

	Your Class Schedule	Academic Advising	Enriching Experiences	Lifelong Success
Freshman	<ul style="list-style-type: none"> Complete core courses recommended for your degree plan Focus on English, History, Math, and Computer Science courses Enroll in 16 credit hours Fall and 17 credit hours in Spring semesters Pass all your prerequisite classes with a C or better 	<ul style="list-style-type: none"> Participate in New Student Orientation Meet with your Academic Advising Center Freshman Advisor before registration Plan the class schedule and register for classes Register for classes as soon as possible 	<p>Prioritize Your Wellness</p> <ul style="list-style-type: none"> Participate in campus recreation Attend Financial Literacy seminars Form healthy study habits <p>Build Your Community</p> <ul style="list-style-type: none"> Use FalconLink & attend Club Day Volunteer Attend campus events <p>Explore Your World</p> <ul style="list-style-type: none"> Attend an athletics event, musical performance, or visit the art gallery 	<p>Build Your Brand</p> <ul style="list-style-type: none"> Draft your resume Register for the Job Board <p>Craft Your Future</p> <ul style="list-style-type: none"> Explore career options Have coffee with a faculty member Be an active participant in Directed Observations
Sophomore	<ul style="list-style-type: none"> Complete core courses recommended for your degree plan Focus on Political Science, Math, Science with lab and Computer Science courses Enroll in 15 credit hours Fall and 17 credit hours Spring semester Pass all your prerequisite classes with a C or better. 	<ul style="list-style-type: none"> Meet with your Academic Advising Center Advisor before registration Plan class schedule and register for classes Register for classes as soon as possible 	<p>Prioritize Your Wellness</p> <ul style="list-style-type: none"> Enjoy outdoor spaces on campus <p>Build Your Community</p> <ul style="list-style-type: none"> Join an organization Explore campus leadership (SGA, Orientation Leader, Resident Asst.) Seek to attend professional meetings and seminars <p>Explore Your World</p> <ul style="list-style-type: none"> Consider study abroad Attend a lecture series 	<p>Build Your Brand</p> <ul style="list-style-type: none"> Update your resume Join LinkedIn Consider student employment <p>Craft Your Future</p> <ul style="list-style-type: none"> Participate in mock interviews Attend an internship/career fair Be an active participant in clinical practicum courses
Junior	<ul style="list-style-type: none"> Focus on Math and Computer Science courses Enroll in 15 credit hours Fall and 13 credit hours Spring semester Pass all your computer science classes with C or better 	<ul style="list-style-type: none"> Meet with your Computer Science Academic Advisor before registration Plan the class schedule and register for classes Register for classes as soon as possible Discuss your graduation plan with the CS Academic Advisor 	<p>Prioritize Your Wellness</p> <ul style="list-style-type: none"> Attend a health fair <p>Build Your Community</p> <ul style="list-style-type: none"> Run for organization officer role Apply to be a Falcon Ambassador Seek to attend professional meetings and seminars <p>Explore Your World</p> <ul style="list-style-type: none"> Consider study abroad Participate in service learning 	<p>Build Your Brand</p> <ul style="list-style-type: none"> Update your resume Conduct research with faculty <p>Craft Your Future</p> <ul style="list-style-type: none"> Search for internships or fellowships Be an active participant in clinical practicum courses
Senior	<ul style="list-style-type: none"> Focus on Computer Science courses and technical elective courses Enroll in 13 credit hours Fall and 14 credit hours Spring semester 	<ul style="list-style-type: none"> Meet with your Computer Science Academic Advisor before registration Plan the class schedule and register for classes Apply for graduation and inform the CS faculty advisor to complete the degree check form 	<p>Prioritize Your Wellness</p> <ul style="list-style-type: none"> Attend financial literacy seminars <p>Build Your Community</p> <ul style="list-style-type: none"> Attend your ring ceremony Join Alumni Association upon graduation Seek to attend professional meetings and seminars <p>Explore Your World</p> <ul style="list-style-type: none"> Ask your clinical preceptor about opportunities to view surgery 	<p>Build Your Brand</p> <ul style="list-style-type: none"> Update your resume Present research <p>Craft Your Future</p> <ul style="list-style-type: none"> Participate in an internship or fellowship Be an active participant in project-based courses Apply for jobs

Skills Learned Upon Graduation
Career Opportunities

- Leadership
- Problem-solving
- Communication
- Critical Thinking
- Collaboration
- Confidence
- Global Awareness
- Teamwork
- Volunteering

- AI Solutions Architect
- Generative AI Engineer
- Software Developer
- Data Scientist
- Data Analyst
- CS Educator
- Data Architect



Degree: Bachelor of Science
 Program: Computer Science
 Degree Map | 2026 - 2030

Education Requirements

Semester 1	Semester 2
ENGL 1301 – Composition I (3 sch) HIST 1301 – History of the US to 1877 (3 sch) MATH 2412 – Precalculus (4 sch) Creative Arts (3 credits) UNIV 1301 – Honors Freshman Seminar I (3 sch) <div style="text-align: right;">16 HOURS</div>	ENGL 1302 – Composition II (3 sch) HIST 1302 – History of the US since 1877 (3 sch) MATH 2413 – Calculus I (4 sch) Social and Behavior Science (3 sch) COSC 1430 – Intro to Comp. Sci I (4 sch) <div style="text-align: right;">17 HOURS</div>
Semester 3	Semester 4
PLSC 2305 – American National politics (3 sch) COSC 2430 – Intro to Comp. Sci II (4 sch) MATH 2414 – Calculus II (4 sch) Science with Lab (3+1 sch) <div style="text-align: right;">15 HOURS</div>	PLSC 2306 – State and Local Politics (3 sch) COSC 2420 – C Programming (4 sch) COSC 3312 – Discrete Mathematics (3 sch) Science with Lab (3+1 sch) MATH 1342 – Elementary Statistics (3 sch) <div style="text-align: right;">17 HOURS</div>
Semester 5	Semester 6
MATH 3301 – Introduction to Probability I (3 sch) MATH 3305 – Math Reasoning (3 sch) COSC 3310 – Computer Organization (3 sch) COSC 3315 – Info. Systems and Security (3 sch) COMM 1315 – Intro to Public Speaking (3 sch) <div style="text-align: right;">15 HOURS</div>	COSC 3420 – Data Structures (4 sch) COSC 3320 – Python Programming (3 sch) COSC 4395 – Research (3 sch) Technical Elective* <div style="text-align: right;">13 HOURS</div>
Semester 7	Semester 8
COSC 4430 – Operating Systems (4 sch) Technical Elective** Technical Elective** Technical Elective*** <div style="text-align: right;">13 HOURS</div>	COSC 4460 – Software Engineering (4 sch) COSC 4370 – Data Communications (3 sch) COSC 4475 – Distributed Systems (4 sch) NTSC 4311 – History and Philosophy of Science (3 sch) <div style="text-align: right;">14 HOURS</div>

College of Engineering and Sciences | Dean’s Office – ST 1226 | 432-552-2220 |
<https://www.utpb.edu/academics/programs/computer-science/bs-computer-science>

Three Tracks are offered in BS Computer Science:

1. AI Track: COSC 4355 – Introduction to Artificial Intelligence*, COSC 4360 – Introduction to Machine Learning**, COSC 4365 – Introduction to Deep Learning**
2. Data Science Track: COSC 4415 – Database Systems*, COSC 4385 – Data Science**, COSC 4386 – Big Data Analytics**
3. Software Development Track: COSC 4415 – Database Systems*, COSC 4455 – Multimedia & Web Develop. **, COSC 4485 – Mobile App Development**

Technical Elective ***: Not required for Software Development. For other tracks, this can be from another department.

- **Complete a total of at least 120 credit hours and complete the general education requirements**
- **Complete 48 hours at the junior/senior level, of which 30 must be at UTPB**
- **Obtain at least a C grade in ALL MAJOR courses**