Fast-Track Bachelors + Masters Biological Sciences

The Fast-Track Bachelors + Masters degree program allows undergraduate students in the Biology program to begin coursework towards the non-thesis option of the Master of Science in Biology program during their senior year at East Texas A&M University. Students can earn a B.S. and M.S. degree in five years upon completion of degree requirements for both degrees. For this Fast-Track Bachelors to Masters program, 6 credits of graduate coursework can be applied to the undergraduate degree. To be admitted to the Fast-Track Bachelors + Masters program in Biology, the candidate must be a Biology major with an overall Undergraduate GPA of 3.25. Students must apply for the Fast-Track Bachelors to Masters program during the semester they will earn 90 semester hours or more towards their bachelors program. Once admitted, the Fast-Track Bachelors + Masters candidate must maintain a 3.25 Undergraduate GPA.

Core Curriculum Courses		
See the Core Curriculum Requirements (https://coursecatalog.tamuc.edu/undergrad/core-curriculum-requirements/)		42
Required courses in the major		**30**
BSC 1406	Introductory Biology I	4
BSC 1407	Introductory Biology II	4
BSC 303	Cell Biology	4
BSC 304	Genetics	4
BSC 305	General Physiology	4
BSC 306	Applied Microbiology	4
BSC 307	Ecology	3
BSC 401	Research Literature and Seminar	3
Required support courses		**26**
CHEM 1311	General and Quantitative Chemistry I *	
CHEM 1111	General and Quantitative Chemistry Laboratory I	1
CHEM 101	General Chemistry Tutorial I	1
CHEM 1312	General and Quantitative Chemistry II *	
CHEM 1112	General and Quantitative Chemistry Laboratory II	1
CHEM 102	General Chemistry Tutorial II	1
CHEM 2323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry Laboratory I	1
CHEM 2325	Organic Chemistry II	3
CHEM 2125	Organic Chemistry Laboratory II	1
PHYS 1401	College Physics I	4
or PHYS 2425	University Physics I	
PHYS 1402	College Physics II	4
or PHYS 2426	University Physics II	
SOC 1301	Introduction to Sociology *	
Plus 6 sequential sh from:		
MATH 1314	College Algebra *	
MATH 2312	Pre-Calculus *	
MATH 2413	Calculus I *	
MATH 2414	Calculus II	4
Plus one course from:		
HHPH 331	Nutrition *	
or PSY 2301	Introduction to Psychology	
Plus one course from:		
BSC 504A	Advanced Biostatistics	
Advanced Courses Required		**22**
BSC 515A	Advanced Cell Biology	

Plus 19 sh from 300 or 400 upper level BSC courses other than the required courses in the major.

Total Hours	**120**

Master of Science in Biological Sciences (Fast-Track BS/MS) Option I Thesis

The BS-MS Fast-Track degree program allows undergraduate students in the Biological Sciences program to begin coursework towards the thesis option of the Master of Science in Biological Sciences program during their senior year at East Texas A&M University. Students can earn a B.S. and M.S. degree in five years upon completion of degree requirements for both degrees. For this Fast-Track program, 12 credits of graduate coursework may be taken as an undergraduate student (graduate courses cannot be applied to the undergraduate degree). Once admitted, the BS/MS candidate must maintain a 3.25 Undergraduate GPA. In the final semester of the student's undergraduate program, a new online Apply Texas Application for the master's Fast-Track program must be submitted to gain admission and continue taking classes to complete the master's program. The Master of Science degree in Biological Sciences with thesis option is available only on campus.

Thesis (6 semester hours required)		
BSC 518	Thesis	3-6
Required Courses (6 semester hours)		
BSC 504	Advanced Biostatistics	3
BSC 515	Advanced Cell Biology	3
Core Courses (9 Semester Hours)		
To satisfy core requirements choose one course (3 semester hours) from each topic, the second course taken from a topic will be counted towards the general electives:		
Topic 1. Genetics		
BSC 512	Advanced Ecological Genetics	3
BSC 513	Molecular Genetics	3
Topic 2. Ecology		
BSC 510	Community Ecology	3
BSC 560	Advanced Landscape Ecology	3
Topic 3. Physiology		
BSC 552	Comparative Animal Physiology	3
BSC 550	Microbial Physiology	3
Electives (9 Semester Hours)		
BSC 509	Microbial Ecology	3
BSC 510	Community Ecology	3
BSC 511	Avian Biology	3
BSC 512	Advanced Ecological Genetics	3
BSC 513	Molecular Genetics	3
BSC 514	Advanced Pharmacology - Principles and Practice	3
BSC 516	Medical Microbiology	3
BSC 517	Stem Cell Biology	3
BSC 519	Advanced Gene Regulation	3
BSC 520	Advanced Immunology	3
BSC 521	Epigenetics	3
BSC 522	Reproductive Physiology	3
BSC 523	The Plant Microbiome	3
BSC 524	Advanced Soil and Biogeochemistry	3
BSC 525	Advanced Neuroscience	3
BSC 526	Advanced Developmental Biology	3
BSC 527	Advanced Human Physiology	3
BSC 530	Advanced Virology	3
BSC 531	Biogeography	3
BSC 532	Behavioral Ecology	3
BSC 533	Invertebrate Zoology	3
BSC 534	Vertebrate Zoology	3
BSC 535	Evolution	3

BSC 537	Behavior and Conservation	3
BSC 539	Herpetology	3
BSC 540	Animal Behavior	3
BSC 541	Genetic Engineering	3
BSC 550	Microbial Physiology	3
BSC 552	Comparative Animal Physiology	3
BSC 560	Advanced Landscape Ecology	3
BSC 561	Bioremediation	3
BSC 562	Ecotoxicology	3
Total Hours		**30**

Master of Science in Biological Sciences (Fast-Track BS/MS) Option II Non-Thesis

The BS-MS Fast-Track degree program allows undergraduate students in the Biological Science program to begin coursework towards the non-thesis option of the Master of Science in Biological Sciences program during their senior year at East Texas A&M University. Students can earn a B.S. and M.S. degree in five years upon completion of degree requirements for both degrees. For this Fast-Track program, 6 credits of graduate coursework can be applied to both the BS and MS degrees. Once admitted, the BS/MS candidate must maintain a 3.25 Undergraduate GPA. In the final semester of the student's undergraduate program, a new online Apply Texas Application for the master's Fast-Track program must be submitted to gain admission and continue taking classes to complete the master's program. The Master of Science degree in Biological Sciences with non-thesis option is offered on-campus or fully online

Research (3 semester hours)		
BSC 595	Research Literature and Techniques	3
15 semester hours of required core courses plus one elective course must be successfully completed before approval to register for BSC 595 can be given (18 hrs total)		
Required Courses (6 Semester Hours)		
BSC 504A	Advanced Biostatistics *	3
BSC 515A	Advanced Cell Biology *	3
Required Core Courses (9 Semester Hours)		
To satisfy core requirements choose one course (3 semester hours) from each topic, the second course taken from a topic will be counted towards the general electives:		
Topic 1. Genetics		
BSC 512	Advanced Ecological Genetics	3
BSC 513	Molecular Genetics	3
Topic 2. Ecology		
BSC 510	Community Ecology	3
BSC 560	Advanced Landscape Ecology	3
Topic 3. Physiology		
BSC 552	Comparative Animal Physiology	3
BSC 550	Microbial Physiology	3
Electives (18 Semester Hours)		
BSC 509	Microbial Ecology	3
BSC 510	Community Ecology	3
BSC 511	Avian Biology	3
BSC 512	Advanced Ecological Genetics	3
BSC 513	Molecular Genetics	3
BSC 514	Advanced Pharmacology - Principles and Practice	3
BSC 516	Medical Microbiology	3
BSC 517	Stem Cell Biology	3
BSC 519	Advanced Gene Regulation	3
BSC 520	Advanced Immunology	3
BSC 521	Epigenetics	3
BSC 522	Reproductive Physiology	3
BSC 523	The Plant Microbiome	3
BSC 525	Advanced Neuroscience	3

BSC 526	Advanced Developmental Biology	3
BSC 527	Advanced Human Physiology	3
BSC 530	Advanced Virology	3
BSC 531	Biogeography	3
BSC 532	Behavioral Ecology	3
BSC 533	Invertebrate Zoology	3
BSC 537	Behavior and Conservation	3
BSC 539	Herpetology	3
BSC 540	Animal Behavior	3
BSC 541	Genetic Engineering	3
BSC 550	Microbial Physiology	3
BSC 552	Comparative Animal Physiology	3
BSC 560	Advanced Landscape Ecology	3
BSC 561	Bioremediation	3
Total Hours		**36**

* Courses shared with BS

Note: Successful completion of the Comprehensive Exam is required of all students.

First Year

Fall	**Hours**
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Total Hours: 0