

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 (BIO/CHE/PHY/ENV 222)	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)	4 _____
MAT 234	3 _____
_____	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 (21 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 (20 CREDITS)

CS 242 Algorithms & Computing Theory	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 (4 CREDITS)

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

SCIENCE & TECHNOLOGY COURSES (8 CREDITS)

CHE 111/PHY 111/BIO 101	4 _____
CHE 112/PHY 112/BIO 102	4 _____
LAB Science (BIO/CHE/PHY/ENV 222)	0 >><< _____

OPEN ELECTIVES (2 – 11 CREDITS)*

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

Total Credits =120

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

SECOND YEAR

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

THIRD YEAR

FALL SEMESTER	SPRING SEMESTER
AOK 2, AOK 3, AOK 4 or AOK 5 AOK 2, AOK 3, AOK 4 or AOK 5 Lab Science I CS Elective	CS 488** CS 312** Lab Science II COM 200
3 credits 4 credits 4 credits 3 credits 14 credits	4 credits 3 credits 4 credits 3 credits 14 credits

FOURTH YEAR

FALL SEMESTER	SPRING SEMESTER
CS 361** CS 371** Lab Science University Core AOK 2, AOK 3, AOK 4 or AOK 5	MAT 234** CS 389** CS Elective AOK 2, AOK 3, AOK 4 or AOK 5
4 credits 4 credits 3 credits 3 credits 14 credits	4 credits 4 credits 4 credits 3 credits 15 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*	3	Second Language	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 Advanced Elective	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 or CS 312 Research Methods	3 – 4
AOK 2, AOK 3, AOK 4 or AOK 5	3		
18 credits		15 – 16 credits	

FOURTH YEAR

FALL SEMESTER		SPRING SEMESTER	
CS Advanced Elective	4	CS 389 Software Engineering	4
AOK 2, AOK 3, AOK 4 or AOK 5	3	CS 488 Computer Networks or CS 312 Research Methods	4
AOK 2, AOK 3, AOK 4 or AOK 5	3	CS Advanced Elective	4
COM 200 Public Speaking	3	AOK 2, AOK 3, AOK 4 or AOK 5	3
Lab Science (ENV 222/CHE/PHY/BIO)	4		
17 credits		14 – 15 credits	

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

BACHELOR OF SCIENCE - COMPUTER SCIENCE

Transfer Student

UNIVERSITY CORE (44 CREDITS)

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COM 200 Public Speaking	3 _____
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LAB Science (BIO/CHE/PHY/ENV 222)	4 _____
CS 121 Computer Programming I	4 _____
One language or culture course selected from: ARA/CHI/FRE/JPN/GRK/ITA/LAT/RUS/SPA/SPE	0 – 3 _____

Liberal Arts Electives (24 Credits minimum)

CHE 111/PHY 111/BIO 101	4 _____
CHE 112/PHY 112/BIO 102	4 _____
MAT 234	4 _____
_____	3 _____
_____	3 _____
_____	3 _____
_____	3 _____

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

COMPUTING CORE (21 CREDITS)**

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CS 122 Computer Programming II	4 _____
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ADVANCED REQUIRED COURSES (20 CREDITS)

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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 (4 CREDITS)

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

SCIENCE & TECHNOLOGY COURSES (8 CREDITS)

CHE 111/PHY 111/BIO 101	4 _____
CHE 112/PHY 112/BIO 102	4 _____
LAB Science (ENV 222/CHE/PHY/BIO)	0 >><< _____

OPEN ELECTIVES (2 – 11 CREDITS)*

_____	3 _____
_____	3 _____
_____	3 _____
_____	3 _____
_____	3 _____
_____	3 _____
_____	3 _____
_____	2 _____

Total Credits =120

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