BIOMEDICAL INFORMATICS CONCENTRATION

Applied Computing and Informatics, Bachelor of Science - Biomedical Informatics Concentration 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 - 61 Hours Required		
**Course will satisfy UNO's General Education requirement		
^Course requires pre-requisite(s)		
All of the Following:		**43**
CIST 1010	LEARN AND EARN: COLLEGE AND CAREER SUCCESS	
CSCI 1200	COMPUTER SCIENCE PRINCIPLES (** ^)	
CYBR 1100	INTRODUCTION TO INFORMATION SECURITY (**)	
ACMP 1200	HUMAN-CENTERED COMPUTING (**)	
BIOI 1000	DIGITAL HEALTH AND BIOLOGICAL SYSTEMS (**)	
CIST 1600	INTRODUCTION TO PROGRAMMING USING PRACTICAL SCRIPTING (^)	
or CIST 1400	INTRODUCTION TO COMPUTER SCIENCE I	
ACMP 2000	DATA ANALYSIS AND MACHINE LEARNING (^)	
ACMP 2100	FUNDAMENTALS OF SOFTWARE AND HARDWARE CONSTRUCTION (^)	
ACMP 2400	DEVOPS AND PLATFORM ENGINEERING (^)	
CIST 2500	INTRODUCTION TO APPLIED STATISTICS FOR IS&T (^)	
ACMP 2990	APPLIED COMPUTING AND INFORMATICS SEMINAR (^ taken 3 times for 1 cr each)	
CIST 3000	TECHNICAL WRITING & COMMUNICATION FOR IS&T (^)	
ACMP 3200	DATA STRUCTURES AND ALGORITHMS FOR APPLIED COMPUTING AND INFORMATICS (^)	
or CSCI 3320	DATA STRUCTURES	
CIST 3110	INFORMATION TECHNOLOGY ETHICS (^)	
ACMP 4580	CAPSTONE (^)	
Biomedical Informatics Concentration Courses - 18 Hours Required		
All of the following:		**12**
BIOI 3000	APPLIED BIOINFORMATICS (^)	
BIOI 4860	BIOINFORMATICS ALGORITHMS (^)	
BIOI 4870	DATA MANAGEMENT AND KNOWLEDGE DISCOVERY IN COMPUTING AND INFORMATICS (^)	
BIOI 4890	COMPUTERIZED GENETIC SEQUENCE ANALYSIS (^)	
Select 6 credit hours from the following:		**6**
BIOL 1450	BIOLOGY I (**)	
CHEM 1140	FUNDAMENTALS OF COLLEGE CHEMISTRY (** ^)	
ISQA 3910	INTRODUCTION TO PROJECT MANAGEMENT (^)	
ACMP 4000	SPECIAL TOPICS IN IT INNOVATION	
CSCI 4150	GRAPH THEORY & APPLICATIONS (^)	
ACMP 4260	USER EXPERIENCE DESIGN (^)	
ACMP 4510	INTERNSHIP IN APPLIED COMPUTING AND INFORMATICS	
ELECTIVES		
#Elective hours as required to reach a total of 120 hours		

[1] Special topics may only count toward a max of 6 credits in the concentration and the topic must be approved by the concentration.