UTEP

Bachelor of Science in
COMPUTER SCIENCE
MAJOR MAP | 2019-2020

UTEPEDGE

	YOUR CLASS SCHEDULE	ACADEMIC ADVISING	ENRICHING EXPERIENCES	LIFELONG SUCCESS
FRESHMAN	• Register to take classes in this order: UNIV 1301, Foundations of Engineering; MATH 1411; PHYS 2420; then Computer Science and core curriculum.	• Meet your PREE Advisor and attend the Intro Compliance session during orientation. • Declare your Computer Science major once you register for MATH 1411 (Calculus I) or higher. • Consult the Computer Science Advising Sheet.	• Explore student organizations at Gold Rush. • Experience a new culture with a student exchange program. • Network with peers and organize a study group at the ASCE office. • Cultivate leadership and teamwork skills at TCM Day.	• Discover ACES tutoring resources. • Explore career opportunities at the Career Expo and the Engineering & Science Expo.
SOPHOMORE	• Take CS 2302 and CS 2401; CE 2326, Economics for Engineers and Scientists; and PHYS 2421, if not already completed. • Examine the critical path flow chart.	• Meet with your PREE Advisor before registration. • Discuss your degree plan with your PREE Advisor. • Ask your PREE advisor about the Rising Junior Exam.	• Join The Association of Computing Machinery. • Explore professional engagement opportunities with SWE and MAES/SHPE. • Discover community involvement opportunities in your field with the Center for Civic Engagement. • Strive for high grades to be eligible for induction into Upsilon Pi Epsilon, the Computer Science Honor Society.	• Visit the Career Center Satellite to develop a resume and investigate employment opportunities. • Cultivate healthy lifestyle habits by visiting the Student Recreation Center.
JUNIOR	• Focus on your upper division Computer Science classes. • Examine the critical path flow chart.	• Meet with your Computer Science advisor before registration. • Discuss your degree plan with your advisor. • Ask about internship opportunities and about preparing for the Fundamentals of Engineering Exam (FE). • Consult the CE Advising Sheet.	• Explore unique faculty-led travel opportunities with Engineering Global Programs. • Participate in a technical competition such as Steel Bridge, Concrete Canoe, or Mini Baja. • Cultivate global awareness at events sponsored by the Office of International Programs.	• Ask a Peer Career Advisor about internship opportunities. • Revisit the Career Expo and the Engineering & Science Expo. • Explore graduate programs in Engineering.
SENIOR	• Complete your major requirements and any remaining electives.	• Meet with your Computer Science advisor before registration. • Review your graduation audit with the Graduation Coordinator.	• Cultivate a leadership role with your student organization. • Expand your community engagement efforts by joining the Ninjaneer Service Learning Program. • Explore research opportunities with COURI.	• Take the Fundamentals of Engineering (FE) Exam. • Visit the Career Center Satellite. • Apply for graduate school or explore career opportunities.

UPDATED 06/29/2018

EDGE ADVANTAGES:
- Leadership
- Problem-solving
- Communication
- Entrepreneurship
- Social Responsibility
- Confidence
- Global Awareness
- Teamwork
- Critical Thinking

CAREER POSSIBILITIES:
- Software Developer
- Database Administrator
- Hardware Engineer
- Systems Manager
- Network Administrator
- Web Developer
- Security Analyst
- Computer Programmer
- Software Engineer
- IT Architect

COLLEGE OF ENGINEERING | ENGINEERING BUILDING | 915-747-6444 | ENGINEER@UTEP.EDU

Last Name   First Name   M.I.   Expires: 08/01/2024

UTEP ID

NOTE: Overall GPA ≥ 2.0 AND In-Major GPA ≥ 2.0 REQUIRED for graduation

A Core Curriculum (45 SCH) (minimum of "C" grade required)

Course		Semester Completed	Final Grade	SCH	Sub #
1 Communication (6 credit hours required)					
RWS 1301*	Rhetoric and Composition I				
RWS 1302*	Rhetoric and Composition II				
2 Mathematics (4)					
MATH 1411*	Calculus I				
3 Life and Physical Sciences (8) ****					
Select and circle one					
BIOL 1305* + 1107*, CHEM 1305* + 1105*,					
GEOL 1313* + 1103*, PHYS 2420*					
BIOL 1306* + 1108*, CHEM 1306* + 1106*					
GEOL 1314* + 1104* , PHYS 2421*					
4 Language, Philosophy, and Culture (3)					
Select and circle one					
ENGL 2311*, 2312*, 2313*, 2314*, 2318*, FREN 2322*, HIST 2301*, 2302*, PHIL 1301*, 2306*, RS 1301*, SPAN 2340*, WS 2300*, 2350*					
5 Creative Arts (3)					
Select and circle one					
ART 1300*, ARTH 1305*, 1306*, DANC 1304*, FILM 1390*, MUSL 1321*, 1324*, 1327*, THEA 1313*					
6 American History (6)					
HIST 1301*	History of the U.S. to 1865				
HIST 1302*	History of the U.S. since 1865				
7 Government/Political Science (6) -- all 6 SCH must be completed at the same institution					
POLS 2310*	Introduction to Politics				
POLS 2311*	American Govt. & Politics				
8 Social and Behavioral Sciences (3)					
Select and circle one					
ANTH 1301*, 1302*, 1310*, 2320*, COMM 2350*, 2372*, ECON 2303*, 2304*, EDPC 1301*, EDU 1342*, ENGL 2320*, GEOG 1310*, LING 2320*, PSYC 1301*, SOCI 1301*, 1310*, CE 2326*					
9 Component Area Option (6)					
Take UNIV 1301 and choose one of the second option:					
UNIV 1301*	Foundations of Engineering				
CS 1310* ᵃ, BUSN 1301*, COMM 1301*, 1302*, CS 1320*, SCI 1301*					

B Foundational Math & Science (15 SCH)

Course		Semester Completed	Final Grade	SCH	Sub #
MATH 1312*	Calculus II				
MATH 2300*	Discrete Mathematics				
MATH 3323*	Matrix Algebra				
MATH 4329	Numerical Analysis				
STAT 3320	Probab & Stat for Comp Sci				

SUBSTITUTIONS**

Sub #	Course on degree plan to substitute	Institution where course was taken	Name of Course as it appears on UTEP Transcript	Course as it appears on UTEP Transcript
1				
2				
3				
4				

C Major: Required Lower Division Courses (15 SCH)

Course		Semester Completed	Final Grade	SCH	Sub #
CS 1301*	Introduction to Computer Science				
CS 1101*	Introduction to Computer Science Lab				
CS 2401*	Elementary Data Structures and Algorithms				
CS 2302*	Data Structures				
EE 2369*	Digital Systems Design I				
EE 2169*	Digital Systems Design I Lab				

D Major: Required Upper Division Courses (23 SCH)

Course		Completed	Grade	SCH	Sub #
CS 3195	Junior Professional Orientation				
CS 3331*	Advanced Object-Oriented Programming				
CS 3350	Automata, Computability, and Formal Languages				
CS 3360	Design and Implementation of Prog. Languages				
CS 3432*ᵇ	Computer Architecture I: Basic Comp. Org. & Design				
CS 4310*	Software Engineering: Requirements Engineering				
CS 4311	Software Engineering: Design and Implementation				
CS 4375	Theory of Operating Systems				

E Technical Electives (15 SCH)***

			Completed	Grade	SCH	Sub #

F Lab Science Elective (4 SCH)****
Circle the one you chose:

Course	Completed	Grade	SCH	Sub #
ASTR 1307+1107, BIOL 1305+1107, CHEM 1305+1105, GEOL 1313+1103, PHYS 2420, 2421				

G Free Elective (3 SCH) -- any college-level courses offered by the colleges of Liberal Arts, Business, Science, or Engineering

	Completed	Grade	SCH	Sub #

NOTES:

a -- If no previous computer experience.

b -- EE 4379 allowed to count as equivalent.

* C or better required

** Official substitution form available at http://engineering.utep.edu/plaza/Academic Forms/index.html

*** CS 3320, CS 3370, or any CS 4000 level course. No more than six credit hours of CS 4390, CS 4371, CS 4373, and/or CS 4392 (in any combination) can count for technical electives.

**** Students must complete either PHYS 2420 or PHYS 2421 (in the Quantitative Science Sequence or the Lab Science Elective). A C or better is not required to satisfy the Lab Science Elective.
Credit for a course may not be applied to both the Quantitative Science Sequence and the Lab Science Elective requirements.

BSCS Total Hours	**120**

APPROVALS:

ADVISOR   DATE

CHAIR   DATE

Rev. 06-26-2017