NCSU Computer Science

(Unofficial Community Colleges to NCSU Curriculum)

Degree Earned:	NCSU Bachelor of Science in Computer Science	Transfer GPA = 3.5
Effective:	2017-2018	Grey Highlighted Courses – Take Courses at NCSU

FRESHMAN YEAR

	Fall Semester	Credit		Spring Semester	Credit
CHM 151	CH 101 Chemistry -- A Molecular Science[1,2,B]	3	CSC 151	CSC 116 Intro to Computing Java[2]	3
CHM 151	CH 102 General Chemistry Lab[1,2,B]	1	MAT 272	MA 241 Calculus II[1,2,A]	4
EGR 150	E 101 Intro to Engr & Problem Solving[1,9]	1	PHY 251	PY 205 Physics for Engr & Science I[1,2,B]	4
NCSU	E 115 Intro to Computing Environments[1]	1		GEP Requirement* (Humanities)	3
ENG 111 & ENG 112	ENG 101 Academic Writing & Research[1,9,H]	4	PED 110	Health and Exercise Studies Course[E]	1
MAT 271	MA 141 Calculus I[1,2,A]	4			
		14			15

SOPHOMORE YEAR

	Fall Semester	Credit		Spring Semester	Credit
NCSU	CSC 216 Programming Concepts – Java[2]	3	NCSU	CSC 230 C and Software Tools	3
NCSU	CSC 226 Discrete Mathematics for CSC[2]	3	NCSU	CSC 316 Data Structures for CSC	3
MAT 273	MA 242 Calculus III	4	MAT 280	MA 305 Elementary Linear Algebra	3
PHY 252	PY 208 Physics for Engr & Science II[B]			GEP Requirement*	3
PED 110	Health and Exercise Studies Course[E]	1	BIO 111 or CHM 152	Basic Science Elective[3,B]	3
		15			15

JUNIOR YEAR

	Fall Semester	Credit		Spring Semester	Credit
EGR 212	CSC 236 Computer Organization and Assembly Language for Computer Scientists	3	NCSU	CSC 326 Software Engineering	3
NCSU	CSC 246 Operating Systems for CSC	3	NCSU	CSC 379 Ethics in Computing	1
NCSU	CSC 333 Automata, Grammar and Computability	3	NCSU	CSC *** Games Restricted Elective[4]	3
NCSU	ST 370 Probability & Statistics for Engrs	3	NCSU	ENG 331 Communication for Engr & Tech	3
POL/PSY/SOC	GEP Requirement* (Social Sciences)	3	ECO 251	EC 205 Fundamentals of Economics[D] OR EC 201 or ARE 201 (GEP Social Sciences)	3
			NCSU	Other Restricted Elective[5]	3
		15			16

SENIOR YEAR

	Fall Semester	Credit		Spring Semester	Credit
NCSU	CSC 461 Computer Graphics	3	NCSU	CSC 492 Senior Design Project[7]	3
NCSU	CSC 481 Game Development	3	NCSU	Games Restricted Elective[5]	3
HUM 110	GEP Requirement*	3	NCSU	Other Restricted Elective[4]	3
	GEP Requirement* (see advisor for assistance in selecting)	3		GEP Requirement* (See advisor for assistance in selecting)	2-3
NCSU	Games Restricted Elective[5]	3	CSC 134, MAT 285	Free Elective	3-4
NCSU					3-4
		15			15

NCSU - Minimum Credit Hours Required for Graduation in Computer Science [*,8,I,J,K]	**120**

Program of Study

Students take all courses required for the CSC major. Concentration course selection for Restricted and Other Electives is constrained to focus on specific courses directly related to game design and development. Specifically, all students pursuing the concentration must take both CSC 461, Computer Graphics, and CSC 481, Game Design and Development. Further, students must take either CSC 462, Advanced Graphics Projects or CSC 482, Advanced Game Development Projects. Students must select two additional CSC courses from the following list:

- CSC 411 Artificial Intelligence
- CSC 454 Human-Computer Interaction
- CSC 462 Introduction to Graphics
- CSC 482 Game Design and Development
- CSC 582 Computer Models of Interactive Narrative

[Prerequisite Structure Advanced Games Elective](#)

Students pursuing the Game Development Concentration must select their Other Electives from the following list (note that, with the exception of MUS 306, these classes are approved as Other Electives ONLY for the Game Development Concentration)

- COM 327 - Critical Analysis of Communication Media
- COM 427 - Game Studies
- ENG 282 - Introduction to Film
- ENG 288 - Fiction Writing
- ENG 376 - Science Fiction
- ENG 377 - Fantasy
- ENG 492 - Special Topics in Film
- MUS 306 - Music Composition with Computers

Minimum hours required for graduation = 120[6,7] . *** *** Indicates choices, see notes below.

Major/Program requirements and footnotes:

[1] Courses required for matriculation.

[2] C- or lower grades are not accepted.

[3] To be selected from CH 201, PY 123, 124, any PY course with a prerequisite of PY 208, or any PB, BIO, MEA, or ZO course.

[4] To be selected from CSC 281, 411, 454, 462, 482, 484, or 582.

[5] To be selected from ENG 282, 288, 376, 377, 492 (Special Topics in Film), COM 327, 427 or MUS 306.

[6] To be selected from CSC 462 or CSC 482.

[7] CSC 492 is the only course that meets this requirement in all CSC curricula effective August 2008 or thereafter.

[8] The GPA earned in all courses attempted at NCSU must be 2.0 or higher in all courses bearing the CSC designation *or* a grade of C- or higher must be earned in each CSC course used to satisfy the requirements in the major.

[9] Grade of C- or higher required.

***General Education Program (GEP) requirements and GEP footnotes:**

To complete the requirements for graduation and the General Education Program, the following category credit hours and co-requisites must be satisfied.

University approved GEP course lists for each of the following categories can be found at http://oucc.ncsu.edu/gep-courses.

A. Mathematical Sciences (6 credit hours – one course with MA or ST prefix)

*Choose from the University approved GEP Mathematical Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **MA 141,241***

B. Natural Sciences (7 credit hours – include one laboratory course or course with a lab)

*Choose from the University approved GEP Natural Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **CH 101, 102, PY 205, 208***

C. Humanities (6 credit hours selected from two different disciplines/course prefixes)

*Choose from the University approved GEP Humanities course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **None***

D. Social Sciences (6 credit hours selected from two different disciplines/course prefixes)

*Choose from the University approved GEP Social Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **EC 205 or EC 201 or ARE 201***

E. Health & Exercise Studies (2 credit hours – at least one 100-level Health & Exercise Studies Course)

Choose from the University approved GEP Health & Exercise Studies course list.

F. Additional Breadth - (3 credit hours to be selected from the following checked University approved GEP course lists)

   XHumanities/Social Sciences/Visual and Performing Arts or ___Mathematical Sciences/Natural Sciences/Engineering

G. Interdisciplinary Perspectives (5-6 credit hours)

*Choose from University approved GEP Interdisciplinary Perspectives course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **None***

H. Introduction to Writing (4 credit hours satisfied by completing **ENG 101** with a C- or better)

The following Co-Requisites must be satisfied to complete the General Education Program requirements:

I. U.S. Diversity

*Choose from the University approved GEP U.S. Diversity course list or choose a course identified on the approved GEP course lists as meeting the U.S. Diversity (USD) co-requisite. The following course(s) if completed as part of the Major requirements may fulfill this requirement: **None***

J. Global Knowledge

*Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course lists as meeting the Global Knowledge (GK) co-requisite. The following course(s) if completed as part of the Major requirements may fulfill this requirement: **None***

K. Foreign Language proficiency - Proficiency at the **FL_102** level is required for graduation.