

Major in Computer Science With an Emphasis on Science or Math

Suggested 4 year plan

Math example shown, but emphasis on other sciences are available as well as individualized programs.

Freshman			<u>Fall Semester</u>			<u>Spring Semester</u>		
Number	Course Name	Cr.	Number	Course Name	Cr.	Number	Course Name	Cr.
CS110	Introduction to CS & Java	4	CS120	Data Structures & Program Design	4			
MA131	Calculus of Single Variables OR: MA121/MA122	4	MA232	Differential Equations & Linear Algebra II	4			
ENWR102	College Composition	4	CO101	Basic Communication	3			
LAS101	Alpha Seminar	3	TH101	Theological Foundations	3			
		15	ARTxxx	CORE (such as Fine Arts)	3			
					17			
Sophomore								
CS201	Web Design	4	CS202	Web Development	3			
CS230	Software Engineering (Writing Intensive)	4	CS309	Computer Architecture	4			
MA233	Multivariable Calculus	3	MA334	Differential Equations & Linear Algebra II	4			
CO206	Small Group Communication (Fall odd-numbered years or May term)	3	ENLTxx	CORE (such as Literature)	3			
PHILxxx	CORE (such as Philosophy)	3	Hixxx	CORE (such as History)	3			
		17			17			
Junior								
CS310	Database Design & Implement I	4	MA336	MA336 Probability & Statistics I	2			
MA328	Discrete Mathematics	3	MA342	MA342 Numerical Computation (Writing Intensive)	3			
CS189	GIS (Graphical Information Systems)	3	EC203	Project Management	3			
GDxxx	CORE (such as Global Diversity)	3	PHYSxx	CORE (Natural Science with lab)	4			
THxxx	CORE (such as Theology)	3	XXXxxx	Elective	3			
		16			15			
Senior								
CS410	Operating Systems	3	CS 430	Senior Project	4			
CS403	Modern Cryptography (OR MA421 Advanced Applications & Optimization)	4	CS495	Computer Science Seminar	3			
PHILxxx	CORE (such as Philosophy)	3	CSxxx	elective (such as CS 421 Computer & Network Security)	3			
NDxxx	CORE (such as National Diversity)	3	XXXxxx	Elective	3			
XXXxxx	Elective	3			13			
		16						

The "CORE" refers to the required college courses that give a person a well-rounded liberal arts experience.

Note: EC203 counts as a Social Science CORE class.

Other options: **Biological Sciences** (BI171 Biological Principle I, BI172 Biological Principle II, CH101 General Chemistry I, CH102 General Chemistry II, plus 3 additional courses from the following list: BI221 Cell Biology, BI300 Genetics, BI306 Plant Systematic, BI308 Animal Physiology, BI311 Ecology, BI370 Evolutionary Analysis, CH301 Organic Chemistry I);

or **Physical Sciences** (MA232 Differential Equations & Linear Algebra I, MA233 Multivariable Calculus, MA334 Differential Equations and Linear Algebra II, CH101 General Chemistry I, CH102 General Chemistry II, PHYS205 Engineering Physics I: Mechanics, PHYS206 Engineering Physics II: Electricity & Magnetism)

(Latest revision: March 2007)