

# MINOR IN HEALTH AND MEDICAL SCIENCES

The Health & Medical Sciences Minor is primarily geared towards students interested in pre-professional health programs or careers in medical research. The purpose of the Health & Medical Sciences Minor is to allow students with interests in a variety of fields, including medicine, exercise science, dentistry, optometry, health-related research, veterinary medicine, health informatics, pharmacy, nursing, and other allied health sciences to gain basic knowledge of the science surrounding health that will prepare them for future careers.

The purpose of the Health & Medical Sciences Minor is to encourage students to gain a basic knowledge of the science surrounding health and medicine, and prepare students for future careers in the allied health sciences. The Health & Medical Sciences Minor is designed to provide students with flexibility to pursue their interests while ensuring that students are exposed to a diversity of subject areas. Therefore, to complete the 15-credit Health & Medical Sciences Minor, students will be required take a minimum of 9 credits of classes from at least two schools other than their home school (i.e., classes with School designators–APPH, BIOL, BIOS, CHEM, NEUR, PHYS, PSYC– other than their major School designator) and a maximum of 6 credits from their home unit. All classes used to fulfill the Health & Medical Sciences Minor must be chosen from the approved list of health-related courses.

In addition, as is the case for all GT minors, (1) the Health & Medical Sciences Minor must include at least 9 semester hours of courses numbered 3000 or above, (2) courses used to satisfy Core Areas A through E in a student's major degree program cannot also be used to satisfy the course requirements for the minor, (3) a maximum of 6 semester hours of approved Special Topics courses may be included in the Health & Medical Sciences Minor or the student may complete 3 semester hours of Special Topics and 3 semester hours of either Special Problems or Undergraduate Research or Vertically Integrated Programs study (which would need to be pre-approved as appropriately health-related by the minor adviser), (4) a maximum of 3 semester hours of transfer credit may be used to satisfy the requirements for the minor, and (5) all courses counting toward the minor must be taken on a letter-grade basis.

Code	Title	Credit Hours
<b>Courses approved for Health and Medical Sciences minor:</b>		
BIOS 1107	Biological Principles	3
BIOS 1107L	Biological Principles Laboratory	1
BIOS 1108	Organismal Biology	3
BIOS 1108L	Organismal Biology Laboratory	1
BIOS 1207	Biological Principles for Majors	3
BIOS 1207L	Biological Principles Project Laboratory	1
BIOS 1208	Organismal Biology for Majors	3
BIOS 1208L	Organismal Biology Project Laboratory	1
BIOS 2500	Introduction to Sport Science	3
BIOS 2600	Genetics	3
BIOS 2601	Genetics Laboratory	1
BIOS 2610	Integrative Genetics	3
BIOS 2611	Honors Genetics Lab	1
BIOS 2699	Undergraduate Research	1-3

BIOS 3380	Microbiology	3
BIOS 3381	Microbiology Lab	1
BIOS 3400	Mathematical Models in Biology	3
BIOS 3450	Cell and Molecular Biology	3
BIOS 3451	Cell and Molecular Biology Lab	1
BIOS 3753	Fundamentals of Human Anatomy	3
BIOS 3754	Laboratory in Human Anatomy	1
BIOS 3755	Human Physiology	3
BIOS 3756	Physiology Laboratory	1
BIOS 4012	Protein Biology	3
BIOS 4015	Cancer Biology and Biotechnology	3
BIOS 4100	Exercise Physiology	3
BIOS 4150	Genomics and Applied Bioinformatics	3
BIOS 4200	Kinesiological Basis of Human Movement	3
BIOS 4238	Ion Channels	3
BIOS 4340	Medical Microbiology	3
BIOS 4400	Human Neuroanatomy	3
BIOS 4401	Experimental Design and Statistical Methods in Biological Sciences	3
BIOS 4440	Human Pathology	3
BIOS 4464	Developmental Biology	3
BIOS 4471	Behavioral Biology	3
BIOS 4480	Evolutionary Developmental Biology – How to Build an Organism	2
BIOS 4500	Drug Discovery	3
BIOS 4505	Programming in Biological and Life Sciences	3
BIOS 4510	Epigenetics, Stem Cells, and Development	3
BIOS 4540	Human Motor Control	3
BIOS 4545	Genetics of Complex Human Traits and Diseases	3
BIOS 4560	RNA Biology and Biotechnology	3
BIOS 4570	Immunology	3
BIOS 4607	Molecular Biology of Microbes: Disease, Nature, and Biotechnology	3
BIOS 4651	Bioethics	3
BIOS 4699	Undergraduate Research	1-3
BIOS 4746	Signaling Molecules	3
BIOS 4801	Special Topics (History of Neuroscience)	1
BIOS 4803	Special Topics (Chromosome Biology & Human Disease)	3
BIOS 4803	Special Topics (Neuromotor Physiology)	3
BIOS 4803	Special Topics (Integrative Physiology)	3
CHEM 1211K	Chemical Principles I	4
CHEM 1212K	Chemical Principles II	4
CHEM 1310	Principles of General Chemistry for Engineers	4
CHEM 1315	Survey of Organic Chemistry for Engineers	3
CHEM 2311	Organic Chemistry I	3
CHEM 2312	Organic Chemistry II	3
CHEM 2313	Organic and Bioorganic Chemistry	3
CHEM 2380	Synthesis Laboratory I	2
CHEM 2699	Undergraduate Research	1-3
CHEM 3511	Survey of Biochemistry	3
CHEM 3521	Biochemistry I	3

CHEM 3522	Biochemistry II	3	PSYC 4803	Special Topics (Advanced Cognitive Neuroscience Methods)	3
CHEM 4311	Advanced Organic Chemistry	3	PSYC 4803	Special Topics (Emotions)	3
CHEM 4521	Biophysical Chemistry	3			
CHEM 4581	Biochemistry Laboratory I	3			
CHEM 4582	Biochemistry Laboratory II	3			
CHEM 4760	Biocatalysis and Metabolic Engineering	3			
CHEM 4765	Drug Design, Development, and Delivery	3			
CHEM 4699	Undergraduate Research	1-3			
NEUR 2001	Principles in Neuroscience	4			
NEUR 2699	Undergraduate Research	1-3			
NEUR 3001	Cell and Molecular Neuroscience	3			
NEUR 3010	Methods in Neuroscience	3			
NEUR 4100	Neurodevelopment	3			
NEUR 4300	Neuroscience of Memory	3			
NEUR 4400	Neuroendocrinology	3			
NEUR 4803	Special Topics (Ion Channels)	3			
NEUR 4803	Special Topics (Intro to Neuroengineering)	3			
NEUR 4803	Special Topics (Neurobiology of Sleep)	3			
NEUR 4699	Undergraduate Research	1-3			
PHYS 2211	Principles of Physics I	4			
PHYS 2212	Principles of Physics II	4			
PHYS 2213	Introduction to Modern Physics	3			
PHYS 2231	Honors Physics I	5			
PHYS 2232	Honors Physics II	5			
PHYS 2699	Undergraduate Research	1-3			
PHYS 4250	Neurophysics	4			
PHYS 4251	Biophysics	3			
PHYS 4699	Undergraduate Research	1-3			
PSYC 1101	General Psychology	3			
PSYC 2103	Human Development Over the Life Span	3			
PSYC 2210	Social Psychology	3			
PSYC 2230	Abnormal Psychology	3			
PSYC 2280	Psychology of Creativity and Art	3			
PSYC 2699	Undergraduate Research	1-3			
PSYC 2760	Human Language Processing	3			
PSYC 3000	Science of Stress, Anxiety, and Happiness	3			
PSYC 3009	Health Psychology	3			
PSYC 3012	Introduction to Cognitive Psychology	3			
PSYC 3040	Sensation and Perception	3			
PSYC 3790	Introduction to Cognitive Science	3			
PSYC 3803	Special Topics (Programming for Brain & Behavior)	3			
PSYC 3803	Special Topics (Neuroscience of Mental Health: Research and Practice)	3			
PSYC 4010	Human Abilities	3			
PSYC 4020	Biopsychology	3			
PSYC 4090	Cognitive Neuroscience	3			
PSYC 4100	Behavioral Pharmacology	3			
PSYC 4260	Psychology of Aging	3			
PSYC 4699	Undergraduate Research	1-3			
PSYC 4790	Seminar in Cognitive Science	3			
PSYC 4803	Special Topics (Mapping Experience and Space in the Mind)	3			