518 Teaching Language Arts in Elementary School (3)** An overview of language acquisition including writing, speaking, listening, spelling and handwriting. The influence that human growth and development have on these communication skills will also be explored.

**TE 519 Meeting Individual Needs in Literacy Instruction (3)** This course is primarily designed to focus on the methods of individualizing instruction to meet the diverse needs of readers and writers within the social context of the classroom. Students will have opportunities to reflect upon the current research and theories regarding effective literacy instruction. Utilizing this knowledge, they then will make decisions which will allow them to develop plans, materials, and activities that will best fit the interactive needs of their students and themselves.

**TE 520 Reading in the Content Areas (3)** Understanding the reading process as it applies to learning subject matter in elementary, middle school, and secondary classes. Current research and theories are examined and applied within the context of content literacy. Specific strategies

are developed in the areas of comprehension, vocabulary, listening, thinking, and study skills.

**TE 521 Teaching Writing in the Content Areas (3)** This course reflects current theory and research for teaching writing in all subject matter areas. Using a theory-into-practice approach, the course is designed to provide students with opportunities for appropriate classroom applications.

**TE 522 Teaching Young Adult Literature (3)** This course provides the critical reading of literature written for and about young adults. The course focuses upon both contemporary and traditional works that are used in the upper elementary, middle school and high schools.

**TE 523 An Overview in Adult Literacy (3)** Provides the basis for understanding fundamental aspects of adult literacy. Historical, philosophical, social and political facets are among those treated, particularly as they relate to adult literacy program development. Selected issues of current significance are presented in light of both theory and past practice. Must be taken prior to TE 525, Supervised Instruction in Adult Literacy.

**TE 524 Methods and Instruction in Adult Literacy (3)** Focuses on the adult learner and approaches to literacy instruction. Students will learn methods and techniques of instruction; the locating, developing and evaluating of assessment tools and instructional component. Students will observe and evaluate instruction and, when feasible, will provide instructional support or individual tutoring. Must be taken prior to TE 525, Supervised Instruction in Adult Literacy.

**TE 525 Supervised Instruction in Adult Literacy (3)** Involves instruction in individual tutorial and group settings. Students are responsible for assessment and primary instruction. Site selection and minimum instructional time involvement in a given setting will be determined in consultation with the student teacher supervisor. Participation in certain programs may require additional training. Each student teacher is required to meet with the teacher supervisor on a regular basis, as well as to keep a journal of his or her education experiences. Prerequisite: TE 523 and 524.

**TE 526 Teaching Reading with Child Literature (3)** Designed to develop a literature based, whole language reading program K-8. Students will study various issues regarding such an approach used to teach reading. Students will develop a unit of materials that can be used in their classrooms.

**TE 527 Storytelling in the Reading Program (3)** Focus is on how to tell stories, how to select stories for telling, how to evaluate stories and how to evaluate a storyteller's performance. Students will practice their storytelling in field experiences. Also focused on how storytelling can be used to teach and promote reading.

**TE 528 Historical Fiction/Biography/Non-Fiction (3)** This course focuses on the tenets of Social Studies Education in relation to the exploration of historical fiction/biography/non-fiction. Specific study of literature units and literary responses as they relate to classroom practices in the field of Social Studies will be the major emphasis. Current research and literature will be examined.

**TE 529 New Directions in Mathematics (3)** Teachers examine the relationships between appropriate methods for teaching mathematics and the ways in which mathematical knowledge is generated and organized. An emphasis will be placed on current research in mathematics education with attention to national and state standards related to curriculum, pedagogy and assessment.

**TE 530 New Directions in Science (3)** Focuses on the current international, national, and state research in science education. Teachers will study the curriculum activities across the nation and develop a conceptual change and integrated unit using misconceptions, conceptual maps, and central questions.

**TE 531 Elementary Math Curricula (3)** Teachers will examine the influence of a number of factors. These factors will include the nature of mathematical tasks, the teacher's role, the social culture of the classroom, mathematical tools for learning, equity and accessibility in mathematics curriculum activities and materials in light of current international and national research in mathematics education.

**TE 532 Assessment/Planning Special Education (3)** Teachers will acquire the knowledge and skills to conduct academic evaluation, interpret the results and develop plans to address individual student needs. Formal and informal procedures for evaluation of reading, language, and mathematics are emphasized.

**TE 535 Consultation & Integrated Program Special Education (3)** This course stresses knowledge and skills necessary for the special education teacher to become an effective advocate for exceptional students, to consult with parents and other professionals and to become an effective team member in planning and implementing integrated programming. Prerequisite: TE 532 and TE 541.

**TE 536 Advanced Theory & Methods: Emotionally Impaired (3)** Following TE 431, this course focuses on instructional and behavior management skills required to meet the unique needs of students with emotional impairments. In addition, teachers will study practical application of theoretical concepts, including interagency collaboration, function assessment and planning, and components of an appropriate continuum of services. Prerequisite: TE 430, TE 431, TE 532 and TE 541.

**TE 537 Methods for Learning Disabled Students (3)** Teachers will explore instructional strategies, compensatory methods and accommodations appropriate for learning disabled students in different program options. Appropriate curriculum and materials will be presented. Prerequisite: TE 430, TE 431, TE 532 and TE 541.

**TE 540 Teaching Community and State History (3)** An introduction to learning strategies appropriate to teaching Michigan and Saginaw Valley history at the elementary and secondary levels. Includes: family history and genealogy, oral history, photo-history, the use of artifacts, the newspaper as a resource, demography and geography, museums and field trips and appropriate literature, music and art.

**TE 541 Special Education Curriculum & Methods (4)** Curriculum design and instruction built upon the assessment and planning strategies addressed in TE 532. With the intent of including youth with disabilities into the general education classroom and community, this course will emphasize research-based instruction and materials employed at the elementary through secondary levels in the areas of instructional adaptation across the content areas, functional academics, technology, self-determination/social competence, post-secondary/continuing education, vocational training/employment, independent living, community participation, adult service coordination and comprehensive transition planning. Prerequisite: TE 430 and 532.

**TE 542 Methods of Teaching Elementary Social Studies (3)** Advanced methods study for graduate students. Traditional organization of social studies curriculum and methods are examined and compared with current local, national and state standards. Traditional and technological classroom resources are gathered. Classroom projects with a social studies focus are developed and presented.

**TE 545 Language Acquisition/Dysfunction (3)** A survey course designed to provide an understanding of the nature of language and communication, normal language development, the common disorders of language and how these disorders impact on social, emotional and academic development.

**TE 546 Multicultural Education (3)** This course will focus on cultural diversity as a positive and vital force in U.S. society. Cultural differences and similarities will be discussed with special emphasis on verbal and non-verbal communication, value systems and customs and traditions among various minority groups. Integration of multicultural teaching strategies into the general curriculum will also be presented.

**TE 547 Exceptional Children in General Education Settings (3)** This course presents information about students with disabilities and the learning needs of those students. Teachers will study strategies and accommodations for exceptional learners in general education settings. Discussion of legal issues and concerns related to the needs of exceptional students addresses the full range of disabilities.

**TE 548 Exceptional Adolescent (3)** Education of the secondary school student who is atypical in terms of intellectual, behavioral, academic, physical or sensory ability. This course will review student characteristics, classroom teachers' responsibilities and methods of adapting/modifying instruction, management and evaluation for the adolescent with special needs.

**TE 561 Directed Study in Education (1-5)** Student must submit a plan of study for approval before enrolling. Prerequisite: Permission of instructor.

**TE 571 Technology in Education (3)** An overview of current technology systems in education. The design, development, utilization and curricular integration of technology will be explored.

**TE 572 Elementary School Curriculum (3)** Social, economic and educational forces influencing changes in the curriculum of the elementary school. Attention is given to emerging patterns of elementary school curricula. A study of criteria for their evaluation and approaches for curricula change are considered.

**TE 575 Behavior Modification in Schools (3)** Shaping and maintaining behavior in the cognitive, psychomotor and affective domain constitute the focus for this course. The applications of behaviorism as a school of psychology to learning and teaching are investigated.

**TE 576 The Transescent (3)** This course will provide participants with the opportunity to investigate the general physiological, social-emotional and intellectual development of the pre-teen (ages 10-12). The course will emphasize educational programs that facilitate and account for sudden growth changes and intellectual development of the transescent. The participants will be prepared to incorporate this information into their curriculum planning and teaching strategies.

**TE 577 Methods of Teaching Inquiry (3)** The heritage of learning is replete with accounts of inquisitive individuals observing, questioning, wondering, inquiring and opening new horizons for humans. How can teachers foster and nurture inquiry? This is the quest of this course. A variety of techniques applicable to most disciplines will be exhibited. Students plan and demonstrate successful inquiry lessons.

**TE 578 Learning Styles in the Classroom (3)** This course is designed to introduce participants to learning styles theory and is appropriate for the classroom teacher as well as the reading teacher. Central to the course is the development of materials for use in participants' classrooms.

**TE 579 Teaching Thinking Skills (3)** The purpose of this course is to introduce participants to the thinking skills movement and the variety of programs available to teach higher level thinking. A primary intent is to give a broad overview as well as to focus on specific program and teaching strategies that promote skillful thinking. The course is appropriate for the teacher of reading as well as the elementary, middle school and secondary classroom teacher.

**TE 586 Integrating Children's Literature in Early Childhood (3)** This course examines the theoretical framework for using children's literature in an integrated curricular setting and how theory is applied to practice in preprimary and primary programs. Opportunities for implementation of an integrated, literature-based curriculum in early childhood education will be developed.

**TE 587 Technology in Early Childhood (3)** This course will focus on developmentally appropriate applications of technology in early childhood programs. Applications of technology to the development of children's conceptual understanding and the use of computers to support children's language and social interactions will be examined.

**TE 588 Teaching Strategies for Diverse Learners in Early Childhood (3)** This course provides participants with the opportunity to explore current research, issues, theories, and teaching strategies that will help them to understand and support the diverse learners in their early childhood classrooms.

**TE 589 Developmental Learning (3)** This course will focus on the whole child, looking simultaneously at all aspects of development from birth onward. Adapting instruction to individual learning differences also will be dealt with.

**TE 590 Early Childhood Education (3)** An overview of major theories and current research on the cognitive, perceptual, physical, emotional and social development of children from birth through age eight. Program options available for young children will be explored.

**TE 591 Assessing the Young Child (3)** An examination of current research, practices, evaluations and actual application of assessment techniques used in assessing the physical, social, emotional and cognitive development of children from birth to age eight.

**TE 592 Early Childhood Curriculum (3)** This course explores developmentally appropriate practices in early childhood programs from birth to age nine. The curriculum incorporates current research on the interaction of children in groups and on the development of their individual interests and abilities.

**TE 593 Mathematical-Science Experiences for the Young Child, PreK-3 (3)** An in-depth study of developmentally appropriate mathematical and science experiences for young children. Child-centered learning environ-

ments and hands-on materials are emphasized. Current research and theories on logic/mathematics are reviewed and evaluated.

**TE 594 Administration of Early Childhood Programs (3)** This course will include organization, staff selection, equipment and budget factors in accordance with Michigan regulations.

**TE 595 Infants and Toddlers (3)** The focus of this course will be on the growth and development of the whole child in the context of the family from conception through age 3. The importance of relationships and attachment between infants and adults in families and child-care settings and the components of high quality, nurturing care for infants and toddlers will be identified and reflected upon. This course will be offered once every odd year.

**TE 596 Literacy Development for Young Children (3)** Current research and theories in the literacy development of young children will be examined within the context of cultural and linguistic diversity among the family, culture and society. Developmentally appropriate practices in pedagogy and assessment will be applied in both home and educational environments.

**TE 597 The Young Child in the Home, School, and Community (3)** This course addresses the complexities of home-school relationships, methods of communicating effectively with parents, ways of establishing positive relationships with diverse families and the development of positive and productive partnerships with parents of young children.

**TE 598 Practicum in Early Childhood Education (3)** A supervised full-time practicum involving the successful planning, implementation, and evaluation of a group of children in an early childhood setting: infants, toddlers, preprimary (children ages 2-1/2 to 4) or primary (children 5-8). Prerequisite: TE 590, TE 592.

**TE 599 Individual Child Study (1-3)** An analysis of the developmental stages of young children through observation and recording of behaviors. Understandings of young children will be applied to current research and theories of child growth and development.

**TE 601 Workshops in Teacher Education (1-6)** Laboratory approach which provides opportunities for experienced educational personnel to concentrate their study on common educational problems.

**TE 605 Introduction to Research in the Elementary Classroom (3)** This course introduces the process of conducting educational research in the elementary classroom. Topics of study include action research design, professional ethics, methods of research and literature review. Current research in elementary classrooms will be analyzed and evaluated. Prerequisite: This course must be taken in the last 9 credits of the master's program for elementary education.

**TE 606 Research in Elementary Education (3)** This is the capstone course for the elementary emphasis in the master's program for classroom teaching. It is a culminating course in which elementary teachers synthesize the research, theories and instructional concepts learned throughout their program by applying them to the elementary classroom. A major paper, creative project or appropriate research activity is required. Prerequisite: This course must be taken in the last 6 credits of the master's program for elementary teachers. Prerequisite: TE 605.

**TE 607 Classroom Teaching: Middle School Seminar (3)** This is the capstone course for the middle school emphasis in the master's program for classroom teaching. It is a culminating course in which middle school teachers synthesize the research, theories and instructional concepts learned throughout their program by applying them to the middle school classroom. A major paper, creative project or appropriate research activity is required. Prerequisite: This course must be taken in the last six credits of the master's program for middle school teachers.

**TE 608 Classroom Teaching: Secondary School Seminar (3)** This is the capstone course for the secondary school emphasis in the master's program for classroom teaching. It is a culminating course in which secondary school teachers synthesize the research, theories and instructional concepts learned throughout their program by applying them to the secondary school classroom. A major paper, creative project or appropriate research activity is required. Prerequisite: This course must be taken in the last six credits of the master's program for secondary school teachers.

**TE 610 Professionalism and Inquiry in Early Childhood Education (3)** The early childhood professional will reflect on current issues in early childhood education, demonstrate an understanding of conditions of young children and their families, and explore advocacy issues as they

relate to young children and their families. Professionalism, which includes the review, analysis, and evaluation of current research, action research design and methodology, are taught and applied. Prerequisite: This course must be taken in the last nine credits of the master's program for early childhood.

**TE 611 Research in Early Childhood Education (3)** Research in Early Childhood Education is a capstone course culminating in an action research project or a research-based thesis. The research study initiated in TE 610, Professionalism and Inquiry in Early Childhood Education, will continue with the review of literature, data collection, data analysis, and the presentation of results. Prerequisite: TE 610.

**TE 615 Practicum in Reading Diagnosis and Correction I (3)** This course is the first half of a year-long practicum in the diagnosis and correction of reading difficulties. The principles and procedures of informal diagnostic assessment and instruction are applied to K-12 classroom settings. TE 615 and TE 617 are the capstone courses for the reading endorsement and must be taken within the last nine credits of the program. Prerequisite: TE 510, 512 and 520.

**TE 617 Practicum in Reading Diagnosis and Correction II (3)** This course is the second half of a year-long practicum in the diagnosis and correction of reading difficulties. The principles and procedures of informal and formal diagnostic assessment and instruction are applied to K-12 students with reading difficulties. TE 615 and TE 617 are the capstone courses for the reading endorsement and must be taken within the last nine credits of the program. Prerequisite: TE 510, 512, 520 and 615.

**TE 620 Special Education Research and Practice (3)** The purpose of this course is to develop a research proposal generated from the theories, methods, and practices presented in the Special Education Core Courses. Students will be introduced to the research design, measurement procedures, data collection and analysis skills necessary to complete a proposal. Additionally, the course will introduce principles and procedures for evaluation of programs in special education.

**TE 621 Applications in Special Education Research (4)** Using the proposal developed in TE 620, the student will conduct directed research, complete the thesis, and present the results.

**TE 660 Practicum Special Education (4)** A supervised structured assignment in a K-12 classroom setting. The student is required to demonstrate the ability to assess student needs, plan and implement instruction and evaluate the effectiveness of the instruction specific to the endorsement category. Prerequisite: all other required courses for endorsement.

**TE 690 Advanced Study of Cognitive Development (3)** This course extends and deepens student knowledge of children's cognitive development. Current research and theories of social constructivism are explored in depth. The course is designed as advanced work for students with a state-approved early childhood endorsement or its equivalent.

**TE 692 Contemporary Issues in Early Childhood Curriculum (3)** This course is designed to explore developmentally appropriate practices in early childhood programs serving children from birth through age 8. The curriculum incorporates an in-depth view of current research on the interaction of children in a variety of settings and on the development of their individual needs, strengths and abilities. It is designed as advanced course work for students with a state-approved early childhood endorsement or its equivalent.

**TE 697 Family and Culture (3)** This course explores the complex relationships among family, culture and schooling. Students are required to synthesize and apply current research and theories on diversity. The course is designed as advanced work for students with a state-approved early childhood endorsement or its equivalent.

**TE 698 Leadership in Early Childhood (3)** This course explores current theories of educational leadership in early childhood settings. Social, economic, educational, cultural and political forces affecting changes in early childhood will be addressed. The course is designed as advanced work for students with a state-approved early childhood endorsement or its equivalent.

# Administration, Faculty, Staff



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## Emeritus

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**John F. Curry**, Director, Food Services (1976-1999)

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## Endowed Chairs

**Dane, Francis C.**; Finkbeiner Chair in Ethics and Public Policy; B.S., University of Wisconsin, Milwaukee; M.A., Ph.D., University of Kansas

**Hunt, David**; Harvey Randall Wickes Chair in International Business; B.A., University of Denver; B.F.T., University of Agsim (Thunderbird); M.B.A., University of California (Berkeley); Ph.D., University of Houston

**Leming, James S.**; Carl A. Gerstacker Chair in Education; B.A., M.A., University of Illinois; Ph.D., University of Wisconsin

**Puia, George M.**; Dow Chemical Company Centennial Chair in Global Business, College of Business and Management; B.S., Edison State College; M.S., National-Louis University; Ph.D., University of Kansas

**Schilling, Christopher H.**; Charles J. Strosacker Chair in Engineering; Ph.D., University of Washington

**Swenson, David H.**; Herbert H. Dow Chair in Chemistry; B.S., University of Minnesota; Ph.D., University of Wisconsin

## Executives in Residence

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