

BS/COMPUTER SCIENCE - MS/SOFTWARE DEVELOPMENT & ENGINEERING

UNIVERSITY CORE (37 Credits)

Foundation Requirements (13-19 crs)

ENG 110 (Can test out)	0-3	_____
ENG 120 Freshman Writing	4	_____
ENG 201 Writing in the Disciplines	3	_____
COM 200 Public Speaking	3	_____
MAT 137 Discrete Mathematics	>>>>	_____
PHY 109 Digital Electronics	>>>>	_____
CS 121 Computer Programming I	>>>>	_____
Two Language courses selected from: CHI / FRE / ITA / JPN / POR / RUS / SPA	0-3	_____
_____	0-3	_____

Areas of Knowledge (AOK) - minimum 18 credits

See list on Web & schedule which satisfy AOK Core Areas.

Area I: Civic Engagement & Public Values

(One course from any school at Pace)

_____ 3 _____

Area II: Western Heritage

(1 course)

_____ 3 _____

Area III: World Traditions & Cultures

(1 course)

_____ 3 _____

Area IV: Humanistic & Creative Expressions

(1 course)

_____ 3 _____

Area V: Analysis of Human, Social & Natural Phenomena

(1 course)

_____ 3 _____

Area II - V:

(1 course)

_____ 3 _____

In-depth Sequence

MAT 132	>>>>	_____
MAT 234	>>>>	_____

Inquiry and Exploration (0-6 credits)

One course may be taken in the Professional Schools if it is a "W" (Writing-Enhanced) course or part of a Learning Community.

CHE 111/PHY 111/ BIO 101	>>>>	_____
CHE 112/ PHY 112/ BIO 102	>>>>	_____
_____	3	_____
_____	3	_____

All Computing Majors must complete a minimum of 60 credits in Liberal Arts and Sciences.

UNV 101 Freshman Seminar is required for all new Freshmen

* Entering Freshmen are required to take one Learning Community and two writing-enhanced courses

** Students must earn a grade of "C" or better in each prerequisite core course in order to take subsequent CS courses.

>>>> Course is taken as part of the Major Requirements.

COMPUTING CORE (22 Credits) **

CS 121 Computer Programming I	4	_____
CS 122 Computer Programming II	4	_____
CS 232 Computer Organization	4	_____
CS 241 Data Structures & Algorithms I	4	_____
CS 242 Data Structures & Algorithms II	4	_____
CS 271 Fund. of Unix Operating Systems	2	_____

ADVANCED REQUIRED COURSES (16 Credits)

CS 361 Programming Languages & Imp.	4	_____
CS 371 Operating Systems & Architecture	4	_____
CS 488 Comp. Networks & the Internet	4	_____

ADVANCED ELECTIVES IN C.S. (8 Credits)

CS _____	4	_____
CS _____	4	_____

MATHEMATICS COURSES (20 credits)

MAT 137 Discrete Mathematics	4	_____
MAT 131 Calculus I	4	_____
MAT 132 Calculus II	4	_____
MAT 234 Intro. To Prob. & Stat. Analysis	4	_____

SCIENCE & TECH COURSES (15 Credits)

CHE 111/PHY 111/ BIO 101	4	_____
CHE 112/ PHY 112/ BIO 102	4	_____
PHY 109 Digital Electronics	4	_____
CS 312 Research Methods in Computers	3	_____

FREE ELECTIVES (10 Credits)

UNV 101 # _____ 1 _____

GRADUATE REQUIREMENTS (36 Credits)

CS 615 Software Engineering Seminar I	4	_____
CS 616 Software Engineering Seminar II	4	_____
CS 773 Software Design Methodologies	4	_____
CS775 Software Measurements & Estimation	4	_____
CS 777 Software Reliability & Quality Assura	4	_____
CS 785 Software Development Studio I	2	_____
CS 786 Software Development Studio II	2	_____
<u>OR</u>		
CS 901 Software Development Thesis I	2	_____
CS 902 Software Development Thesis II	2	_____
CS elective _____	3	_____
CS elective _____	3	_____
CS elective _____	3	_____
CS elective _____	3	_____

REQUIRED LEARNING EXPERIENCES:

Learning Community (LC) Requirement	
One LC Course _____	*
Writing - Enhanced Course Requirement	
Two Writing - Enhanced Courses indicated by (W)	*
	*

Transfer Student -- B.S. DEGREE / COMPUTER SCIENCE MAJOR

2/15/04

UNIVERSITY CORE (37 Credits)

Foundation Requirements (13-19 crs)

ENG 110 (Can test out)	0-3	_____
ENG 120 Freshman Writing	4	_____
ENG 201 Writing in the Disciplines	3	_____
COM 200 Public Speaking	3	_____
MAT 137 Discrete Mathematics	>>><	_____
PHY 109 Digital Electronics	>>><	_____
CS 121 Computer Programming I	>>><	_____
Two Language or Culture courses selected from: CHI / FRE / ITA / JPN / POR / RUS / SPA		
_____	0-3	_____
_____	0-3	_____

Areas of Knowledge (AOK) - minimum 3 credits

See list on Web & schedule which satisfy AOK Core Areas.

Area I: Civic Engagement & Public Values

(One course from any school at Pace)

_____	3	_____
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In-depth Sequence

MAT 132	>>><	_____
MAT 234	>>><	_____

Inquiry and Exploration (15-21 credits)

One course may be taken in the Professional Schools if it is a "W" (Writing-Enhanced) course or part of a Learning Community.

CHE 111/PHY 111/ BIO 101	>>><	_____
CHE 112/ PHY 112/ BIO 102	>>><	_____
MAT 131	>>><	_____
_____	3	_____
_____	3	_____
_____	3	_____
_____	_____	_____

COMPUTING CORE (21 Credits) **

CS 121 Computer Programming I	4	_____
CS 122 Computer Programming II	4	_____
CS 232 Computer Organization	4	_____
CS 241 Data Structures & Algorithms I	4	_____
CS 242 Data Structures & Algorithms II	4	_____
CS 271 Fund. of Unix Operating Systems	2	_____

ADVANCED REQUIRED COURSES (16 Credits)

CS 361 Programming Languages & Imp.	4	_____
CS 371 Operating Systems & Architecture	4	_____
CS 389 Software Engineering	4	_____
CS 488 Comp. Networks & the Internet	4	_____

ADVANCED ELECTIVES IN C.S. (8 Credits)

CS	_____	4	_____
CS	_____	4	_____

MATHEMATICS COURSES (20 credits)

MAT 137 Discrete Mathematics	4	_____
MAT 131 Calculus I	4	_____
MAT 132 Calculus II	4	_____
MAT 234 Intro. To Prob. & Stat. Analysis	4	_____

SCIENCE & TECH COURSES (15 Credits)

CHE 111/PHY 111/ BIO 101	4	_____
CHE 112/ PHY 112/ BIO 102	4	_____
PHY 109 Digital Electronics	4	_____
Research Methods in Computers	_____	_____
CS 312 & Society	3	_____

FREE ELECTIVES (10 Credits)

_____	1	_____
_____	3	_____
_____	3	_____
_____	3	_____
_____	3	_____
_____	3	_____
_____	3	_____
_____	3	_____

Total Credits = 128

WORK EXPERIENCE (recommended)

All Computing Majors must complete a minimum of 60 credits in Liberal Arts and Sciences.

All students are urged to take at least one Learning Community and two writing-enhanced courses.

** Students must earn a grade of "C" or better in each prerequisite core course in order to take subsequent CS courses.

>>>< Course is taken as part of the Major Requirements.