

## UNCW Computer Science & NC State Electrical Engineering 3+2 Double Major Curriculum

Department Resource: <https://ece.ncsu.edu/ugrad/ee/>

NC State Catalog: <http://catalog.ncsu.edu/undergraduate/engineering/electrical-computer/electrical-engineering-bs/>

UNC Wilmington Department Resource: <https://uncw.edu/csc/>

First Year: UNC Wilmington					
Fall Semester		Credits	Spring Semester		Credits
CSC 131	Introduction to Computer Science	4	CSC 133	Discrete Math Structures	3
EGN 101	Introduction to Engineering (GEP-IP)*	2	CSC 231	Introduction to Data Structures	4
ENG 101	College Writing & Reading I	3	ECN 221	Microeconomics (US-HIB; GEP-SS)*	3
MAT 161	Calculus with Analytical Geometry I	4	ENG 201	College Writing & Reading II	3
UNI 102	First Year Seminar - Engineering (US-FYS)*	1	MAT 162	Calculus with Analytical Geometry II	4
WPA 101	Wellness & Physical Activity	1			
WPAL 101	Wellness & Physical Activity Lab	1			
<b>Semester Total:</b>			<b>Semester Total:</b>		
16			17		
Second Year: UNC Wilmington					
Fall Semester		Credits	Spring Semester		Credits
CSC 242	Computer Organization	3	CHM 101	General Chemistry I	3
CSC 331	Object-Oriented Programming & Design	3	CHML 101	General Chemistry Lab I	1
PHY 201	General Physics I	4	CSC 340	Scientific Computing	3
MAT 261	Multivariate Calculus	4	CSC 342	Operating Systems	3
***	*** Elective (US-LIGS; GEP-IP, GK: INT 105)*	3	PHY 202	General Physics II	4
			***	*** Ethics Elective (US-HPA; GEP-Hum)*	3
<b>Semester Total:</b>			<b>Semester Total:</b>		
17			17		
Third Year: UNC Wilmington					
Fall Semester		Credits	Spring Semester		Credits
CSC 360	Formal Languages & Computability	3	CSC 434	Programming Languages	3
CSC 380	Design & Analysis of Algorithms	3	CSC 450	Software Engineering	3
CSC 385	Professional & Ethical Issues in CSC	3	CSC 455	Database Design & Implementation	3
ECE 200	Introduction to Signals, Circuits & Sys (DE)*	4	E 115	Introduction to Computing Environments (DE)*	1
***	201 Foreign Language (US-WLC)*	3	ECE 211	Electrical Circuits (DE)*	4
			ECE 220	Analytical Foundations of ECE (DE)*	3
<b>Semester Total:</b>			<b>Semester Total:</b>		
16			17		
Fourth Year: NC State University					
Fall Semester		Credits	Spring Semester		Credits
COM 110	Public Speaking	3	ECE 303	Electromagnetic Fields	3
ECE 212	Fundamentals of Logic Design*	3	ECE 380	Engineering Profession for EE (or 383)	1
ECE 301	Linear Systems	3	ECE 3**	ECE Foundation Elective*	3
ECE 302	Introduction to Microelectronics	4	ECE 3**	ECE Foundation Elective*	3
ST 371	Intro to Probability & Distribution Theory*	3	ENG 331	Communication for Engineering & Tech.	3
			ENG ***	Lit. Elective (US-A, LIDN; GEP-Hum, USD)*	3
<b>Semester Total:</b>			<b>Semester Total:</b>		
16			16		
Fifth Year: NC State University					
Fall Semester		Credits	Spring Semester		Credits
ECE 484	ECE Senior Design Project I	3	ECE 485	ECE Senior Design Project II	3
ECE 4**	EE Elective*	3	ECE 4**	ECE Elective*	3
ECE 4**	EE Elective*	3	ECE 4**	ECE Elective*	3
***	*** Open/Technical Elective*	3	SOC ***	Sociology Elective* (US-HIB; GEP-SS, USD)	3
HI ***	History Elective (US-HPA; GEP-Hum)*	3	***	*** Elective (US-A; GEP-AB: THR 103)*	3
<b>Semester Total:</b>			<b>Semester Total:</b>		
15			15		

162

### \*Notes

Distance Education (DE): Indicated courses will be taken through NC State's Distance Education Program.

NC State General Education Program (GEP) Graduation Requirements: <http://catalog.ncsu.edu/undergraduate/gep-category-requirements/>

UNCW University Studies (US) Graduation Requirements: <https://uncw.edu/uc/advising/unistudies.html>

Electives: Ideally, elective courses should double/triple count to satisfy multiple categories of US/GEP requirements. Consult the academic advisor for more information.

EGN 101: Transfers to NC State as E 102 and counts as a GEP-Interdisciplinary Perspectives course.

UNI 102: Transfers to NC State as E 101. UNI 102 taken in tandem with EGN 101 satisfies UNCW's UNI 101 First Year Seminar course required for all first semester freshmen.

ECE 109: CSC 242 is sufficiently similar to NC State's ECE 109: Introduction to Computer Systems. It may be possible to take ECE 109 in place of CSC 242, but that request should be reviewed by the CSC department chair.

ECE 209: CSC 231 and CSC 342 will count for NC State's ECE 209: Computer Systems Programming course.

ECE 309: CSC 331 will count for ECE 309: Object Oriented Programming, which is an Open/Technical Elective for EE. This should be confirmed with an academic advisor.

ECE 212: Not offered in the summer, but many ECE courses have summer offerings.

ST 371: Will satisfy the CSC requirement of STT 215 at UNCW.

Technical Electives: See NC State Catalog for list of approved Electives and consult ECE advisor.

CSC requires 9 additional hours of 300-400 level CSC courses to be approved by an advisor. Preferred NCSU courses include ECE 407: Intro to Computer Networking, ECE 466: Compiler Optimization & Scheduling

and/or ECE 470: Internetworking. The ECE 484 & 485 capstone course sequence may also be considered. The acting CSC dept. chair should confirm and approve these substitutions before the student takes a course.

Last Modified: 11/11/2021