PACE UNIVERSITY
Seidenberg School of Computer Science and Information Systems

BACHELOR OF SCIENCE: COMPUTER SCIENCE

UNIVERSITY CORE (44 CREDITS)

Foundation Requirements (22 – 31 Credits)

		Credits	
ENG 110	(Can test out)	0 – 3	_____
ENG 120	Critical Writing	4	_____
ENG 201	Writing in the Disciplines	3	_____
COM 200	Public Speaking	3	_____
MAT 131	Calculus I	4	_____
Lab Science I	(BIO 101 /CHE 111/PHY 111)	4	_____
CS 121	Computer Programming I	4	_____

Two language courses selected from:
ARA/CHI/FRE/JPN/GRK/ITA/LAT/RUS/SPA/SPE

_____		0 – 3	_____
_____		0 – 3	_____

Areas of Knowledge (AOK) (24 – 25 Credits)

Western Heritage (AOK 2) (2 Courses)

_____	3	_____
_____	3	_____

World Traditions & Cultures (AOK 3)
(2 Courses)

_____	3	_____
_____	3	_____

Humanistic & Creative Expressions (AOK 4)
(2 Courses)

_____	3	_____
_____	3	_____

Analysis of Human, Social & Natural
Phenomena (AOK 5) (2 Courses)

MAT 234 Introduction to Probability & Statistics	4	_____
_____	3	_____

REQUIRED LEARNING EXPERIENCES

Civic Engagement and Public Values
One Civic Engagement (CE) course

_____

Learning Community Requirement
One Learning Community (LC) course

_____

Writing Enhanced Course Requirement
Two Writing Enhanced (W) courses
1. _____
2. _____

COMPUTING CORE (25 CREDITS)**

		Credits	
CS 113	Math Structures for Computer Science	4	_____
CS 121	Computer Programming I	0	>><<
CS 122	Computer Programming II	4	_____
CS 232	Computer Organization	4	_____
CS 241	Data Structures & Algorithms	4	_____
CS 271	Foundations of Unix Operating Systems	2	_____
CS 312	Research Methods in Computers	3	_____

ADVANCED REQUIRED COURSES (24 CREDITS)

CS 242	Algorithms & Computing Theory	4	_____
CS 331	Fundamentals of Data & Network Security	4	_____
CS 361	Programming Languages & Implementation	4	_____
CS 371	Operating Systems & Architecture	4	_____
CS 389	Software Engineering	4	_____
CS 488	Computer Networks & the Internet	4	_____

ADVANCED ELECTIVES IN COMPUTER SCIENCE (8 CREDITS)

CS	_____	4	_____
CS	_____	4	_____

MATHEMATICS COURSES (12 CREDITS)

MAT 131	Calculus I	0	>><<
MAT 132	Calculus II	4	_____
MAT 234	Introduction to Probability & Statistical Analysis	0	>><<

SCIENCE & TECHNOLOGY COURSES (8 CREDITS)

Lab Science I	(BIO 101/CHE 111/PHY 111)	0	>><<
Lab Science II	(BIO 102/CHE 112/PHY 112)	4	_____

OPEN ELECTIVES (2 – 11 CREDITS)*

UNV 101	1	_____
_____	3	_____
_____	3	_____
_____	3	_____
_____	3	_____
_____	2	_____

Total Credits   =120

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*NOTE: ENG 105 C & D, MAT 100 and MAT 103 cannot be used toward the 120 credits for graduation.

UNV 101 Freshman Seminar is REQUIRED for all new Freshman.
Entering freshman are required to take one Civic Engagement course, 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 University Core Requirements.

ID Number	_____
Name	_____
Advisor	_____

BACHELOR OF SCIENCE COMPUTER SCIENCE
NYC COURSE SEQUENCE

FIRST YEAR

FALL SEMESTER		SPRING SEMESTER	
UNV 101	1 credit	Civic Engagement	3 credits
Learning Community	6 credits	CS 113	4 credits
CS 121	4 credits	CS 122	4 credits
MAT 130*	4 credits	AOK 2, AOK 3, AOK 4 or AOK 5	3 credits
	15 credits	ENG 110	3 credits
			17 credits

SECOND YEAR

FALL SEMESTER		SPRING SEMESTER	
ENG 120	4 credits	ENG 201	3 credits
CS 241	4 credits	CS 242	4 credits
CS 271	2 credits	MAT 132	4 credits
MAT 131	4 credits	Language 2	3 credits
Language 1	3 credits	CS 232**	4 credits
	17 credits		**18 credits**

THIRD YEAR

FALL SEMESTER		SPRING SEMESTER	
AOK 2, AOK 3, AOK 4 or AOK 5	3 credits	CS 488**	4 credits
AOK 2, AOK 3, AOK 4 or AOK 5	4 credits	MAT 234**	4 credits
Lab Science I	4 credits	Lab Science II	4 credits
CS 361**	4 credits	COM 200	3 credits
	15 credits		**15 credits**

FOURTH YEAR

FALL SEMESTER		SPRING SEMESTER	
CS 331	4 credits	CS 312**	3 credits
CS 371**	4 credits	CS 389**	4 credits
Computer Science Advanced Elective	4 credits	Computer Science Advanced Elective	4 credits
AOK 2, AOK 3, AOK 4 or AOK 5	3 credits	AOK 2, AOK 3, AOK 4 or AOK 5	3 credits
	15 credits		**14 credits**

*per placement score
**course is offered on a rotating schedule

BACHELOR OF SCIENCE COMPUTER SCIENCE
PLV COURSE SEQUENCE

FIRST YEAR

FALL SEMESTER		SPRING SEMESTER	
UNV 101	1	CS 122 Computer Programming II	4
CS 121 Computer Programming I	4	MAT 130 Precalculus or MAT 131 Calculus I*	4
CS 113 Math Structures for Computer Science	4	ENG 120 Critical Writing	4
ENG 110 Composition or ENG 120 Critical Writing*	3 – 4	Learning Community or AOK	3 – 6
Learning Community, AOK or Civic Engagement	3 – 6	AOK or Civic Engagement	3
	15 – 18 credits		**18 credits**

SECOND YEAR

FALL SEMESTER		SPRING SEMESTER	
CS 241 Data Structures & Algorithms I	4	CS 242 Algorithms and Computing Theory	4
CS 271 Fundamentals of the Unix Operating System	2	CS 232 Computer Organization	4
MAT 131 Calculus I or MAT 132 Calculus II	4	MAT 132 Calculus II or MAT 234 Probability & Statistics	4
Learning Community, AOK or Civic Engagement	3 – 6	ENG 201 Writing in the Disciplines	3
Second Language I*	3	Second Language II	3
	16 credits		**18 credits**

THIRD YEAR

FALL SEMESTER		SPRING SEMESTER	
CS 371 Operating Systems & Architecture I	4	CS 361 Programming Languages & Implementation	4
CS 331 Fundamentals of Data & Network Security	4	MAT 234 Probability & Statistics	4
Lab Science I (CHE 111/PHY 111/BIO 101)	4	Lab Science II (CHE 112/PHY 112/BIO 102)	4
COM 200 Public Speaking	3	CS 488 Computer Networks	4
AOK 2, AOK 3, AOK 4 or AOK 5	3		
	18 credits		**16 credits**

FOURTH YEAR

FALL SEMESTER		SPRING SEMESTER	
Computer Science Advanced Elective	4	CS 312 Research Methods	3
CS 389 Software Engineering	4	Computer Science Advanced Elective	4
AOK 2, AOK 3, AOK 4 or AOK 5	3	AOK 2, AOK 3, AOK 4 or AOK 5	3
AOK 2, AOK 3, AOK 4 or AOK 5	3	Elective	3
Elective	3		
	17 credits		**13 credits**

*Course level is based on the results of the placement exam

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BACHELOR OF SCIENCE: COMPUTER SCIENCE
Transfer Student

UNIVERSITY CORE (44 CREDITS)

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		Credits	
ENG 110	(Can test out)	0 – 3	
ENG 120	Critical Writing	4	
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COM 200	Public Speaking	3	
MAT 131	Calculus I	4	
Lab Science I	(BIO 101 /CHE 111/PHY 111)	4	
CS 121	Computer Programming I	4	

One language or culture course selected from:
ARA/CHI/FRE/JPN/GRK/ITA/LAT/RUS/SPA/SPE

	Credits	
	0 – 3	

Liberal Arts Electives (24 credits minimum)

	Credits	
MAT 234 Introduction to Probability & Statistics	4	
	4	
	4	
	3	
	3	
	3	
	3	

REQUIRED LEARNING EXPERIENCES
Civic Engagement and Public Values
One Civic Engagement (CE) course

COMPUTING CORE (25 CREDITS)**

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CS 113	Math Structures for Computer Science	4	
CS 121	Computer Programming I	0	>><<
CS 122	Computer Programming II	4	
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CS 241	Data Structures & Algorithms	4	
CS 271	Foundations of Unix Operating Systems	2	
CS 312	Research Methods in Computers	3	

ADVANCED REQUIRED COURSES (24 CREDITS)

		Credits	
CS 242	Algorithms & Computing Theory	4	
CS 331	Fundamentals of Data & Network Security	4	
CS 361	Programming Languages & Implementation	4	
CS 371	Operating Systems & Architecture	4	
CS 389	Software Engineering	4	
CS 488	Computer Networks & the Internet	4	

ADVANCED ELECTIVES IN COMPUTER SCIENCE (8 CREDITS)

		Credits	
CS		4	
CS		4	

MATHEMATICS COURSES (12 CREDITS)

		Credits	
MAT 131	Calculus I	0	>><<
MAT 132	Calculus II	4	
MAT 234	Introduction to Probability & Statistical Analysis	0	>><<

SCIENCE & TECHNOLOGY COURSES (8 CREDITS)

		Credits	
Lab Science I	(BIO 101/CHE 111/PHY 111)	0	>><<
Lab Science II	(BIO 102/CHE 112/PHY 112)	4	

OPEN ELECTIVES (2 – 11 CREDITS)*

	Credits	
	3	
	3	
	3	
	3	
	3	
	3	
	3	
	3	

Total Credits = 120

*NOTE: ENG 105 C & D, MAT 100 and MAT 103 cannot be used toward the 120 credits for graduation.
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