BIOMECHANICS, BACHELOR OF SCIENCE

Biomechanics, Bachelor of Science Requirements

Code	Title	Credits
GENERAL EDUCATION REQUIREMENTS - 34 Hours Required		
Minimum of "C-"required		
Fundamental Skills		**15**
Writing – 6 hrs.		
ENGL 1150	ENGLISH COMPOSITION I	
ENGL 1160	COLLEGE RESEARCH AND INFORMATION LITERACY	
Oral Communication – 3 hrs.		
CMST 1110	PUBLIC SPEAKING FUNDS	
or CMST 2120	ARGUMENTATION AND DEBATE	
Quantitative Literacy – 3 hrs.		
MATH 1120	INTRODUCTION TO MATHEMATICAL AND COMPUTATIONAL THINKING	
or MATH 1130	QUANTITATIVE LITERACY	
or MATH 1140	QUANTITATIVE REASONING FOR HEALTHCARE PROFESSIONALS	
or MATH 1300	COLLEGE ALGEBRA WITH SUPPORT	
Data Literacy – 3 hrs.		
Select one from the following:		
STAT 1100	DATA LITERACY AND VISUALIZATION	
STAT 1530	ELEMENTARY STATISTICS	
Until Fall 2028, students can satisfy this requirement with an approved data literacy course, or any approved natural or social science general education course.		
Breadth of Knowledge		**13**
Social Science – 3 hrs.		
Humanities – 3 hrs.		
Natural & Physical Science (must complete a lab) – 4 hrs.		
Arts – 3 hrs.		
Individual and Social Responsibility		**6**
Cultural Knowledge – 3 hrs.		
Civic Knowledge and Engagement – 3 hrs.		
MAJOR REQUIREMENTS - 98-99 Hours		
**Course will satisfy UNO's General Education requirement		
^Course requires pre-requisite(s)		
All of the following		**86-87**
BIOL 1450	BIOLOGY I (** ^)	
BIOL 1750	BIOLOGY II (^)	
BMCH 2400	HUMAN PHYSIOLOGY & ANATOMY I (**)	
BMCH 2500	HUMAN PHYSIOLOGY AND ANATOMY II (^)	
CHEM 1180	GENERAL CHEMISTRY I (** ^)	
CHEM 1184	GENERAL CHEMISTRY I LABORATORY (** ^)	
CHEM 1190	GENERAL CHEMISTRY II (^)	
CHEM 1194	GENERAL CHEMISTRY II LABORATORY (^)	
PHYS 2110	GENERAL PHYSICS I - CALCULUS LEVEL (** ^)	
PHYS 1154	GENERAL PHYSICS LABORATORY I (** ^)	
PHYS 2120	GENERAL PHYSICS II-CALCULUS LEVEL (^)	
PHYS 1164	GENERAL PHYSICS LABORATORY II (^)	
MATH 1300	COLLEGE ALGEBRA WITH SUPPORT (**)	
or MATH 1220	COLLEGE ALGEBRA	
MATH 1330	TRIGONOMETRY (^)	
MATH 1950	CALCULUS I (^)	
MATH 1960	CALCULUS II (^)	
PSYC 1010	INTRODUCTION TO PSYCHOLOGY I (**)	
PSYC 4440	ABNORMAL PSYCHOLOGY (^)	
BMCH 1000	INTRODUCTION TO BIOMECHANICS (**)	
BMCH 1100	ETHICS OF SCIENTIFIC RESEARCH (**)	
BMCH 2200	ANALYTICAL METHODS IN BIOMECHANICS	
BMCH 3000	BIOMECHANICAL STATICS & DYNAMICS (^)	
BMCH 4630	BIOMECHANICS (^)	
BMCH 4200	METHODS IN BIOMECHANICS I (^)	
BMCH 4210	METHODS IN BIOMECHANICS II (^)	
BMCH 4980	CAPSTONE DESIGN IN BIOMECHANICS I (^)	
BMCH 4990	CAPSTONE DESIGN IN BIOMECHANICS II (^)	
Select 1 of the following		**3**
PSYC 3130	STATISTICS FOR THE BEHAVIORAL SCIENCES (^)	
STAT 1530	ELEMENTARY STATISTICS (** ^)	
STAT 3800	APPLIED ENGINEERING PROBABILITY AND STATISTICS (^)	
HEKI 2100	STATISTICS IN HEALTH AND KINESIOLOGY (^)	
Choose 3 of the following		**9**
BMCH 4000	BIOMATERIALS	
BMCH 4100	BIOINSPIRED ROBOTICS	
BMCH 4640	ORTHOPEDIC BIOMECHANICS (^)	
BMCH 4650	NEUROMECHANICS OF HUMAN MOVEMENT (^)	
BMCH 4660	CLINICAL IMMERSION FOR RESEARCH AND DESIGN (^)	
BMCH 4670	INTRODUCTION TO MECHANICS OF BIOMATERIALS (^)	
BMCH 4680	SPORTS BIOMECHANICS (^)	
BMCH 4690	CARDIOVASCULAR BIOMECHANICS (^)	
ELECTIVES		
Elective hours as required to reach a total of 120 hours		

Biomechanics, Bachelor of Science Four Year Plan

Freshman

Fall		Credits
BIOL 1450	BIOLOGY I	5
BMCH 1000	INTRODUCTION TO BIOMECHANICS	3
MATH 1220	COLLEGE ALGEBRA [1]	3
Attend Durango Days; other campus events		
Advising appointment for spring: Sept. - Oct.		
BMCH 2400	HUMAN PHYSIOLOGY & ANATOMY I	4
	Credits	**15**

Spring		
BMCH 2500	HUMAN PHYSIOLOGY AND ANATOMY II [1]	4
PSYC 1010	INTRODUCTION TO PSYCHOLOGY I	3
MATH 1330	TRIGONOMETRY	3
BIOL 1750	BIOLOGY II	5
Advising appointment for fall: February - March		
Join a student organization		
	Credits	**15**
Sophomore		
Fall		
BMCH 2200	ANALYTICAL METHODS IN BIOMECHANICS	3
MATH 1950	CALCULUS I	5
CHEM 1180	GENERAL CHEMISTRY I	3
CHEM 1184	GENERAL CHEMISTRY I LABORATORY	1
ENGL 1150	ENGLISH COMPOSITION I	3
Advising appointment for spring: Sept. - Oct.		
	Credits	**15**
Spring		
BMCH 1100	ETHICS OF SCIENTIFIC RESEARCH	3
PHYS 2110	GENERAL PHYSICS I - CALCULUS LEVEL	4
PHYS 1154	GENERAL PHYSICS LABORATORY I	1
CHEM 1190	GENERAL CHEMISTRY II	3
CHEM 1194	GENERAL CHEMISTRY II LABORATORY	1
ENGL 1160	COLLEGE RESEARCH AND INFORMATION LITERACY	3
Advising appointment for fall: February - March		
	Credits	**15**
Junior		
Fall		
BMCH 3000	BIOMECHANICAL STATICS & DYNAMICS	3
BMCH 4200	METHODS IN BIOMECHANICS I	3
CMST 1110	PUBLIC SPEAKING FUNDS	3
PSYC 3130	STATISTICS FOR THE BEHAVIORAL SCIENCES	3
MATH 1960	CALCULUS II	4
Advising appointment for spring: Sept. - Oct.		
Shadowing/Volunteer experiences		
	Credits	**16**
Spring		
BMCH 4210	METHODS IN BIOMECHANICS II	3
BMCH 4630	BIOMECHANICS	3
PHYS 2120	GENERAL PHYSICS II-CALCULUS LEVEL	4
PHYS 1164	GENERAL PHYSICS LABORATORY II	1
BMCH 4650	NEUROMECHANICS OF HUMAN MOVEMENT	3
Advising appointment for fall: February - March		
Visit Academic & Career Development Center for resume/ cover letter building and editing		
Start thinking about internship		
	Credits	**14**
Senior		
Fall		
BMCH 4980	CAPSTONE DESIGN IN BIOMECHANICS I	4
PSYC 4440	ABNORMAL PSYCHOLOGY	3
General Education Course or Elective		3
General Education Course or Elective		3
Elective		2
Advising appointment for spring: Sept. - Oct.		
	Credits	**15**
Spring		
BMCH 4990	CAPSTONE DESIGN IN BIOMECHANICS II	4
BMCH 4100	BIOINSPIRED ROBOTICS	3
BMCH 4640	ORTHOPEDIC BIOMECHANICS	3
General Education Course or Elective		3
Elective		2
Apply for graduation		
Career searching		
	Credits	**15**
	Total Credits	**120**

[1] BIOL2740 and BIOL2840 can be taken in place of BMCH 2400 and 2500

This roadmap is a suggested plan of study and does not replace meeting with an advisor. Please note that students may need to adjust the actual sequence of courses based on course availability. Please consult an advisor in your major program for further guidance.

This plan is not a contract and curriculum is subject to change

Additional Information About this Plan:

University Degree Requirements: The minimum number of hours for a UNO undergraduate degree is 120 credit hours. Please review the requirements for your specific program to determine all requirements for the program. In order to graduate on-time (four years for an undergraduate degree), you need to take 30 hours each year.

Placement Exams: For Math, English, Foreign Language, a placement exam may be required. More information on these exams can be found at https://www.unomaha.edu/enrollment-management/testing-center/placement-exams/information.php

**Transfer credit or placement exam scores may change suggested plan of study