



“Howard Payne’s biomedical science program has led me to discover my calling by showing me all of the possibilities within the medical field. The program has taught me how to be a servant leader in every aspect of my life.”

**Morgan Patterson**  
Third-Year Veterinary Student at Texas A&M;  
Biomedical Science and Honors Academy  
Double Major, HPU Class of 2021

**The Biology major:**

- Curriculum includes a broad set of courses in biology fields such as animals, plants, ecology, and cells
- A great choice for students pursuing a career in areas like public health, science education, environmental science, and biology graduate programs
- Required courses for this major on the inside left page

**The Biomedical Science major:**

- Curriculum is similar to the Biology major; however, ecology and plant courses are removed and common health profession prerequisites are added, such as biochemistry, physics, and medical terminology
- A great choice for students pursuing a health profession or biomedical graduate programs
- Required courses for this major on the inside right page



**FAQs**

**What experiences are available for students outside the classroom?**

We offer several enrichment opportunities for students, including skills clinics in areas like suturing or blood draw, mock interviews, site visits to professional schools, and one-on-one mentorship/advising for both academics and career guidance.

**Is Howard Payne University an affiliate of the JAMP program?**

Yes, HPU is a partnering institution with JAMP (Joint Admission Medical Program), which supports Texas students in their pursuit of a medical education. JAMP students are guaranteed admission to one of 13 Texas medical schools. For more information, go to [www.texasjamp.org](http://www.texasjamp.org).

**What have biology/biomedical science majors done after graduating from HPU?**

- Health profession (medicine, dentistry, optometry, physical therapy, chiropractic, physician assistant, veterinary medicine, etc.)
- Graduate school (animal science, public health, health care administration, biomedical science, etc.)
- Employment (city parks and recreation, cytology lab technician, food testing, environmental testing, science education, etc.)

**Can I double major in a biology or biomedical science along with the Honors Academy?**

Yes, you can choose to major in both. The Honors Academy curriculum focuses on civic leadership and public policy while a biology-related degree focuses on the life sciences. Please contact the Director of the Honors Academy for information on their requirements.

**HOWARD PAYNE**  
UNIVERSITY

**BIOLOGICAL SCIENCES**

**Dr. Kristen Hutchins, Dean of the School of Science and Mathematics and Professor of Biology**  
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**BIOLOGICAL SCIENCES**

Howard Payne University offers challenging bachelor’s degree programs in two biological fields: Biology and Biomedical Science. Our students develop their knowledge and skills in these fields within HPU’s distinctive Christian liberal arts framework.





Bachelor of Science Degree in BIOLOGY  
(Recommended Course Sequence)

While each student’s course sequence may be adapted to their personal goals and timeline, this recommended four-year sequence demonstrates one option. Elective options are flexible to be used anywhere for any other course of interest, as long as the prerequisites are met. For information on the Bachelor of Arts Degree in Biology, please see the HPU Catalog.

Year 1: Fall (15 credit hrs.)				Year 1: Spring (15 credit hrs.)			
	BIO 1359	General Biology I			BIO 1369	General Biology II	
	BIO 1119	General Biology I Lab			BIO 1129	General Biology II Lab	
	CHE 1479	General Chemistry I			CHE 1489	General Chemistry II	
	GEN 1101	University Seminar			CIS 1339	Intro to Info. Technology	
	MAT 1351	College Algebra			ENG 1312	English Composition II	
	ENG 1311	English Composition I			KIN 1100	Principles of Personal Fit. & Well.	

Year 2: Fall (15 credit hrs.)				Year 2: Spring (16 credit hrs.)			
	BIO 2429	Comp. Vertebrate Anatomy			BIO 3419	Microbiology	
	CHE 2331	Organic Chemistry I			CHE 2341	Organic Chemistry II	
	CHE 2139	Organic Chemistry I Lab			CHE 2149	Organic Chemistry II Lab	
	ENG	Choose Literature (2351, 2353, or 2373)			COM 1310	Fund. of Human Communication	
	KIN	Kinesiology activity course			MAT 2343	Statistics	
	MAT	Intro to Prob. and Stats or Pre-Cal			2 hrs.	Electives	

Year 3: Fall (16 credit hrs.)				Year 3: Spring (16 credit hrs.)			
	BIO 3438	Genetics			BIO 3429	Cell Biology	
	BIB 1303	Intro to Old Testament			BIO 3469	General Ecology	
	3 hrs.	Choose a social science (PSY, SOC, etc.)			BIB 1304	Intro to New Testament	
	3 hrs.	Choose a fine arts course			KIN	Kinesiology activity course	
	3 hrs.	Electives			4 hrs.	Electives	

Year 4: Fall (16 credit hrs.)				Year 4: Spring (15 credit hrs.)			
	BIO 4119	Research			BIO 4311	Senior Thesis and Assessment	
	3 hrs.	Upper Level Biology			BIO 3389	Plant Biology	
	GOV 2311	American Government			GEN 4100	Senior Seminar	
	HIS	U.S. History (1310 or 1320)			8 hrs.	Electives	
	6 hrs.	Electives					



Bachelor of Science Degree in BIOMEDICAL SCIENCE  
(Recommended Course Sequence)


While each student’s course sequence may be adapted to their personal goals and timeline, this recommended four-year sequence demonstrates one option. Elective options are flexible to be used anywhere for any other course of interest, as long as the prerequisites are met.

Year 1: Fall (14 credit hrs.)				Year 1: Spring (16 credit hrs.)			
	BIO 1359	General Biology I			BIO 1159	Health Professions Seminar	
	BIO 1119	General Biology I Lab			BIO 1369	General Biology II	
	CHE 1479	General Chemistry I			BIO 1129	General Biology II Lab	
	MAT 2445	Accelerated Pre-Calculus (or substitute with MAT 1351 then MAT 2345)			CHE 1489	General Chemistry II	
					MAT 2451	Calculus	
	GEN 1101	University Seminar			ENG 1311	English Composition I	
	KIN 1100	Principles of Personal Fit. & Well.					

Year 2: Fall (15 credit hrs.)				Year 2: Spring (15 credit hrs.)			
	BIO 2429	Comp. Vertebrate Anatomy			BIO 3419	Microbiology	
	CHE 2331	Organic Chemistry I			CHE 2341	Organic Chemistry II	
	CHE 2139	Organic Chemistry I Lab			CHE 2149	Organic Chemistry II Lab	
	COM 1310	Fund. of Human Communication			CIS 1339	Intro to Info. Technology	
	SCI 2104	Medical Internship			ENG	Choose Literature (2351, 2353, or 2373)	
	ENG 1312	English Composition II			KIN	Kinesiology activity course	

Year 3: Fall (17 credit hrs.)				Year 3: Spring (17 credit hrs.)			
	BIO 3438	Genetics			BIO 3429	Cell Biology	
	CHE 4439	Biochemistry I			BIO 3399	Pathophysiology	
	SCI 1200	Medical Terminology			MAT 2343	Statistics	
	3 hrs.	Choose fine arts (GEN 1311, ART 1361, MUS 1353, or THR 1311)			3 hrs.	Choose a social science (PSY, SOC, etc.)	
					PHY 2449	University Physics II	
	PHY 2439	University Physics I					

Year 4: Fall (16 credit hrs.)				Year 4: Spring (14 credit hrs.)			
	BIO 4119	Research			BIO 4311	Senior Thesis and Assessment	
	3 hrs.	Upper Level Biology			GEN 4100	Senior Seminar	
	GOV 2311	American Government			4 hrs.	Electives	
	BIB 1303	Intro to Old Testament			BIB 1304	Intro to New Testament	
	KIN	Kinesiology activity course			HIS	U.S. History (1310 or 1320)	
	5 hrs.	Electives					



“The great thing about this program being at HPU is that it provides accountability by reminding you of who you are in Christ and who you’re doing this for.”

**Hannah Justice White, M.D.**  
TTUHSC Medical School Graduate, 2023  
HPU Class of 2019, B.S. Degree in Biomedical Science