College of Sciences and Mathematics

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VINCE CAMMARATA, Associate Dean for Academic Affairs
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THE COLLEGE OF SCIENCES AND MATHEMATICS provides programs in the physical sciences, life sciences, and mathematics at the undergraduate and graduate levels. The college also offers scientific and mathematical service courses for students enrolled in all of the other colleges and schools. The college includes the departments of Biological Sciences, Chemistry and Biochemistry, Geosciences, Mathematics and Statistics, and Physics. The Arboretum and the Leach Science Center are also included in the College of Sciences and Mathematics.

Undergraduate Degrees

1. Four-year bachelor’s degree programs are offered in two areas:
   a. Departmental curricula are available in actuarial sciences, biomedical sciences, biochemistry, chemistry, clinical laboratory and medical sciences, geography, geology, microbiology, molecular biology, marine biology, mathematics, applied mathematics, organismal biology, and physics.
   b. Pre-professional curricula are offered in pre-dentistry, pre-medicine, pre-optometry, pre-physical therapy, pre-pharmacy, pre-physician assistant and pre-veterinary medicine.
   Embodied in these curricula are the requirements of the University Core Curriculum.

2. Admission - The academic requirements and demands on majors in sciences and mathematics necessitate a high school preparation of high intellectual quality. The following courses are recommended as minimum preparation: English, four units; mathematics (including algebra, geometry, trigonometry and pre-calculus), four units; chemistry, one unit; biology, one unit; history, literature, social science, two or three units. Both physics and foreign language are highly recommended.

   Students not prepared for MATH1610 must first take a lower-numbered course. See advisor for details.

   On-campus transfers may declare a major in the College of Sciences and Mathematics if they: (1) have a cumulative Auburn grade-point average of at least 2.0 (on all work attempted) and (2) have completed at least 10 hours of Auburn University course work in the desired major with at least a 2.0 grade-point average in all such courses. Courses in the major are those carrying the appropriate prefix(es) of the specific curriculum. Students not meeting these standards may enroll in the Undeclared Sciences and Mathematics (UNSM) curriculum if they have not reached senior standing. Students in the UNSM curriculum may declare a Sciences and Mathematics major after satisfying the above requirements. A student who enters the UNSM curriculum because he or she is not qualified to declare a major can remain in UNSM for a maximum of one year or until senior standing is reached. After this, if the student is still not qualified to declare a major, he or she will be disenrolled from the College of Sciences and Mathematics.

Graduate Degrees

Master of science and doctor of philosophy degrees are offered in the College of Sciences and Mathematics. Degree programs are described in this Bulletin.

Web Page

Additional information about the College of Sciences and Mathematics can be found at: http://www.auburn.edu/cosam/.

General Sciences and Mathematics Curriculum (UNSM)

This curriculum is primarily for freshmen who have not decided on a specific major field of study and for transfer students having deficiencies which preclude their acceptance in a degree program. Freshmen entering this curriculum must declare a major by the end of their first year. Transfer students must complete a specific approved program to clear their admission to a major field of study.

The General Curriculum (UNSM)

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<tr>
<th>First Year</th>
<th>Hours</th>
<th>Fall</th>
<th>Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MATH1610 Calculus I</td>
<td>4</td>
<td>Science</td>
<td></td>
<td>4</td>
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ENGL1100 English Composition I  3  Core Social Science  3
Science  4  Elective  2
Core Social Science  3  MATH1620 Calculus II  4
Career Exp  2  ENGL1120 English Composition II  3

Departmental Curricula

Departmental curricula leading to the bachelor’s degree include actuarial sciences, biomedical sciences, biochemistry, chemistry, clinical laboratory and medical sciences, geography, geology, microbiology, molecular biology, marine biology, mathematics, applied mathematics, organismal biology, and physics.

Majors

• Actuarial Science (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/mathematicsandstatistics/actuarialscience_major)
• Applied Discrete Mathematics (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/mathematicsandstatistics/applieddiscretemathematics_major)
• Applied Mathematics (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/mathematicsandstatistics/appliedmathematics_major)
• BA Chemistry (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/chemistryandbiochemistry/bacurriculuminchemistry_major)
• BS Chemistry (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/chemistryandbiochemistry/bscurriculuminchemistry_major)
• Biochemistry (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/chemistryandbiochemistry/biochemistry_major)
• Biomedical Sciences (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/prehealthprofessionalcurricula/biomedicalsciences_major)
• Geography (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/geologyandgeography/geography_major)
• Geology (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/geologyandgeography/geology_major)
• Laboratory Technology (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/chemistryandbiochemistry/laboratorytechnology_major)
• Marine Biology (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/biologicalsciences/marinebiology_major)
• Mathematics (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/mathematicsandstatistics/mathematics_major)
• Medical Technology (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/chemistryandbiochemistry/medicaltechnology_major)
• Microbial, Cellular and Molecular Biology Microbiology Option (MCMB) (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/biologicalsciences/microbialcellularmolecularbiology-microbiology_major)
• Microbial, Cellular and Molecular Biology Cell & Molecular Biology Option (MCCM) (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/biologicalsciences/microbialcellularmolecularbiology-cellmolecularbiology_major)
• Microbiology/Pre-Veterinary Medicine Option (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/prehealthprofessionalcurricula/microbiology_preveternarymedicine_major)
• Organismal Biology - Conservation & Biodiversity Option (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/biologicalsciences/orgbio-conversationbiodiversity_major)
• Organismal Biology - Ecology, Evolution & Behavior Option (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/biologicalsciences/orgbio-ecoevolutionbehavior_major)
• Organismal Biology - Integrated Biology Option (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/biologicalsciences/orgbiointegrativebio_major)
• Organismal Biology - Pre Veterinary Medicine Option (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/prehealthprofessionalcurricula/orgbio_preveternarymedicine_major)
• Physics (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/physics/physics_major)
• Pre-Dentistry and Pre-Medicine (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/prehealthprofessionalcurricula/predentistryandpremedicine_major)
• Pre-Optometry (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/prehealthprofessionalcurricula/preoptometry_major)
• Pre-Pharmacy (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/prehealthprofessionalcurricula/prepharmacy_major)
• Pre-Physical Therapy (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/prehealthprofessionalcurricula/prephysicaltherapy_major)
• Pre-Veterinary Medicine (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/prehealthprofessionalcurricula/preveterinarymedicine_major)

Minors
• Mathematics (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/mathematicsandstatistics/mathematics_minor)
• Statistics (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/mathematicsandstatistics/statistics_minor)
• Physics (http://bulletin.auburn.edu/undergraduate/collegeofsciencesandmathematics/physics/physics_minor)

Program
• Biological Sciences - MS, PhD (http://bulletin.auburn.edu/thegraduateschool/graduatedegreesoffered/biologicalsciencesmsphd_major)
• Biomedical Sciences - MS, PhD (http://bulletin.auburn.edu/thegraduateschool/graduatedegreesoffered/biomedicalsciencesmsphd_major)
• Chemistry and Biochemistry - MS, PhD (http://bulletin.auburn.edu/thegraduateschool/graduatedegreesoffered/chemistryandbiochemistrymsphd_major)
• Geography, ABM (http://bulletin.auburn.edu/thegraduateschool/graduatedegreesoffered/geographyabm_major)
• Geography - MS (http://bulletin.auburn.edu/thegraduateschool/graduatedegreesoffered/geographyms_major)
• Geology - MS (http://bulletin.auburn.edu/thegraduateschool/graduatedegreesoffered/geologyms_major)
• Mathematics and Statistics - MS, MME, PhD (http://bulletin.auburn.edu/thegraduateschool/graduatedegreesoffered/mathematicsandstatisticsmsmammpsphd_major)
• Physics - MS, PhD (http://bulletin.auburn.edu/thegraduateschool/graduatedegreesoffered/physicsmsphd_major)
• Statistics - MS, MPS (http://bulletin.auburn.edu/thegraduateschool/graduatedegreesoffered/statisticsmsmps_major)