



Computer Science Program: Software Engineering Option

Curriculum Requirements

Catalog Year 2014-15 through 2019-20

FRESHMAN YEAR

First Semester			R	L	C	Second Semester			R	L	C
ENL	101	Critical Writing & Reading I	3	0	3	ENL	102	Critical Writing & Reading II	3	0	3
CIS	180	Object-Oriented Programming I	3	2	4	CIS	181	Object-Oriented Programming II	3	2	4
EGR	111	Intro to Engineering & Computing	3	2	3			University Studies ¹	3	0	3
MTH	153	Calc for Appl Science Engineering I	4	0	4	MTH	154	Calc for Appl Science Engineering II	4	0	4
					14						14

SOPHOMORE YEAR

First Semester			R	L	C	Second Semester			R	L	C
MTH	181	Discrete Structures I	3	0	3	MTH	182	Discrete Structures II	3	0	3
CIS	190	Intro. To Procedural Programming	3	2	4	CIS	264	Software Qual. Assurance & Test	3	0	3
CIS	272	Introduction to Computing Systems	3	2	4	CIS	280	Software Specification & Design	3	2	4
		Laboratory Science I ^{2,4}	3	3	4			Laboratory Science II ^{3,4}	3	3	4
								Free Elective			2
					15						16

JUNIOR YEAR

First Semester			R	L	C	Second Semester			R	L	C
CIS	360	Algorithms & Data Structure	3	0	3	CIS	340	Large Software Systems	3	0	3
CIS	440	Software Process and Proj. Mgmt	3	0	3	CIS	362	Empirical Methods for CS	3	0	3
CIS	381	Social & Ethical Aspects of CS ⁴	3	0	3			Science Elective ^{5,6}	3	0	3
ENL	266	Technical Communications	3	0	3			University Studies ¹	3	0	3
MTH	331	Probability	3	0	3			University Studies ¹	3	0	3
					15						15

SENIOR YEAR

First Semester			R	L	C	Second Semester			R	L	C
CIS	498	Software Engineering Project I	3	2	4	CIS	499	Software Engineering Project II	2	2	3
CIS	461	Formal Methods in Soft Eng.	3	0	3	CIS		SE Technical Elective ⁷	3	0	3
CIS		SE Technical Elective ⁷	3	0	3	CIS		SE Technical Elective ⁷	3	0	3
CIS		SE Technical Elective ⁷	3	0	3			University Studies ¹	3	0	3
		University Studies ¹	3	0	3			Free Elective	3	0	3
					16						15

Total Credits = 120

R = Recitation & Lecture (hours) L = Laboratory (hours)

C = Number of Credits

¹See University Studies requirements for Clusters 3 and 4.²Must be either PHY 113 or CHM 151/161 or BIO 121/131.³Must be a continuation of Laboratory Science I (PHY 114 or CHM 152/162 or BIO 122/132).⁴Meets the University Studies Cluster 2B requirement.⁵Ideally two of these courses should also meet University Studies Cluster 2A and 2B.⁶Any course in BIO, CHM, MAR, MLS, or PHY.⁷Must be taken from approved list of courses.