

BIOMEDICAL SCIENCE (PRE-PHARMACY 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)		
BIOM 433	Medical Communications	3
BIOM 434	Introduction to Pharmacy Practice	3
BIOM 431	Biopharmaceutics	3
BIOM 412	Biopharmaceutics Lab	1
BIOM 330	Pharmacy Seminar	3
Other Requirements (35 hours)		
Biological Science Core (16 hours)		
BIOL 1306 & BIOL 111	Biological Science I and Biological Science Lab I	4
BIOL 1307 & BIOL 112	Biological Science II and Biological Science Lab II	4
BIOL 245	Human Anatomy & Physiology (BIOL 2401 or BIOL 2402 also allowed) ³	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 (MATH 2313 plus a free MATH elective is also allowed)	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 2312 Precalculus Math (3 s.h.)

Life and Physical Science (030)

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

American History (060)

HIST 1301 Soc & Pol Hist US to 1877 (3 s.h.) and HIST 1302 Soc & Pol Hist US Since 1877 (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		
BIOL 1306	Biological Science I	3
BIOL 111	Biological Science Lab I	1
CHEM 1311	Chemistry I (Life and Physical Sciences 030 (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/))	3
CHEM 111	Chemistry I Lab	1
ENGL 1301	Freshman English I (Communication 010 (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/))	3
MATH 2312	Precalculus Math (Mathematics 020 (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/))	3
FS 102	Freshman Seminar/ first Year Experience	1
		Hours
		15

Second Semester

BIOL 1307	Biological Science II	3
BIOL 112	Biological Science Lab II	1
CHEM 1312	Chemistry II (Life and Physical Sciences 030 (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/))	3
CHEM 112	Chemistry II Lab	1
ENGL 1302	Freshman English II (Communication 010 (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/))	3
Social/Behavioral Science 080 Course (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/)		3
Creative Arts 050 Course (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/)		3
		Hours
		17

Second Year**Third Semester**

BIOL 245	Human Anatomy & Physiology	4
BIOL 245L	Human Anat & Phys Lab	0

CHEM 231	Organic Chem I	3
CHEM 211	Organic Chem I Lab	1
MATH 2413	Calculus & Analytic Geomtry I	4
HIST 1301	Soc & Pol Hist US to 1877 (American History 060 (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/))	3
POLS 2305	American Government (Government/Political Science 070 (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/))	3
Hours		18

Fourth Semester

Language, Philosophy, and Culture 040 Course (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/)		3
CHEM 232	Organic Chem II	3
CHEM 212	Organic Chem II Lab	1
COMM 1321 or COMM 1315	Business & Professional Comm (Institutional Option 090 Speech Course (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/) or Public Address	3
HIST 1302	Soc & Pol Hist US Since 1877 (American History 060 (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/))	3
POLS 2306	Texas Government (Government/Political Science 070 (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/))	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 (Institutional Option 090 Course (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/))	3
BIOM 330	Pharmacy Seminar	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 433	Medical Communications	3
BIOM 432	Biomedical Biochemistry	3
BIOM 411	Biomedical Biochemistry Lab	1

Hours **13****Eighth Semester**

BIOM 431	Biopharmaceutics	3
BIOM 412	Biopharmaceutics Lab	1
BIOM 421	Introduction to Pharmacology	2
BIOM 434	Introduction to Pharmacy Practice	3
BIOM 436	Biostatistics	3

Hours **12****Total Hours** **120**