DEPARTMENT OF ENGLISH
Dr. John T. Hiers, Head
Room 207, West Hall

The Department of English offers four programs of study that lead to a B. A. degree in English and two programs that lead to an M. A. degree in English. The Department also offers minors in English, Journalism, Creative Writing, and Professional Writing.

The programs in the English Department build upon the basic knowledge, skills, and values provided by the University Core Curriculum while preparing students for a wide range of careers as well as for graduate study in numerous fields. The Traditional Track provides a pre-law and pre-theology education as well as prepares students for graduate study in English. The Journalism Track prepares students for careers in print journalism, editing, and in-house news writing. The Creative Writing Track prepares students for graduate study as well as careers in publishing and related fields. The Professional Writing Track also prepares students for graduate study as well as careers in law, business, advertising, and publishing. Students in every Track are encouraged to gain work experience related to their major through internships or the VSU Cooperative Education Program. Each of the Department's Tracks emphasizes the importance of critical thinking skills, encourages an appreciation of diverse cultural perspectives, and develops a greater understanding of the cognitive, emotive, and aesthetic dimensions of language as an avenue of self-knowledge, cultural understanding, and social responsibility.

Each program in the English Department has numerous desired outcomes. Examples of these outcomes include the following:

BACHELOR OF ARTS DEGREE WITH A MAJOR IN ENGLISH

Selected Educational Outcomes

1. To develop a basic knowledge of British, American, and world literatures and an ability to respond to them critically.
2. To prepare students to write and speak with clarity, precision, and sophistication.
3. To train students to research carefully and systematically, utilizing the appropriate computer technology, and to apply that research to the study of language and literature.
4. To foster a greater understanding of the cultural and historical contexts of written communication.

**Requirements for the Bachelor of Arts with a
Major in English**

Core Curriculum Areas A-E (See VSU Core Curriculum, pp. 95-98) .... **42 hours**

Core Curriculum Area F .... **18 hours**
    ENGL 2140 .... 3 hours
        (If the student takes ENGL 2140 in Area C,
        ENGL 2110, 2120, or 2130 may be substituted)
    Foreign Language and Culture through 2002 .... 6-12 hours

Traditional Track
Senior College Curriculum .... **60 hours**
    Courses required for the Major .... 39 hours
        ENGL 3110, ENGL 3120, ENGL 3210 .... 9 hours
        ENGL 3060   .... 3 hours
        (prerequisite or corequisite to all 4000-level courses)
        ENGL 3080 or ENGL 3090 .... 3 hours
        One British period course (ENGL 4110-4150) .... 3 hours
        One American period course (ENGL 4210-4240) .. 3 hours
        One genre course .... 3 hours
            (ENGL 4320-4350, 4410, or 4420)
        Four 3-hour electives from ENGL, CRWR,
        JOUR, or LING (one Foreign Language
        literature course numbered 4000 or above
        may be substituted) .... 12 hours
        ENGL 4900 Senior Seminar .... 3 hours
    Minor and/or Elective courses .... 21 hours
        Must include at least 6 hours of courses numbered
        3000 or above in a single discipline outside of ENGL.
Total hours .... **120 hours**

<center>**Or**</center>

Journalism Track
Senior College Curriculum .... **60 hours**
    Courses Required for the Major .... 40 hours
        ENGL 3110, ENGL 3120, ENGL 3210 .... 9 hours
        JOUR/ENGL 3080 .... 3 hours
        ENGL 3400, JOUR 4500 .... 6 hours
        ENGL 3600   .... 1 hour
        JOUR 3510, JOUR 3540, JOUR 3570 .... 9 hours
        Two electives from the following: .... 6 hours
           JOUR 4510, JOUR 4520
           JOUR 4550, CRWR/ENGL 3-hr writing course
        JOUR 2500 and/or JOUR 4800 ....3-12 hours
        ENGL 4900 3 hours

> Minor and/or elective courses .... 20 hours
>> Must include at least 6 hours of courses numbered
>> 3000 or above in a single discipline outside of JOUR.

Total hours .... **120 hours**

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Or

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Professional Writing Track

Senior College Curriculum .... **60 hours**
> Courses required for the Major .... 40 hours
>> ENGL 3110, ENGL 3120, ENGL 3210 .... 9 hours
>> ENGL 3010, ENGL 3020, or ENGL 3030 ..... 3 hours
>> ENGL 3080, ENGL 3090 .... 6 hours
>> ENGL 3600 .... 1 hour
>> ENGL/JOUR 4500 .... 3 hours
>> ENGL 4600, ENG 4620, ENG 4630 .... 9 hours
>> Elective in CRWR, JOUR, or LING .... 3 hours
>> CS 1000 or CS 1010 .... 3 hours
>> ENGL 4900 .... 3 hours
> Minor and/or Elective Courses... 20 hours
>> Must include at least 6 hours of courses numbered
>> 3000 or above in a singlediscipline outside of ENGL.

Total hours .... **120 hours**

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Or

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Creative Writing Track

Senior College Curriculum .... **60 hours**
> Courses required for the Major .... 40 hours
>> ENGL 3110, ENGL 3120, ENGL 3210 .... 9 hours
>> ENGL 3060 Literary Criticism & Research ... 3 hours
>> (prerequisite or corequisite to all 4000-level courses)
>> ENGL 3080 or ENGL 3090 .... 3 hours
>> One British Period course (ENGL 4110-4150)3 hours
>> One 20th-Century American literature course 3 hours
>> One 4000-level ENGL course .... 3 hours
>> ENGL 3600   Professional Writing .... 1 hour
>> ENGL/CRWR 3400 Creative Writing .... 3 hours
>> One three-course CRWR sequence .... 9 hours
>> CRWR 3440, CRWR 4440, ENGL/CRWR 4410 or
>> CRWR 3460, CRWR 4460, ENGL/CRWR 4420 or
>> CRWR 3420, ENGL/JOUR 4520, ENGL/CRWR 4420
>> ENGL 4900 3 hours
> Minor and/or Elective courses .... 20 hours
>> Must include at least 6 hours of courses numbered 3000
>> or above in a single discipline outside CRWR.

Total hours .... **120 hours**

The English Department assesses the extent to which its program requirements create the desired outcomes by using a variety of techniques. Examples of these assessments (and the related educational outcome) include the following.

Examples of Outcome Assessments

1. Students will submit a portfolio of written work.
2. Students will take a 100-item test of basic knowledge in a capstone course, ENG 4900.
3. Students will complete a five-page Undergraduate English Major Exit Questionnaire.

Minor in Creative Writing..**15 hours**
    CRWR/ENGL 3400 .... 3 hours
    One two-course CRWR sequence: .... 6 hours
        Chosen from   CRWR 3440 and CRWR 4440
                        CRWR 3460 and CRWR 4460
                        CRWR 3420 and JOUR/ENGL 4520
    Two ENGL electives at the 3000 or 4000 level .... 6 hours

Minor in English .... **15-18 hours**
    ENGL 2140 (if not taken in Area C or F) .... 3 hours
    ENGL 3110, ENGL 3120, ENGL 3210 .... 9 hours
    Two electives numbered 3000 or above .... 6 hours
        from ENGL, CRWR, JOUR, or LING

Minor in Journalism ....**18 hours**
    JOUR/ENGL 3080 .... 3 hours
    JOUR 3510, JOUR 3540, JOUR 3570, JOUR 4500 .... 12 hours
    One elective from the following: .... 3 hours
        JOUR 4510, JOUR 4520, JOUR 4550

Minor in Professional Writing..**16 hours**
    ENGL 3010, ENGL 3020, or ENGL 3030 .... 3 hours
    ENGL 3600 .... 1 hour
    ENGL 3080, ENGL 3090, ENGL 4630 .... 9 hours
    One Elective from the following list: .... 3 hours
        ENGL 4600, ENGL 4620, ENGL/JOUR 4500

BACHELOR OF GENERAL STUDIES DEGREE PROGRAM
College of Arts and Sciences
Room 120, West Hall

The Bachelor of General Studies degree meets the needs of adults who are established independently in the work-force and the social structure of their com-munities. Academic credit will be awarded to General Studies Program students for (1) Valdosta State courses satisfactorily completed, (2) acceptable transfer credit, (3) standardized examinations which are recognized by the American Council on Education in its *Guide to Educational Credit by Examination*, (4) satisfactory performance on examinations developed and administered by Valdosta State academic departments, and (5) completion of military training programs, credit for which is recommended by the American Council on Education in its *Guide to Educational Experiences in the Armed Forces.* Admission to the program is based on the following eligibility requirements: students must be in the military on active duty or must demonstrate two years of full-time employment since their formal education ended.

Objectives of the General Studies Program ensure appropriate flexibility in course selection, so that students are free to design their own senior college curriculum (within certain parameters) in order to (a) satisfy unique personal interests, (b) meet individual career requirements, or (c) build a program of maximum strength in preparation for graduate study.

Core Curriculum Areas A-E (See VSU Core Curriculum, pp. 95-98) ...... **42 hours**
Core Curriculum Area F (Courses appropriate to the major) .... 18 hours
    Eighteen (18) hours of lower-division (1000-2000-level)
    from the following areas:
    Humanities and Fine Arts [course(s) not taken in Area C] .. 3 to 9 hours
    Social Sciences [course(s) not taken in Area E] .... 3 to 9 hours
    Mathematics and Science [course(s) not taken in Area D] .. 3 to 9 hours
    Any course approved by advisor in Areas C - F .... 0 to 9 hours

Courses Required for the General Studies (GENS) Major .... 60 hours
Students choose one of the following options:
    (a) Primary Concentration .... 21 hours
        1st Secondary Field of Study .... 12 hours
        2nd Secondary Field of Study .... .12 hours
        Free Electives .... 12 hours
        GENS 4100 or GENS 4900 .... 3 hours

(b) Emphasis Area One .... 15 hours
Emphasis Area Two .... 15 hours
Emphasis Area Three .... 15 hours
Free Electives .... 12 hours
GENS 4100 or GENS 4900 .... 3 Hours

Total hours .... 120 hours

HEALTH PROFESSIONS
Advised by the Department of Biology
Room 2009, Nevins Hall

Most programs in the health professions require four years of study to complete the degree requirements that are prerequisite for eligibility to take licensing or certification exams. Valdosta State University provides two- or three-year pre-professional programs in the allied health fields listed below.

After completing one of these junior college curricula, students may qualify for the Associate of Arts degree from Valdosta State University and are eligible to apply for admission to an appropriate institution for completion of the professional training required for the baccalaureate degree.

Students interested in academic work in preparation for admission to instituions where the professional training can be completed will be advised in the Department of Biology.

Community Health Nutrition	Optometry
Dental Hygiene	Pharmacy
Medical Records Administration	Physical Therapy
Medical Technology	Physician's Assistant
Occupational Therapy	Respiratory Therapy

DEPARTMENT OF HISTORY
Dr. Joseph A. Tomberlin, Head
Room 210, Ashley Hall North

The Department of History provides an undergraduate program that leads to the Bachelor of Arts degree in History. The Department also offers a minor in History.

The undergraduate major and minor in the Department of History are designed to help students to further and to complete their general education by building upon the foundation that is afforded by the University's Core Curriculum. The programs also provide students with the basic knowledge, skills, and values required for professional careers in History and for advanced study in the field. The program is a flexible one that presents students with opportunities to supplement the major by taking one or two minors or even a second major.

History's scope is extremely broad, and people and their institutions form a particular focus of the discipline. The use of language and the ability to communicate skillfully also are concerns of History. Thus, the study of History prepares students for many different occupations and professions in which such qualities are essential.

Traditionally, teaching has been a career possibility, but, as well, graduates of the program in History are prepared to enter graduate school for further study, to seek employment in business or government, in museums and libraries, in publishing, journalism, and advertising, or to enter the military, politics, or theology. A degree in History is excellent preparation for business school or law school.

Students who are interested in the History major or who have questions about the vocational possibilities of the major should consult with members of the History faculty in Ashley Hall.

B.A. DEGREE WITH A MAJOR IN HISTORY

The Bachelor of Arts program in History has numerous desired outcomes. Examples of the outcomes include the following:

Selected Educational Outcomes

1. Students will demonstrate knowledge of major political developments in history.
2. Students will demonstrate knowledge of major social developments in   history.
3. Students will communicate effectively in writing and orally.
4. Students will demonstrate the ability to engage in critical analysis and historical interpretation.

Requirements for the Bachelor of Arts Degree with
a Major in History

Core Areas A - E (See VSU Core Curriculum, pp. 95-98) .... **42 hours**
Core Area F .... **18 hours**
    Foreign Language and Culture[1] .... 6 hours
    HIST 1011 or HIST 1012 or HIST 1013 .... 3 hours
    HIST 2111 or HIST 2112 .... 3 hours
    Electives .... 6 hours
    HIST 1011/HIST 1012/HIST 1013, if not taken in Area E.
    If one or two are taken in Area E, choice of one or two of the following:
    ANTH 1102, CS 1000, ECON 1500, GEOG 1101, GEOG 1102,
    GEOG 1103, MATH 2620, PHIL 2010, POLS 2101, POLS 2401,
    POLS 1102, PSYC 2500, REL 2010, SOCI 1101, SOCI 1160
[1]Only two of three required courses in a single foreign language can be taken in Area
F. The third course must be taken in Area C or in the Senior College.

Senior College Curriculum .... **60 hours**
    Upper division courses in History ....30 hours
        HIST 3000 Historical Methods .... 3 hours
        Eight (8) three-hour courses numbered above
        3000, including at least one each in: a) European
        or British History; b) United States History;
        c) Latin American, African, or Asian History .... 24 hours
        HIST 4950   .... 3 hours
        Foreign Language and Culture .... 0-3 hours
           (if not taken in Area C)
    Minor and/or Electives ....27-30 hours
        Must include at least six semester hours in courses
        numbered 3000 or above in a single discipline
        outside the History major.
Total hours .... **120 hours**

Examples of Outcome Assessments

1. As a matter of established departmental policy, all upper division courses require written work in the form of essays, research papers, and other similar projects that help determine progress in written communication skills, analytical and interpretive skills, and mastery of course content.
2. Senior Seminar is designed to measure student progress in the program in the mastery of effective oral and written communication, the acquisition of skills in critical analysis and historical interpretation, and the ability to make effective use of library resources and computer and information technology.
3. When such information is available, the department will use as an assessment tool the results of University-wide collection of data that relate to the major and to History graduates.

The Minor in History .... **15 hours**
    Core Curriculum Courses HIST 1011, 1012, 1013 ....0-6 hours[2]

(if not taken in Area E)
Upper Division History Courses .... 9-15 hours
[2] Only 6 semester hours of the HIST 1011, 1012, 1013
sequence can be taken in Core Area E.

INTERNATIONAL/INTERCULTURAL STUDIES
Dr. C. Tracy Harrington, Director of International Programs
Carswell Hall, 1526 North Oak Street

The Office of International Programs offers a multidisciplinary minor in International Studies, which is designed to meet two objectives: (1) provide students with a fundamental understanding of international studies as an academic field and the dynamics involved in international issues and concerns, and (2) provide students with a substantial exposure to a specific world region, transnational problem, or disciplinary speciality that is international in scope.

Selected Educational Outcomes

1. To clearly describe the parameters of international studies as a field of inquiry and practice, both in historic perspective and current usage;
2. To evaluate career possibilities that are international in nature as well as the most suitable educational paths to those careers;
3. To appreciate the complexities of cultural differences and the impact of these differences on cross-cultural understanding;
4. To apply the tools of research to a major international and inter-disciplinary problem, issue, or phenomenon;
5. To express thorough knowledge of a particular international problem, world region, or international dimension of an academic discipline.

Minor in International Studies .... 15 hours

The minor in International Studies consists of (1) a core component which is required of all students taking the minor and (2) a minor concentration tailored to individual student interests and backgrounds.

Core requirements INTL 2090 and INTL 4800 .... 6 hours
Minor concentration .... 9 hours
> Must include at least 6 hours of upper-division coursework. The concentration consists of three courses related either to a particular world region of interest to the student, to an international problem or issue, or to the comparative application of a particular discipline. Students' selection of courses must be approved by a designated advisor within their major as well as by the Director of International Programs. Courses within the concentration may be distributed as follows:
> 1. Existing courses within the curriculum that address the region, international problem, or disciplinary dimension of interest to the student: .... 0-9 hours
> 2. Completion of a language course at the intermediate level or above appropriate for the focus of the student's concentration: .... 0-3 hours
> 3. Special topics courses compatible with the student's approved concentration: .... 0-6 hours
> 4. The Model United Nations course (INTL 3170), if the focus of the course is appropriate to the student's concentration: .... 0-6 hours
> 5. Completion of a study abroad experience relevant to the student's approved concentration: .... 0-6 hours

Students pursuing the multidisciplinary minor in international studies must meet with the Director of International programs and their College's International Studies Advisors, who will assist them in the selection of courses for the multidisciplinary major.

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
Dr. Ashok Kumar, Head
Room 2121 Nevins Hall

The Department of Mathematics and Computer Science is a multidisciplinary department with programs leading to baccalaureate degrees in mathematics, applied mathematics, mathematics with computer-science option, computer science, and computer information systems. The department also supports an interdisciplinary degree in mathematics that is offered in conjunction with the College of Education's program for secondary school teachers. Additionally, the department offers minors in mathematics, mathematics (statistics track), and computer science.

The programs in the department are designed to give the student the basic knowledge, skills, and values that build upon the foundation provided by the University Core Curriculum and that are required for professional careers in the mathematical and computing sciences. Moreover, through a series of sequenced courses, the department prepares the student for more advanced study, either at the graduate level or through company training programs. The requirements of the programs have been designed in keeping with national norms of excellence and according to well established model curricula where they exist. The major common feature shared by all the department's programs is the stress on critical thinking skills.

Students may gain work experience related to their major through the VSU Co-Op Program. Such experience may prove valuable in terms of career exploration, acquisition of new skills, and career development.

B. S. DEGREE WITH A MAJOR IN APPLIED MATHEMATICS

Selected Educational Outcomes

1. Students will learn the algebraic structures—groups, ring, fields, and their applications.
2. Students will learn the concepts of vector spaces, linear transformations, eigenvalues, and normed linear spaces. Further, they will learn to solve systems of linear equations.
3. Students will develop the logical reasoning skills and technical background necessary to do mathematical proofs. They will prove theorems in set theory, analysis, linear algebra, and abstract algebra.
4. Students will use mathematical software to solve problems in numerical analysis, operations research, and statistics. They will have "hands-on" experience in implementing algorithms.

Requirements for the B.S. Degree with a major in
Applied Mathematics

Core Curriculum Areas A-E (See VSU Core Curriculum, pp. 95-98) .... **42 hours**
    (Applied Mathematics Majors are required to take Math 1113 in
    Area A and Math 2261 in Area D.)

Core Curriculum Area F .... **18 hours**
    MATH 2261 "spillover" from Area D .... 1 hour
    MATH 2262, MATH 2263 .... 8 hours
    CS 1301 (3 credits "spill over" into "Supporting Courses") . 1 hours
    PHYS 2211K, PHYS 2212K .... 8 hours

Senior College Curriculum .... **60 hours**
    Courses Required for the Major .... 36 hours
        MATH 2150, MATH 3600, MATH 4621 .... 9 hours
        MATH 3340, MATH 3040, MATH 4150 .... 9 hours
        MATH 4260, MATH 4081, MATH 4651 .... 9 hours
        MATH 4910, MATH 4901 .... 6 hours
        One of the following: .... 3 hours
        MATH 3900, MATH 4622, MATH 4652,
        MATH 4902, MATH 4625
    Supporting Courses .... 6-9 hours
        CS 1301 "spillover" from Area F .... 3 hours
        Foreign Language & Culture Requirement ... 3-6 hours
    Electives .... 15-18 hours
      Must include at least 6 hours of courses numbered 3000 or above.

Additional Requirements and Notes
1. Students must complete 16 credits of laboratory science, including the calculus-based physics indicated in Area F.
2. Students must complete 4 credits of CS 1301 if not taken in Area F.
3. A "C" or better must be earned in all "Courses Required for the Major." Also, if taken, a grade of "C" or better is required in MATH 1111, 1112, 1113, 2150, 2261, 2262, 2263, and CS 1301.
4. Students must complete a sequence of two courses in French, German, or Russian, either in "Supporting Courses" or in a combination of Area C and Supporting Courses. Minimum acceptable grades in the language courses are the same as minimum acceptable grades in the Core Curriculum.

Total hours .... **120 hours**
    The B.S. degree in Mathematics is available as a second bachelor's degree for students receiving the B.S.Ed. in Secondary Education in the teaching field of Mathematics.

Students receiving a Bachelor of Science in Education degree in Secondary Education in the teaching field of mathematics may also receive a B.S. degree with a major in Mathematics by completing **MATH 4150** in fulfilling the requirements for the B.S.Ed. degree. In addition, **MATH 4260, MATH 4081,** and either **MATH 4901 or MATH 4910** (whichever course was not taken to fulfill the requirements for the B.S.Ed. degree) must be completed.

Any of the following courses that are taken by the student must be completed with a grade of C or higher: MATH 1101, MATH 1111, MATH 1112, MATH 1113, MATH 1113H, MATH 2261, MATH 2262, MATH 2263, and MATH 2150.

Students interested in graduating with both degrees should consult the department head concerning the procedures to follow in applying for the second degree.

BACHELOR OF SCIENCE DEGREE WITH A MAJOR IN COMPUTER SCIENCE

Selected Educational Outcomes

1. The student will demonstrate proficiency in data structures (arrays, records, stacks, lists, queues, trees, and graphs). The student will demonstrate knowledge of writing recursive and iterative algorithms, and will show familiarity with the analysis of algorithms.
2. The student will demonstrate knowledge of modern software-engineering principles by participating in the successful development of a practical software-engineering project and orally presenting it to the instructor.
3. The student will demonstrate knowledge of the basic structures and functions of modern computer systems both hardware and operating systems including multitasking, concurrency, memory management, and process synchronization.

Core Curriculum Areas A-E (See VSU Core Curriculum, pp. 95-98) .... **42 hours**
    Majors in Computer Science are required to take Precalculus
    (MATH 1113) in Area A and Analytic Geometry and Calculus I
    (MATH 2261) in Area D.

Core Curriculum Area F .... **18 hours**
    CS 1301 and 1302 and 2620 .... 11 hours
    MATH 2261 "spillover" from Area D .... 1 hours
    MATH 2262 .... 4 hours
    D.II.a Laboratory Science .... 2 hours
      (with 2 hours "spilling" into Supporting Courses)

Senior College Curriculum .... **60 hours**
    Courses Required for the Major .... 36 hours
      CS 3101, CS 3102, CS 3410 .... 9 hours

CS 3340, 3520 .... 6 hours
CS 4500, CS 4330, CS 4900 .... 9 hours
CS 4321 or CS 4322 .... 3 hours
Additional 4000-level credits
    of Computer Science .... 9 hours
Supporting Courses .... 14-17 hours
    D.II.a Laboratory Science .... 2 hours
       ("spillover" from Area F)
    MATH 2150 and MATH 3600, and
    MATH 4651 or MATH 4901 .... 9 hours
    Foreign Language & Culture Requirement ... 3-6 hours
Electives .... 7-10 hours

Additional Notes:

1. The total laboratory science requirement is 12 hours These 12 hours must include a sequence intended for science, mathematics, or engineering majors, plus an additional laboratory-science course intended for science, mathematics, or engineering majors. Students not completing these requirements in their Core Curriculum must complete them with elective courses.

2. Students must receive a C or better in all of the lower-division mathematics and computer-science courses completed to satisfy the degree requirements.

3. Students must complete a sequence of two courses in French, German, or Russian, in either Supporting Courses or a combination of Area C and Supporting Courses. Minimum acceptable grades in the language courses are the same as minimum acceptable grades in the Core Curriculum.

Total hours .... **120 hours**

BACHELOR OF SCIENCE DEGREE WITH A MAJOR IN MATHEMATICS WITH COMPUTER SCIENCE OPTION

Selected Educational Outcomes

1. The student will have an understanding of the basic techniques and concepts of calculus and will be able to apply these techniques and concepts to solve problems.

2. The student will experience the use of some commercial software in solving problems in numerical analysis, operations research, statistics, and linear algebra. The student will also have "hands-on" experience in implementing computational work.

3. The student will know the concepts in boolean algebra and discrete structures and will be able to apply these concepts in computer science and mathematics.

Core Curriculum Areas A-E (See VSU Core Curriculum, pp. 95-98) .... **42 hours**
Majors in Mathematics with Computer-Science Option are required
to take Precalculus (MATH 1113) in Area A and Analytic Geometry

and Calculus I (MATH 2261) in Area D.

Area F Courses Appropriate to the Major .... **18 hours**

    MATH 2261 "spillover" from Area D .... 1 hour

    MATH 2262, MATH 2263 .... 8 hours

    MATH 2150 .... 3 hours

    CS 1301, CS 1302 .... 6 hours

       (with 2 additional "spillover" hours in "Supporting Courses")

Senior College Curriculum .... **60 hours**

    Courses Required for the Major .... 24 hours

       MATH 3600, MATH 4621, MATH 3040 .... 9 hours

       MATH 4150, MATH 4081, MATH 4651 .... 9 hours

       MATH 4901, MATH 4910 .... 6 hours

    Supporting Courses .... 23-26 hours

       CS 1302 "spillover" from Area F .... 2 hours

       CS 2620, CS 3101, CS 3102, CS 3410 .... 12 hours

       Other upper-division computer-science

         courses .... 6 hours

       Foreign Language & Culture Requirement ... 3-6 hours

    Electives .... 10-13 hours

Additional Requirements and Notes

1. If taken, a grade of "C" or better is required in MATH 1111, MATH 1112, MATH 1113, MATH 2150, MATH 2261, MATH 2262, MATH 2263, CS 1301, and CS 1302.

2. A grade of "C" or better must be earned in all Courses Required for the Major plus the CS courses listed in "Supporting Courses."

3. CS 1301 (4 hours), CS 1302 (2 hours in Area F), and MATH 2150 (3 hours) are required if not completed in Area F.

4. Students must complete a sequence of two courses in French, German, or Russian in either Supporting Courses or a combination of Area C and Supporting Courses. Minimum acceptable grades in the language courses are the same as minimum acceptable grades in the Core Curriculum.

Total hours .... **120 hours**

BACHELOR OF SCIENCE DEGREE WITH A MAJOR IN COMPUTER INFORMATION SYSTEMS

<div align="center">**Selected Educational Outcomes**</div>

1. Computer-information-systems students will possess problem-solving skills directed toward analysis and design of information systems and computer software.
2. ~~Computer-information-systems students will have a good foundation of knowl-~~ edge of the accounting, marketing, and management environment.
3. Computer-information-systems graduates will be familiar with and have gained proficiency in the use of data structures, analysis of algorithms, and the design of combinatorial and sequential circuits for the solution of digital-oriented problems.

Requirements for the Bachelor Of Science Degree with a major in Computer Information Systems

Core Curriculum Areas A-E (See VSU Core Curriculum, pp. 95-98) .... **42 hours**

Core Curriculum Area F .... **18 hours**
    CS 1010, CS 1301, CS 1302 .... 11 hours
    ACCT 2101-2102 .... 6 hours
    MATH 1261/1262 (or MATH 2261/2262)................................. 1 hour
    Note: There is a requirement in this program that a student
    complete a six-credit sequence of calculus. One credit in
    Area F can be devoted to these six credits of calculus.

Senior College Curriculum .... **60 hours**
    Courses Required for the Major ....33 hours
        CS 2620, CS 3101, CS 3410 .... 9 hours
        One of CS 3102, CS 3330, CS 3335 .... 3 hours
        CS 4500 or CS 4330 .... 3 hours
        Three courses chosen from CS 3340,
            CS 4820, CS 4140, CS 4720 .... 9 hours
        CS 4321 and CS 4322 .... 6 hours
        CS 4900   .... 3 hours
    Supporting Courses .... 17-20 hours
        Completion of the calculus sequence,
        MATH 1261-1262 (or MATH 2261-2262) ...... 2-5 hours
        MATH 2620 or MATH 3600 .... 3 hours
        ECON 2106   .... 3 hours
        MGNT 3250 and MGNT 3300 .... 6 hours
        FIN 3350 or MKTG 3050 .... 3 hours
    Electives .... 7-10 hours

Additional Requirements:
1. No more than 4 hours of electives may be taken in courses offered by the College of Business Administration.
2. A grade of "C" or better must be earned in all Courses Required for the Major and all

Supporting Courses.

Total hours .... **120 hours**

**BACHELOR OF ARTS DEGREE WITH A
MAJOR IN MATHEMATICS**

Selected Educational Outcomes

1. Students will be able to identify the similarities of results in single-variable calculus and multivariable calculus.
2. Students will acquire the logical reasoning skills and technical background necessary to understand mathematical proofs.
3. Students will learn concepts from the analysis courses including (but not limited to) the concepts of limit, continuity, derivative, integral, analytic functions, and metric spaces.

**Requirements for the Bachelor Of Arts Degree with a
Major In Mathematics**

Core Curriculum Areas A-E (See VSU Core Curriculum, pp. 95-98) .... **42 hours**
Mathematics majors are required to take Precalculus (MATH 1113)
in Area A and Analytic Geometry and Calculus I (MATH 2261) in Area D.

Core Curriculum Area F .... **18 hours**
MATH 2261 "spillover" from Area D .... 1 hour
MATH 2262, 2263 .... 8 hours
CS 1301 .... 3 hours
    (1 credit spills over into "Supporting Courses")
Part of 3-course sequence in French,
    German, or Russian .... 6 hours

Senior College Curriculum .... **60 hours**
Courses Required for the Major .... 33 hours
    MATH 2150, MATH 3600, MATH 4621 .... 9 hours
    MATH 3340, MATH 3040, MATH 4150 .... 9 hours
    MATH 4260, MATH 4081, MATH 4980 .... 9 hours
    Select 2 from: MATH 3010, MATH 4082,
        MATH 4300, MATH 4540 .... 6 hours
Supporting Courses .... 1 hour
    CS 1301 "spillover" from Area F .... 1 hour
Electives .... 26 hours
    Must include at least 9 hours of courses numbered 3000 or above.

Additional Requirements and Notes

1. The foreign language courses in area F must meet Arts and Sciences guidelines for the B.A. degree; furthermore, these courses, along with an additional language course either in Area C or in Electives, must constitute a 3-course sequence in French, German, or Russian. Minimum acceptable grades in the language courses are the same as minimum acceptable grades in the Core Curriculum.
2. If taken, a grade of "C" or better is required in MATH 1111, MATH 1112, MATH 1113, MATH 2150, MATH 2261, MATH 2262, MATH 2263, and CS 1301.
3. CS 1301 is required if not taken in Area F.

Total hours .... **120 hours**

Minor in Computer Science .... **17 hours**

The Minor in Computer Science may be earned by completing the following courses with grades of C or better. CS 1301 (Principles of Computer Programming I), CS 1302 (Principles of Computer Programming II), CS 3101 (Computer Organization), CS 3410 (Data Structures), plus three additional credits of Computer Science at the 3000 level or above.

Minor in Mathematics (Statistics Track) .... **17 hours**

The Minor in Mathematics (Statistics Track) may be earned by completing:
　　　MATH 2262, MATH 2263, MATH 3600, MATH 4621
Plus one of the following courses:
　　　MATH 4622 or MATH 4625

Minor in Mathematics .... **17 hours**

The Minor in Mathematics may be earned by completing:
　　　MATH 2262, MATH 2263, MATH 3600, and MATH 3040
Plus one course from:
　　　MATH 3340, MATH 4150, MATH 4081, MATH 4082
　　　MATH 4651, MATH 4652, MATH 4910, MATH 4901
　　　or MATH 4902

Outcome Assessments

The department assesses the extent to which the program requirements create the desired outcomes by using a variety of techniques. The assessment plan will feature a multi-faceted approach addressing two major areas of concern. Examples of these assessments include the following.

1. How well our graduates are prepared for their post-undergraduate endeavors, whether they choose immediate employment or graduate school; and
2. Collective student perceptions with respect to achievement of the program's stated educational outcomes.

In an effort to address concern (1), the department will examine alumni relation survey results of University graduates reported for the 1 and 5 year intervals after graduation. These results will furnish a snapshot of how well the respondents were prepared for future education or employment. These results will also relate student academic experiences in their major field of study. In addition, the University biannual "Summary Results of Students' Opinions ..." will be examined to gather data that will offer feedback which is more program specific in nature. Our capstone course is designed to measure student progress since taking the Area-F mathematics courses in (a) mastering effective oral and written communication in mathematics, (b) acquiring critical-analysis skills, and (c) effectively using library and technological resources in solving non-routine problems.

Concern (2) will be addressed by administering a criterion referenced "program exit questionnaire" designed to measure student perceptions regarding accomplishment of program education outcomes within the framework of a five-option Likert scale. This survey will be administered to the student at the time of major coursework completion. In addition, student project work will be systematically evaluated to determine the degree of alignment between the performance of the program participants and the targeted educational outcomes.