

Graduate Certificate Curriculum

University of Cincinnati College of Medicine
2019-2020 Academic Year

BIOMEDICAL INFORMATICS



Designation	Course		Semester Offered	Credit Hours
Prerequisite Course	CS 4071 (or equivalent)	Design & Analysis of Algorithms	Spring	3
Core Courses	BMIN 7003	Biomedical Informatics Seminar	Fall	1
	BMIN/CS 7053	Introduction to Medical Informatics	Fall	3
	BMIN/CS 7099	Introduction to Bioinformatics	Spring	3
	GNTD 8001C/ CS 7097C	Introduction to Functional Genomics	Fall	3
Data Management	Select One Course:			
	CS 6051	Database Theory	Fall & Spring	3
	BE/PH 8093	Introduction to Database Management Systems	Spring	3
Elective Courses	Select Two Courses:			
	BE 7022	Introduction to Biostatistics	Fall	3
	BE 7066	Principles of Clinical Trials	Fall	3
	BE 7068C	Decision and Cost-Effectiveness Analysis	Spring	3
	BE 7076	Introduction to Epidemiology	Fall	2
	BE 8068	Genetics of Complex Disease	Spring	2
	BMIN/CS 7054	Data Science for Biomedical Research	Spring	3
	CS 6033	Artificial Intelligence	Fall	3
	CS 6072	Network Science	Fall	3
	CS 6073	Deep Learning	Spring	3
	CS 6052	Intelligent Data Analysis	Fall & Spring	3
	CS 7070	Big Data Analytics	Spring	3
	CS 7081	Advanced Algorithms I	Fall & Spring	3
	EECE 6042	Digital Image Processing	Spring	3
	GNTD 7001	Principles of Molecular and Cellular Biology	Fall	4
STAT 6043	Applied Bayesian Analysis	Spring	3	