

BIOMEDICAL SCIENCE (NO CONCENTRATION), BACHELOR OF SCIENCE

SUMMARY

Code	Title	Hours
Core Curriculum Requirements (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/) ¹		42
Major Requirements (30 hours)		
BIOM 331	Principles of Biomedical Research	3
BIOM 332	Biomedical anatomy & Physiology	3
BIOM 333	Biomedical Genetics	3
BIOM 334	Biomedical Writing	3
BIOM 335	Health Disparities	3
BIOM 430	Medical Calculations	3
BIOM 410	Medical Calculations Lab	1
BIOM 420	Introduction to Pathophysiology	2
BIOM 432	Biomedical Biochemistry	3
BIOM 411	Biomedical Biochemistry Lab	1
BIOM 436	Biostatistics	3
BIOM 421	Introduction to Pharmacology	2
Major Elective Requirements (13 hours)		
HSCR 260	Biomedical Ethics	3
Select 10 hours from the following:		10
BIOM 433	Medical Communications	
BIOM 434	Introduction to Pharmacy Practice	
BIOM 437	Drug Discovery and Development	
BIOM 431	Biopharmaceutics	
BIOM 412	Biopharmaceutics Lab	
HSHI 362	Med Term Word Processing	
HSOA 335	Hlth Pol & US Hlthcare Sys	
HSOA 336	Res Health Professionals	
HSOA 332	Intro Commun & Population Hlth	
HSCR 360	Princ Of Disease	
HSOA 431	HC Mgmt & Leadership	
HSHI 366	Legal Aspects	
HED 399	Health Seminar	
Other Requirements (35 hours)		
Biological Science Core (16 hours)		
BIOL 1306 & BIOL 111	Biological Science I and Biological Science Lab I	4
BIOL 132 & BIOL 112	Biological Science II and Biological Science Lab II	4
BIOL 245	Human Anatomy & Physiology (BIOL 2401 or BIOL 2402 also allowed)	4
BIOL 347	Microbiology (BIOL 2420 or BIOL 2421 also allowed)	4
Biochemistry Core (10 hours)		
CHEM 111	Chemistry I Lab	1
CHEM 112	Chemistry II Lab	1

CHEM 211	Organic Chem I Lab	1
CHEM 212	Organic Chem II Lab	1
CHEM 231	Organic Chem I	3
CHEM 232	Organic Chem II	3
Physics Core (4 hours)		
PHYS 1301	College Physics I	3
PHYS 213	College Phys Lab I (PHYS 1401 also allowed)	1
Mathematics Core (4 hours)		
MATH 2413	Calculus & Analytic Geomtry I	4
First Time Freshman (1 hour) ²		
FS 102	Freshman Seminar/ first Year Experience	1
Total Hours		120

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Suggestions in the Core Curriculum

Mathematics (020)

MATH 1314 College Algebra (3 s.h.)

Life and Physical Science (030)

CHEM 1311 Chemistry I (3 s.h.) and CHEM 1312 Chemistry II (3 s.h.)

Institutional Option (090)

Speech Option and MATH 1342 Elementary Statistics (3 s.h.)

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FS 102 can be substituted with a free elective for transfer students only.

Course	Title	Hours
First Year		
First Semester		
CHEM 1311	Chemistry I	3
CHEM 111	Chemistry I Lab	1
BIOL 1306	Biological Science I	3
BIOL 111	Biological Science Lab I	1
MATH 2312	Precalculus Math	3
ENGL 1301	Freshman English I	3
FS 102	Freshman Seminar/ first Year Experience	1
Hours		15
Second Semester		
BIOL 132	Biological Science II	3
BIOL 112	Biological Science Lab II	1
CHEM 1312	Chemistry II	3
CHEM 112	Chemistry II Lab	1
ENGL 1302	Freshman English II	3
PSYC 2301 or PSY 233	General Psychology or Life Span/Developmental Psychology	3
THEA 1310 or MUSI 1315 or MUSI 1306	Introduction to Theatre or Fine Arts In Daily Living or Music Appreciation	3
Hours		17

Second Year**Third Semester**

BIOL 245	Human Anatomy & Physiology	4
BIOL 245L	Human Anat & Phys Lab	0
MATH 2413	Calculus & Analytic Geomtry I	4
CHEM 231	Organic Chem I	3
CHEM 211	Organic Chem I Lab	1

POLS 2305	American Government	3
HIST 2381	African American History I	3
Hours		18

Fourth Semester

CHEM 232	Organic Chem II	3
PHIL 231	Introduction To Philosophy	3
CHEM 212	Organic Chem II Lab	1
COMM 1321 or COMM 1315	Business & Professional Comm or Public Address	3
POLS 2306	Texas Government	3
HIST 2382	African American History II	3
Hours		16

Third Year**Fifth Semester**

BIOL 347	Microbiology	4
BIOL 347L	Microbiology Lab	0
PHYS 1301	College Physics I	3
PHYS 213	College Phys Lab I	1
MATH 1342	Elementary Statistics	3
HSCR 260	Biomedical Ethics	3
Hours		14

Sixth Semester

BIOM 331	Principles of Biomedical Research	3
BIOM 332	Biomedical anatomy & Physiology	3
BIOM 333	Biomedical Genetics	3
BIOM 334	Biomedical Writing	3
BIOM 335	Health Disparities	3
Hours		15

Fourth Year**Seventh Semester**

BIOM 430	Medical Calculations	3
BIOM 410	Medical Calculations Lab	1
BIOM 420	Introduction to Pathophysiology	2
BIOM 432	Biomedical Biochemistry	3
BIOM 411	Biomedical Biochemistry Lab	1
Electives		3
Hours		13

Eighth Semester

BIOM 436	Biostatistics	3
BIOM 421	Introduction to Pharmacology	2
Electives		7
Hours		12
Total Hours		120