

Biomedical Sciences (BS)

Degree Requirements

Biomedical Sciences (BS)	Credit Hours
Requirements:	120
Area I - Written Composition	6
EH 101 English Composition I	3 hrs
EH 102 English Composition II	3 hrs
Area II - Humanities & Fine Arts	12
CA 110 Public Speaking	3 hrs
Fine Arts Elective*	3 hrs
Literature Electives*	3 hrs
Literature #2 for sequence** or Humanities Elective*	3 hrs
Area III - Natural Sciences & Math	12
MA 125 Calculus I	4 hrs
CH 131/CH 131L General Chemistry I/Lab	4 hrs
CH 132/CH 132L General Chemistry II/Lab	4 hrs
Area IV - History, Social & Behavioral Sciences	12
PSY 120 Introduction to Psychology	3 hrs
History Elective*: HY 101 or HY 102 or HY 135 or HY 136	3 hrs
History #2 for Sequence** or Social Science Elective*	3 hrs
*Social Science Elective	3 hrs
Area V - Preprofessional, Major & Electives	39
BLY 121/BLY 121L General Biology I/Lab	4 hrs
BLY 122/BLY 122L General Biology II/Lab	4 hrs
CH 201/201L Organic Chemistry I/Lab	4 hrs
CH 202/202L Organic Chemistry II/Lab	4 hrs
PH 114 Physics with Algebra/Trig I	5 hrs
PH 115 Physics with Algebra/Trig II	5 hrs
ST 210 Statistical Reasoning	3 hrs
CIS 150 Intro to Computer Applications OR CIS 010 Computer Proficiency Exam (passed) & General Electives	3 hrs
General Electives***	6 hrs
Major required courses:	23

BMD 201 Seminars in Biomedical Sciences	1 hr
BMD 311 Human Anatomy	3 hrs
BMD 321 Biochemistry I	3 hrs
BMD 322 Biochemistry II	3 hrs
BMD 323 Biochemistry II Laboratory	1 hr
BMD 334 Human Physiology I	3 hrs
BMD 335 Human Physiology II	3 hrs
BMD 336 Human Physiology Laboratory (W)	1 hr
BMD 450 Introduction to Research	2 hrs
BMD 493 Issues in Biomedical Sciences (W)	3 hrs
Major Electives* (a minimum of 3 of the following 5 courses must be completed):	17
BMD 401 Immunology	3 hrs
BMD 402 Medical Microbiology	4 hrs
BMD 410 Pathophysiology	3 hrs
BMD 420 Pharmacology	3 hrs
BMD 430 Neuroscience	4 hrs

* Electives are listed on Sample Curriculum Sheets and Degree Audits. A maximum of 3 hours of BMD 494 or BMD 499 can be counted toward the BMD elective requirements.

** A two-course sequence must be completed in either Literature or History.

*** General electives can be chosen from any courses to reach the 120 total credits required for graduation.

Graduation Plan

Biomedical Sciences BMD (BS)

Note: This form does not guarantee course availability. Please check the appropriate Schedule of Classes.

First Year			Credit Hours
Fall Semester			15
EH 101	English Composition I	3 hrs	
BLY 121/121L	General Biology I/Lab	4 hrs	
CH 131/131L	General Chemistry I/Lab	4 hrs	
PSY 120	Introduction to Psychology	3 hrs	
BMD 201	Seminars in Biomedical Sciences	1 hr	
Spring Semester			15

EH 102	English Composition II	3 hrs
BLY 122/122L	General Biology II/Lab	4 hrs
CH 132/132L	General Chemistry II/Lab	4 hrs
MA 125	Calculus I	4 hrs

Second Year		Credit Hours
Fall Semester		15
CH 201/201L	Organic Chemistry I/Lab	4 hrs
PH 114/114L	Physics with Algebra/Trig I/Lab	5 hrs
EH _____	Literature Elective*	3 hrs
HY _____	History Elective*	3 hrs
Spring Semester		14
CH 202/202L	Organic Chemistry II /Lab	3 hrs
PH 115/115L	Physics with Algebra/Trig II/Lab	5 hrs
ST 210	Statistical Reasoning	3 hrs
CA 110	Public Speaking	3 hrs

Third Year		Credit Hours
Fall Semester		15
BMD 311	Human Anatomy	3 hrs
BMD 321	Biochemistry I	3 hrs
BMD 334	Human Physiology I	3 hrs
HY _____	History #2 for Sequence** or Social Science Elective *	3 hrs
EH _____	Literature #2 for Sequence** or Humanities Elective*	3 hrs
Spring Semester		14
BMD 322	Biochemistry II	3 hrs
BMD 323	Biochemistry II Lab	1 hrs
BMD 335	Human Physiology II	3 hrs
BMD 336	Human Physiology II Lab-W	1 hrs
CIS 150 OR	Intro-Computer Applications	3 hrs

CIS 010 and Proficiency Exam (pass) General Elective

OR
CIS 010 and

_____ Social Science Elective* 3 hrs

Fourth Year			Credit Hours
Fall Semester			16
BMD 401	Immunology	3 hrs	
	BMD Elective	3 hrs	
BMD 430	Neuroscience	4 hrs	
_____	Fine Arts Elective*	3 hrs	
BMD 493	Issues in Biomedical Sciences	3 hrs	
Spring Semester			15
BMD 402	Medical Microbiology	4 hrs	
	BMD Elective	3 hrs	
BMD 450	Intro to Research	2 hrs	
_____	General Electives***	6 hrs	

Notes

* Elective lists are included on Sample Curriculum sheets and Degree Audits.

** A two-course sequence must be completed in either Literature or History.

*** General electives can be chosen from any courses to reach the 120 total credits required for graduation.

Major Milestones

Effective for fall, 2016 Major Milestones are used in all concentrations of the Biomedical Sciences major to help students stay on track for timely graduation. Each regular semester in the Biomedical Sciences major is a tracking term. In order to remain on track, students must complete the milestone requirements for each tracking term. These requirements are viewable on the Major Milestones table below.

Major milestone requirements apply only to full-time, degree-seeking students who first entered Fall 2016 or later. Milestone requirements do not apply to transfer students in the Biomedical Sciences program.

The sample academic plan viewable on the Major Milestone tab below is designed to ensure graduation in the Biomedical Sciences major in four years. Several academic plans are available – consult with your academic advisor for the plan that is the

best fit for you. For specific course requirement, refer to the program requirements above and the General Education requirement of the College of Allied Health Professions.

Biomedical Sciences Major Milestones

Term 1	Course Description	Pre-requisite	Cr Hrs	Milestone Notes
AHP 101 CAS 100 HSC 101	First-Year Experience College Success		2	
EH 101/ EH 102	English Composition I/ English Composition II	EH 101 or ACT English Score 27	3	
PSY 120	Into to Psychology		3	
CH 131/131L	General Chemistry I/ Lab	ACT Math 24	4	
BLY 121/121L	General Biology I/Lab	ACT Math 22	4	
			16	
Term 2	Course Description	Pre-requisite	Cr Hrs	Milestone Notes
EH 102	English Composition II	EH 101 or ACT English Score 27	3	MA 113 or MA 115
CH 132/132L	General Chemistry II/ Lab	CH 131/CH 131L	4	
BLY 122/122L	General Biology II/Lab	BLY 121/BLY 121L	4	
MA 125	Calculus I	ACT Math 27 or MA 113, 115	4	
			15	
Term 3	Course Description	Pre-requisite	Cr Hrs	Milestone Notes
CH 201/201L	Organic Chemistry II/ Lab	CH 132/CH 132L	4	CH 132/132L with a grade of C or better
PH 114/114L	Physics with Algebra/ Trig I/L	ACT Math 25, MA 113, 115	5	BLY 121/121L with a grade of C or better
BMD 201	Seminars in Biomedical Sciences		1	
History Elective			3	
Literature Elective			3	
			16	

Term 4	Course Description	Pre-requisite	Cr Hrs	Milestone Notes
CH 202/202L	Organic Chemistry II	CH 201/201L	4	CH 132/132L with a grade of C or better
PH 115/115L	Physics with Algebra/Trig II/L	PH 114/114L	5	
ST 210	Statistical Reasoning		3	
CA 110	Public Speaking		3	
			15	

Term 5	Course Description	Pre-requisite	Cr Hrs	Milestone Notes
BMD 311	Human Anatomy	BLY 122/122:	3	BLY 122/122L with a grade of C or better
BMD 321	Biochemistry I	CH 201/201L	3	CH 201/201L with a grade of C or better
BMD 334	Physiology I	BLY 121, 122, CH 131, 132	3	PH 114 with a grade of C or better
History #2 or Social Science Elective			3	
Literature #2 or Humanities Elective			3	
			15	

Term 6	Course Description	Pre-requisite	Cr Hrs	Milestone Notes
BMD 322	Biochemistry II	BMD 321 and CH 202/202L	3	
BMD 323	Biochemistry II lab	BMD 321	1	
BMD 335	Human Physiology II	BMD 334	3	
BMD 336 - W	Human Physiology II	BMD 334, 335 and EH 102(C grade required)	1	
Social Science Elective			3	
CIS 150 or CIS 010 and	Intro Computer Application Proficiency Test (pass)		3	

General
Elective

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Term 7	Course Description	Pre-requisite	Cr Hrs	Milestone Notes
BMD 401	Immunology	BMD 321 or BLY 440 or CH 440	3	BMD 311 with a grade of C or better
BMD Elective			3	
BMD 430	Neurosciences	BMD 311 and either 334 or 335	4	
BMD 493	Issues in Biomedical Science	BMD 321	3	
Fine Arts Elective			3	
			16	

Term 8	Course Description	Pre-requisite	Cr Hrs	Milestone Notes
BMD 402	Medical Microbiology	BMD 401	4	
BMD Elective			3	
BMD 450	Intro to Research	BMD 311, 321, 322, 334, 335, 336	2	
General elective			3	
			12	

Department Information

Biomedical Sciences Administrative Staff	(251) 445-9265
Chair	Nancy Rice
Professors	Rice
Professor Emeritus	Covey, Davis, Spector, Stanfield, Turrens
Associate Professors	Mockett, Ravine, Thulasiraman
Assistant Professors	Gorelik, Shokolenko, Swiger
Instructors	Henry

Department of Biomedical Sciences website

<https://www.southalabama.edu/colleges/alliedhealth/biomedical>

The Department of Biomedical Sciences focuses on providing students with a broad undergraduate science curriculum from a human perspective. The curriculum offers students a strong general education in the humanities, arts, social sciences, mathematics, and sciences, followed by in-depth study in the basic medical sciences. The program offers an optional Honors Research Thesis (BMD 499) to qualified students consisting of a laboratory apprenticeship in biomedical research under the

mentorship of a faculty scientist. Students interested in the Honors Research Thesis option should contact Dr. Nancy Rice for information. The Biomedical Sciences curriculum establishes a foundation that prepares students to pursue post baccalaureate educational experiences in any biomedical discipline, particularly medicine, dentistry, pharmacy, optometry, as well as a Ph.D. degree in a variety of health and science related fields. In addition, the Department of Biomedical Sciences offers prerequisite course work for students wishing to in the Pat Capps Covey College of Allied Health Professions.