

DEPARTMENT OF ENGLISH Dr. Mark Smith, 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 Contemporary Literature, 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 and Contemporary LiteratureTrack 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 English 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

- 1. To develop a basic knowledge of British, American, and world literatures and an ability to respond to them critically.
- 2. To write and speak with clarity, precision, and sophistication.
- 3. To research carefully and systematically, utilizing the appropriate computer technology, and to apply that research to the study of language and literature.
- 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) 42 hours
Core Curriculum Area F*
ENGL 2060
ENGL 2110, 2120, or 2130
(Student may choose one of the above courses
not taken in Area C.)
Foreign Language and Culture through 2002 6-12 hours
ART 1100, COMM 1100, MUSC 1100, THEA 1100, HIST 1011,
HIST 1012, HIST 1013, PHIL 2010, PHIL 20200-6 hours
* All core classes with an ENGL prefix (ENGL 1101, ENGL 1102,
ENGL 2060, ENGL 2110, ENGL 2120, ENGL 2130, and ENGL 2140)
must be completed with a grade of "C" or better.
must be completed with a grade of C of better.
Traditional Track
Senior College Curriculum 60 hours
Courses required for the Major
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
(ENGL 4320, 4330, 4340, 4350, 4410, or 4420)
Four 3-hour electives from ENGL, CWCL, JOUR, or LING
(one Foreign Language literature course
numbered 4000 or above may be substituted) 12 hours
ENGL 4900 Senior Seminar
Minor and/or Elective courses
Must include at least 6 hours of courses numbered
3000 or above in a single discipline outside of ENGL.
Total hours required for the degree
Or
Journalism Track
Senior College Curriculum
Courses Required for the Major
ENGL 3110, ENGL 3120, ENGL 3210
JOUR/ENGL 3080
CWCL 3400, JOUR 4500
ENGL 3600
JOUR 3510, JOUR 3540, JOUR 3570
JOUR 3510, JOUR 3540, JOUR 3570
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Requirements for the Bachelor of Arts with a Major in English

Two electives from the following list 6 hours
JOUR 4510, JOUR 4520, JOUR 4550,
CWCL 3-hr writing course
JOUR 2500 and/or JOUR 4800 3-12 hours
ENGL4900
Minor and/or elective courses
Must include at least 6 hours of courses numbered
3000 or above in a single discipline outside of JOUR.
Total hours required for the degree 120 semester hourss
Or
Professional Writing Track
Senior College Curriculum
Courses required for the Major
ENGL 3110, ENGL 3120, ENGL 3210
ENGL 3010, ENGL 3020, or ENGL 3030
ENGL 3080, ENGL 3090 6 hours
ENGL 3600 1 hour
ENGL/JOUR 4500
ENGL 4600, ENG 4620, ENG 4630
Elective in CWCL, JOUR, or LING
CS 1000 or CS 1010
ENGL4900
Minor and/or Elective Courses
Must include at least 6 hours of courses numbered
3000 or above in a single discipline outside of ENGL.
Total hours required for the degree 120 semester hours 120 hours
Or Or
Creative Writing and Contemporary Literature Track
Senior College Curriculum
Courses required for the Major
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 20th-Century American literature course 3 hours
One 4000-level ENGL course
ENGL 3600 Professional Writing1 hour
CWCL 3400 3 hours
One three-course CWCL sequence
CWCL 3440, CWCL 4440, CWCL 4410; or
CWCL 3460, CWCL 4460, CWCL 4420; or

ENGL4900	
Minor and/or Elective courses	
Must include at least 6 hours of c	courses numbered 3000
or above in a single discipline ou	tside CWCL.
Total hours required for the degree	

Students should review the Arts and Sciences requirements for completion of the B.A. degree.

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, ENGL 4900.
- 3. Students will complete a five-page Undergraduate English Major Exit Questionnaire.

Institutional Cross-training Certificate for Journalism and Mass Media Students

To earn a institutional certificate, students who are earning a minor in print journalism or who are majoring in English with a journalism emphasis will be required to pass the following courses with a grade of "C" or better:

MDIA 3050Broadcast Performance and AnnouncingMDIA 3500Broadcast News WritingMDIA 4960(1-2 hrs) Performance and Production Workshop

To earn a institutional certificate, students who are earning a minor or major in mass media will be required to pass the following courses with a grade of "C" or better:

JOUR 3510News WritingJOUR 3520(1 hr) Essential Reporting SkillsJOUR 4510 or 4520 or 4550Feature Writing, Literary Journalism, Reporting

Minor in Creative Writing and Contemporary Literature 15 hours

Minor in English15-18 hours
ENGL 2060 (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, CWCL, JOUR, or LING
Min on in Tournalism. 10 hours
Minor in Journalism
JOUR/ENGL 3080 3 hours
JOUR 3510, JOUR 3540, JOUR 3570, JOUR 4500 12 hours
One elective from the following list:
JOUR 4510, JOUR 4520, JOUR 4550
Minor in Professional Writing
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:
ENGL 4600, ENGL 4620, ENGL/JOUR 4500



ENGLISH TO SPEAKERS OF OTHER LANGUAGES (ESOL) ENDORSEMENT Dr. Mark Smith, Head, Department of Engish Room 207, West Hall Dr. Victoria Soady, Head, Department of Modern and Classical Languages Room 128, West Hall

The English to Speakers of Other Languages (ESOL) Endorsement provides credentials to teach English as a second language in Georgia. An ESOL endorsement can be pursued by undergraduate or graduate students working toward or possessing certification in any teaching field or in the service field of communication disorders (speech and language pathology). An individual in any other service field or in the leadership field must have established a teaching field in order to pursue the ESOL endorsement. An individual with a permit in foreign language is also eligible to add the ESOL endorsement.

Requirements for the ESOL Endorsement

ESOL 4010 Applied Linguistics for ESOL Teachers	3 hours
ESOL 4020 Cultural Perspectives for ESOL Teachers	3 hours
ESOL 4030 Methods and Materials for Teaching ESOL	3 hours

BACHELOR OF GENERAL STUDIES DEGREE PROGRAM



Ms. Marsha Walden, Coordinator 1114 University Center

There are two tracks within the General Studies degree program

Track One meets the specific needs of adult students who have been away from school for a period of time but who wish to return and complete a degree. Students can enter Track One of the program with courses credits obtained at VSU, or other schools, in military training programs, or through certain standardized tests. Admission to Track One is based on the following eligibility requirements: Students must either (a) be in the miliary on active duty, or (b) document a continuous two-year period in which they were working full-time and not taking university courses.

Track Two allows students to build an interdisciplinary program from the ground up, offering an opportunity to explore vital connections among disciplines that will lead to exciting and far ranging results. It is often at the intersection of disciplinary boundaries that new work is being done, which will have substantial benefits to the individual pursuing these studies, as well as to society, where broad thinkers who can synthesize disparate materials are usually welcome. For the student who has a desire to develop a more personalized educational program, one that moves beyond the boundaries of the traditional major, the Bachelor of General Studies, Track Two, is the place to begin exploration and conversation. Faculty advisors from appropriate departments of the university provide curriculum guidance. Working closely with both the General Studies Track Two Coordinator and faculty advisors, students prepare individual programs of study consistent with their own plans and expectations. Admission to Track Two must occur prior to the completion of the last 30 semester hours before graduation. Students must also have a minimum grade point average (GPA) of 2.50 in order to be admitted to Track Two. This GPA is based on all course work, including transfer courses.

In both Track One and Track Two of General Studies, students, with the assistance of program advisors, will define three areas of concentration, either in traditional disciplines or in multidisciplinary fields, in which they wish to specialize. Their remaining upper-division coursework can then be focused in these areas.

The objectives of General Studies are (a) to encourage students to investigate combinations of disciplines that are not connected in traditional programs and (b) to give students a role in the guided design of the upper-division couses of study.

Selected Educational Outcomes (Track Two)

- 1. Students will be able to articulate reasons for the interconnectedness of their chosen fields of study.
- 2. Students will demonstrate knowledge in depth as well as in breadth through a selected range of their fields of study.
- 3. Studens will demonstrate critical, analytical, and synthesizing skills that characterize exploration beyond disciplinary boundaries.

4. Students will engage in professionally oriented activities geared toward individual career or post-graduate goals.
Core Curriculum Areas A-E (See VSU Core Curriculum)
Track One
Core Curriculum Area F (Courses appropriate to the major) 18 hours
Eighteen (18) hours* of lower-division from the following areas:
Humanities and Fine Arts [course(s) not taken in Area C] 3-9 hours
Social Sciences [course(s) not taken in Area E]
Mathematics and Sciences [course(s) not taken in Area D] 3-9 hours
Any course approved by advisor in Areas C - F0-9 hours
Or The all Three
Track Two Come Curriculum Area E (Courses annuantiate to the major) 18 hours
Core Curriculum Area F (Courses appropriate to the major)
Foreign Language and Culture courses
GENS 2000*
Courses* approved by general advisor in Areas B-F that
have an interdisciplinary approach
* Courses must be completed with a grade of "C" or better.
eouises must be completed while a grade of the of better.
Track One
Courses Required for the General Studies Major
Students choose one of the following options:
(a) Primary Concentration
1st Secondary Field of Study
2nd Secondary Field of Study
Free Electives
GENS 4100 or GENS 4900
(b) Emphasis Area One
Emphasis Area Two
Emphasis Area Three
Free Electives

In each concentration and emphasis, one course may be at the 1000-2000 level; all others must be at the 3000-4000 level. All courses must be completed with a grade of "C or better.

or

Track Two

In each field, one course may be at the 1000-2000 level; all others must be at the 3000-4000 level. All courses must be completed with a grade of "C" or better. Once a program of study is approved, a student who wishes to alter that program must secure approval from all advisors concerned and the General Studies Track Two Coordinator.

Total hours required for the degree 120 semester hours

Examples of Outcome Assessments

- 1. Student-generated planning documents for the related fields of study.
- 2. Portfolios of student work.
- 3. Progress reports generated by faculty advisors meeting with the student.
- 4. Student entrance and exit interviews.



HEALTH PROFESSIONS

Advised by the Department of Biology Room 2035 Biology-Chemistry Building

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 institutions where the professional training can be completed will be advised in the Department of Biology.

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



DEPARTMENT OF HISTORY Dr. Paul Riggs, Head Room 210, Ashley Hall North

The Department of History provides an undergraduate program that leads to the Bachelor of Arts degree with a major in history. The Department also offers a minor in history. A graduate program leads to the Master of Arts degree with a major 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 Department of History in Ashley Hall.

Honors Track for History Majors

The Honors Track in history allows students the option of pursing the major at a more challenging level. To enter the track, student must be history majors with an overall GPA of 3.0. They must have a 3.0 average in all history courses taken and must have completed HIST 3000 with a grade of "B" or higher. They must maintain an overall GPA of 3.0 and a GPA of 3.0 in the major.

Students must complete three courses from among the following options, with at least a grade of "B" in each:

HIST 3030H Honors Topics in U. S. History; HIST 3040H Honors Topics in European History; HIST 3050H Honors Topics in World History; HIST 4800H Honors Directed Study: Thesis.

Students completing the Honors Track in history will have it noted on their transcript.

B.A. DEGREE WITH A MAJOR IN HISTORY

The Bachelor of Arts program with a major 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)	
Foreign Language and Culture ¹	urs
HIST 2111 or HIST 2112	urs
HIST 1011 (if taken in Area E, then elective from list below) 0-3 how	urs
HIST 1012 (if taken in Area E, then elective from list below) 0-3 how	urs
HIST 1013 (if taken in Area E, then elective from list below) 0-3 how	urs
Electives	urs
Acceptable electives for Area E	
ANTH 1102, CS 1000, ECON 1500, GEOG 1101, GEOG 1102,	
GEOG 1103, MATH 2620, PHIL 2010, POLS 2101, POLS 2401,	
POLS 2501, PSYC 2500, REL 2020, SOCI 1101, SOCI 1160	
* All courses with the HIST prefix taken in Areas E and F must be con	npleted with a
grade of "C" or better.	
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 as part of the the Senior College Curriculum (see below).

Senior College Curriculum	60 hours
HIST 3000	. 3 hours
Upper division courses in History	24 hours
Courses numbered above 3000, including at least one each	
in: (a) European or British History; (b) United States	
History; (c) Latin American, African, Middle Eastern, or	
Asian History; (d) Additional course from categories	
(a) or (c), above.	
HIST 4950	. 3 hours
Foreign Language and Culture)-3 hours
(if not taken in Area C)	

Total hours required for the degree 120 semester 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 Department graduates.



INTERNATIONAL/INTERCULTURAL STUDIES

Dr. Ivan Nikolov, Director 204 Georgia Avenue

The Center for 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.

- 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.

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

Minor in International Studies 18 hours	
Core requirements INTL 2090, INTL 4800, INTL 3500 9 hours	
Minor concentration	
Must include at least 6 hours of upper-division course-	
work. 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	
2. Completion of a language course at the	
intermediate level or above appropriate	
for the focus of the student's	
concentration0-3 hours	
3. Special topics courses compatible	
with the student's approved	
concentration0-6 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 wishing to pursue the minor in international studies must have an overall GPA of 2.75 or better to remain in the program. Students pursuing the multidisciplinary minor must meet with the Coordinator for the Minor in International Studies and their College's International Studies Advisors, who will assist them in the selection of courses for the multidisciplinary program.



EUROPEAN UNION STUDIES CERTIFICATE Dr. Michael Baun, Campus Representative 247 West Hall

The certificate in European Union Studies is operated under the supervision of the European Council of the University System of Georgia. The program is open to all institutions and students of the University System as well as to professionals with an undergraduate degree. The program's purpose is to promote knowledge of the European Union (EU) and certify individuals as competent in the subject area of EU studies. Since the EU is the most important economic and political partner of the United States, this certification demonstrates valuable professional expertise to potential employers. For students in the academic track, the interdisciplinary certificate can be earned as a supplement to any conventional undergraduate degree.

Admission to the Program

A certificate in European Union Studies can be earned in one of two ways. Under the **academic track**, a certificate is taken in tandem with an undergraduate degree program. Students from all academic majors are eligible to participate so long as they possess a minimum 2.75 cumulative Grade Point Average (GPA). Under the **professional track**, non-degree students–such as business executives–are eligible to enroll in the program upon proof of a valid undergraduate degree from an accredited institution. The minimum GPA requirement is waived.

Under either track, an application to the program cannot be made until successful completion of the following: (1) the introductory course on the European Union (POLS 4380) with a grade of "C" or better, (2) 30 semester hours of academic credit, and (3) a course in World or Western Civilization (HIST 1011, 1012, or 1013).

The European Union Studies Certificate

To earn the EU Studies certificate, students must complete the certificate curriculum (18 hours) and fulfill the practicum experience requirement. Students must have a 3.0 cumulative GPA in curriculum courses upon completion of the program. An official certificate is awarded upon graduation, and the certificate is noted on a student's permanent transcripts.

Practicum Experience

Since it is deemed crucial that students demonstrate more than an academic knowledge of the European Union to be certified as adequately prepared in the subject, a "reallife" practicum experience pertaining to the EU must be performed either in the form of an overseas visit or an internship. The overseas option is broadly defined and can be accommodated by a wide range of activities, including study or research abroad. The same flexibility applies to the internship, which can be served domestically or internationally. A student's specific practicum experience must be approved by the program's campus representative.

The EU Studies Certificate Curriculum18	6 hours
The European Union (POLS 4380)3 hours	
Multidisciplinary Menu12 hours	
A student must complete 4 courses from an approved menu	
of courses dealing substantially with the EU. These courses	
must be distributed among at least three different discipline	
areas: Social Sciences, Humanities and Fine Arts, Business	
and Economics, and Natural and Health Sciences. The	
program's campus representative decides which courses	
qualify for the certificate. No more than one course in this	
menu can be taken at the 1000-2000 level, with the exception	
of EU Studies online courses (see below) and study abroad	
courses. Students may substitute for up to two menu courses	
by performing an internship or composing a thesis.	
Capstone Seminar in EU Studies	
Taken either as a Directed Study (POLS 4700) or online course	

Online Courses and Transatlantic Joint Certificate

The EU Studies program has developed a curriculum of online courses in conjunction with European university partners. These are courses in different discipline areas that deal with various aspects of the EU and are taught jointly by University System institutions and European universities at specified times throughout the academic year. The program's campus representative maintains an updated list of these courses and a teaching schedule, as well as information about course registration.

The EU Studies program offers the option of acquiring a certificate that is jointly conferred with a European institution. This option requires students to complete—with a grade of "B" or better—a minimum of two online courses that are co-taught with European partner universities. Students completing this option have the EU Studies certificate awarded by both their home institution and one in Europe, thus giving them an academic credential from a respected European university.

Areas of Distinction

In addition to acknowledging competence in the EU generally, the certificate also highlights special achievements by providing a notation of "distinction" in two areas:

- foreign language proficiency (6 semester hours at or above the 2000 level)
- composition of a thesis

The foreign language distinction must be earned in a European language approved by the program's campus representative as appropriate to the certificate's objectives. A student with prior language skills can earn a distinction by successful completion of an examination demonstrating competence equivalent to the 2000 level. The exam is administered at the student's home institution.

The thesis can be written anytime during the final year of study. It is supervised by a committee composed of three faculty members representing at least two different academic disciplines. The program's campus representative maintains a more detailed description of thesis requirements.



DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE Dr. Mylan Redfern, 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 degrees 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

- Students will learn the algebraic structures-groups, rings, fields, and their applications.
- 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.
- 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.
- 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) **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	
CS 1301 (3 credits "spill over" into "Supporting Courses")	l hours
PHYS 2211K, PHYS 2212K	8 hours

Senior College Curriculum
Courses Required for the Major
MATH 2150, MATH 3600, MATH 4621 9 hours
MATH 3040, MATH 3340, MATH 4150 9 hours
MATH 4081, MATH 4260, MATH 4651 9 hours
MATH 4901, MATH 4910 6 hours
One of the following:
MATH 4622, MATH 4630, MATH 4652,
MATH 4902, PHYS 3100, PHYS 4111,
PHYS 4211, PHYS 4411
Supporting Courses
CS 1301 "spillover" from Area F 3 hours
Foreign Language & Culture
Requirement
Electives
Must include at least 6 hours of courses numbered
3000 or above in a single discpline outside the major.

Additional Requirements and Notes

- 1. Students must complete 16 credits of laboratory science, including the calculusbased physics indicated in Area F.
- 2. A grade of "C" or better must be earned in all "Courses Required for the Major." Also, a grade of "C" or better is required in MATH 1111, 1112, 1113, 2150, 2261, 2262, 2263, and CS 1301, if any of those courses are taken.
- 3. Students must complete a sequence of two courses in any foreign language, 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 required for the degree 120 semester hours

SECOND DEGREE IN MATHEMATICS

The B.S. degree with a major in applied mathematics is available as a second bachelor's degree for students receiving the B.S.Ed. with a major in secondary education in the teaching field of mathematics, by completing CS 1301, MATH 3340, MATH 4260, MATH 4621, MATH 4651, and either MATH 4901 or MATH 4910 (whichever. course was not taken to fulfill the requirements for the B.S.Ed. degree), and 3 credit hours chosen from MATH 3900, MATH 4622, MATH 4630, MATH 4652, MATH 4902.

The B.A. degree with a major in mathematics is available as a second bachelor's degree for students receiving the B.S.Ed. with a major in secondary education in the teaching field of mathematics, by completing MATH 3340, MATH 4260, MATH 4621, MATH 4980, and 6 credit hours chosen from MATH 3010, MATH 4082, MATH 4300, MATH 4540.

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 2150, MATH 2261, MATH 2262, and MATH 2263, as well as all upperdivision MATH courses.

Students interested in graduating with the B.S.Ed. degree and either the B.S. degree with a major in applied mathematics or B.A. degree with a major is mathematics 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

- 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.
- 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.

REQUIREMENTS FOR THE B.S. DEGREE WITH A MAJOR IN COMPUTER SCIENCE

Core Curriculum Areas A-E (See VSU Core Curriculum)
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	s)
Senior College Curriculum.	60 hours

Sei	nor Conege Curriculum	
	Courses Required for the Major	
	CS 3101, CS 3300, CS 3410	
	CS 3520, CS 4345	6 hours
	CS 4121, CS 4321, CS 4721,	
	CS 4500, CS 4900	
	Additional 3000-level or 4000-level	
	courses in CS	
	Additional 4000-level courses in CS	6 hours
	Supporting Courses	
	D.II.a Laboratory Science	
	("spillover" from Area F)	
	MATH 2150 and MATH 3600, and	
	MATH 4651 or MATH 4901	
	Electives	

Additional Notes:

- 1. The 12-hour lab science requirement must include a two course sequence. All three courses must be from Area D.2.a. 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 a foreign language, 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.

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.

REQUIREMENTS FOR THE B.S. DEGREE WITH A MAJOR IN MATHEMATICS WITH COMPUTER SCIENCE OPTION

Core Curriculum Areas A-E (See VSU Core Curriculum)	
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	
MATH 2261 "spillover" from Area D 1 hour	
MATH 2262, MATH 2263	
MATH 2150, CS 1301, CS 1302 9 hours	
(with 2 additional "spillover" hours in "Supporting Courses")	
Senior College Curriculum	
Courses Required for the Major	
MATH 3040, MATH 4081, MATH 4150, 9 hours	
MATH 3600, MATH 4621 6 hours	
MATH 4651, MATH 4901, MATH 4910 9 hours	
Supporting Courses	
CS 1302 "spillover" from Area F 2 hours	
CS 2620, CS 3101, CS 3102, CS 3410 12 hours	
Other upper-division CS courses 6 hours	
Other upper-division CS courses	

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. Students must complete a sequence of two courses in any foreign language, either in "Supporting Courses" in 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.
- 4. The two courses satisfying the 8-hour lab science requirements must be from Area D.2.a.

Total hours required for the degree 120 semester hours

BACHELOR OF SCIENCE DEGREE WITH A MAJOR IN COMPUTER INFORMATION SYSTEMS

Selected Educational Outcomes

- 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 knowledge 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 B. S. DEGREE WITH A MAJOR IN COMPUTER INFORMATION SYSTEMS

Core Curriculum Area F.	18 hours
CS 1301, CS 1302, CS 2620	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.	
CS 3101, CS 3410, CS 4345	
One of CS 3300, CS 3320, CS 3335, CS 3340	
CS 4121, CS 4321, CS 4721	
One of CS 4122, CS 4322, CS 4722	
Two of any 3000-level or 4000-level course not	
required above (excluding CS 3000 and CS 30	001) 6 hours
One of any CS 4000-level course	
not required above	3 hours

Supporting Courses
Completion of the calculus sequence,
MATH 1261-1262 (or MATH 2261-2262) 2-5 hours
MATH 2620 or MATH 3600 3 hours
Choose one of the following areas: 12 hours
Business:
ECON 2106, MGNT 3250, MGNT 3300 plus
either FIN 3350 or MKTG 3050
OR
Technical Communications:
ENGL 3020, ENGL 3080, ENGL 3090, plus
either COMM 1110 or COMM 2400
Electives

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 Area F courses and core curriculum lower-level math courses, all courses required for the major, and all supporting courses.

Total hours required for the degree 120 semester hours

BACHELOR OF ARTS DEGREE WITH A MAJOR IN MATHEMATICS

- 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 B.A. DEGREE WITHA MAJOR IN MATHEMATICS

Core Curriculum Areas A-E (See VSU Core Curriculum) 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.	
MATH 2261 "spillover" from Area D	1 hour
MATH 2262, 2263	8 hours
CS 1010 or CS 1301 or CS 1340	3 hours
(1 credit spills over into "Supporting Courses")	
Part of 3-course sequence in any foreign language	6 hours

Senior College Curriculum.	60 hours
Courses Required for the Major	. 33 hours
MATH 2150, MATH 3600, MATH 4621 9 hours	6
MATH 3040, MATH 3340, MATH 4150 9 hours	5
MATH 4260, MATH 4081, MATH 4980 9 hours	5
Select 2 from: MATH 3010, MATH 3510,	
MATH 4082, MATH 4300, MATH 4540 6 hours	6
Supporting Courses	1 hour
CS 1301 "spillover" from Area F 1 hour	•
Electives	.26 hours
Must include at least 9 hours of courses numbered 30	00 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 any foreign language. 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.

Total hours required for the degree 120 semester 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	6-17 hours
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The Minor in Mathematics may be earned by completing:	
MATH 2262, MATH 3040	7 hours
Plus 3 courses from:	9-10 hours
MATH 2263, MATH 3340, MATH 3600, MATH 415	0,
MATH 4081, MATH 4082, MATH 4260, MATH 430	0,
MATH 4621, MATH 4622, MATH 4651, MATH 4652	2,
MATH 4901, MATH 4902, or MATH 4910	

All courses for the minor must be completed with a grade of "C" or better.

Examples of Outcomes Assessments

The department assesses the extent to which the program requirements create the desired outcomes by a variety of techniques. Examples of these assessments include the following:

- 1. The capstone courses are used to assess student progress since taking Area F courses. They determine if students have mastered effective oral and written communication skills, acquired critical analysis skills, and learned to use the library and technological resources in solving non-routine problems. Assessment methods include student projects and presentations.
- 2. Student examinations and samples of student work are kept in the department and are examined by the faculty to assess student content knowledge.
- 3. Available student and alumni survey data collected by the University will be examined to determine student satisfaction with their undergraduate preparation for further education or employment.