

College of Sciences and Mathematics

STEWART W. SCHNELLER, *Dean*
 LAWRENCE C. WIT, *Associate Dean for Academic Affairs*
 MARIE W. WOOTEN, *Associate Dean for Research*

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, Discrete and Statistical Sciences, Geology and Geography, Mathematics and Physics. The Arboretum and the Leach Science Center are also included in the College of Sciences and Mathematics.

Undergraduate Degrees

- Four-year bachelor's degree programs are offered in two areas:
 - Departmental curricula are available in biomedical sciences, botany, chemistry, biochemistry, geography, geology, laboratory and medical technology, microbiology, molecular biology, marine biology, mathematics, applied mathematics, applied discrete mathematics, physics and zoology.
 - Pre-professional curricula are offered in pre-dentistry, pre-medicine, pre-optometry, pre-physical therapy, pre-pharmacy and pre-veterinary medicine.

Embodied in these curricula are the requirements of the University Core Curriculum.

- 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.

Many COSAM curricula require students to begin with MATH 1610. Students not prepared for MATH 1610 must first take a lower-numbered course. See adviser for details.

Transfers from on-campus may declare a major in the College of Sciences and Mathematics if they: (1) have a cumulative Auburn GPA 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 GPA in all such courses. Courses in the major are those carrying the appropriate prefix(es) of the intended 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*.

Dual-Degree Program in Engineering

This program provides for enrollment in a curriculum of the College of Sciences and Mathematics for approximately three academic years and in the College of Engineering for approximately two academic years.

The student must complete the basic requirements of the University Core Curriculum and the requirements for a major within a department in the College of Sciences and Mathematics. The student is not required to take the usual number of hours of electives. Thus, he/she may transfer to the College of Engineering after the end of the junior year. Following completion of the academic requirements for one of the baccalaureate degrees in the College of Engineering, two degrees will be awarded: a Bachelor of Science degree in the Sciences and

Mathematics major, and a bachelor's degree in the designated engineering field.

Curriculum in Materials Engineering

An interdisciplinary curriculum in materials engineering is administered by the Department of Mechanical Engineering in the College of Engineering. It is conducted cooperatively by academic departments of the College of Engineering and the College of Sciences and Mathematics through a faculty Materials Engineering Curriculum Committee.

Web Page

Further 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)					
FR	F	S		F	S
MATH	1610	1620	Calculus I & II	4	4
ENGL	1100	1120	English Composition I & II	3	3
			Science	4	4
			Core Social Science Group 1 & 2.....	3	3
COUN	1010		Career Exp.....	2	--
			Elective	--	2
				16	16

Departmental Curricula

Departmental curricula leading to the Bachelor of Science degree include botany, chemistry, biochemistry, biomedical sciences, geography, geology, microbiology, molecular biology, marine biology, laboratory and medical technology, mathematics, applied mathematics, applied discrete mathematics, physics and zoology.

Botany

The botany major is for students interested in various careers in the plant sciences. Students may pursue either the Ecology and Evolution Track or the Cellular and Molecular Track

Curriculum in Botany/ Ecology and Evolution Track (BTNY, ECEV)					
FR	F	S		F	S
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
MATH	1610	1620	Calculus I & II	4	4
ENGL	1100	1120	English	3	3
CHEM	1030	1040	Fundamentals of Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab.....	1	1
				15	15
SO					
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
ENGL	2200	2210	Great Books I & II	3	3
			Core History	3	3
BIOL		3000	Genetics	--	4
			Core Social Science	3	3
			Core Fine Arts.....	3	--
				16	17
JR					
BIOL	3100		Plant Biology	3	--
BIOL	3101		Plant Biology Lab	1	--
PHYS	1500	1510	General Physics I & II	4	4
STAT		3010	Statistics for Engr. & Sci.....	--	3
BIOL	3030		Evolution & Systematics.....	3	--
BIOL	3060		Principles of Ecology.....	--	4

			Core Philosophy	3	
			Elective	4	3
				15	17
SR					
BIOL	4300		Plant Anatomy & Development	4	--
BIOL		6120	Systematic Botany	--	4
BIOL	4950		Undergraduate Seminar	1	--
BIOL		6140	Plant Ecology	--	4
BIOL	6130		Plant Physiology	4	--
			Biology Elective	4	4
				13	12

TOTAL HOURS — 120

Biology Elective: see adviser for approved course listing.
 Students either pass the computer competency test or take COMP 1000 as one of their electives.

**Curriculum in Botany/
 Cellular and Molecular Track (BTNY, CMLB)**

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
ENGL	1100	1120	English	3	3
CHEM	1030	1040	Fundamentals of Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab	1	1
MATH	1610	1620	Calculus I & II	4	4
				15	15

SO					
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
BIOL		3000	Genetics	--	4
ENGL	2200	2210	Great Books I & II	3	3
			Core Social Science Group 1 & 2	3	3
			Core Fine Arts	3	--
			Core History	3	3
				16	17

JR					
BIOL	3100		Plant Biology	3	--
BIOL	3101		Plant Biology Lab	1	--
PHYS	1500	1510	General Physics I & II	4	4
BIOL		4100	Cell Biology	--	4
BIOL	3200		General Microbiology	4	--
			Elective	3	3
			Core Philosophy	--	3
				15	14

SR					
BIOL	4300		Plant Anatomy & Development	4	--
BIOL		4220	Molecular Genetics	--	4
BIOL	4950		Undergraduate Seminar	1	--
BIOL		6120	Systematic Botany	--	4
BIOL	6130		Plant Physiology	--	4
BCHE	6180	6190	Biochemistry I & II	3	3
BCHE	6181	6191	Biochemistry I & II Lab	1	1
			Biology Elective	4	--
				13	16

TOTAL HOURS — 121

Biology Electives: see adviser for approved course listing.
 Students either pass the computer competency test or take COMP 1000 as one of their electives.

Chemistry

These curricula, accredited by the American Chemical Society, prepare students for careers in pure and applied chemistry with a dual emphasis on classroom and laboratory experience. A flexible senior year allows students to tailor the program to individual professional goals. Graduates are prepared to enter the profession immediately or continue for advanced degree programs. The senior research program introduces students to modern advanced techniques and approaches to chemical research in an area of their interest by having them complete an individual research project in conjunction with a faculty adviser.

Curriculum in Chemistry (CHEM)

FR	F	S		F	S
CHEM	1110	1120	General Chemistry I & II	3	3
CHEM	1111	1121	General Chemistry Lab I & II	1	1
MATH	1610	1620	Calculus I & II	4	4
			Core History	3	3
ENGL	1100	1120	English Composition I & II	3	3
CHEM	1200		Chemical Application	1	--
				15	14

SO					
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry Lab I & II	1	1
MATH	2630		Calculus III	4	--
MATH		2650	Linear Differential Equation	--	3
PHYS	1600	1610	Engr Physics I & II	4	4
ENGL	2200		Great Books I	3	--
CHEM		3050	Analytical Chemistry	--	3
CHEM		3051	Analytical Chemistry Lab	--	1
CHEM	2200		Chemical Application II	1	--
				16	15

JR					
CHEM	6070	6080	Physical Chemistry I & II	3	3
CHEM	6071	6081	Physical Chemistry Lab I & II	1	1
ENGL	2210		Great Books II	3	--
CHEM		6040	Computational Chemistry	--	4
BCHE	6180		Biochemistry	3	--
BCHE	6181		Biochemistry Lab	1	--
			Core Social Science I	--	3
CHEM		3000	Chemical Literature	--	1
CHEM		3200	Chemical Application III	1	--
			Elective	--	3
MATH	2660		Topics in Linear Algebra	3	--
				15	15

SR					
CHEM	6100	6110	Inorganic Chemistry	3	3
CHEM	6101	6111	Inorganic Chemistry Lab	1	1
BCHE		6190	Biochemistry I	--	3
BCHE		6191	Biochemistry II Lab	--	1
CHEM	6130		Instrumental Analysis	3	--
CHEM	6131		Instrumental Analysis Lab	1	--
			Elective	3	--
CHEM		4970	Special Problems in Chemistry	--	3
			Core Social Science Group 2	3	--
			Core Philosophy	--	3
			Core Fine Arts	3	--
CHEM		4950	Undergraduate Seminar	--	1
				17	15

TOTAL HOURS — 122

Curriculum in Biochemistry (BCH)

FR	F	S		F	S
CHEM	1110	1120	General Chemistry I & II	3	3
CHEM	1111	1121	General Chemistry Lab I & II	1	1
MATH	1610	1620	Calculus I & II	4	4
			Core History	3	--
BIOL		1020	Principles of Biology	--	4
ENGL	1100	1120	English Composition I & II	3	3
CHEM	1200		Chemical Application	1	--
				15	15

SO					
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry Lab I & II	1	1
MATH	2630		Calculus III	4	--
MATH		2650	Linear Differential Equation	--	3
PHYS	1600	1610	Engr. Physics I & II	4	4
			Core History	3	--
CHEM		3050	Analytical Chemistry	--	3
CHEM		3051	Analytical Chemistry Lab	--	1
CHEM	2200		Chemical Application II	1	--
				16	15

JR					
CHEM	6070	6080	Physical Chemistry I & II	3	3
CHEM	6071	6081	Physical Chemistry Lab I & II	1	1
ENGL		2200	Great Books I	--	3
BIOL	3200		General Microbiology	4	--
BCHE	6180	6190	Biochemistry I & II	3	3
BCHE	6181	6191	Biochemistry Lab	1	1
CHEM		3000	Chemical Literature	--	1
CHEM	3200		Chemical Application III	1	--
			Elective	1	--
BIOL		4100	Cell Biology	--	3
				14	15

SR					
CHEM	6100		Inorganic Chemistry	3	--
CHEM	6101		Inorganic Chemistry Lab	1	--
			Elective	--	3
CHEM		4970	Special Problems in Chemistry	--	3
CHEM	6130		Instrumental Analysis	3	--
			Core Philosophy	--	3
CHEM	6131		Instrumental Analysis Lab	1	--
CHEM		4950	Undergraduate Seminar	--	1
ENGL	2210		Great Books II	3	--

Core Fine Arts	--	3		
Core Social Science Group 1 & 2	3	3		
Elective	2	--		
		16	16	
TOTAL HOURS — 122				

Geography

This curriculum in geography promotes geographic literacy as an indispensable element in any educational program. It focuses on spatial relationships and the view of the Earth as the home of humankind. Geography readies students for careers in public services, consulting companies, state or federal agencies, utilities and other professions, as well as for graduate studies in geography.

Curriculum in Geography (GEOG)

FR	F	S		F	S
ENGL	1100	1120	English Composition I & II	3	3
			Core History	3	3
MATH	1610		Calculus I	4	--
			Core Philosophy	--	3
			Foreign Language	4	4
COMM		1000	Public Speaking	--	3
				14	16
SO					
ENGL	2200	2210	Great Books I & II	3	3
GEOL	1100		Physical Geology	4	--
GEOL		1110	Historical Geology	--	4
			Core Fine Arts	3	--
			Core Social Science Group 1 & 2	3	3
STAT		2510	Statistics for Biology & Health Sci	--	3
GEOG	2020		Physical Geography	--	3
GEOG	2010		Cultural Geography	3	--
				16	16
JR					
			Social Science Elective	3	--
			Technical Elective	6	3
GEOG	2800		Geographic Methods	4	--
			Elective	--	3
GEOG	3820		Remote Sensing	4	--
GEOG		3830	GIS	--	4
			GEOG Elective	--	3
				17	13
SR					
			GEOG Elective	3	3
GEOG	3810		Cart and Graphics	4	--
GEOG		4800	Geographic Thought	--	3
			Technical Elective	--	4
			Elective	4	4
			Geography Elective	3	--
				14	14
TOTAL HOURS — 120					

Technical Elective: see adviser for approved course listing.
 GEOG Elective: see adviser for approved course listing.

Geology

This curriculum provides a background in the geosciences and opportunity to specialize in an area of interest (i.e., environmental geology, paleontology) through elective major or related courses. It is designed for those interested in preparation for graduate studies or employment in the field of geology.

Curriculum in Geology (GEOL)

FR	F	S		F	S
CHEM	1030	1040	Fundamentals of Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab	1	1
GEOL	1100		Physical Geology	4	--
GEOL		1200	Historical Geology	--	4
			Core History	3	3
ENGL	1100	1120	English Composition I & II	3	3
				14	14
SO					
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
GEOL	2010		Min & Opt Cryst	5	--
GEOL		2050	Ing & Met Petrol	--	4
MATH	1610	1620	Calculus I & II	4	4
ENGL	2200		Great Books I	3	--
			Elective	--	3
				16	15

JR				
PHYS	1500	1510	General Physics I & II	4 4
GEOL	3200		Principle Paleont	3 --
GEOL		3400	Structural Geology	-- 4
			Core Social Science Group 1	-- 3
			Great Books II	-- 3
			Technical Elective	3 --
			GEOL Elective	3 4
				16 15
SUMMER				
			Field Camp	6
SR				
GEOL	4010		Sed Petrol	3 --
GEOL		4110	Stratigraphy	-- 3
			GEOL Elective	4 4
			Technical Elective	4 --
			Elective	-- 3
PHIL			1010 or 1020	3 --
			Core Fine Arts	3 --
ECON		2020	Microeconomics	-- 3
				14 16
TOTAL HOURS — 126				

Technical Elective - see adviser for approved course listing.
 GEOL Elective - see adviser for approved course listing.

Laboratory Technology and Medical Technology

These curricula, leading to the degree of Bachelor of Science in Laboratory Technology or Bachelor of Science in Medical Technology, prepare students for medical laboratory careers in fields such as public health, bacteriology, environmental testing, industrial quality control, research and forensic science. Graduates may choose to qualify as certified medical technologists. This is accomplished by successfully completing a 12-month training period (rotating hospital internship) in an accredited School of Medical Technology and passing a national certifying examination.

Curriculum in Laboratory Technology (LABT)

FR	F	S		F	S
CHEM	1110	1120	General Chemistry I & II	3	3
CHEM	1111	1121	General Chemistry Lab I & II	1	1
MATH	1610		Calculus I	4	--
ENGL	1100	1120	English Composition I & II	3	3
BIOL		1020	Principles of Biology	--	4
HIST	1010	1020	World History	3	3
STAT		2510	Statistics for Biology & Health Science	1	3
LABT	1010		Orientation	1	--
				15	17
SO					
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry Lab I & II	1	1
BIOL	2500	2510	Human Anatomy & Physiology I & II	4	4
BIOL		3200	General Microbiology	--	4
ENGL	2200	2210	Great Books I & II	3	3
PHIL	1030		Ethics & Health Science	3	--
CHEM	1200		Chemical Application	1	--
				15	15
JR					
BCHE	6180		Biochemistry I	3	--
			Elective	--	6
LABT	4010		Hematology	5	--
			Core Fine Arts	--	3
BIOL	4200		Clinical Microbiology	4	--
			Core Social Science Group 1	--	3
BIOL	3000		Genetics	4	--
CHEM	3050		Analytical Chemistry	--	3
CHEM	3051		Analytical Chemistry Lab	--	1
				16	16
SR					
LABT	4250		Clinical Biochemistry Instrument	4	--
BIOL		6500	Immunology	--	3
BIOL		6501	Immunology Lab	--	2
			Technical Elective	4	4
			Core Social Science Group 2	3	--
LABT	4050		Clinical Immunohematology/Parasit.	--	5
CHEM	2200		Chemical Application	1	--
				12	14
TOTAL HOURS — 120					

Technical Elective: see adviser or approved course listing.

Curriculum in Medical Technology (MEDT)

FR	F	S		F	S
CHEM	1110	1120	General Chemistry I & II.....	3	3
CHEM	1111	1121	General Chemistry Lab I & II.....	1	1
MATH	1610		Calculus I.....	4	--
ENGL	1100	1120	English Composition I & II.....	3	3
BIOL		1020	Principles of Biology.....	--	4
HIST	1010	1020	World History.....	3	3
LABT	1010		Orientation.....	1	--
				15	14
SO					
CHEM	2070	2080	Organic Chemistry I & II.....	3	3
CHEM	2071	2081	Organic Chemistry Lab I & II.....	1	1
BIOL		3200	General Microbiology.....	--	4
PHYS	1500		General Physics.....	4	--
PHIL	1030		Ethics & Health Science.....	3	--
BIOL	2500	2510	Human Anatomy & Physiology I & II.....	4	4
			Core Social Science Group 1.....	--	3
CHEM	1200		Chemical Application.....	1	--
				16	15
JR					
ENGL	2200	2210	Great Books I & II.....	3	3
CHEM	3050		Analytical Chemistry.....	3	--
CHEM	3051		Analytical Chemistry Lab.....	1	--
BIOL		6500	Immunology.....	--	3
BIOL		6501	Immunology Lab.....	--	2
			Elective.....	3	--
BIOL		3000	Genetics.....	4	--
STAT	2510		Statistics for Biology & Health Science.....	3	--
			Core Fine Arts.....	--	3
COMM	1000		Public Speaking.....	3	--
CHEM		2200	Chemical Application.....	--	1
				16	16
SR					
BCHE	6180	6190	Biochemistry I & II.....	3	3
LABT	4010		Hematology.....	5	--
LABT		4250	Clinical Biochemistry/Instrument.....	--	4
BIOL	4200		Clinical Microbiology.....	4	--
LABT		4050	Clinical Immunohematology/Parasit.....	--	5
			Elective.....	3	--
			Core Social Science Group 2.....	--	3
				15	15

PROFESSIONAL YEAR

Clinical Internship.....22 hours

TOTAL HOURS — 144

Students either pass the computer competency test or take COMP 1000 as one of their electives.

Mathematics

This curriculum prepares students for graduate study and careers as mathematicians.

Curriculum in Mathematics (MATH)

FR	F	S		F	S
MATH	1610	1620	Calculus I & II.....	4	4
			Core Philosophy.....	3	--
COMP		1200	(see adviser before selecting section).....	--	2
ENGL	1100	1120	English Composition I & II.....	3	3
			Core History.....	3	3
			Core/Natural Science.....	4	4
				17	16
SO					
MATH	2630		Calculus III.....	4	--
MATH		2650	Linear Differential Equations.....	--	3
MATH	2660		Topics in Linear Algebra.....	3	--
MATH		3100	Introduction to Advanced Math.....	--	3
			Core Social Science Group 1 & 2.....	3	3
ENGL	2200	2210	Great Books.....	3	3
			Elective.....	3	3
				16	15
JR					
MATH	6200	6210	Analysis I & II.....	3	3
MATH	6310	6320	Introduction to Abstract Algebra I & II.....	3	3
			Foreign Language (see adviser).....	4	4
COMM	1000		Public Speaking.....	3	--
			Core Fine Arts.....	--	3
			Elective.....	3	3
				16	16
SR					
			Applied Math Requisite.....	3	--
			Math Requisite.....	--	3

MATH	6500	Introduction to Topology.....	3	--
		Math Requisite.....	3	6
		Elective.....	3	3
			12	12
TOTAL HOURS — 120				
Math Requisite: see adviser for approved course listing.				
Applied Math Requisite: see adviser for approved course listing.				
Core/Natural Science: see adviser for approved course listing.				
Students either pass the computer competency test or take COMP 1000 as one of their electives.				

Applied Mathematics

This is a curriculum suitable for those preparing for graduate work in mathematics as well as for those anticipating careers supported by significant applied mathematics.

An important feature is the option for the student to concentrate, by means of technical electives, on an area to which mathematics can be applied: one of the traditionally allied fields, such as engineering, physical science or computer science; or the more recently allied areas such as the biological, behavioral or managerial sciences.

Students who desire more flexibility or emphasis on the liberal arts should pursue the MATH curriculum.

Curriculum in Applied Mathematics (AMTH)

FR	F	S		F	S
MATH	1610	1620	Calculus I & II.....	4	4
			Core Philosophy.....	3	--
COMP		1200	(see adviser before selecting section).....	--	2
ENGL	1100	1120	English Composition I & II.....	3	3
			Core History.....	3	3
			Core/Natural Science (see adviser).....	4	4
				17	16
SO					
MATH	2630		Calculus III.....	4	--
MATH		2650	Linear Differential Equations.....	--	3
MATH	2660		Topics in Linear Algebra.....	3	--
MATH		3100	Introduction to Advanced Math.....	--	3
			Core Social Science Group 1 & 2.....	3	3
ENGL	2200	2210	Great Books.....	3	3
			Group Requisite.....	3	3
				16	15
JR					
MATH	6200	6210	Analysis I & II.....	3	3
MATH	6630	6640	Numerical Analysis I & II.....	3	3
			Group Requisite.....	3	3
COMM	1000		Public Speaking.....	3	--
			Core Fine Arts.....	--	3
			Elective.....	4	4
				16	16
SR					
MATH	6670		Probability & Stochastic Proc I.....	3	--
MATH	6000		Math Modeling: Continuous.....	3	--
			Math Requisite.....	3	9
			Group Requisite.....	3	--
			Elective.....	--	3
				12	12

TOTAL HOURS — 120

Math Requisite: see adviser for approved course listing.
Applied Math Requisite: see adviser for approved course listing.
Group Requisite: see adviser for approved course listing.
Students either pass the computer competency test or take COMP 1000 as one of their electives.

Applied Discrete Mathematics

This curriculum prepares students for graduate work in mathematics or theoretical computer science, and for careers in industry supported by modern applied mathematics dealing with problems in graph theory, operations research, discrete optimization, computer science, communications and information sciences.

Curriculum in Applied Discrete Mathematics (ADSM)

FR	F	S		F	S
MATH	1610	1620	Calculus I & II.....	4	4
ENGL	1100	1120	English Composition I & II.....	3	3
COMP		1200	Introduction to Computer Engr. & Sci.....	--	2
			Core Science.....	4	4
			Core History.....	3	3
				14	16
SO					
MATH	2630		Calculus.....	4	--
MATH		2660	Topics in Linear Algebra.....	--	3

COMP	2000	Programming with HTML & Java.....	3	--	
COMP	3000	Object Oriented Program Engr. & Sci.	--	3	
ENGL	2200	2210	Great Books I & II.....	3	3
			Core Social Science Group 1 & 2.....	3	3
			Core Philosophy	3	--
			Core Fine Arts	--	3
				16	15
JR					
ADMH	3710	Discrete Math	3	--	
STAT	3600	Probability & Statistics I.....	--	3	
ADMH	6750	Graph Theory	3	--	
ADMH	6200	Computer Algebra	--	3	
ADMH	6170	Finite Fields.....	3	--	
		Applied Analysis Elective.....	--	3	
		Discrete Math Elective.....	3	3	
		Interdisciplinary Elective	3	3	
			15	15	
SR					
		Applied Analysis Elective	3	--	
		Discrete Elective	6	3	
		Math Elective	--	3	
		Interdisciplinary Elective	3	6	
		Elective	3	2	
			15	14	

TOTAL HOURS — 120

Applied Analysis Elective/Discrete Elective/Math Elective/Interdisciplinary Elective: see adviser for approved course listing.

Microbiology

This major is for students who wish to pursue careers in one of the various sub-disciplines of the science or for those preparing for professional degree programs in medicine or veterinary medicine. Required courses provide a strong and diverse background. Students have the opportunity through selection of elective courses to concentrate on special areas of interest, including biotechnology, microbial physiology and genetics and environmental, industrial and health-related aspects of microbiology.

Curriculum in Microbiology (MICB)

FR			F	S	
BIOL	1020	Principles of Biology	4	--	
BIOL	1030	Organismal Biology	--	4	
ENGL	1110	1120	English Composition I & II	3	3
CHEM	1030	1040	Fund of Chemistry I & II.....	3	3
CHEM	1031	1041	Fund of Chemistry I & II Lab.....	1	1
MATH	1610	1620	Calculus I & II	4	4
			15	15	
SO					
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
ENGL	2200	2210	Great Books I.....	3	3
BIOL	3000		Genetics.....	4	--
PHYS	1500	1510	General Physics I & II.....	4	4
BIOL	3200	General Microbiology.....	--	4	
			15	15	
JR					
BIOL	4200	Clinical Microbiology.....	4	--	
BIOL	4220	Introductory Molecular Genetics	--	4	
BIOL	4210	Microbial Physiology.....	3	--	
BIOL	4100	Cell Biology	--	4	
BCHE	6180	6190	Biochemistry	3	3
BCHE	6181		Biochemistry Lab	1	--
			Elective	3	3
			Core History I.....	3	--
				17	14
SR					
BIOL	6500	Immunology.....	3	--	
BIOL	6501	Immunology Lab	2	--	
BIOL	4230	Virology	--	3	
		Biology Elective	3	3	
BIOL	4950	Undergraduate Seminar	1	--	
		Core Philosophy	--	3	
		Core Fine Arts	--	3	
		Core Social Science Group 1 & 2.....	3	3	
		Elective	3	--	
			15	15	
		TOTAL HOURS — 121			

Curriculum in Molecular Biology (MOLB)

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	--
BIOL	1030		Organismal Biology	--	4
ENGL	1100	1120	English Composition I & II	3	3
CHEM	1030	1040	Fundamentals of Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab.....	1	1
MATH	1610	1620	Calculus I & II	4	4
				15	15
SO					
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
PHYS	1500	1510	General Physics I & II.....	4	4
ENGL	2200	2210	Great Books I & II	3	3
BIOL	3000	Genetics	--	4	
BIOL	3200	Microbiology.....	4	--	
				15	15
JR					
BIOL	4100	Cell Biology	3	--	
BIOL	4320	Introduction to Molecular Genetics.....	--	4	
BIOL	4210	Microbial Physiology.....	3	--	
BIOL	6521	Gene Expression & Rec DNA Lab	--	2	
		Core History.....	3	3	
		Core Fine Arts.....	3	--	
		Core Philosophy	--	3	
		Elective	3	3	
			15	15	
SR					
BCHE	6180	6190	Biochemistry I & II.....	3	3
BCHE	6181	6191	Biochemistry I & II Lab.....	1	1
BIOL	4950	4950	Undergraduate Seminar	1	1
BIOL	4980	4980	Undergraduate Research	3	3
			Biology Electives.....	4	4
			Social Science Core	3	3
				15	15
		TOTAL HOURS — 120			

Biology Electives: see adviser for approved course listing.

Students either pass the computer competency test or take COMP 1000 as one of their electives.

Physics

Physics majors acquire a firm foundation for careers in physics and related fields and excellent preparation for further study. Through the judicious use of electives, this curriculum provides not only a thorough understanding of physics, but also the ability to solve problems in other fields of interest to the student.

Curriculum in Physics

FR	F	S		F	S
MATH	1610	1620	Calculus	4	4
PHYS	1600	1610	Physics I & II.....	4	4
ENGL	1100	1120	English Composition I & II	3	3
			Fine Art	3	--
PHIL			Core Philosophy	--	3
				14	14
SO					
MATH	2630	Calculus	4	--	
MATH	2650	Differential Equations	--	3	
PHYS	2200	Intro. Quantum Physics & Relativity	3	--	
PHYS	2300	Physics Laboratory Skills.....	--	2	
PHYS	2100	Intermediate Mechanics.....	--	3	
ENGL	2200	2210	Great Books I & II	3	3
			History.....	3	3
COMM	1000		Public Speaking	3	--
				16	14
JR					
PHYS	3100	Intermediate E & M	3	--	
PHYS	3200	Statistical Thermodynamics.....	--	3	
PHYS	4100	Fundamentals of Quantum Mech.....	3	--	
		Professional Elective *	--	3	
		Social Science I & II.....	3	3	
		Sci Elective-Chem/Biology/Geol	4	4	
		Elective	3	3	
			16	16	
SR					
PHYS	4200	Fund Experiments in Physics	2	--	
		Professional Elective *	3	7	
		Elective	9	6	
		Physics Elective	--	3	
			14	16	
		TOTAL HOURS — 120			

* See adviser for approved courses.

Zoology

This curriculum prepares students for graduate study and a variety of careers in animal biology. The student has the choice of several options depending on the student's particular interest.

Curriculum in Zoology (ZOOL)

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
ENGL	1100	1120	English Composition I & II	3	3
CHEM	1030	1040	Fundamentals of Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab	1	1
			Core History	3	3
				14	14
SO					
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
MATH	1610	1620	Calculus I & II	4	4
ENGL	2200	2210	Great Books I & II	3	3
BIOL	3000		Genetics	4	--
			Social Sciences Core	--	3
BIOL		3030	Evolution & Systematics	--	3
				15	17
JR					
BIOL	3060		Ecology	4	--
BIOL		4100	Cell Biology	--	3
PHYS	1500	1510	General Physics I & II	4	4
			Biology Elective	4	--
BIOL		6240	Animal Physiology	--	4
			Social Sciences Core	3	--
			Elective	--	3
COMM	1000		Public Speaking	3	--
			Core Fine Arts	--	3
				18	17
SR					
STAT	3010		Statistics for Engr. & Sci.	3	--
			Biology Elective	11	11
			Core Philosophy	--	3
				14	14

TOTAL HOURS — 123

Biology Electives: see adviser for approved course listing.

**Curriculum in Zoology/
Cellular Biology/Physiology Track (ZOOL, CBPS)**

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
ENGL	1100	1120	English Composition I & II	3	3
CHEM	1030	1040	Fundamentals of Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab	1	1
			Core Philosophy	--	3
			Core History	3	3
				14	17
SO					
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
MATH	1610	1620	Calculus I & II	4	4
ENGL	2200	2210	Great Books I & II	3	3
BIOL	3000		Genetics	4	--
			Social Sciences Core	--	3
BIOL		3030	Evolution & Systematics	--	3
				15	17
JR					
BIOL	4100		Cell Biology	3	--
BIOL	4101		Cell Biology Lab	2	--
PHYS	1500	1510	General Physics II	4	4
BIOL		4410	Vertebrate Development	--	4
BIOL			4010 or 4020	4	--
			Social Sciences Core	--	3
			Elective	3	--
BIOL		3060	Ecology	--	4
				16	15
SR					
STAT	2510		Statistics for Engr. & Sci.	--	3
			Biology Elective	11	4
			Core Fine Arts	3	--
COMM	1000		Public Speaking	--	3
BIOL		6240	Animal Physiology	--	4
				14	14

TOTAL HOURS — 122

Biology Electives: see adviser for approved course listing.

**Curriculum in Zoology/
Conservation & Biodiversity Track (ZOOL, CONS)**

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
MATH	1610	1620	Calculus I	4	--
ENGL	1100	1120	English Composition I & II	3	3
			Core Social Science	--	3
			Core History	--	3
CHEM	1030	1040	Fundamentals of Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab	1	1
				15	17
SO					
CHEM	2070		Organic Chemistry	3	--
PHYS		1500	General Physics	--	4
ENGL	2200	2210	Great Books I & II	3	3
			Core History	3	--
			Core Philosophy	--	3
			Core Social Science	3	--
BIOL		3060	General Biology	--	4
			Core Fine Arts	3	--
BIOL		3000	Genetics	--	4
				15	18
JR					
BIOL	4010	4020	Vert. & Invert. Biodiversity	4	4
BIOL	3030		Evolution & Systematics	3	--
BIOL	4090		Conservation Biology	3	--
BIOL		6240	Animal Physiology	--	4
BIOL	4100		Cell Biology	3	--
			Diversity Elective	--	4
			Elective	--	3
				14	15
SR					
WILD	3280		Principles of Wildlife Management	3	--
WILD	3281		Principles of Wildlife Management Lab ..	1	--
			Diversity Elective	4	4
COMM	1000		Public Speaking	--	3
			Ecology Elective	3	--
BIOL		6120	Systematic Botany	--	4
STAT		3010	Statistics for Engr. & Sci.	--	3
ENTM	3040		General Entomology	4	--
				15	14

TOTAL HOURS — 122

**Curriculum in Zoology/
Ecology, Evolution & Behavior Track (ZOOL, ECEV)**

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
MATH	1610	1620	Calculus I & II	4	4
ENGL	1100	1120	English Composition I & II	3	3
			Core Social Science	--	3
CHEM	1030	1040	Fundamentals of Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab	1	1
				15	18
SO					
CHEM	2070		Organic Chemistry	3	--
PHYS		1500	General Physics	--	4
ENGL	2200	2210	Great Books I & II	3	3
			Core History	3	--
			Core Philosophy	--	3
			Core Social Science	3	--
BIOL		4100	Cell Biology	--	3
			Core Fine Arts	3	--
BIOL		3000	Genetics	--	4
				15	17
JR					
BIOL	4020	4010	Vertebrate & Invert. Biodiversity	4	4
STAT	2510		Statistics for Engr. & Sci.	3	--
BIOL	3030		Evolution & Systematics	--	3
BIOL	3060		General Ecology	4	--
BIOL		6240	Animal Physiology	--	4
COMM	1000		Public Speaking	3	--
			Elective	--	3
				14	14
SR					
BIOL	6650		Ethology	4	--
BIOL		6140	Plant Ecology	--	4
			Ecology Elective	3	--
			Anat/Cell/Phys Elective	--	7

Core History.....	3	--	
Diversity Elective.....	4	4	
	14	15	

TOTAL HOURS — 122

Anat/Cell/Phy Elective: see adviser for approved course listing.
Diversity Elective: see adviser for approved course listing.

Curriculum in Marine Biology (MARB)

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
ENGL	1100	1120	English Composition I & II	3	3
			Core Social Science Group 1 & 2.....	3	3
MATH	1610	1620	Calculus I & II	4	4
				14	14
SO					
CHEM	1030	1040	Fundamental Chemistry I & II.....	3	3
CHEM	1031	1041	Fundamental Chemistry I & II Lab	1	1
BIOL	3000		Genetics.....	4	--
BIOL		3060	Ecology.....	--	4
PHYS	1500	1510	General Physics I & II.....	4	4
ENGL		2200	Great Books I	--	3
				12	15

JR					
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
STAT	3010		Statistics for Engr. & Sci.	3	--
			Biology Elective.....	--	7
ENGL		2210	Great Books II	--	3
HIST	1010	1020	World History	3	3
				13	14

SUMMER MARINE LAB

Marine Botany or Oceanography or Marine Geology.....8

SR					
BIOL	4100		Cell Biology	3	--
BIOL	4101		Cell Biology Lab.....	2	--
BIOL		6240	Animal Physiology	--	4
			Core Fine Arts	3	--
BIOL	4010		Invertebrate Biodiversity.....	4	--
			Elective.....	--	3
COMM		1000	Public Speaking.....	--	3
			Core Philosophy	--	3
				12	13

SUMMER MARINE LAB

Advanced Electives in Marine Science.....8

TOTAL HOURS — 123

Summer Marine Lab: see adviser for approved course listing.
Biology Elective: see adviser for approved course listing.

Curriculum in Biomedical Sciences

FR	F	S		F	S
ENGL	1100	1120	English Composition I & II	3	3
MATH	1610		Calculus I.....	4	--
HIST		1010	World History	--	3
CHEM	1110	1120	General Chemistry I & II	3	3
CHEM	1111	1121	General Chemistry I & II Lab	1	1
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
SCMH	1990		Pre-Health Orientation	1	--
				16	14

SO					
PHYS	1500	1510	General Physics I & II.....	4	4
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
ENGL	2200	2210	Great Books I & II.....	3	3
HIST	1020		World History	3	--
BIOL		3000	Genetics	--	4
COMM	1000		Public Speaking	3	--
				17	15

JR					
BIOL	4410		Vertebrate Development.....	4	--
BIOL		4100	Cell Biology.....	--	3
BIOL		4101	Cell Biology Lab	--	2
BIOL	3200		Microbiology.....	4	--
STAT	2510		Statistics for Biology & Health Science	3	--
PHIL		1030	Ethics & Health Science	3	3
PSYC	2010		Introduction to Psychology.....	3	--
			Core Fine Arts.....	3	--
BIOL		4000	Histology	--	4
			Core Social Science	--	3
				17	15

SR					
BIOL			Special Problems.....	2	--
BIOL		6600	Mammalian Physiology.....	--	6
BCHE	6180	6190	Biochemistry I & II.....	3	3
BIOL	3010		Comparative Anatomy	4	--
			Electives.....	2	4
BIOL	6500		Immunology.....	3	--
				14	13

TOTAL HOURS — 121

It is recommended that a student take the equivalent of one year of a foreign language or CHEM 3160.

Professional Curricula

Pre-Health professional curricula are offered in pre-dentistry, pre-medicine, pre-optometry, pre-physical therapy, pre-pharmacy and pre-veterinary medicine. Advisers are available in each curriculum to guide the students concerning admissions requirements to the professional schools. The department in which students major will advise them where applicable. Completion of these curricula does not assure admission to a professional school. Competition for admission to professional schools is keen; the number of qualified applicants exceeds the number of places available.

Pre-Dentistry and Pre-Medicine

These programs are designed to prepare students for medical and dental schools and lead to a Bachelor of Science degree in one of several majors offered through the College. The requirements are very exacting and demand high scholastic competence and performance.

Students in pre-dentistry or pre-medicine should take the national Dental Aptitude Test or the Medical College Admission Test at least a year in advance of the date of entry to professional school, and follow with applications to the professional schools of their choice. Early in the junior year, the student should seek information from the chairman of the Pre-Health Advisory Committee concerning procedures to follow to obtain the necessary committee evaluation and recommendation to professional school. Forms and instructions are available in the office of the Dean of Sciences and Mathematics. Most American medical schools recommend that medical and dental school applicants have (1) an academic year each of freshman biology, general chemistry, organic chemistry, and physics; (2) breadth in the educational experience; and (3) in-depth experience in a single discipline. Auburn University students accomplish the above by enrolling in a core of courses as outlined in the following curriculum model. Each student then elects a major from the College of Sciences and Mathematics. The College offers majors in biomedical sciences, chemistry, microbiology, physics and zoology. Students should confer with the College for specific course requirements. Students may also choose to major in a curriculum in another college or school, but they must work with the assistant dean for Pre-Health Professions in COSAM for information on the application process.

**Program in Pre-Dentistry (PDEN),
Pre-Medicine (PMED)**

FR	F	S		F	S
ENGL	1100	1120	English Composition I & II	3	3
MATH	1610		Calculus I	4	--
HIST		1010	World History	--	3
CHEM	1110	1120	General Chemistry I & II	3	3
CHEM	1111	1121	General Chemistry I & II Lab	1	1
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
SCMH	1990		Pre-Health Orientation	1	--
COMP		1000	Personal Computer Applications	--	2
				16	16

SO					
PHYS	1500	1510	General Physics I & II	4	4
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
HIST	1020		World History	3	--
BIOL		3000	Genetics	--	4
ENGL	2200	2210	Great Books I & II	3	3
COMM	1000		Public Speaking	3	--
				17	15

JR					
BIOL	4410		Vertebrate Development.....	4	--
BIOL		4100	Cell Biology.....	--	3
BIOL		4101	Cell Biology Lab	--	2

BIOL	3200	Microbiology	4	--
STAT	2510	Statistics for Biology & Health Science	3	--
PHIL	1030	Ethics & Health Science.....	3	--
PSYC	2010	Introduction to Psychology.....	3	--
		Core Social Science.....	3	--
		Core Fine Arts.....	3	--
			17	11

At the end of the sophomore year, or in the beginning of the junior year, the student must declare a major.

Pre-Optometry

This program leads to a Bachelor of Science degree and prepares students for the rigorous demands of American optometry schools.

Students must select a major in the College of Sciences and Mathematics or another college. The College offers majors in biomedical sciences, chemistry, microbiology, physics and zoology. Students should confer with the College for specific course requirements. Students may also choose to major in a curriculum in another college or school, but they must work with the assistant dean for Pre-Health Professions in COSAM for information on the application process.

Pre-Optometry students should write for an official bulletin from each of the professional schools of their choice during the freshman year and discuss with the Pre-Optometry adviser any special requirements of those schools. The requirements of most U.S. schools of optometry are covered in the suggested program below, either as required subjects or as electives. The student should take the Optometry Admission Test and make official application for admission to the professional schools about a year in advance of the expected date of matriculation.

Program in Pre-Optometry (POPT)

FR	F	S		F	S
ENGL	1100	1120	English Composition I & II	3	3
MATH	1610		Calculus I.....	4	--
HIST		1010	World History	--	3
CHEM	1030	1040	Fundamentals of Chemistry I & II.....	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab.....	1	1
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
SCMH	1990		Pre-Health Orientation	1	--
COMP		1000	Personal Computer Applications	--	2
				16	16
SO					
PHYS	1500	1510	General Physics I & II.....	4	4
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
HIST	1020		World History	3	--
BIOL		3000	Genetics	--	4
ENGL	2200	2210	Great Books I & II	3	3
COMM	1000		Public Speaking	3	--
				17	15
JR					
BIOL	4410		Vertebrate Development	4	--
BIOL		4100	Cell Biology	--	3
BIOL		4101	Cell Biology Lab	--	2
BIOL	3200		Microbiology	4	--
STAT	2510		Statistics for Biology & Health Science	3	--
PHIL		1030	Ethics & Health Science.....	--	3
PSYC	2010		Introduction to Psychology.....	3	--
			Core Social Science.....	--	3
			Core Fine Arts.....	3	--
				17	11

At the end of the sophomore year, or in the beginning of the junior year, the student must declare a major.

Pre-Physical Therapy

This program prepares students applying to schools of physical therapy at the master's level and leads to a bachelor's degree in one of the majors offered in the College of Sciences and Mathematics or another college. The College offers majors in biomedical sciences, chemistry, microbiology, physics and zoology. Students should confer with the College for specific course requirements. Students may also choose to major in a curriculum in another college or school, but they must work with the assistant dean for Pre-Health Professions in COSAM for information on the application process. Students should write for an official bulletin from each of the professional schools of

their choice during their freshman year and discuss with the assistant dean any special requirements of those schools.

Program in Pre-Physical Therapy (PPHS)

FR	F	S		F	S
ENGL	1100	1120	English Composition I & II	3	3
MATH	1610		Calculus I	4	--
HIST		1010	World History	--	3
CHEM	1030	1040	Fundamentals of Chemistry I & II.....	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab.....	1	1
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
SCMH	1990		Pre-Health Orientation	1	--
COMP		1000	Personal Computer Applications	--	2
				16	16
SO					
PHYS	1500	1510	General Physics I & II	4	4
CHEM	2070		Organic Chemistry I	3	--
CHEM	2071		Organic Chemistry I Lab.....	1	--
PSYC		2010	Introduction to Psychology	--	3
HIST	1020		World History	3	--
			Core Social Science	--	3
BIOL		3000	Genetics	--	4
ENGL	2200	2210	Great Books I & II	3	3
COMM	1000		Public Speaking	3	--
				17	17
JR					
BIOL	2500	2510	Anatomy & Physiology I & II	4	4
BIOL	3200		Microbiology	4	--
			Psychology Elective	--	3
STAT	2510		Statistics for Biology & Health Science	3	--
PHIL		1030	Ethics & Health Science.....	--	3
PSYC	2120		Developmental Psychology	3	--
			Core Fine Arts.....	3	--
				17	10

At the end of the sophomore year, or in the beginning of the junior year, the student must declare a major.

Pre-Pharmacy

This program meets the requirements for admission to the Auburn University School of Pharmacy, which is fully accredited by the American Council on Pharmaceutical Education. Complete information about the professional curriculum in pharmacy may be found in the School of Pharmacy section.

To be considered for admission, the applicant must complete the basic two-year requirements below and must have a 2.5 (C) GPA based on all courses attempted as well as a 2.5 (C) science index (GPA on the biological and physical science courses and mathematics). A grade of D in any required course will not be accepted.

Program in Pre-Pharmacy (PPHR)

FR	F	S		F	S
HIST	1010	1020	World History	3	3
MATH	1610		Calculus I	4	--
ENGL	1100	1120	English Composition I & II	3	3
CHEM	1030	1040	Fundamentals of Chemistry I & II.....	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab.....	1	1
			Core Fine Arts	--	3
			Elective	--	3
BIOL		1020	Principles of Biology	4	--
			Core Philosophy	--	3
				18	19
SO					
ENGL	2200	2210	Great Books I & II	3	3
			Core Social Science Group 1 & 2.....	3	3
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
PHYS	1500		General Physics I.....	4	--
STAT		2510	Statistics for Biology & Health Science	--	3
BIOL	2500		Anatomy/Physiology I	4	--
			Elective	--	3
				18	16

Pre-Veterinary Medicine

Students in the Pre-Veterinary Medicine (PVET) curriculum must select a major by the end of their sophomore year. Students in Sciences and Mathematics may select microbiology (MICB, PVET) or zoology (ZOO, PVET) as majors. Pre-Veterinary options in the College of Agriculture include animal and dairy science (ANDS, PVET)

and poultry science (POUL, PVET). A pre-vet option in wildlife (WILD, PVET) sciences also exists in the School of Forestry and Wildlife Sciences. The minimum requirements for admission to the College of Veterinary Medicine at Auburn University are incorporated into the curriculum models for all these majors.

It is possible to gain admission to the College of Veterinary Medicine by completing only the minimum requirements listed. However, it is preferable to select a major and earn a baccalaureate degree. If a student is admitted to the College of Veterinary Medicine prior to completion of the full four years, he or she may obtain a B.S. degree by successfully completing the first three years of some of the Pre-Veterinary curricula and the first year of veterinary school. Students should consult their advisers regarding which curricula offer this option.

Application for admission to the College of Veterinary Medicine must be submitted to the Dean of that College. A minimum GPA of 2.5 is required for application; D grades in required courses are unacceptable. All minimum requirements, including courses repeated due to time limitations, must be completed by the end of the spring term preceding the date of admission, and all advanced required courses in physical and biological sciences (organic chemistry and physics) must have been completed within six calendar years prior to the anticipated entrance date. Competition for admission to the professional schools is keen with the number of qualified applicants exceeding the number of places available. For additional information, see College of Veterinary Medicine section and the Pre-Veterinary Medicine curricula in the College of Agriculture.

Program in Pre-Veterinary Medicine (PVET)

FR	F	S		F	S
MATH	1130		Pre-Calculus with Trigonometry.....	3	--
			Core History	--	3
ENGL	1100	1120	English Composition I & II	3	3
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
CHEM	1030	1040	Fundamentals of Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab	1	1
			Elective	--	3
				14	17
SO					
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
ENGL	2200	2210	Great Books I & II	3	3
			Core History	3	--
BIOL		3000	Genetics	--	4
			Core Philosophy	--	3
			Core Social Science	3	--
			Core Fine Arts.....	3	--
				16	14
JR					
PHYS	1500	1510	General Physics I & II	4	4
BCHE	3200		Animal Biochemistry	3	--
BIOL		3200	Microbiology	--	4
COMM	1000		Public Speaking	3	--
COMP		1000	Personal Computer Applications	--	2
			Elective	3	--
			Core Social Science	--	3
				13	13

At the end of the sophomore year, or in the beginning of the junior year, the student must declare a major.

Curriculum in Microbiology

Pre-Veterinary Medicine Option (MICB, PVET)

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
ENGL	1100	1120	English Composition I & II	3	3
CHEM	1030	1040	Fundamentals of Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab	1	1
			Core History	--	3
MATH	1610		Calculus I	4	--
				15	14

SO					
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
BCHE	3200		Animal Biochemistry	4	--
ENGL		2200	Great Books I	--	3
BIOL	3000		Genetics	4	--
PHYS	1500	1510	General Physics I & II	4	4
BIOL		3200	General Microbiology	--	4
			Core History	3	--
				16	15
JR					
BIOL	4200		Clinical Microbiology	4	--
BIOL		4220	Introductory Molecular Genetics	--	4
BIOL	4210		Microbial Physiology	3	--
BIOL		4100	Cell Biology	--	3
			Core Social Science Group 1 & 2	3	3
BIOL		4950	Undergraduate Seminar	--	1
			Core Philosophy	--	3
			Core Fine Arts	--	3
			Core History II	3	--
ENGL	2210		Great Books II	3	--
				16	17
SR					
BIOL	6500		Immunology	3	--
BIOL		4230	Virology	--	3
BIOL	6501		Immunology Lab	2	--
			Biology Elective	3	3
BCHE	6180	6190	Biochemistry I & II	3	3
BCHE	6181		Biochemistry I Lab	1	--
			Elective	3	3
				15	12

Biology Electives: see adviser for approved course listing.

Curriculum in Zoology

Pre-Veterinary Medicine Option (ZOOL, PVET)

FR	F	S		F	S
MATH	1610		Calculus I	4	--
ENGL	1100	1120	English Composition I & II	3	3
BIOL	1020		Principles of Biology	4	--
BIOL		1030	Organismal Biology	--	4
CHEM	1030	1040	Chemistry I & II	3	3
CHEM	1031	1041	Chemistry I & II Lab	1	1
			Core History	--	3
				15	14
SO					
CHEM	2070	2080	Organic Chemistry I & II	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab	1	1
ENGL	2200	2210	Great Books I & II	3	3
PHYS	1500	1510	General Physics I & II	4	4
			Core Social Science Group 1 & 2	3	3
COMP	1000		Personal Computer Application	2	--
				16	14
JR					
BCHE	3200		Animal Biochemistry	3	--
BIOL		3200	Microbiology	--	4
COMM	1000		Public Speaking	3	--
			Core Fine Arts	--	3
BIOL	3000		Genetics	4	--
BIOL		3030	Evolution & Systematics	--	3
BIOL	3060		Ecology	4	--
			Core Philosophy	--	3
			Elective	--	3
			Core History	3	--
				17	16
SR					
BIOL	4100		Cell Biology	3	--
			Biology Elective	5	13
BIOL	6240		Animal Physiology	4	--
			Elective	--	3
STAT	3010		Statistics for Engr. & Sci.	3	--
				15	16

Biology Elective: see adviser for approved course listing.