

BIOMEDICAL HEALTH SCIENCES PRE-OPTOMETRY CONCENTRATION

College of Health and Human Sciences

BMHS-BS **BMHS – PROP** 120 credits Student: _____ PUID: _____ Catalog Term: Fall 2025 Additional Majors: Minors: Major Requirements (67 credits) ____ (3) BCHM 30700 Biochemistry or CHM 33900 Biochemistry: A Molecular Approach (4) BIOL 11000 Fundamentals of Biology I [Satisfies 1 Science Core Course] ____ (4) BIOL 11100 Fundamentals of Biology II [Satisfies 1 Science Core Course] (4) BIOL 20300 Human Anatomy & Physiology ____ (4) BIOL 20400 Human Anatomy & Physiology ____ (3) CHM 11510 General Chemistry (1) CHM 11520 General Chemistry Lab ____ (3) CHM 11610 General Chemistry (1) CHM 11620 General Chemistry Lab (3) CHM 25500 Organic Chemistry (1) CHM 25501 Organic Chemistry Lab (3) CHM 25600 Organic Chemistry (1) CHM 25601 Organic Chemistry Lab (2) HSCI 10100 Introduction to the Health Sciences Professions ____ (3) HSCI 13100 Introduction to Medical Terminology (3) HSCI 20100 Principles of Public Health Science [Satisfies Science, Technology & Society Core] (3) HSCI 20200 Essentials of Environmental, Occupational, and Radiological Health Sciences (3) HSCI 22500 Healthcare Leadership and Safety (3) MA 16010 Applied Calculus I [Satisfies Quantitative Reasoning Core] (3) STAT 30100 Elementary Statistical Methods or STAT 50300 Statistical Methods for Biology HSCI Selective – select a total of 12 credits from HSCI list ___() _____ () _____ () _____ Pre-Optometry Concentration (24 credits) (4) BIOL 22100 Introduction to Microbiology (3) HSCI Humanities, Behavioral/Social Sciences Selective - select from HSCI list
 (4) PHYS 22000 General Physics or PHYS 23300 Physics for Life Sciences I (4) PHYS 22100 General Physics or PHYS 23400 Physics for Life Sciences II Science and Health Selective - select a total of 9 credits from list ___() _____ () _____ () _____ Other Departmental / Program Course Requirements (15-16 credits) (3) COM 11400 Fundamental of Speech Communication [Satisfies Oral Communication Core] ____ (4-3)ENGL 10600 First Year Composition with Conferences or ENGL 10800 First-Year Composition [Satisfies Written **Communication Core] and [Information Literacy Core]** (3) PSY 12000 Elementary Psychology [Satisfies Behavioral/Social Science Core] (3) ______English Selective – select any 20000 level or above ENGL course
 (3) ______[Humanities Core] – select from University list **Electives (13-14 credits)**

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An Ethics course (such as PHIL 11100 Ethics or PHIL 27000 Biomedical Ethics) is highly recommended.

All students must complete 32 credits of 30000 level or higher courses at Purdue for graduation. 120 credits required for Bachelor of Science degree Revised 5/2025

<u>University Foundational Learning Outcomes List:</u> <u>https://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html</u>

HSCI Selective List

- HSCI 30500 Basics of Oncology HSCI 31000 Imaging in Medicine HSCI 31200 Radiation Science Fundamentals HSCI 31300 Principles of Radiation Detection and Measurement HSCI 33300 Introduction to Immunology HSCI 33400 Lung Physiology and Medicine HSCI 33500 Heart Physiology and Medicine HSCI 33600 Eye Physiology & Disease HSCI 34500 Introduction to Occupational and Environmental Health Sciences HSCI 34600 Industrial Hygiene Engineering Control HSCI 34800 Industrial Hygiene Instrumentation Techniques HSCI 35300 Occupational Safety Management and Culture or HSCI 55300 Advanced Occupational Safety Management and Culture HSCI 36000 Everyday Toxicology: Poisonings from Clinics to Courtrooms HSCI 41500 Introduction to Nuclear and Radiological Source Security HSCI 42000 Applied Anatomy for Medicine HSCI 44700 Global Workplace Health HSCI 54600 Advanced Industrial Hygiene Control Technology HSCI 54800 Advanced Industrial Hygiene Instrumentation Techniques HSCI 56000 Toxicology HSCI 56200 Analytical Toxicology and Pathology
- HSCI 58000 Occupational Biomechanics and Ergonomics
- HSCI 58001 Occupational Biomechanics and Ergonomics Laboratory

HSCI Humanities, Behavioral/Social Sciences Selectives List - select any course(s) from the following subjects:

American Sign Language (ASL) Anthropology (ANTH) Arabic (ARAB) Art & Design (AD) Chinese (CHNS) Classics (CLCS) Communication (COM) Dance (DANC) Economics (ECON) English (ENGL) French (FR) German (GER) Greek (GREK) Hebrew (HEBR) History (HIST) Interdisciplinary Studies (IDIS) Italian (ITAL) Japanese (JPNS) Korean (KOR) Latin (LTN) Music (MUS) Philosophy (PHIL) Political Science (POL) Portuguese (PTGS) Psychology (PSY) Russian (RUS) Sociology (SOC) Spanish (SPAN) Theatre (THTR)

Science and Health Selective

Any 30000 or above offering in the following areas: BCHM CHM NUTR SLHS

or

Any 20000 or above offering in the following areas: ANSC BIOL ENTM HDFS HK MA PHYS PSY

or

PUBH

Select offerings: AGRY 32000 Genetics AGRY 32100 Genetics Laboratory ANTH 20400 Human Origins ANTH 21200 Culture, Food & Health ANTH 53400 Human Osteology MA 16020 Applied Calculus II MA 16200 Plane Analytic Geometry & Calculus II MA 16600 Analytical Geometry & Calculus II PHYS 17200 Modern Mechanics VM 10200 Careers in Veterinary Medicine

A student may elect the Pass / Not-Pass (P/NP) grading option for elective courses only, unless an academic unit requires that a specific departmental course/s be taken P/NP. Students may elect to take University Core Curriculum courses P/NP; however, some major Plans of Study require courses that also fulfill UCC foundational outcomes. In such cases, students may not elect the P/NP option. A maximum of 24 credits of elective courses under the P/NP grading option can be used toward graduation requirements. For further information, students should refer to the College of Health and Human Sciences P/NP Policy.

Students are encouraged to use this advising worksheet as a resource when planning progress toward completion of degree requirements. An Academic Advisor may be contacted for assistance in interpreting this worksheet. This worksheet is not an academic transcript, and it is not official notification of completion of degree or certificate requirements. The University Catalog is the authoritative source for displaying plans of study. The student is ultimately responsible for knowing and completing all degree requirements



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Suggested Arrangement of Courses:

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
4	*BIOL 11000 ^{cc}		4	*BIOL 11100 ^{cc}	BIOL 11000
3	*CHM 11510 ^{cc}	MA 15400 or MA 15800 or ALEKS = 75	3	*CHM 11610 ^{cc}	CHM 11500 or CHM 11510
1	CHM 11520 ^{cc}	CHM 11500 or (CHM 11510 or may be taken concurrently)	1	CHM 11620 ^{cc}	CHM 11520 Prerequisite and (CHM 11610 or may be taken concurrently)
4-3	*ENGL 10600 °C OR 10800 °C		3	*COM 11400cc	
2	HSCI 10100	Fall only	3	HSCI 13100	
3	*MA16010 ^{cc}	ALEKS = 75 or MA 15400 = C- or 15800 = C-			
16-17			14		

Credits	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
4	*BIOL 20300 cc	Fall only	4	*BIOL 20400 cc	Spring only BIOL 20300
3	CHM 25500 ^{cc}	CHM 11200 or CHM 11600 or CHM 11610	3	CHM 25600 ^{cc}	CHM 25500
1	CHM 25501 ^{cc}	CHM 11600 or (CHM 11610 & CHM 11620) and (CHM 25500 or may be taken concurrently)	1	CHM 25601 ^{cc}	CHM 25600 or may be taken concurrently
3	*HSCI 20200	Fall only 3 cr. of BIOL & CHM	3	*HSCI 20100	Spring only Classification of 03
3	*STAT 30100 or STAT 50300		3	HSCI 22500	
			2	Elective	
14			16		

Credits	Fall 3rd Year	Prerequisite	Credits	Spring 3rd Year	Prerequisite
3	BCHM 30700 or CHM 33900	CHM 25600	4	BIOL 22100	BIOL 11000 & CHM 11600 or (CHM 11610 & CHM 11620)
4	PHYS 22000 or PHYS 23300		4	PHYS 22100 or PHYS 23400	
3	HSCI Selective		3	HSCI Selective	
3	Humanities Selective	Select from University list	3	*PSY 12000	Select from HSCI list
3	Elective				
16			14		

Credits	Fall 4th Year	Prerequisite	Credits	Spring 4th Year	Prerequisite
3	Science and Health Selective		3	Science and Health Selective	
3	Science and Health Selective		3	HSCI HBSS Selective	Select from HSCI list
3	HSCI Selective		3	HSCI Selective	
3	English Selective	Select any 20000 or above ENGL course	3	Elective	
3	Elective		2-3	Elective	
15			14-15		

*Satisfies a University Core Requirement.

^{cc} Critical Course – a course that a student must be able to pass to persist and succeed in a particular major. An Ethics course (such as PHIL 11100 Ethics or PHIL 27000 Biomedical Ethics) is highly recommended. 120 semester credits required for Bachelor of Science degree.

2.0 Graduation GPA required for Bachelor of Science degree. The student is ultimately responsible for knowing and completing all degree requirements. Degree Works is the knowledge source for specific requirements and completion.