

# Graduate Certificate Curriculum

University of Cincinnati College of Medicine  
Cincinnati Children's Hospital Medical Center

## BIOMEDICAL INFORMATICS



Designation	Course		Semester Offered	Credit Hours
<b>Prerequisite Courses</b>	CS 4071 (or equivalent)	Design & Analysis of Algorithms	Spring	3
	GNTD 8001C	Introduction to Functional Genomics	Fall	3
<b>Core Courses</b>	BE 7022	Introduction to Biostatistics	Fall	3
	BMIN 7003	Biomedical Informatics Seminar	Fall	1
	BMIN 7053	Introduction to Medical Informatics	Fall	3
	BMIN 7099	Introduction to Bioinformatics	Spring	3
<b>Data Management</b>	<b>Select One Course:</b>			
	CS 6051	Database Theory	Fall & Spring	3
	BE 8093	Introduction to Database Systems & Applications	Fall & Spring	3
<b>Elective Courses</b>	<b>Select Two Courses:</b>			
	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 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 7081	Advanced Algorithms I	Fall & Spring	3
	CS 8021	Pattern Recognition	Spring	3
	EECE 6042	Digital Image Processing	Spring	3
	EECE 8075	Data Warehousing and Mining	Spring	3
	GNTD 7001	Principles of Molecular and Cellular Biology	Fall	4
STAT 6043	Applied Bayesian Analysis	Spring	3	

GRADUATE PROGRAM IN BIOMEDICAL INFORMATICS

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