CHEMISTRY

This major is 59 credits ● ***2018-2019 Catalog Year***

Revised: 09-03-2018

CAREERS & POST-GRADUATE WORK

Recent Heidelberg graduates with this degree are doing …

● Radiochemisty,Program at the University of Missouri ● Chemist at NAMSA

● Osteopathic Medicine

The Chemistry Department does not allow any grade waivers in major courses.

MAJOR ACADEMIC PLAN (MAP): A SAMPLE 4-YEAR PLAN

This MAP is a guide for students preparing for course selections. This is a suggested schedule. Actual course selections should be made with the advice of your advising specialist or faculty advisor. For course descriptions, pre-requisites, and rotations (e.g., fall or spring only classes, classes taught in alternate years), consult the Heidelberg University Undergraduate Catalog.

FIRST-YEAR FALL

Course	Prerequisites	Hrs	Notes
HEI 101: Advise, Inspire, Mentoring Program		1	Required of all first-year students.
WRI 101: College Writing II		3	
CHM 111: General Chemistry	Placement into MTH 121 or C- or better in MTH 120	4	**Mathematics Placement Assessment** score determines placement in MTH courses and eligibility for non-MTH Quantitative Literacy (Q) courses.
BIO 123 & 123L: Biology I & Lab		4	
MTH 222: Calculus	Placement or MTH 121	3	Students are encouraged not to delay taking calculus
	Total Credits:	**15**	

FIRST-YEAR SPRING

Course	Prerequisites	Hrs	Notes
HEI 102: Advise, Inspire, Mentoring Program	HEI 101	0	Required of all first-year students.
CHM 112: General Chemistry II	Passing grade in CHM 111	4	
MTH 223: Calculus II	MTH 222	3	
COM 100: Public Speaking and Engagement		3	
General Education/Honors Support Courses		5	
	Total Credits:	**15**	

SECOND-YEAR FALL

Course	Prerequisites	Hrs	Notes
CHM 201: Organic Chemistry	C- or higher in CHM 111 & 112	4	
PHY 101: General Physics I	Placement in MTH 121 or C- or better in MTH 120	4	
General Education/Honors Support Courses		7	Consider completing the **Foreign Language Requirement**: Students not in the Honors Program must complete a foreign language to the 102-level or equivalent. Placement is based on the Foreign Language Assessment and some students may need to begin at the 101-level.
	Total Credits:	**15**	

SECOND-YEAR SPRING

Course	Prerequisites	Hrs	Notes
CHM 202: Organic Chemistry II	C- or higher in CHM 201	4	
CHM 210: Quantitative Analysis	C- or higher in CHM 112	4	
PHY 102: Physics II	C- or higher in PHY 101	4	
General Education/Honors Support Courses		3	
	Total Credits:	**15**	

THIRD-YEAR FALL

Course	Prerequisites	Hrs	Notes
BCH 316 & 316L: Biochemistry & Lab	C- or better in CHM 202 and 210, C- or better in BIO 123/123L	4	
CHM 311: Inorganic Chemistry **OR** CHM 407: Physical Chemistry II	C- or better in CHM 202 and 210 C- or better in CHM 307 and MTH 223 or permission of instructor	4	
General Education/Honors Support Courses		7	
	Total Credits:	**15**	

THIRD-YEAR SPRING

Course	Prerequisites	Hrs	Notes
CHM 307: Physical Chemistry	C- or better in CHM 202 and, 210 C- or better in PHY 101, 102, and MTH 222	3	
CHM 445: Advanced Laboratory Techniques I	C- or better in BCH 316/316L	3	
General Education/Honors Support Courses		9	
	Total Credits:	**15**	

FOURTH-YEAR FALL

Course	Prerequisites	Hrs	Notes
CHM 446: Advanced Laboratory Techniques II	C- or better in CHM 445	1	
Chemistry Elective		3	Choose from pick list on final page.
General Education/Honors Support Courses		11	
	Total Credits:	**15**	

FOURTH-YEAR SPRING

Course	Prerequisites	Hrs	Notes
Chemistry Elective		3	Choose from pick list on final page.
General Education/Honors Support Courses		12	
	Total Credits:	**15**	

PROGRAM PICK LIST: ELECTIVES
CHOOSE 6 CHM OR BCM CREDITS AT THE 300 OR 400 LEVEL

- CHM 311: Inorganic Chemistry OR CHM 407: Physical Chemistry II
- BCH 416: Biochemistry of Metabolism
- CHM 404: Instrumental Analysis
- BCH 425: Special Topics in Biochemistry
- CHM 425:Special Topics in Chemistry