

Student:

Date:

Advisor:

Bear ID:

The Bachelor of Science in Software Engineering degree requires a minimum of **120 hours** which includes:
31 hours of Liberal Arts Curriculum
85-86 hours of Software Engineering coursework and
University Wide Electives to reach the 120 minimum credits.

Year One

FALL SEMESTER				SPRING SEMESTER			
BACS 180	Introduction to Software Engineering	1		MATH 132	Calculus II	4	
CS 160	Structured Programming	3		BACS 287	Graphical Interface Programming	3	
MATH 131	(LAC Mathematics) Calculus I	4		CS 120	Computer Programming	3	
ENG 122	(LAC Written Communication)	3		ENG 123 or SCI 291	(LAC) College Research Paper or (LAC) Scientific Writing	3	
	(LAC Arts & Humanities with International)	3			(LAC Arts & Humanities with Multicultural)	3	
Total Credits			14	Total Credits			16

Year Two

FALL SEMESTER				SPRING SEMESTER			
CS 200	Object Oriented Design (Fall Only)	3		CS 301	Algorithms and Data (Spring Only)	3	
PHYS 220 or PHYS 240	(LAC) Introductory Physics I (Fall Only) or (LAC) General Physics I (Fall Only)	5		MATH 228	Discrete Mathematics (Spring Only)	3	
MATH 350	Elementary Probability Theory (Fall Only)	4		BIO 110 or CHEM 111	(LAC) Principles of Biology with lab or (LAC) Principles of Chemistry with Lab	4 or 5	
STAT 150	Introduction to Statistical Analysis	3		BACS 200	Web Design & Dev. For Small Business	3	
					University-Wide Elective	3	
Total Credits			15	Total Credits			16/17

Year Three

FALL SEMESTER				SPRING SEMESTER			
BACS 380	Network & Data Comm (Fall Only)	3		BACS 385	Fund. of Project Management (Spring Only)	3	
BACS 387	Object Oriented Programming (Fall Only)	3			SE Major Elective (see back)	3	
BACS 350	Intermediate Web Development (Fall Only)	3			(LAC Social and Behavioral)	3	
BACS 383	User Interface Design (Fall Only)	3			University-Wide Elective	3	
	(LAC History)	3			University-Wide Elective	3	
Total Credits			16	Total Credits			15

Year Four

FALL SEMESTER				SPRING SEMESTER			
CS 350	Software Engineering I (Fall Only)	3		BACS 488 or CS 497	Senior Project (Spring Only)	3	
BACS 485	Database Management Systems (Fall Only)	3		CS 440 or CS 442	Operating Systems or (Spring Only) Networking (Spring Only)	3	
BACS 487	Systems Analysis & Design (Fall Only)	3			SE Major Elective (see back)	3	
	(LAC Arts, Humanities, History, Social & Beh)	3			University-Wide Elective	3	
	University-Wide Elective	3			University-Wide Elective	1	
Total Credits			15	Total Credits			13

Career Development Series - Required

Career Values and Exploration	First Year
Career Conversations	Sophomore Status
Networking Night	Junior Status
Career and/or Internship Fair	Senior Status

At least 44 credit hours of the degree must be earned at UNC.

Students are reminded that to graduate with a Software Engineering degree, a student must maintain a 2.0 or greater cumulative Software Engineering GPA and at least a "C-" grade in each required major and specified LAC course.

Some courses require having earned a grade of "C" or better in a prerequisite ("C-" is not acceptable). Pay attention to the specific prerequisites on the next page.

Admission Requirements: *Incoming New First Time and Transfer* students are admitted to the Software Engineering major provided they meet the admission requirements set forth by UNC. *Current UNC students* who have completed at least 15 credit hours with a cumulative GPA of 2.50 or above are guaranteed admission to the Software Engineering. *Current UNC students* who have completed at least 15 credit hours with a cumulative GPA of 2.00-2.49 qualify to apply for admission to a Software Engineering major. Students may apply at the MCB Advising Center located in Kepner 1095.

No more than 20 credits in CS/BACS/MATH may be transferred in from another institution. Of the 20 credits, no more than 9 of these credits may be transferred in from other institutions at the 300-/400- level.

SOFTWARE ENGINEERING PREREQUISITES: 2021-2022 CATALOG

Students must meet course prerequisites as stated in the current UNC catalog.
Check the catalog each semester you register to make certain you meet requirements.
A grade of "C-" or better is required in all courses, except where grade of "C" is required.

Course #	Course Titles	Prerequisites	Prerequisite Course Titles/Notes
CS 120	Computer Programming	None	
CS 160	Structured Programming	None	
CS 200	Object-Oriented Analysis, Design, & Prog. (FALL ONLY)	CS 160	Structured Programming with minimum grade of "C"
CS 301	Algorithms and Data Structures (SPRING ONLY)	CS 160	Structured Programming with minimum grade of "C"
CS 350	Software Engineering I (FALL ONLY)	CS 200	Object-Oriented Analysis with minimum grade of "C"
CS 440 or CS 442	Operating Systems or Networking (SPRING ONLY)	CS 301 or CS 301	Algorithms and Data Structures with minimum grade of "C" or Algorithms and Data Structures with minimum grade of "C"

Course #	Course Titles	Prerequisites	Prerequisite Course Titles/Notes
BACS 180	Introduction to Software Engineering	None	
BACS 200	Web Design & Development for Small Bus.	None	
BACS 287	Graphical Interface Programming	Business Major/minor or SE Majors only	
BACS 350	Intermediate Web Development (FALL ONLY)	BACS 200	Web Design and Development for Small Business
BACS 380	Networking and Data Communications (FALL ONLY)	Business Major/minor or SE Majors only Juniors or above	
BACS 383	Designing User Experiences (FALL ONLY)	BACS 200 BACS 287 or CS 200 Junior or above	Web Design and Development with minimum grade of "C-" Graphical Interface Programming OR Object-Oriented Analysis, Design and Programming with a minimum grade of "C-"
BACS 385	Fundamentals of Project Management (SPRING ONLY)	Juniors or above	
BACS 387	Object Orient Sys Development (FALL ONLY)	BACS 287 Business Major/minor or SE Majors only Juniors or above	Graphical Interface Programming
BACS 485	Database Management Systems (FALL ONLY)	BACS 287 BACS 300 Business Major/minor or SE Majors only Senior Standing	Graphical Interface Programming Information Systems
BACS 487	Systems Analysis & Design (FALL ONLY)	BACS 287 BACS 300 CIS Major, CIS Minors & SE Majors only Seniors Standing	Graphical Interface Programming Information Systems

Course #	Course Titles	Prerequisites	Prerequisite Course Titles/Notes
MATH 131	Calculus I	ALEKS minimum score of 060	
MATH 132	Calculus II	MATH 131	Calculus I with minimum grade of "C"
MATH 228	Discrete Mathematics (SPRING ONLY)	none	
MATH 350	Elementary Probability Theory (FALL ONLY)	MATH 132	Calculus II with minimum grade of "C"
STAT 150	Intro to Statistical Analysis	ALEKS minimum score of 030	

Course #	Course Titles	Prerequisites	Prerequisite Course Titles/Notes
BACS 488 or CS 497	Senior CIS Project (SPRING ONLY) or Senior Project (SPRING ONLY)	BACS 387 or CS 350 BACS 487 Business Major/minor or SE Majors only Senior Standing	Object Oriented System Development or Software Engineering I with minimum grade of "C-" and Systems Analysis and Design with minimum grade of "C-"

Software Engineering Major Electives – 6 Credit hours

Choose six (6) credits or more from any 300 or 400 level BACS or CS course not otherwise required for the major.

BACS 300 WILL NOT COUNT.