BIOMEDICAL SCIENCE, BS

Bachelor of Science in Biomedical Science (390002BS)

More on the Biomedical Science major (https://www.uakron.edu/biology/academics/undergraduate/biomedical-science/)

The biomedical science major provides for a broad background in science with concentrations in biology, chemistry, math and physics.

This major is designed with the appropriate coursework to prepare and ensure your maximal success on entrance tests like the MCAT, and for your success in professional school in general.

You'll be prepared to:

- analyze and interpret scientific material
- present scientific or health care-related information clearly and persuasively
- imagine and evaluate alternative ideas
- use research to more effectively address scientific problems

The following information has official approval of **The Department of Biology** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (Stellic) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

Requirements Summary

Code	Title	Hours
General Education Requirements (https://bulletin.uakron.edu/undergraduate/general-education/) *		33
Biology Requirements		34
Chemistry Requirements		25
Math and Physics Requirements		16
Program Requirements		12
Total Hours		**120**

* Several courses required for the major also satisfy General Education requirements. The University minimum of 36 credits are required for General Education and credit for these courses will apply to multiple requirements.

Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major. Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
Academic Foundations		**12**
Mathematics, Statistics and Logic: 3 credit hours		
MATH 221	Analytic Geometry-Calculus I	
Speaking: 3 credit hours		
COMM 105	Introduction to Public Speaking	
or COMM 106	Effective Oral Communication	
Writing: 6 credit hours		
ENGL 111	English Composition I	
ENGL 112	English Composition II	
Breadth of Knowledge		**22**
Arts/Humanities: 9 credit hours		
Natural Sciences: 7 credit hours		
Social Sciences: 6 credit hours		
PSYC 100	Introduction to Psychology	
SOCIO 100	Introduction to Sociology	
Diversity		
Domestic Diversity		
SOCIO 100	Introduction to Sociology	
Global Diversity		
Integrated and Applied Learning		**2**
Select one class from one of the following subcategories:		
Complex Issues Facing Society		
Capstone		
Review the General Education Requirements page for detailed course listings.		
Total Hours		**36**

College of Arts & Sciences Requirements

Code	Title	Hours
Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

Biology Requirements

Code	Title	Hours
BIOL 111	Principles of Biology I	4
BIOL 112	Principles of Biology II	4
BIOL 211	General Genetics	3
BIOL 212	Genetics Laboratory	1
BIOL 316	Evolutionary Biology	3
BIOL 363	Foundations of Physiology I	3
BIOL 364	Foundations of Physiology Laboratory I	2
BIOL 485	Cell Physiology	3
BIOL 486	Cell Physiology Laboratory	2

BIOL 3xx/4xx	Biology Electives	9
Total Hours		**34**

Chemistry Requirements

Code	Title	Hours
CHEM 151	Principles of Chemistry I	3
CHEM 152	Principles of Chemistry I Laboratory	1
CHEM 153	Principles of Chemistry II	3
CHEM 154	Qualitative Analysis	2
CHEM 263	Organic Chemistry Lecture I	3
CHEM 265	Organic Chemistry Laboratory I	2
CHEM 264	Organic Chemistry Lecture II	3
CHEM 266	Organic Chemistry Laboratory II	2
CHEM 401	Biochemistry Lecture I	3
CHEM 402	Biochemistry Lecture II	3
Total Hours		**25**

Math and Physics Requirements

Code	Title	Hours
MATH 221	Analytic Geometry-Calculus I	4
STAT 261	Introductory Statistics I	2
STAT 262	Introductory Statistics II	2
PHYS 261	College Physics I	4
PHYS 262	College Physics II	4
Total Hours		**16**

Program Requirements

Code	Title	Hours
ANTH 309	Medicine & the Humanities	3
or ANTH 457	Medical Anthropology	
or SOCIO 342	Sociology of Health & Illness	
or SOCIO 450	Sociology of Mental Illness	
PHIL 361	Biomedical Ethics	3
PSYC 100	Introduction to Psychology	3
SOCIO 100	Introduction to Sociology	3
Total Hours		**12**

Recommended Sequence

1st Year		
Fall Semester		**Hours**
CHEM 151	Principles of Chemistry I	3
CHEM 152	Principles of Chemistry I Laboratory	1
BIOL 111	Principles of Biology I	4
MATH 149	Precalculus Mathematics	4
ENGL 111	English Composition I	3
	Hours	**15**
Spring Semester		
CHEM 153	Principles of Chemistry II	3
CHEM 154	Qualitative Analysis	2
MATH 221	Analytic Geometry-Calculus I	4
BIOL 112	Principles of Biology II	4
ENGL 112	English Composition II	3
	Hours	**16**
2nd Year		
Fall Semester		
CHEM 263	Organic Chemistry Lecture I	3
CHEM 265	Organic Chemistry Laboratory I	2
BIOL 211	General Genetics	3
BIOL 212	Genetics Laboratory	1
PHYS 261	College Physics I	4
PSYC 100	Introduction to Psychology	3
	Hours	**16**
Spring Semester		
CHEM 264	Organic Chemistry Lecture II	3
CHEM 266	Organic Chemistry Laboratory II	2
BIOL 316	Evolutionary Biology	3
PHYS 262	College Physics II	4
SOCIO 100	Introduction to Sociology	3
	Hours	**15**
3rd Year		
Fall Semester		
CHEM 401	Biochemistry Lecture I	3
BIOL 363	Foundations of Physiology I	3
BIOL 364	Foundations of Physiology Laboratory I	2
STAT 261	Introductory Statistics I	2
STAT 262	Introductory Statistics II	2
PHIL 361	Biomedical Ethics	3
	Hours	**15**
Spring Semester		
CHEM 402	Biochemistry Lecture II	3
BIOL 485	Cell Physiology	3
BIOL 486	Cell Physiology Laboratory	2
ANTH 309	Medicine & the Humanities	3
COMM 105	Introduction to Public Speaking	3
	Hours	**14**
4th Year		
Fall Semester		
	300/400 Biology Elective	3
	300/400 Biology Elective	3
	Humanities Requirement	3
	Arts Requirement	3
	Free Electives	3
	Hours	**15**
Spring Semester		
	300/400 Biology Elective	3
	Complex Issues Requirement	3
	Free Electives	8
	Hours	**14**
	Total Hours	**120**