The College of Arts and Sciences is, from both historical and functional points of view, the core of the modern university. The College of Arts and Sciences views creativity, inquiry and understanding as among the greatest values in human experience. Thus, it is dedicated to the questioning, creation and transmission of knowledge; to the provision of undergraduate and graduate educational programs that are responsive to the need for an enlightened and productive citizenry; and to the provision of programs and services that enhance the quality of life of the people it serves. These goals compel a commitment to creativity and inquiry free of bias and based upon the principles of objective scholarship. They require a responsibility to promote and convey those elements of the liberal arts and sciences that must be essential components of the educational goals of all units of the university. The college seeks richness through diversity of its programs and strength through erudition.

Department of Aerospace Studies

Mission

The Department of Aerospace Studies (AFROTC) courses augment students’ normal academic programs to qualify them for an officer’s commission in the United States Air Force. Students who successfully complete the AFROTC program are commissioned second lieutenants when they graduate. Non-flying officers serve four years on active duty, navigators serve six years after training, and pilots ten years after training. Visit the TSU Air Force ROTC web site.

Programs

The AFROTC curriculum has two programs. The Professional Officer Course (POC) consists of four three-hour courses, (AS 3312, 3313, 4412, and 4413). The Aerospace Studies Minor consists of the addition of two approved three-hour courses to the POC program. In addition to the AS academic courses, there is a two hour leadership laboratory (AS L-series) each week. This consists of practical military activities and leadership training conducted within the cadet corps organization.

Eligibility

To be eligible for the Professional Officer Course (AS 3300 and 4400 series), a student must:

a. Be able to commission prior to age 35.

b. Be a United States citizen.

c. Be a full-time student in good standing on the Troy University Troy campus.

d. Obtain a qualifying score on the Air Force Officer Qualifying Test (AFOQT).

e. Be physically qualified in accordance with Air Force standards.

f. Be approved by the professor of aerospace studies.

The administrative processing for admission into the POC takes place as soon as the student decides to enter (year round). There is no military obligation until the student enlists in the Obligated Reserve Section of the US Air Force Reserve, and agrees to accept a commission as a second lieutenant.

Uniforms and Supplies

Uniforms, textbooks and other items required in the AFROTC program are loaned to the student at no charge. However, students are responsible for properly cleaning and maintaining their uniforms. POC students may elect to purchase their uniforms upon commissioning.

Air Force ROTC College Scholarship Program

• High School Students

Full four-year Air Force College Scholarships are awarded on the basis of a nationwide competition to qualified high school seniors. Application should be made online at www.afrotc.com before December 1st of the student’s senior year. The scholarships can be utilized at any school offering the four-year AFROTC program as long as the student meets the entrance requirements. AFROTC Detachment 17 at Troy State University is a two-year AFROTC program, so we cannot accept Air Force ROTC four-year scholarship winners.

• AFROTC Cadets

Two-year junior and senior scholarships are available to some qualified cadets in both flying and non-flying categories. The scholarships provide tuition, fees, and book allowance. For additional information, contact the assistant professor of aerospace studies, Troy State University, Troy, Alabama 36082, at (334) 670-3383, or e-mail: afrotc17@troy.edu.

• AFROTC Incentive Scholarships:

Based on current Air Force needs and academic major, junior and senior AFROTC cadets with a minimum term GPA of 2.00 may receive an incentive scholarship to cover the cost of tuition, books and fees (up to $7,450 per academic year). Eligible cadets must be full-time students and enlisted in the Obligated Reserve Section of the US Air Force Reserve. Cadets must also meet military retention standards and must not reach his/her 31st birthday by 31 December of the year he/she commissions.

Distinguished AFROTC Graduates

Each year, the professor of aerospace studies designates a limited number of graduating cadets as Distinguished AFROTC Graduates. This honor is reflected in the graduate’s official Air Force personnel records.

Department of Biological and Environmental Sciences

The Department of Biological and Environmental Sciences prepares students for graduate studies, health professional fields, teaching positions, and careers in business and government. The Department offers programs in biology (with concentrations in general biology and medical technology), environmental science, biomedical sciences, and marine biology. The Department offers majors in biological and biology education and minors in biology and environmental science.

The biology program provides a strong core curriculum. The general biology concentration offers a broad exposure to coursework for careers in the biological and health sciences. It also provides the academic and field experience for graduate studies and career opportunities in ecology, limnology, field botany, wildlife biology, or fisheries biology. The medical technology concentration provides a strong background in the biological sciences for courses in medical technology and other health-related fields.

The biomedical sciences program prepares students for career opportunities in the biotechnological fields and for graduate studies or professional schools.

The marine biology program provides the academic and field experiences for careers in marine science, such as conducting research at universities and marine laboratories or working at state and federal environmental agencies.

The interdisciplinary environmental science program provides a broad background in natural, physical, and environmental sciences. Graduates are prepared for careers in federal and state regulatory agencies, consulting, nonprofit environmental organizations, industry, and research.

The biology major prepares students for careers at research laboratories, in industry, and with state and local governments. In addition many students with a biology major seek graduate de-
degrees or enter professional schools in medicine, dentistry, pharmacy, or veterinary science.

The minors in biology and environmental science strengthen backgrounds in these areas and expose students to the major themes in these area.

Pre-Health Professions Curricula (medicine, optometry, dentistry, pharmacy, veterinary medicine, physical therapy, etc.)

Students who are interested in careers in the health professions should take BIO 2205 (Career Opportunities in Medicine and Allied Health Professions), preferably during the sophomore or junior year. The course prepares students for interviews, the application process, and reaching career goals.

Primary and Secondary Advisers

Because admission to professional schools is extremely competitive, each student is assigned two advisers: a Primary Adviser and a Secondary (Health Professions) Adviser.

The Primary Adviser oversees the progress in the student’s academic discipline (biology, mathematics, chemistry, etc.) and also provides guidance for fulfilling the specific degree requirements of the student’s program/major.

The Secondary Adviser works closely with students on matters affecting admission to professional schools, such as:

1. Explaining admission requirements and application procedures to professional schools
2. Conducting informational seminars and workshops
3. Writing letters of recommendation and assisting in preparing application forms.
4. Inviting speakers (physicians, pharmacists, dentists, etc.) to speak to students about careers in the health professions.
5. Providing counseling for students on career choices.

Department of Chemistry

The Department of Chemistry offers the baccalaureate degree in chemistry and a minor in chemistry. The curriculum is designed to provide a comprehensive background in the fundamentals of chemistry and to contribute to the general education of the Troy University student. Graduates may be employed by either industry or government. Some graduates also major in education in teaching of chemistry and contribute to the general education of the Troy University student.

The department offers a full range of undergraduate courses in French and Spanish and a four-course elementary and intermediate sequence in German. Students pursuing non-teaching degrees may complete an 18-hour minor in either French or Spanish. The department also offers a full range of courses in Latin and classical civilization, as well as introductory courses in ancient Greek. Students pursuing non-teaching degrees may complete an 18-hour minor in Latin or classics. Contract majors are available both in modern languages and in classics.

In addition to its on-campus offerings, the department has an established six-credit-hour course in French culture on location (FRN 3310-3311) and a six-credit-hour course in Hispanic culture on location (SPN 3350-3357).

Department of Criminal Justice and Social Sciences

The courses offered in the Department of Criminal Justice major are designed to provide broad academic exposure to the field of criminal justice and the opportunity for concentrated study in areas of law enforcement, courts, and the justice system, and corrections. The 36-hour major is designed to develop a general understanding of the multidisciplinary nature of criminal justice in order to prepare students for graduate study or for careers in the criminal justice field. The curriculum provides an overview of the American justice system and develops the student’s ability to critically analyze the problems associated with criminal justice. The program is directed toward developing a criminal justice generalist in the belief that graduate study or specialization in professional law enforcement, the legal field, or correctional practices should be founded upon a broadly based undergraduate education.

Department of English

Faculty in English at Troy University at all campus locations are committed to playing a vital role in the university system’s general studies program. While providing students with a solid base in core courses, the English curriculum offers its majors a focused, in-depth study of writing, rhetoric, literature, research and critical analysis. Judicious selection of courses under the guidance of faculty advisers provides additional focus to the 36-hour major through courses in pedagogy, literary theory, and specific areas of literary interest. Graduates will be prepared to continue advanced, graduate-level study. Further, the bachelor’s degree program will provide an appropriate background for work in such additional areas as law, theology, philosophy, medicine (with science and mathematics preparation), library science, communications, media and business. In addition to the major areas of concentration, all campuses offer an 18-hour minor in English. The Troy campus offers an 18-hour minor in creative writing, while the Montgomery campus offers an 18-hour emphasis in professional writing.

Placement in English Courses

Students will be placed in the appropriate writing course on the basis of test scores and/or writing samples, administered and evaluated prior to registration for the course by a committee of English department members. For more information, contact the English department at the appropriate campus.

Slash-numbered English Courses

Slash-numbered English courses (e.g., 4400/5500) listed are open to graduate and undergraduate students. Graduate students receive 5500 level credit; undergraduate receive 4400 level credit. Two stipulations apply: (1) Graduate students enrolled in any combined undergraduate/graduate course will be required to satisfy research and writing requirements in addition to the regular course requirements; (2) Graduate students may not enroll in a slash-numbered course which duplicates courses listed on their undergraduate transcripts.
**Geomatics Program**

A professional program of study is offered in the sub disciplines of geomatics (surveying and mapping). These sub disciplines include classical survey fundamentals, land surveying, land development, photogrammetry, remote sensing, geodesy, GPS, least squares adjustment, and geographic information systems (GIS). Graduates are eligible to sit for the Fundamentals of Land Surveying (FLS) licensing examination administered by the Alabama State Board of Licensure for Professional Engineers and Land Surveyors. The Alabama Society of Professional Land Surveyors actively supports the geomatics program with scholarships and sponsors student participation in state conventions/seminars. The geomatics program is guided by an advisory board comprised of prominent state and nationally recognized surveying and mapping professionals.

**Department of History**

History is one of the major keystones of a liberal arts education, and the History Department provides the history courses required for the General Studies core. For the Bachelor of Science Degree in History, a student may choose either a non-teaching major or a teaching major in American/Latin American history or European/Asian/African history. The history teaching major must also have a second major in education. History teaching majors should consult their education adviser concerning their education and certification requirements.

**Department of Military Science and Leadership**

**Army Reserve Officer Training Corps (Army ROTC)**

The Military Science and Leadership (Army ROTC) course of study is designed to augment students’ normal academic programs to qualify them for an officer’s commission in the United States Army, Army Reserves, or Army National Guard. Students who successfully complete the Army ROTC program are commissioned Second Lieutenants when they graduate.

The curriculum is divided into two course levels:

A. Basic Course (Basic Leadership) consists of freshman and sophomore level courses that are offered to all students as free elective credit with no military obligation. The basic course or equivalent is required to continue into the Advanced Course.

B. Advanced Course (Officer Development Course) consists of Junior and Senior level courses that are only available to juniors, seniors and graduate students that have met the qualifications of the Basic Course or equivalent.

**Scholarships**

Army ROTC offers two, three, and four year scholarships on a merit based system to qualified students. For more information on the requirements to qualify for scholarships or admission to the Advanced Course please contact Captain Judson Gillett at 670-5623, email Armyrotc@troy.edu, or visit the web site at http://turotc.com.
DRAFT 1
AEROSPACE STUDIES MINOR (18 HOURS)

Available:

AS 3312 (3) Air Force Leadership Studies I
AS 3313 (3) Air Force Leadership Studies II
AS 4412 (3) National Security Affairs/Preparation for Active Duty I
AS 4413 (3) National Security Affairs/Preparation for Active Duty II

Select two three-hour courses from upper level political science (POL) courses, or substitute upper level courses from history (HIS), geography (GEO), or social science (SOC) courses with the approval of the Department of Aerospace Studies chair.

AMERICAN/LATIN AMERICAN HISTORY MAJOR (36 HOURS)

Available:

Specialized General Studies Requirements

Area IV
Select a six hour sequence in western civilization or world history.
Select additional Area IV courses as specified in the general studies section of this catalog.

Area V
IS 2241 (3) Computer Concepts and Applications
TU 1101 (3) University Orientation
HIS 1111 (3) U.S. to 1877, or placement
HIS 1112 (3) U.S. since 1877, or placement

Major Requirements
HIS 3375 (3) Research and Methodology
HIS 4490 (3) Senior Seminar

Select 18 hours of approved, upper-level American/Latin American courses.
Select 12 hours of approved, upper-level European/Asian/African courses.

ANTHROPOLOGY MINOR (18 HOURS)

Available:

ANT 3310 (3) Cultural Anthropology
ANT 3311 (3) Physical Anthropology

Select at least 12 hours of additional 3000/4000 level anthropology courses as approved by your faculty adviser.

APPLIED COMPUTER SCIENCE MAJOR (36 SEMESTER HOURS)

Available:

Specialized General Studies Requirements

Area III
MTH 2201 (3) Business Calculus
Select additional Area III requirements as shown in the general studies section of this catalog.

Area V

BIOLOGY EDUCATION

Available:

Students seeking Alabama teacher certification should select biology as a first major and education as a second major. Students should consult with their advisers concerning all certification requirements.

BIOLOGY MAJOR (43 HOURS)
Specialized General Studies Requirements

General studies requirements for the biology, environmental science, biomedical sciences, and marine biology programs and the biology major total 64 semester hours. See the general studies section of this catalog for complete general studies information.

**Area III**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
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<td>3</td>
<td>Principles of Biology</td>
</tr>
<tr>
<td>BIO L100</td>
<td>1</td>
<td>Principles of Biology Lab</td>
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<tr>
<td>CHM 1142</td>
<td>3</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHM L142</td>
<td>1</td>
<td>General Chemistry I Lab</td>
</tr>
<tr>
<td>MTH 1125</td>
<td>4</td>
<td>Calculus I</td>
</tr>
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**Area V**

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<th>Credits</th>
<th>Description</th>
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<td>IS 2241</td>
<td>3</td>
<td>Computer Concepts and Apps.</td>
</tr>
<tr>
<td>TU 1101</td>
<td>1</td>
<td>University Orientation</td>
</tr>
<tr>
<td>BIO 1101</td>
<td>3</td>
<td>Organismal Biology</td>
</tr>
<tr>
<td>BIO L101</td>
<td>1</td>
<td>Organismal Biology Lab</td>
</tr>
<tr>
<td>CHM 1143</td>
<td>3</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHM L143</td>
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<td>General Chemistry II Lab</td>
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Select one sequence (physics sequence not required for medical technology concentration):

<table>
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<tr>
<th>Course</th>
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<th>Description</th>
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<tbody>
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<td>3</td>
<td>General Physics I</td>
</tr>
<tr>
<td>PHY L252</td>
<td>1</td>
<td>General Physics I Lab</td>
</tr>
<tr>
<td>PHY 2253</td>
<td>3</td>
<td>General Physics II</td>
</tr>
<tr>
<td>PHY L253</td>
<td>1</td>
<td>General Physics II Lab</td>
</tr>
<tr>
<td>PHY 2262</td>
<td>3</td>
<td>Physics I with Calculus</td>
</tr>
<tr>
<td>PHY L262</td>
<td>1</td>
<td>Physics I with Calculus Lab</td>
</tr>
<tr>
<td>PHY 2263</td>
<td>3</td>
<td>Physics II with Calculus</td>
</tr>
<tr>
<td>PHY L263</td>
<td>1</td>
<td>Physics II with Calculus Lab</td>
</tr>
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</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 2229</td>
<td>3 SH</td>
<td>General Ecology</td>
</tr>
<tr>
<td>BIO 2229</td>
<td>1 SH</td>
<td>General Ecology Lab</td>
</tr>
<tr>
<td>BIO 3320</td>
<td>3 SH</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIO 3320</td>
<td>1 SH</td>
<td>Genetics Lab</td>
</tr>
<tr>
<td>BIO 3372</td>
<td>3 SH</td>
<td>Microbiology</td>
</tr>
<tr>
<td>BIO 3372</td>
<td>1 SH</td>
<td>Microbiology Lab</td>
</tr>
<tr>
<td>CHM 3342</td>
<td>3 SH</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHM 3342</td>
<td>1 SH</td>
<td>Organic Chemistry I Lab</td>
</tr>
<tr>
<td>CHM 3343</td>
<td>3 SH</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>CHM 3343</td>
<td>1 SH</td>
<td>Organic Chemistry II Lab</td>
</tr>
<tr>
<td>MTH 2210</td>
<td>3 SH</td>
<td>Applied Statistics</td>
</tr>
</tbody>
</table>

Select one botany course with its corresponding lab:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 3325</td>
<td>3 SH</td>
<td>Plant Form and Function</td>
</tr>
<tr>
<td>BIO 3325</td>
<td>1 SH</td>
<td>Plant Form and Function Lab</td>
</tr>
<tr>
<td>BIO 3326</td>
<td>3 SH</td>
<td>Plant Diversity</td>
</tr>
<tr>
<td>BIO 3326</td>
<td>1 SH</td>
<td>Plant Diversity Lab</td>
</tr>
<tr>
<td>BIO 4402</td>
<td>4 SH</td>
<td>Spring Flora</td>
</tr>
<tr>
<td>BIO 4425</td>
<td>4 SH</td>
<td>Fall Flora</td>
</tr>
</tbody>
</table>

Select one zoology course with its corresponding lab:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 3307</td>
<td>3 SH</td>
<td>Invertebrate Zoology</td>
</tr>
<tr>
<td>BIO 3307</td>
<td>1 SH</td>
<td>Invertebrate Zoology Lab</td>
</tr>
<tr>
<td>BIO 3308</td>
<td>3 SH</td>
<td>Vertebrate Zoology</td>
</tr>
<tr>
<td>BIO 3308</td>
<td>1 SH</td>
<td>Vertebrate Zoology Lab</td>
</tr>
<tr>
<td>BIO 4405</td>
<td>3 SH</td>
<td>Entomology</td>
</tr>
</tbody>
</table>

**BIOLOGY MINOR (18-20 HOURS)**

Select one ecology/environmental course with its corresponding lab:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 2202</td>
<td>3 SH</td>
<td>Principles of Environmental Science</td>
</tr>
<tr>
<td>BIO 2202</td>
<td>1 SH</td>
<td>Principles of Environmental Science Lab</td>
</tr>
<tr>
<td>BIO 4413</td>
<td>3 SH</td>
<td>Limnology</td>
</tr>
<tr>
<td>BIO 4413</td>
<td>1 SH</td>
<td>Limnology Lab</td>
</tr>
<tr>
<td>BIO 4416</td>
<td>3 SH</td>
<td>Environmental Microbiology</td>
</tr>
<tr>
<td>BIO 4416</td>
<td>1 SH</td>
<td>Environmental Microbiology Lab</td>
</tr>
<tr>
<td>BIO 4421</td>
<td>3 SH</td>
<td>Population Ecology</td>
</tr>
<tr>
<td>BIO 4421</td>
<td>1 SH</td>
<td>Population Ecology Lab</td>
</tr>
<tr>
<td>BIO 4479</td>
<td>3 SH</td>
<td>Environmental Assessment</td>
</tr>
<tr>
<td>BIO 4479</td>
<td>1 SH</td>
<td>Environmental Assessment Lab</td>
</tr>
</tbody>
</table>

Select one physiology/cell/molecular course with its corresponding lab:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>BIO 3347</td>
<td>3 SH</td>
<td>Human Anatomy and Physiology I</td>
</tr>
<tr>
<td>BIO 3347</td>
<td>1 SH</td>
<td>Human Anatomy and Physiology I Lab</td>
</tr>
<tr>
<td>BIO 3348</td>
<td>3 SH</td>
<td>Human Anatomy and Physiology II</td>
</tr>
<tr>
<td>BIO 3348</td>
<td>1 SH</td>
<td>Human Anatomy and Physiology II Lab</td>
</tr>
<tr>
<td>BIO 3382</td>
<td>3 SH</td>
<td>Immunology</td>
</tr>
<tr>
<td>BIO 3382</td>
<td>1 SH</td>
<td>Immunology Lab</td>
</tr>
<tr>
<td>BIO 3386</td>
<td>3 SH</td>
<td>Hematology</td>
</tr>
<tr>
<td>BIO 3386</td>
<td>1 SH</td>
<td>Hematology Lab</td>
</tr>
<tr>
<td>BIO 4414</td>
<td>3 SH</td>
<td>Food Microbiology</td>
</tr>
<tr>
<td>BIO 4414</td>
<td>1 SH</td>
<td>Food Microbiology Lab</td>
</tr>
<tr>
<td>BIO 4430</td>
<td>3 SH</td>
<td>Applied Genetics</td>
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<td>BIO 4430</td>
<td>1 SH</td>
<td>Applied Genetics Lab</td>
</tr>
<tr>
<td>BIO 4433</td>
<td>3 SH</td>
<td>Embryology</td>
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<td>BIO 4433</td>
<td>1 SH</td>
<td>Embryology Lab</td>
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<tr>
<td>BIO 4451</td>
<td>3 SH</td>
<td>Toxicology</td>
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<tr>
<td>BIO 4451</td>
<td>1 SH</td>
<td>Toxicology Lab</td>
</tr>
<tr>
<td>BIO 4478</td>
<td>3 SH</td>
<td>Cell Biology</td>
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<tr>
<td>BIO 4478</td>
<td>1 SH</td>
<td>Cell Biology Lab</td>
</tr>
<tr>
<td>BIO 4480</td>
<td>3 SH</td>
<td>Histology</td>
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<td>BIO 4480</td>
<td>1 SH</td>
<td>Histology Lab</td>
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<tr>
<td>BIO 4482</td>
<td>3 SH</td>
<td>Molecular Biology</td>
</tr>
<tr>
<td>BIO 4482</td>
<td>1 SH</td>
<td>Molecular Biology Lab</td>
</tr>
<tr>
<td>BIO 4482</td>
<td>3 SH</td>
<td>Molecular Biology Lab</td>
</tr>
<tr>
<td>BIO 4482</td>
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<td>Molecular Biology Lab</td>
</tr>
</tbody>
</table>

Select one upper-level (3300 or above) adviser-approved biology course and its corresponding lab.
Available

Lectures and the corresponding labs must be taken together:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 1101</td>
<td>3</td>
<td>Organismal Biology</td>
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<tr>
<td>BIO L101</td>
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<td>BIO 2229</td>
<td>3</td>
<td>General Ecology</td>
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<tr>
<td>BIO L229</td>
<td>1</td>
<td>General Ecology Lab</td>
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<tr>
<td>BIO 3320</td>
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<td>Genetics</td>
</tr>
<tr>
<td>BIO L320</td>
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<td>Genetics Lab</td>
</tr>
<tr>
<td>BIO 3372</td>
<td>3</td>
<td>Microbiology</td>
</tr>
<tr>
<td>BIO L372</td>
<td>1</td>
<td>Microbiology Lab</td>
</tr>
</tbody>
</table>

Select 2-4 additional semester hours of approved upper-level (3300 or above) biology courses with corresponding labs.

**BIOLOGY PROGRAM**

**Available**

**Specialized General Studies Requirements**

General studies requirements for the biology, environmental science, biomedical sciences, and marine biology programs and the biology major total 64 semester hours. See the general studies section of this catalog for complete general studies information.

**Area III**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BIO 1100</td>
<td>3</td>
<td>Principles of Biology</td>
</tr>
<tr>
<td>BIO L100</td>
<td>1</td>
<td>Principles of Biology Lab</td>
</tr>
<tr>
<td>CHM 1142</td>
<td>3</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHM L142</td>
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</tr>
<tr>
<td>MTH 1125</td>
<td>4</td>
<td>Calculus I</td>
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</table>

**Area V**

<table>
<thead>
<tr>
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<th>Credits</th>
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</tr>
</thead>
<tbody>
<tr>
<td>IS 2241</td>
<td>3</td>
<td>Computer Concepts and Apps.</td>
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<tr>
<td>TU 1101</td>
<td>1</td>
<td>University Orientation</td>
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<tr>
<td>BIO 1101</td>
<td>3</td>
<td>Organismal Biology</td>
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<tr>
<td>BIO L101</td>
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<tr>
<td>CHM 1143</td>
<td>3</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHM L143</td>
<td>1</td>
<td>General Chemistry II Lab</td>
</tr>
</tbody>
</table>

Select one sequence (physics sequence not required for medical technology concentration):

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
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<tr>
<td>PHY 2253</td>
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<td>General Physics II</td>
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</tr>
<tr>
<td>PHY 2262</td>
<td>3</td>
<td>Physics I with Calculus</td>
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<tr>
<td>PHY L262</td>
<td>1</td>
<td>Physics I with Calculus Lab</td>
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<tr>
<td>PHY 2263</td>
<td>3</td>
<td>Physics II with Calculus</td>
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<td>PHY L263</td>
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**Major Requirements**

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>3</td>
<td>General Ecology</td>
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<tr>
<td>BIO L229</td>
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<td>General Ecology Lab</td>
</tr>
<tr>
<td>BIO 3320</td>
<td>3</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIO L320</td>
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<td>Genetics Lab</td>
</tr>
<tr>
<td>BIO 3372</td>
<td>3</td>
<td>Microbiology</td>
</tr>
<tr>
<td>BIO L372</td>
<td>1</td>
<td>Microbiology Lab</td>
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<td>CHM 3342</td>
<td>3</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHM L342</td>
<td>1</td>
<td>Organic Chemistry I Lab</td>
</tr>
<tr>
<td>CHM 3343</td>
<td>3</td>
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</tr>
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<td>CHM L343</td>
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<tbody>
<tr>
<td>MTH 2210</td>
<td>3</td>
<td>Applied Statistics</td>
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</table>

Select either the general biology concentration (55 hours) or the medical technology concentration (76 hours).

**General Biology Concentration**

Select one botany course with its corresponding lab:

<table>
<thead>
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<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 3325</td>
<td>3</td>
<td>Plant Form and Function</td>
</tr>
<tr>
<td>BIO L325</td>
<td>1</td>
<td>Plant Form and Function Lab</td>
</tr>
<tr>
<td>BIO 3326</td>
<td>3</td>
<td>Plant Diversity</td>
</tr>
<tr>
<td>BIO L326</td>
<td>1</td>
<td>Plant Diversity Lab</td>
</tr>
<tr>
<td>BIO 4402</td>
<td>4</td>
<td>Spring Flora</td>
</tr>
<tr>
<td>BIO 4425</td>
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<td>Fall Flora</td>
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Select one zoology course with its corresponding lab:

<table>
<thead>
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<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BIO 3307</td>
<td>3</td>
<td>Invertebrate Zoology</td>
</tr>
<tr>
<td>BIO L307</td>
<td>1</td>
<td>Invertebrate Zoology Lab</td>
</tr>
<tr>
<td>BIO 3308</td>
<td>3</td>
<td>Vertebrate Zoology</td>
</tr>
<tr>
<td>BIO L308</td>
<td>1</td>
<td>Vertebrate Zoology Lab</td>
</tr>
<tr>
<td>BIO 4405</td>
<td>3</td>
<td>Entomology</td>
</tr>
<tr>
<td>BIO L405</td>
<td>1</td>
<td>Entomology Lab</td>
</tr>
<tr>
<td>BIO 4410</td>
<td>3</td>
<td>Animal Behavior</td>
</tr>
<tr>
<td>BIO L410</td>
<td>1</td>
<td>Animal Behavior Lab</td>
</tr>
<tr>
<td>BIO 4420</td>
<td>4</td>
<td>Field Vertebrate Zoology</td>
</tr>
<tr>
<td>BIO 4432</td>
<td>3</td>
<td>Comparative Vertebrate Anatomy</td>
</tr>
<tr>
<td>BIO L432</td>
<td>1</td>
<td>Comparative Vertebrate Anatomy</td>
</tr>
<tr>
<td>BIO 4445</td>
<td>3</td>
<td>Ichthyology</td>
</tr>
<tr>
<td>BIO L445</td>
<td>1</td>
<td>Ichthyology Lab</td>
</tr>
<tr>
<td>BIO 4446</td>
<td>3</td>
<td>Herpetology</td>
</tr>
<tr>
<td>BIO L446</td>
<td>1</td>
<td>Herpetology Lab</td>
</tr>
<tr>
<td>BIO 4447</td>
<td>3</td>
<td>Ornithology</td>
</tr>
<tr>
<td>BIO L447</td>
<td>1</td>
<td>Ornithology Lab</td>
</tr>
<tr>
<td>BIO 4448</td>
<td>3</td>
<td>Mammalogy</td>
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<td>BIO L448</td>
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<td>Mammalogy Lab</td>
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<tr>
<td>BIO 4471</td>
<td>3</td>
<td>Parasitology</td>
</tr>
<tr>
<td>BIO L471</td>
<td>1</td>
<td>Parasitology Lab</td>
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</tbody>
</table>

Select one ecology/environmental course with its corresponding lab:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
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</tr>
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<tbody>
<tr>
<td>BIO 4413</td>
<td>3</td>
<td>Limnology</td>
</tr>
<tr>
<td>BIO L413</td>
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<td>Limnology Lab</td>
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<tr>
<td>BIO 4416</td>
<td>3</td>
<td>Environmental Microbiology</td>
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<td>BIO L416</td>
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<td>Environmental Microbiology Lab</td>
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<tr>
<td>BIO 4421</td>
<td>3</td>
<td>Population Ecology</td>
</tr>
<tr>
<td>BIO L421</td>
<td>1</td>
<td>Population Ecology Lab</td>
</tr>
<tr>
<td>BIO 4479</td>
<td>3</td>
<td>Environmental Assessment</td>
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<tr>
<td>BIO L479</td>
<td>1</td>
<td>Environmental Assessment Lab</td>
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</table>

Select one physiology/cell/molecular course with its corresponding lab:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 3347</td>
<td>3</td>
<td>Human Anatomy and Physiology I</td>
</tr>
<tr>
<td>BIO L347</td>
<td>1</td>
<td>Human Anatomy and Physiology I</td>
</tr>
<tr>
<td>BIO 3348</td>
<td>3</td>
<td>Human Anatomy and Physiology II</td>
</tr>
<tr>
<td>BIO L348</td>
<td>1</td>
<td>Human Anatomy and Physiology II</td>
</tr>
<tr>
<td>BIO 3382</td>
<td>3</td>
<td>Immunology</td>
</tr>
<tr>
<td>BIO L382</td>
<td>1</td>
<td>Immunology Lab</td>
</tr>
<tr>
<td>BIO 3386</td>
<td>3</td>
<td>Hematology</td>
</tr>
<tr>
<td>BIO L386</td>
<td>1</td>
<td>Hematology Lab</td>
</tr>
</tbody>
</table>
BIO 4414 (3) Food Microbiology  
CHM L142 (1) General Chemistry I Lab  
MTH 1125 (4) Calculus I  

BIO L414 (1) Food Microbiology Lab  

BIO 4430 (3) Applied Genetics  
BIO L430 (1) Applied Genetics Lab  

BIO 4433 (3) Embryology  
BIO L433 (1) Embryology Lab  

BIO 4451 (3) Toxicology  
BIO L451 (1) Toxicology Lab  

BIO 4478 (3) Cell Biology  
BIO L478 (1) Cell Biology Lab  

BIO 4480 (3) Histology  
BIO L480 (1) Histology Lab  

BIO 4482 (3) Molecular Biology  
BIO L482 (1) Molecular Biology Lab  

Select 16 additional semester hours (four courses with labs) from the four above categories (botany, zoology, ecology/environmental, and physiology/cell/molecular). Guided Independent Research (BIO 4491/4492) or Guided Independent Study (BIO 4493/4494) may be taken for up to 6 of these credits. BIO 4491 and 4493 may be mixed and taken in any sequence for up to 6 credits. However, the two course sequences of BIO 4491/4492 and BIO 4493/4494 may not be taken for more than 6 credits regardless of the mix. The 16 hours chosen should be based on the student’s future plans (employment, graduate school, or professional school).

Select 8 semester hours of upper-level general electives.

Medical Technology Concentration

Students must complete 29 semester hours on the Troy campus prior to applying for an internship.

Lectures and their corresponding labs must be taken together.

BIO 3347 (3) Human Anatomy and Physiology I  
BIO L347 (1) Human Anatomy and Physiology I Lab  

BIO 3348 (3) Human Anatomy and Physiology II  
BIO L348 (1) Human Anatomy and Physiology II Lab  

BIO 3382 (3) Immunology  
BIO L382 (1) Immunology Lab  

BIO 3386 (3) Hematology  
BIO L386 (1) Hematology Lab  

BIO 4471 (3) Parasitology  
BIO L471 (1) Parasitology Lab  

In addition to the above courses, including core courses, students must complete 33 semester hours of hospital internship MT 4400-4413 Medical Technology hospital internship courses.

Biomedical Sciences Core (32 semester hours).

Choose 24 to 32 semester hours from the courses listed below. With their advisor’s approval, students have the option of selecting one botany course and/or one zoology course and may substitute one or both for an equal number of credits from the courses listed below. Also, Guided Independent Research (BIO 4491/4492) or Guided Independent Study (BIO 4493/4494) may be taken for up to 6 of these credits. BIO 4491 and 4493 may be mixed and taken in any sequence for up to 6 credits. However, the two course sequences of BIO 4491/4492 and BIO 4493/4494 may not be taken for more than 6 credits regardless of the mix.

BIO 3347 (3) Human Anatomy and Physiology I  
BIO L347 (1) Human Anatomy and Physiology I Lab  

BIO 3348 (3) Human Anatomy and Physiology II  
BIO L348 (1) Human Anatomy and Physiology II Lab  

BIO 3382 (3) Immunology  
BIO L382 (1) Immunology Lab  

BIO 3386 (3) Hematology  
BIO L386 (1) Hematology Lab  

BIO 4414 (3) Food Microbiology
BIO L414  (1)  Food Microbiology Lab
BIO 4416  (3)  Environmental Microbiology.
BIO L416  (1)  Environmental Microbiology Lab
BIO 4430  (3)  Applied Genetics
BIO L430  (1)  Applied Genetics Lab
BIO 4432  (3)  Comparative Vertebrate Anatomy
BIO L432  (1)  Comparative Vertebrate Anatomy Lab
BIO 4433  (3)  Embryology
BIO L433  (1)  Embryology Lab
BIO 4451  (3)  Toxicology
BIO L451  (1)  Toxicology Lab
BIO 4471  (3)  Parasitology
BIO L471  (1)  Parasitology Lab
BIO 4478  (3)  Cell Biology
BIO L478  (1)  Cell Biology Lab
BIO 4480  (3)  Histology
BIO L480  (1)  Histology Lab
BIO 4482  (3)  Molecular Biology
BIO L482  (1)  Molecular Biology Lab
CHM 3357  (3)  Biochemistry I
CHM L357  (1)  Biochemistry I Lab
CHM 3358  (3)  Biochemistry II

Select 8 semester hours of upper-level general electives.

---

**CHEMISTRY PROGRAM (51 HOURS)**

**Available**

**Specialized General Studies Requirements**

**Area III**

**CHEMISTRY MAJOR (37 HOURS)**

**Available**

General Studies Requirements Specific to this Major:

**Area III**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Hours</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>BIO 1100</td>
<td>3</td>
<td>Principles of Biology</td>
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<tr>
<td>BIO L100</td>
<td>1</td>
<td>Principles of Biology Lab</td>
</tr>
<tr>
<td>CHM 1142</td>
<td>3</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHM L142</td>
<td>1</td>
<td>General Chemistry I Lab</td>
</tr>
<tr>
<td>MTH 1115</td>
<td>3</td>
<td>Pre-calculus Algebra and Trig.</td>
</tr>
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</table>

**Area V**

<table>
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<tr>
<th>Course Code</th>
<th>Hours</th>
<th>Description</th>
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<tbody>
<tr>
<td>IS 2241</td>
<td>3</td>
<td>Computer Concepts and Applications</td>
</tr>
<tr>
<td>TU 1101</td>
<td>1</td>
<td>University Orientation</td>
</tr>
<tr>
<td>MTH 1125</td>
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<td>Calculus I</td>
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Select one option:

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<th>Hours</th>
<th>Description</th>
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<tr>
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<td>3</td>
<td>General Physics I</td>
</tr>
<tr>
<td>PHY L252</td>
<td>1</td>
<td>General Physics I Laboratory</td>
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<tr>
<td>PHY 2253</td>
<td>3</td>
<td>General Physics II</td>
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<tr>
<td>PHY L253</td>
<td>1</td>
<td>General Physics II Laboratory</td>
</tr>
<tr>
<td>or PHY 2262</td>
<td>3</td>
<td>Physics with Calculus I</td>
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<tr>
<td>PHY L262</td>
<td>1</td>
<td>Physics with Calculus I Laboratory</td>
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<tr>
<td>PHY 2263</td>
<td>3</td>
<td>Physics with Calculus II</td>
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**CHEMISTRY CORE (34 HOURS)**

<table>
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<th>Description</th>
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<td>3</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHM L143</td>
<td>1</td>
<td>General Chemistry II Laboratory</td>
</tr>
<tr>
<td>CHM 2242</td>
<td>3</td>
<td>Analytical Chemistry</td>
</tr>
<tr>
<td>CHM L242</td>
<td>1</td>
<td>Analytical Chemistry Laboratory</td>
</tr>
<tr>
<td>CHM 3342</td>
<td>3</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHM L342</td>
<td>1</td>
<td>Organic Chemistry I Laboratory</td>
</tr>
<tr>
<td>CHM 3343</td>
<td>3</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>CHM L343</td>
<td>1</td>
<td>Organic Chemistry II Laboratory</td>
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<tr>
<td>CHM 3381</td>
<td>3</td>
<td>Physical Chemistry I</td>
</tr>
<tr>
<td>CHM L381</td>
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<td>Physical Chemistry I Laboratory</td>
</tr>
<tr>
<td>CHM 3382</td>
<td>3</td>
<td>Physical Chemistry II</td>
</tr>
<tr>
<td>CHM 4444</td>
<td>3</td>
<td>Advanced Inorganic Chemistry</td>
</tr>
<tr>
<td>CHM 4445</td>
<td>3</td>
<td>Instrumental Analysis</td>
</tr>
<tr>
<td>CHM L445</td>
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<td>Instrumental Analysis Laboratory</td>
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<tr>
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Select 3 hours of chemistry electives:

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<tbody>
<tr>
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<td>3</td>
<td>Biochemistry I and CHM L357 (1)</td>
</tr>
<tr>
<td>CHM 3358</td>
<td>3</td>
<td>Biochemistry II</td>
</tr>
<tr>
<td>CHM L382</td>
<td>1</td>
<td>Physical Chemistry II Laboratory</td>
</tr>
<tr>
<td>CHM 4400</td>
<td>3</td>
<td>Special Topics</td>
</tr>
<tr>
<td>CHM 4403</td>
<td>3</td>
<td>Advanced Organic Chemistry</td>
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<tr>
<td></td>
<td></td>
<td>(offered only at Dothan)</td>
</tr>
<tr>
<td>CHM L444</td>
<td>1</td>
<td>Advanced Inorganic Chemistry Lab</td>
</tr>
<tr>
<td>CHM 4491/2</td>
<td>1-3</td>
<td>Guided Independent Research</td>
</tr>
<tr>
<td>CHM 4493/4</td>
<td>1-3</td>
<td>Guided Independent Study</td>
</tr>
<tr>
<td>CHM 4499</td>
<td>1</td>
<td>Senior Research Seminar</td>
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**CHEMISTRY MINOR (20 HOURS)**

**Available**

<table>
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<th>Hours</th>
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<tr>
<td>CHM 1142</td>
<td>3</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHM L142</td>
<td>1</td>
<td>General Chemistry I Laboratory</td>
</tr>
<tr>
<td>CHM 1143</td>
<td>3</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHM L143</td>
<td>1</td>
<td>General Chemistry II Laboratory</td>
</tr>
<tr>
<td>CHM 3342</td>
<td>3</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHM L342</td>
<td>1</td>
<td>Organic Chemistry I Laboratory</td>
</tr>
<tr>
<td>CHM 3343</td>
<td>3</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>CHM L343</td>
<td>1</td>
<td>Organic Chemistry II Laboratory</td>
</tr>
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</table>

Select 4 additional hours of advanced chemistry courses, such as

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 2242/L242</td>
<td></td>
<td>Analytical Chemistry and lab</td>
</tr>
<tr>
<td>CHM 3357/L357</td>
<td></td>
<td>Biochemistry I and lab</td>
</tr>
</tbody>
</table>

Note: The minor requires 20 hours in addition to the hours required for a major. For example, the biology major requires Organic Chemistry II and lab, so a student majoring in biology would need to select 8, not 4, additional hours of advanced chemistry courses.

**CHEMISTRY PROGRAM (51 HOURS)**

**Available**

**Specialized General Studies Requirements**

**Area III**

Students seeking Alabama teacher certification should select chemistry as a first major and education as a second major. Students should consult with their advisers concerning all certification requirements. To be considered highly qualified, education majors should select CHM 3357, Biochemistry I, as a chemistry elective.
BIO 1100  (3) Principles of Biology
BIO L100  (1) Principles of Biology Lab
CHM 1142  (3) General Chemistry I
CHM L142  (1) General Chemistry I Lab
MTH 1115  (3) Pre-calculus Algebra and Trig.

Chemistry, Mathematics, and Physics Core Courses
CHM 1143  (3) General Chemistry II
CHM L143  (1) General Chemistry II Laboratory
CHM 2242  (3) Analytical Chemistry
CHM L242  (1) Analytical Chemistry Laboratory
CHM 3342  (3) Organic Chemistry I
CHM L342  (1) Organic Chemistry I Laboratory
CHM 3343  (3) Organic Chemistry II
CHM L343  (1) Organic Chemistry II Laboratory
CHM 3381  (3) Physical Chemistry I
CHM L381  (1) Physical Chemistry I Laboratory
CHM 3382  (3) Physical Chemistry II
CHM 4444  (3) Advanced Inorganic Chemistry
CHM L444  (1) Instrumental Analysis Laboratory

MTH 1125  (4) Calculus I
MTH 1126  (4) Calculus II

Select one series:
PHY 2252  (3) General Physics I
PHY L252  (1) General Physics I Laboratory
PHY 2253  (3) General Physics II
PHY L253  (1) General Physics II Laboratory
or
PHY 2262  (3) Physics with Calculus I
PHY L262  (1) Physics with Calculus I Laboratory
PHY 2263  (3) Physics with Calculus II
PHY L263  (1) Physics with Calculus II Laboratory

Select 5 hours of chemistry electives:
CHM 3357  (3) Biochemistry I
CHM L357  (1) Biochemistry Laboratory
CHM 3358  (3) Biochemistry II
CHM L382  (1) Physical Chemistry II Laboratory
CHM 4400  (3) Special Topics
CHM 4403  (3) Advanced Organic Chemistry
(offer only at Dothan)
CHM L444  (1) Advanced Inorganic Chemistry Laboratory
CHM 4491/2  (1-3) Guided Independent Research
CHM 4493/4  (1-3) Guided Independent Study
CHM 4499  (1) Senior Research Seminar

General Studies Requirements

Area III
MTH 1125  (4) Calculus I, in lieu of MTH 1110
Select remaining Area III courses as shown in the general studies section of this catalog.

Area V
CS 2244  (3) Computer Science I
CS 2260  (3) Computer Science II
CS 2261  (3) Foundations of Computer Science Concepts
CS 3323  (3) Data Structures
CS 3332  (3) Software Engineering I
CS 3343  (3) Formal Languages and the Theory of Computation
CS 3357  (3) Logical Structures of Computer Design
CS 3365  (3) Intro to Computer Organization and Architectures
CS 3370  (3) Nature of Programming Languages
CS 4420  (3) Introduction to Database Management Systems
CS 4445  (3) Data Communication and Networking
CS 4448  (3) Operating Systems

Requirements for this Program:
MTH 1126  (4) Calculus II
MTH 2215  (3) Applied Discrete Mathematics
CS 2260  (3) Computer Science II
CS 4401  (3) Special Topics in AI
CS 4443  (3) Web Based Software Development
CS 4447  (3) Systems Analysis and Design
CS 4451  (3) Computer Security and Reliability
CS 4461  (3) Software Engineering II
CS 4462  (3) Special Topics in Object-Oriented Technology

Select two of the following:
MTH 2210  (3) Applied Statistics
CS 3325  (3) Operations Research
CS 3331  (3) Fundamentals of Artificial Intelligence
CS 3339  (3) Fundamentals of Object-Oriented Programming
CS 4401  (3) Special Topics in AI
CS 4443  (3) Web Based Software Development
CS 4447  (3) Systems Analysis and Design
CS 4451  (3) Computer Security and Reliability
CS 4461  (3) Software Engineering II
CS 4462  (3) Special Topics in Object-Oriented Technology

Select 12 semester hours of computer science courses with at least one course being at the 4000 level.

COMPUTER SCIENCE MINOR (18 HOURS)
Available
CS 2244  (____) Computer Science I
CS 2260  (____) Computer Science II

Select 12 semester hours of computer science courses with at least one course being at the 4000 level.

COMPUTER SCIENCE PROGRAM (49 HOURS)
Available

CLASSICS MINOR (18 HOURS)
Available
CLA 2260  (3) Classical Mythology
CLA 3311  (3) Civilization of Greece
CLA 3312  (3) Civilization of Rome

Note: If CLA 2260 is taken to fulfill general studies requirements, an additional course must be elected below.

Select 9 or 12 hours of electives:
CLAS 3330 (3) Classical Epic
CLAS 3350 (3) Classical Drama
CLAS 4400 (3) Special Topics in Classics
LAT ____ (3) Approved Latin course
GRK ____ (3) Approved Greek course

CRIMINAL JUSTICE MAJOR (36 HOURS)

Available

Criminal justice majors are encouraged to take two semesters of Spanish or another foreign language as part of their general studies requirements.

CJ 1101 (3) Introduction to Criminal Justice
CJ 2221 (3) Survey of Law Enforcement
CJ 2241 (3) Survey of Law and Criminal Procedure
CJ 3345 (3) Criminology
CJ 3352 (3) Constitutional Law
CJ 3375 (3) Introduction to Social Scientific Inquiry
CJ 4499 (3) Senior Seminar

Select 12 additional hours of advanced (2000) or upper (3000-4000) level Criminal Justice courses, as approved by faculty adviser.

CRIMINAL JUSTICE MINOR (18 HOURS)

Available

CJ 1101 (3) Introduction to Criminal Justice

Select 15 additional hours of upper level (3000-4000) criminal justice courses as approved by the faculty adviser.

EARTH AND SPACE STUDIES MINOR (18 HOURS)

Available

SCI 3335 Physical Geology (3 SH)
SCI L335 Physical Geology Lab (1 SH)
SCI 3336 Astronomy (3 SH)
SCI 3340 Marine Science (3 SH)
SCI L340 Marine Science Lab (1 SH)
SCI 3350 Weather and Climate (3 SH)
SCI L350 Weather and Science Lab (1 SH)
SCI 4403 Conservation (3 SH)

ENGLISH MAJOR (36 HOURS)

Available

Specialized General Studies Requirements

Area V

ENG 2211 (3) Advanced Grammar
ENG 2212 (3) Technical and Professional Editing
ENG 3345 (3) Introduction to Linguistics
ENG 3351 (3) Creative Writing I
ENG 3352 (3) Creative Writing II
ENG 4400 (3) Selected Topics
ENG 4405 (3) History of English Language

Select an additional 33 hours of upper division courses, at least 9 of which are at the 4000 level or above.

· Professional Writing Emphasis

Available: Montgomery

Students at the Montgomery campus may select the Professional Writing Emphasis. In addition to ENG 3341, the following courses are required:

ENG 2260 (3) Introduction to Technical and Professional Writing
ENG 3345 (3) Technical and Professional Editing
ENG 3365 (3) Advanced Technical and Professional Writing
ENG 3366 (3) Professional Document Design
ENG 4488 (3) Seminar in Professional Writing Portfolio Design
ENG 4490 (3) Professional Writing Internship

Select an additional four courses:

ENG 3342 (3) Advanced Composition
ENG 3320 (3) Introduction to Linguistics
ENG 3351 (3) Creative Writing I
ENG 3352 (3) Creative Writing II
ENG 4400 (3) Selected Topics
ENG 4405 (3) History of English Language

· English Language Arts Emphasis / Option B Teacher Certification Program

Available: Troy and Dothan campuses

This emphasis is required for all English majors seeking Alabama certification for teaching in secondary schools.

ENG 3341 (3) Advanced Algebra
ENG 3342 (3) Advanced Writing
ENG 3371 (3) Literature for Young Adults
ENG 4405 (3) History of Language

Select 24 hours of upper division English electives, nine (9) of which must be at the 4000 level, three (3) of which may be upper-level creative writing.

18-hour Concentration in Drama, Speech, and Journalism

DRA 2211 (1) Theatre for Youth
DRA 2245 (1) Stagecraft Lab
DRA 3345 (1) Advanced Stagecraft Lab
DRA 3301 (2) Acting I
DRA 3304 (2) Lighting Techniques
DRA 4451 (3) Directing I
SPH 3342 (3) Argumentation and Debate
SPH 4441 (2) Oral Interpretation
JRN 3326 (3) Advising Student Publications

ENGLISH MINOR (18 HOURS)

Available

ENG 3341 (3)
Select one sequence:
ENG 2211 (3)  
ENG 2212 (3)

or

ENG 2244 (3)  
ENG 2245 (3)

Select an additional nine hours of upper division English courses.

ENGLISH MINOR, PROFESSIONAL WRITING EMPHASIS (18 HOURS)

Available: Montgomery

ENG 2260 (3) Intro. To Tech. and Prof. Writing  
ENG 3345 (3) Technical and Prof. Editing
ENG 3365 (3) Adv. Tech and Prof. Writing  
ENG 3366 (3) Professional Document Design

Select an additional six hours from the following:
ENG 3342 (3) Advanced Composition  
ENG 3320 (3) Introduction to Linguistics
ENG 3351 (3) Creative Writing I  
ENG 3352 (3) Creative Writing II
ENG 4400 (3) Selected Topics  
ENG 4405 (3) History of English Language

ENVIRONMENTAL SCIENCE MINOR (18-20 SEMESTER HOURS)

Except as noted, lectures and the corresponding labs must be taken together for all courses listed below:
BIO 2202 (3) Principles of Environmental Science  
BIO L202 (1) Principles of Environmental Science Lab
BIO 4428 (3) Environmental Pollution & Control  
BIO L428 (1) Environmental Pollution & Control Lab

Select 12 hours from the following:
BIO 4451 (3) Toxicology  
BIO L451 (1) Toxicology Lab
BIO 4452 (3) Industrial Hygiene  
BIO L452 (1) Industrial Hygiene Lab
BIO 4479 (3) Environmental Assessment  
BIO L479 (1) Environmental Assessment Lab
BIO 4420 (4) Field Vertebrate Zoology (combined lecture and lab)  
BIO 4425 (4) Fall Flora or BIO 4402 Spring Flora (combined lecture and lab)
BIO 4476 (1-4) Special Topics (combined lecture and lab)  
BIO 4491 (1-4) Guided Independent Research (combined lecture and lab)
CHM 3350 (3) Principles of Physical Chemistry  
CHM L350 (1) Principles of Physical Chemistry Lab
CHM 3357 (3) Biochemistry I  
CHM L357 (1) Biochemistry I Lab
CHM 4445 (3) Instrumental Analysis  
CHM L445 (1) Instrumental Analysis Lab

ENVIRONMENTAL SCIENCE PROGRAM (55 HOURS)

Specialized General Studies Requirements

Area III
BIO 1100 (3) Principles of Biology
BIO L100 (1) Principles of Biology Lab
CHM 1142 (3) General Chemistry I
CHM L142 (1) General Chemistry I Lab
MTH 1125 (4) Calculus I

Area V
IS 2241 (3) Computer Concepts and Apps.
TU 1101 (1) University Orientation
BIO 1101 (3) Organismal Biology
BIO L101 (1) Organismal Biology Lab
CHM 1143 (3) General Chemistry II
CHM L143 (1) General Chemistry II Lab

Select one sequence (physics sequence not required for medical technology concentration):
PHY 2252 (3) General Physics I
PHY L252 (1) General Physics I Lab
PHY 2253 (3) General Physics II
PHY L253 (1) General Physics II Lab

or

PHY 2262 (3) Physics I with Calculus
PHY L262 (1) Physics I with Calculus Lab
PHY 2263 (3) Physics II with Calculus
PHY 2263 (1) Physics II with Calculus Lab

Program Requirements
BIO 2229 (3) General Ecology
BIO L229 (1) General Ecology Lab
BIO 3320 (3) Genetics
BIO L320 (1) Genetics Lab
BIO 3372 (3) Microbiology
BIO L372 (1) Microbiology Lab
CHM 3342 (3) Organic Chemistry I
CHM L342 (1) Organic Chemistry I Lab
CHM 3343 (3) Organic Chemistry II
CHM L343 (1) Organic Chemistry II Lab
MTH 2210 (3) Applied Statistics

Environmental Science Core (32 semester hours):
BIO 2202 (3) Principles of Environmental Science  
BIO L202 (1) Principles of Environmental Science Lab
BIO 4428 (3) Environmental Pollution & Control  
BIO L428 (1) Environmental Pollution & Control Lab
BIO 4413 (3) Limnology
BIO L413 (1) Limnology Lab
BIO 4451 (3) Toxicology  
BIO L451 (1) Toxicology Lab
BIO 4452 (3) Industrial Hygiene  
BIO L452 (1) Industrial Hygiene Lab
BIO 4479 (3) Environmental Assessment
BIO L479 (1) Environmental Assessment Lab

Select 8 hours of approved upper-level courses:
8 hours of approved biology, chemistry or mathematics
BIO 4488/4489/4490 (1-8) Internship in Environmental Science

EUROPEAN/ASIAN/AFRICAN HISTORY MAJOR (36 HOURS)

Available

Specialized General Studies Requirements

Area IV
Select a six hour sequence:
HIS 1101 (3) Western Civilization I, or placement
HIS 1102 (3) Western Civilization II, or placement
or
HIS 1122 (3) World History to 1500
HIS 1123 (3) World History from 1500
Select six hours of additional Area IV courses as specified in the general studies section of this catalog.

Area V
IS 2241 (3) Computer Concepts and Applications
TU 1101 (1) University Orientation
HIS 1111 (3) U.S. to 1877, or placement
HIS 1112 (3) U.S. since 1877, or placement
GEO 2210 (3) World Regional Geography

Major Requirements
HIS 3375 (3) Research and Methodology
HIS 4490 (3) Senior Seminar

Select 18 hours of approved, upper-level European/Asian/African courses.
Select 12 hours of approved, upper-level American/Latin American courses.

FRENCH MINOR (18 HOURS)

Available

Select 18 hours of approved courses in French.

GEOMATICS MAJOR (47 HOURS)

Available

Specialized General Studies Requirements

Area II
Select the following in lieu of ART 1133:
ART 2201 (3) Introductory Drawing
Select remaining Area II courses as specified in the general studies section of this catalog.

Area III
BIO 1100 (3) Principles of Biology
BIO L100 (1) Principles of Biology Lab
PHY 2252 (3) General Physics I
PHY L252 (1) General Physics I Lab

MTH 1125 (4) Calculus I

Area IV
ECO 2251 (3) Principles of Macroeconomics
ECO 2252 (3) Principles of Microeconomics

Select one history sequence as specified in the general studies section of this catalog.

Area V
IS 2241 (3) Computer Concepts and Applications
TU 1101 (1) University Orientation
CS 2244 (3) Computer Science I
MTH 2210 (3) Applied Statistics
MTH 1126 (4) Calculus II
PHY 2253 (3) General Physics II
PHY L253 (1) General Physics II Lab

Major Requirements
GEM 2200 (3) Basics of Cartography & Surveying
GEM L220 (1) Basics of Cartography & Surveying Lab
GEM 3309 (3) Land Parcel Administration and Law
GEM L309 (1) Land Parcel Administration and Law Lab
GEM 3310 (3) Land Surveying Practice
GEM L310 (1) Boundary Retracement Lab
GEM 3330 (3) Advanced Measurement Analysis
GEM L330 (1) Advanced Measurement Analysis Lab
GEM 3366 (3) Photogrammetry and Remote Sensing
GEM L366 (1) Photogrammetry & Remote Sensing Lab
GEM 3370 (3) Geodesy and Geodesics
GEM L370 (1) Geodesy and Geodesics Lab
GEM 3379 (3) Introduction to Least Squares Adjustment
GEM L379 (1) Introduction to Least Squares Adjustment Lab
GEM 3390 (3) Intro to GIS
GEM L390 (1) Intro to GIS Lab
GEM 3391 (3) Applications of GIS
GEM L391 (1) Applications of GIS Lab
GEM 4405 (2) Route and Construction Survey
GEM L405 (1) Route and Construction Survey Lab
GEM 4407 (1) Land Development/Subdivision Design
GEM L407 (1) Land Development/Subdivision Design Lab
GEM 4409 (3) Hydrology
GEM L409 (1) Hydrology Lab
GEM 4499 (2) Geomatics/GIS Projects

NOTE: It is strongly recommended that each student gain work experience with a professional surveyor or geomatics firm after completion of the sophomore year.

GEOGRAPHIC INFORMATION SYSTEMS (GIS) MINOR (18 HOURS)

Available

GEM 3390 (3) Introduction to GIS
GEM L390 (1) Introduction to GIS Lab
GEM 3391 (3) Applications of GIS
GEM L391 (1) Applications of GIS Lab
GEM 4499 (2) Geomatics/GIS Projects

With adviser approval, select a minimum of 8 credit hours from one of the four bundles:

Data Collection/Analysis
GEM 2200 (3) Basics of Cartography and Surveying
GEM L220 (1) Basics of Cartography and Surveying Lab
GEM 3330 (3) Advanced Measurement Analysis
GEM L330 (1) Advanced Measurement Analysis Lab
GEM L371 (1) Measurement for GIS Lab

Image Processing
GEM 1100 (1) Computer-Aided Drafting
GEM L110 (2) Computer-Aided Drafting Lab
GEM 3366 (3) Photogrammetry and Remote Sensing
GEM L366 (1) Photogrammetry and Remote Sensing Lab
GEM L367 (1) Digital Images in GIS Lab

Customizing the ArcView GIS Interface
CS 2260 (3) Computer Science II
CS 3323 (3) Data Structures
CS 3339 (3) Fundamentals of Object-Oriented Programming

GIS Database Development
CS 2260 (3) Computer Science II
CS 3323 (3) Data Structures
CS 4420 (3) Introduction to Database Systems

GEOGRAPHY MINOR (18 HOURS)
Available
GEO 3300 (3) Principles of Physical Geography
GEO 3301 (3) Principles of Cultural Geography

Select an additional 12 hours of approved, upper-level geography courses. GEO 2210 may not be counted toward both general studies and the geography minor.

HISTORY MAJOR WITH CIVIL RIGHTS EMPHASIS (36 HOURS)
Available: Montgomery

Specialized General Studies Requirements
Area IV
Select one six hour sequence:
HIS 1101 (3) Western Civilization I, or placement
HIS 1102 (3) Western Civilization II, or placement
Or
HIS 1122 (3) World History to 1500
HIS 1123 (3) World History from 1500

Select six additional hours of Area IV courses as shown in the general studies section of this catalog.

Area V
IS 2241 (3) Computer Concepts and Applications
TU 1101 (1) University Orientation
HIS 1111 (3) U.S. to 1877, or placement
HIS 1112 (3) U.S. since 1877, or placement
GEO 2210 (3) World Regional Geography

Requirements for the Major
HIS 3375 (3) Research and Methodology
HIS 4490 (3) Senior Seminar
HIS 4494 (3) Guided Independent Study in Civil Rights
SOC 3310 (3) Minorities in the U.S. Social Structure
ENG 4465 (3) African-American Literature

Select 9 hours of approved upper-level American/Latin American courses
Select 9 hours of approved upper-level European/Asian/African courses.

HISTORY MINOR (18 HOURS)
Available
HIS 3375 (3) Research and Methodology

Select 13 hours of upper-level history courses.

Note: HIS 1111 and HIS 1112 are prerequisites for upper-level American history courses and may be taken if they have not been taken for general studies.)

HISTORY EDUCATION MAJOR
Bachelor of Science in History Education
(High school, grades 6-12)
Available

Specialized General Studies Requirements
Area IV
POL 2241 (3) American National Government
SOC 2275 (3) Introduction to Sociology

Select one six hour sequence:
HIS 1101 (3) Western Civilization I, or placement
HIS 1102 (3) Western Civilization II, or placement
Or
HIS 1122 (3) World History to 1500
HIS 1123 (3) World History from 1500

Area V
IS 2241 (3) Computer Concepts and Applications
TU 1101 (1) University Orientation
HIS 1111 (3) U.S. to 1877, or placement
HIS 1112 (3) U.S. since 1877, or placement
GEO 2210 (3) World Regional Geography

Requirements for the Major
HIS 3375 (3) Research and Methodology
HIS 4451 (3) The Far East
HIS 4490 (3) Senior Seminar
Select one:
HIS 3316 History of Alabama
HIS 4406 History of the New South

**HUMANITIES MINOR (18 HOURS)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>ART 3302</td>
<td>(3)</td>
<td>History of the Fine Arts</td>
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<tr>
<td>CLA 2260</td>
<td>(3)</td>
<td>Classical Mythology</td>
</tr>
<tr>
<td>CLA 2290</td>
<td>(3)</td>
<td>Classical Literature in English Translation</td>
</tr>
<tr>
<td>PHI 2203</td>
<td>(3)</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHI 3301</td>
<td>(3)</td>
<td>History of Western Philosophy</td>
</tr>
<tr>
<td>REL 2280</td>
<td>(3)</td>
<td>World Religions</td>
</tr>
</tbody>
</table>

**LATIN MINOR (18 HOURS)**

Select 18 hours of approved courses in Latin.

**MILITARY SCIENCE MINOR (16 HOURS)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>MSL 3301</td>
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<td>Leadership and Problem Solving</td>
</tr>
<tr>
<td>MSL 3302</td>
<td>(3)</td>
<td>Leadership and Ethics</td>
</tr>
<tr>
<td>MSL 3304a</td>
<td>(1)</td>
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<td>MSL 3304b</td>
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<tr>
<td>MSL 4401</td>
<td>(3)</td>
<td>Leadership and Management</td>
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<td>MSL 4402</td>
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<td>MSL 4404a</td>
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<tr>
<td>MSL 4404b</td>
<td>(1)</td>
<td>Leadership Laboratory</td>
</tr>
</tbody>
</table>

**MARINE BIOLOGY PROGRAM (55 HOURS)**

- Students must take courses at both Troy University and Dauphin Island Sea Lab.

**Core (23 semester hours).**

Lectures and the corresponding labs must be taken together.

Troy University Courses:
- BIO 2299 (3) General Ecology
- BIO L229 (1) General Ecology Lab
- BIO 3320 (3) Genetics
- BIO L320 (1) Genetics Lab
- BIO 3372 (3) Microbiology
- BIO L372 (1) Microbiology Lab
- CHM 3342 (3) Organic Chemistry I
- CHM L342 (1) Organic Chemistry I Lab
- CHM 3343 (3) Organic Chemistry II
- CHM L343 (1) Organic Chemistry II Lab
- MTH 2210 (3) Applied Statistics

Select three courses:
- MB 4403 (4) Marine Vertebrate Zoology
- MB 4404 (4) Marine Botany
- MB 4410 (4) Introduction to Oceanography
- MB 4406 (4) Marsh Ecology, or
- MB 4418 (4) Marine Behavioral Ecology, or
- MB 4423 (4) Marine Ecology

Select 4 semester hours of marine biology elective(s).

Select 8 semester hours of upper level, general electives.

**MATHEMATICS MAJOR (38 HOURS)**

**Select one sequence (physics sequence not required for medical technology concentration):**

- PHY 2252 (3) General Physics I
- PHY L252 (1) General Physics I Lab
- PHY 2253 (3) General Physics II
- PHY L253 (1) General Physics II Lab
- PHY 2262 (3) Physics I with Calculus
- PHY L262 (1) Physics I with Calculus Lab
- PHY 2263 (3) Physics II with Calculus
- PHY L263 (1) Physics II with Calculus Lab

**Core (23 semester hours).**

Lectures and the corresponding labs must be taken together.

- BIO 2299 (3) General Ecology
- BIO L229 (1) General Ecology Lab
- BIO 3320 (3) Genetics
- BIO L320 (1) Genetics Lab
- BIO 3372 (3) Microbiology
- BIO L372 (1) Microbiology Lab
- CHM 3342 (3) Organic Chemistry I
- CHM L342 (1) Organic Chemistry I Lab
- CHM 3343 (3) Organic Chemistry II
- CHM L343 (1) Organic Chemistry II Lab
- MTH 2210 (3) Applied Statistics

Select three additional upper-level (3300 or above) advisor-approved biology courses (12 SH). Lectures and their corresponding labs must be taken together.

Dauphin Island Sea Lab Courses (16 semester hours).

DISL courses are offered during the summer term. Students are required to take the following prerequisites before attending DISL: CHM 1143, L143, BIO 1101, L101, BIO 2229, L229. Students must also comply with all DISL catalog prerequisites for individual courses.

Select three courses:
- MB 4403 (4) Marine Vertebrate Zoology
- MB 4404 (4) Marine Botany
- MB 4410 (4) Introduction to Oceanography
- MB 4406 (4) Marsh Ecology, or
- MB 4418 (4) Marine Behavioral Ecology, or
- MB 4423 (4) Marine Ecology

Select 4 semester hours of marine biology elective(s).

Select 8 semester hours of upper level, general electives.

**Specialized General Studies Requirements**

General studies requirements for the biology, environmental science, biomedical sciences, and marine biology programs and the biology major total 64 semester hours. See the general studies section of this catalog for complete general studies information.

**Area III**

BIO 1100 (3) Principles of Biology
BIO L100 (1) Principles of Biology Lab
CHM 1142 (3) General Chemistry I
CHM L142 (1) General Chemistry I Lab
MTH 1125 (4) Calculus I

**Area V**

IS 2241 (3) Computer Concepts and Applications
TU 1101 (1) University Orientation
BIO 1101 (3) Organismal Biology
BIO L101 (1) Organismal Biology Lab
CHM 1143 (3) General Chemistry II
### MATHEMATICS MINOR (18 HOURS)

<table>
<thead>
<tr>
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<th>Hours</th>
<th>Description</th>
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<tr>
<td>MTH 1125</td>
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<td>Calculus I MTH 1126 Calculus II</td>
</tr>
<tr>
<td>MTH 2227</td>
<td>(4)</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MTH 3331</td>
<td>(3)</td>
<td>Linear Algebra</td>
</tr>
</tbody>
</table>

Select an additional 3 hours of math courses at the 3000 level and above, other than those courses whose catalog description declares that they do not count toward the major or minor.

### PHYSICAL SCIENCE MINOR (19-20 HOURS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Description</th>
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<tbody>
<tr>
<td>CHM 1142</td>
<td>(3)</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHM L142</td>
<td>(1)</td>
<td>General Chemistry I Laboratory</td>
</tr>
<tr>
<td>CHM 1143</td>
<td>(3)</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHM L143</td>
<td>(1)</td>
<td>General Chemistry II Laboratory</td>
</tr>
</tbody>
</table>

Select one series:

- PHY 2252 (3) General Physics I
- PHY L252 (1) General Physics I Laboratory
- PHY 2253 (3) General Physics II
- PHY L253 (1) General Physics II Laboratory
- OR
- PHY 2262 (3) Physics with Calculus I
- PHY L262 (1) Physics with Calculus I Laboratory
- PHY 2263 (3) Physics with Calculus II
- PHY L263 (1) Physics with Calculus II

Select an upper-level course in chemistry or physics (3-4 SH)

### PHYSICS MINOR (20 HOURS)

<table>
<thead>
<tr>
<th>Course</th>
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<td>PHY 2252</td>
<td>(3)</td>
<td>Gen. Physics I</td>
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<tr>
<td>PHY L252</td>
<td>(1)</td>
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<tr>
<td>PHY L253</td>
<td>(1)</td>
<td>Gen. Physics Lab II</td>
</tr>
</tbody>
</table>
| OR
| PHY 2262                | (3)   | Physics I Calculus               |
| PHY L262                | (1)   | Physics I with Calculus Lab      |
| PHY 2263                | (3)   | Physics II with Calculus         |
| PHY L263                | (1)   | Physics II with Calculus Lab     |

Select all of the following:

- PHY 3310 (3) Modern Physics
- PHY L310 (1) Modern Physics Lab
- PHY 4420 (3) Mechanics
- PHY L420 (1) Mechanics Lab

Select an additional 4 hours of adviser approved, upper level physics courses.
POLITICAL SCIENCE MAJOR (36 HOURS)

Available

Specialized General Studies Requirements

**Area V**

- IS 2241 (3) Computer Concepts and Applications
- TU 1101 (1) University Orientation
- POL 2241 (3) American National Government or placement in POL 1114
- POL 2200 (3) World Politics

Major Requirements

- POL 3300 (3) Foundations of Political Science
- POL 3330 (3) Introduction to Political Theory

Select one of the following concentrations:

- **American Politics Concentration**
  Select 15 hours from the following:
  - POL 3340 – U.S. Government – Executive Branch
  - POL 3341 – U.S. Government – Legislative Branch
  - POL 3343 – American Political Processes
  - POL 3XXX – State and Local Politics
  - POL 4422 – Public Policy Making
  - POL 4423 – American Foreign Policy to 1920
  - POL 4424 – Contemporary American Foreign Policy
  - POL 4420 – Constitutional Law
  - POL 4XXX – Intergovernmental Relations

Select an additional 15 hours of upper level (3000-4000) political science courses, as approved by your faculty adviser.

- **International Politics Concentration**
  Select 15 hours from the following:
  - POL 3351 – International Relations
  - POL 4410 – International Political Economy
  - POL 4433 – Comparative Government

Select 6 hours from the following:

- POL 4415 – International Conflict
- POL 4423 – American Foreign Policy to 1920
- POL 4424 – Contemporary American Foreign Policy
- POL 4432 – Comparative Public Policy
- POL 4445 – Inter-American Relations
- POL 4450 – Latin American Politics
- POL 4452 – International Law
- POL 4460 – Intercultural Relations
- POL 4465 – Politics of the Developing World
- POL 4466 – Middle Eastern Politics
- POL 4470 – European Politics
- POL 44XX – Political Violence and Terrorism

Select an additional 15 hours of upper level (3000-4000) political science courses, as approved by your faculty adviser.

- **Public Administration Concentration**
  Select 15 hours from the following:
  - POL 3XXX – State and Local Politics
  - POL 4421 – Principles of Public Administration
  - POL 4422 – Public Policy Making

POL 4451 – Public Personnel Administration
POL 4432 – Comparative Public Policy
POL 4453 – Bureaucratic Politics
POL 44XX – Intergovernmental Relations
POL 44XX – Administrative Law

Select and additional 15 hours of upper level (3000-4000) political science courses, as approved by your faculty adviser.

POLITICAL SCIENCE MINOR (18 HOURS)

Available

Select an additional 12 hours of upper division (3000-4000) courses, as approved by the academic adviser.

SOCIAL SCIENCE MAJOR (36 HOURS)

Available

The interdisciplinary approach taken for the social science major prepares students for professional development and/or graduate study in a variety of social science subdisciplines. Social science core courses focus on the fundamentals of social science theory, statistical techniques, and scientific research methodologies. Students majoring in social science also select an academic concentration from the subdisciplines of anthropology, general social science, geography, leadership, or sociology. The social science/education dual major is designed to meet State of Alabama teacher certification requirements.

Specialized General Studies Requirements

**AREA IV (12 SH)**

NOTE: Social Science majors with concentrations in Anthropology, Geography, or Sociology should take Area IV electives appropriate for their concentration.

Requirements for the Major

- SS 3375 (3) Introduction to Social Scientific Inquiry
- SS 3376 (3) Application of Social Scientific Inquiry
- SS 4498 (3) Social Science Theory
- SS 4499 (3) Senior Seminar

Select 1 concentration:

- **Concentration 1: Anthropology**
  - ANT 3310 (3) Cultural Anthropology
  - ANT 3311 (3) Physical Anthropology

Select at least 18 hours of additional 3000/4000 level anthropology courses as approved by your faculty adviser.

- **Concentration 2: General Social Science**

Select at least 24 hours of additional 3000/4000 level courses from anthropology, economics, geography, history, political science, psychology or sociology (6 hours may be used from ECO 2251, ECO 2252, GEO 2210, ANT 2200, POL ### (World Politics), or SOC 2230) in at least 3 disciplines.

- **Concentration 3: Geography**
GEO 3300 (3) Principles of Physical Geography
GEO 3301 (3) Principles of Cultural Geography

Select at least 18 hours of additional 3000/4000 level courses as approved by your faculty advisor:

- **Concentration 4: Leadership**
  LDR 1100 (3) Introduction to Leadership
  LDR 4400 (3) Leadership Seminar*
  *Requires approval of the Director of the Institute of Leadership Development

Select an additional 18 hours from the following:

- AS 3312 (3) Air Force Leadership Studies I
- AS 3313 (3) Air Force Leadership Studies II
- HIS 4415 (3) Contemporary America
- MGT 3371 (3) Principles of Management and Organizational Behavior
- MGT 3375 (3) Human Resources Management
- MS 2202 (2) Leadership, Management and Tactics
- MS 2204 (1) Leadership Lab
- PSY 4410 (3) Business and Industrial Psychology
- POL 3321 (3) Principles of Public Administration
- POL 3322 (3) Public Policy Making
- POL 3351 (3) Foundations of International Relations
- SPH 3345 (3) Group Discussion and Leadership
- SOC 3301 (3) Social Change in the Information Age
- SOC 3310 (3) Cultural Diversity and Ethnic Relations

**SOCIOLOGY MAJOR (36 HOURS)**

**Available**

- SS 4498 (3) Social Science Theory

Select an additional 27 hours of approved upper-level sociology courses.

**SPANISH MINOR**

**Available**

Select 18 hours of approved courses in Spanish.