

Bachelor of Science – Electrical Engineering Degree Plan (checklist)

2023

Catalog: 2022-23
Expires: 08/01/2029

Last Name _____

First Name _____ M.I. _____

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)		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)					
PHYS 2320*	Introductory Mechanics				
PHYS 2120*	Introductory Mechanics Lab				
PHYS 2321*	Introductory Electromagnetism				
PHYS 2121*	Introductory Electromagnetism Lab				
4 Language, Philosophy, and Culture (3) Select and circle one					
AFST 2300*, CHIC 2302*, 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*, CHIC 1311*, DANC 1304*, FILM 1390*, MUSL 1324*, 1327*, 2321*, 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)					
CE 2326*	Econ. For Engrs & Scientists				
9 Component Area Option (6)					
CS 1320*	Computer Programming				
COMM 1301*, COMM 1302*, CS 1310*, EL 1301*, LEAD 1300*, SCI 1301*, UNIV 1301*					

B Foundational Math & Science (15 SCH)		Semester Completed	Final Grade	SCH	Sub #
MATH 1312*	Calculus II				
MATH 2313*	Calculus III				
MATH 2326*	Differential Equations				
MATH 3323*	Matrix Algebra				
CHEM 1305*, BIOL 1305*, or MATH 2300*					

C Major: Required Lower Division Courses (21 SCH)		Semester Completed	Final Grade	SCH	Sub #
EE 1105*	Lab for EE 1305				
EE 1305*	Intro to EE				
EE 2369*	Digital Systems Design I				
EE 2169*	Lab for EE 2369				
EE 2372*	Software Design I				
EE 2350*	Electric Circuits I				
EE 2351*	Electric Circuits II				
EE 2151*	Lab for EE 2351				
EE 2353*	Cont. Time Signals & Systems				

D Major: Required Upper Division Courses (32 SCH)		Semester Completed	Final Grade	SCH	Sub #
EE 3138*	Lab for EE 3338				
EE 3176*	Lab for EE 3376				
EE 3195*	Junior Professional Orientation				
EE 3321*	Electromagnetic Field Theory				
EE 3325*	Applied Quantum Mechanics for EEs				
EE 3329*	Foundations of Semiconductor Devices				
EE 3338*	Electronics I				
EE 3340*	Electronics II				
EE 3353*	Discrete Time Signals & Sys.				
EE 3376*	Microprocessor Systems I				
EE 3384	Probabilistic Methods-Engr/Sci				
EE 4220*	Senior Project Lab I				
EE 4230	Senior Project Lab II				

E Major: Concentration Courses (12 SCH) see advisor for list of concentrations & approved courses within concentration.		Semester Completed	Final Grade	SCH	Sub #

F Technical Elective (3 SCH) see advisor for approved courses		Semester Completed	Final Grade	SCH	Sub #

* -- C or better required
** Official substitution form available <https://www.utep.edu/engineering/student-resources/student-resources-forms.html>

BSEE Total Hours 128

SUBSTITUTIONS**				
# of	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				

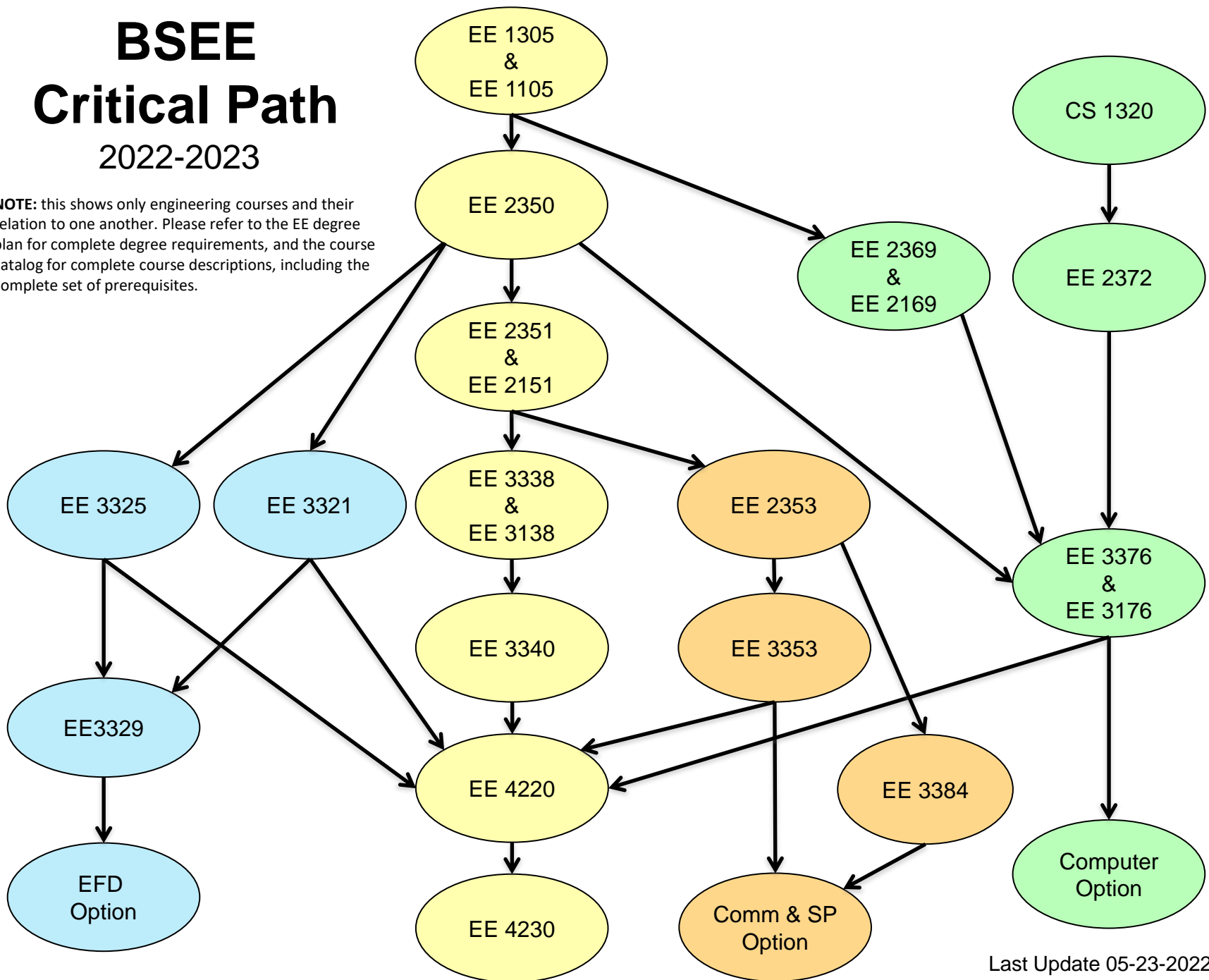
APPROVALS:	
ADVISOR	DATE
CHAIR	DATE

Subject	Course Number	Course Title	Prerequisites designated with a + might be taken concurrently. Courses designated with a * must be completed with a C or better	Co-requisites	Restrictions				Semester		
					FR	SO	JR	SR	Fall	Spring	Summer
EE	1105	Lab for EE 1305	none	EE 1305	✓	✓	✓	✓	✓	✓	
EE	1305	Intro to Electrical Engineering	MATH 1411*	EE 1105	✓	✓	✓	✓	✓	✓	
EE	2350	Electric Circuits I	EE 1305* AND PHYS 2421* AND MATH 1312* AND MATH 2326*	none	✓	✓	✓	✓	✓	✓	✓
EE	2351	Electric Circuits II	EE 2350* AND PHYS 2421* AND MATH 2326*	EE 2151	✓	✓	✓	✓	✓	✓	✓
EE	2151	Lab for EE 2351	EE 1105*	EE 2351	✓	✓	✓	✓	✓	✓	✓
EE	2353	Continuous Time Signals & Systems	EE 2351* AND MATH 1312* AND MATH 2326*	none	✓	✓	✓	✓	✓	✓	✓
EE	2369	Digital Systems Design I	EE 1105* AND EE 1305* OR CS 1101* AND CS 1301* OR CS 1401*	EE 2169	✓	✓	✓	✓	✓	✓	✓
EE	2169	Lab for EE 2369	EE 1105* AND EE 1305* OR CS 1101* AND CS 1301* OR CS 1401*	EE 2369	X	X	✓	✓	✓	✓	✓
EE	2372	Software Design I	CS 1320*	none	✓	✓	✓	✓	✓	✓	✓
EE	3195	Junior Professional Orientation	none	none	✓	✓	✓	✓	✓	✓	✓
EE	3321	Electromagnetic Field Theory	EE 2350* AND PHYS 2421* AND MATH 2313* AND MATH 2326* OR MATH 2326*	none	✓	✓	✓	✓	✓	✓	✓
EE	3325	Applied Quantum Mechanics for EE	EE 2350* AND PHYS 2421* AND MATH 1323* AND MATH 2326*	none	X	X	✓	X	✓	✓	✓
EE	3329	Fundamentals of Semiconductor Devices	EE 3338* AND PHYS 2421*	none	✓	✓	✓	✓	✓	✓	✓
EE	3338	Electronics I	EE 2351*	EE 3138	✓	✓	✓	✓	✓	✓	✓
EE	3138	Lab for EE 3338	EE 2151* AND EE 2351*	EE 3338	X	X	✓	✓	✓	✓	✓
EE	3340	Electronics II	EE 3338*	none	✓	✓	✓	✓	✓	✓	✓
EE	3353	Discrete Time Signals & Systems	CS 1320* AND EE 2353* AND MATH 2326*	none	✓	✓	✓	✓	✓	✓	✓
EE	3376	Microprocessor Systems I	EE 2372* AND EE 2369* AND EE 2350*	none	✓	✓	✓	✓	✓	✓	✓
EE	3176	Lab for EE 3376	EE 2169* AND EE 2369* AND EE 2372*	EE 3376	X	X	✓	✓	✓	✓	✓
EE	3384	Intro Probability w/Apps in ECE	MATH 2313* OR MATH 2326* AND EE 2353*	none	✓	✓	✓	✓	✓	✓	✓
EE	4220	Senior Project Lab I	EE 3195* AND EE 3176* AND EE 3321* AND EE 3325* AND EE 3340* AND EE 3353* AND EE 3376* AND EE 3138* AND CE 2326*	none	X	X	✓	✓	✓	✓	✓
EE	4230	Senior Project Lab II	EE 4220*	none	X	X	✓	✓	✓	✓	✓
EE	3354	Intro to Communication Networks	EE 2353* AND EE 2372*	EE 3154	X	X	✓	✓	✓	✓	✓
EE	3154	Lab for EE 3354	none	EE 3354	✓	✓	✓	✓	✓	✓	✓
EE	3372	Software Design II	EE 2372*	none	X	X	✓	✓	✓	✓	✓
EE	4342	Digital Systems Design II	EE 3376*	EE 4142	✓	✓	✓	✓	✓	✓	✓
EE	4142	Lab for EE 4342	EE 3176* AND EE 3376*	EE 4342	X	X	✓	✓	✓	✓	✓
EE	4353	VLSI Nanotechnology	EE 3329*	EE 4153	✓	✓	✓	✓	✓	✓	✓
EE	4153	Lab for EE 4353	EE 3329*	EE 4353	✓	✓	✓	✓	✓	✓	✓
EE	4359	Biomedical Signal & Image Proc	EE 3353*	none	✓	✓	✓	✓	✓	✓	✓
EE	4361	Fiber Optic Communication	EE 3438* OR EE 3338* AND EE 3321*	none	✓	✓	✓	✓	✓	✓	✓
EE	4364	Systems and Controls	EE 2351* AND EE 2353*	none	✓	✓	✓	✓	✓	✓	✓
EE	4374	Operating System Design	EE 3372*	none	X	X	✓	✓	✓	✓	✓
EE	4375	VLSI Design	EE 3338*	none	X	X	✓	✓	✓	✓	✓
EE	4377	Applied Photovoltaics	EE 3329* OR MME 3309*	none	X	X	✓	✓	✓	✓	✓
EE	4378	Microprocessor Systems II	EE 3376*	EE 4178	X	X	✓	✓	✓	✓	✓
EE	4178	Lab for EE 4378	EE 3176* AND EE 3376*	EE 4378	X	X	✓	✓	✓	✓	✓
EE	4379	Computer Architecture	EE 3376*	none	X	X	✓	✓	✓	✓	✓
EE	4382	Antenna Engineering	EE 3321*	none	X	X	✓	✓	✓	✓	✓
EE	4385	Biomedical Instrumentation	EE 3340*	EE 4185	X	X	✓	✓	✓	✓	✓
EE	4387	Intro to Power Electronics	EE 3338* AND EE 3385*	none	✓	✓	✓	✓	✓	✓	✓
EE	4388	Digital Communications	EE 3353* AND EE 3384*	none	✓	✓	✓	✓	✓	✓	✓

Concentration Courses (Subject to Change)

BSEE Critical Path 2022-2023

NOTE: this shows only engineering courses and their relation to one another. Please refer to the EE degree plan for complete degree requirements, and the course catalog for complete course descriptions, including the complete set of prerequisites.

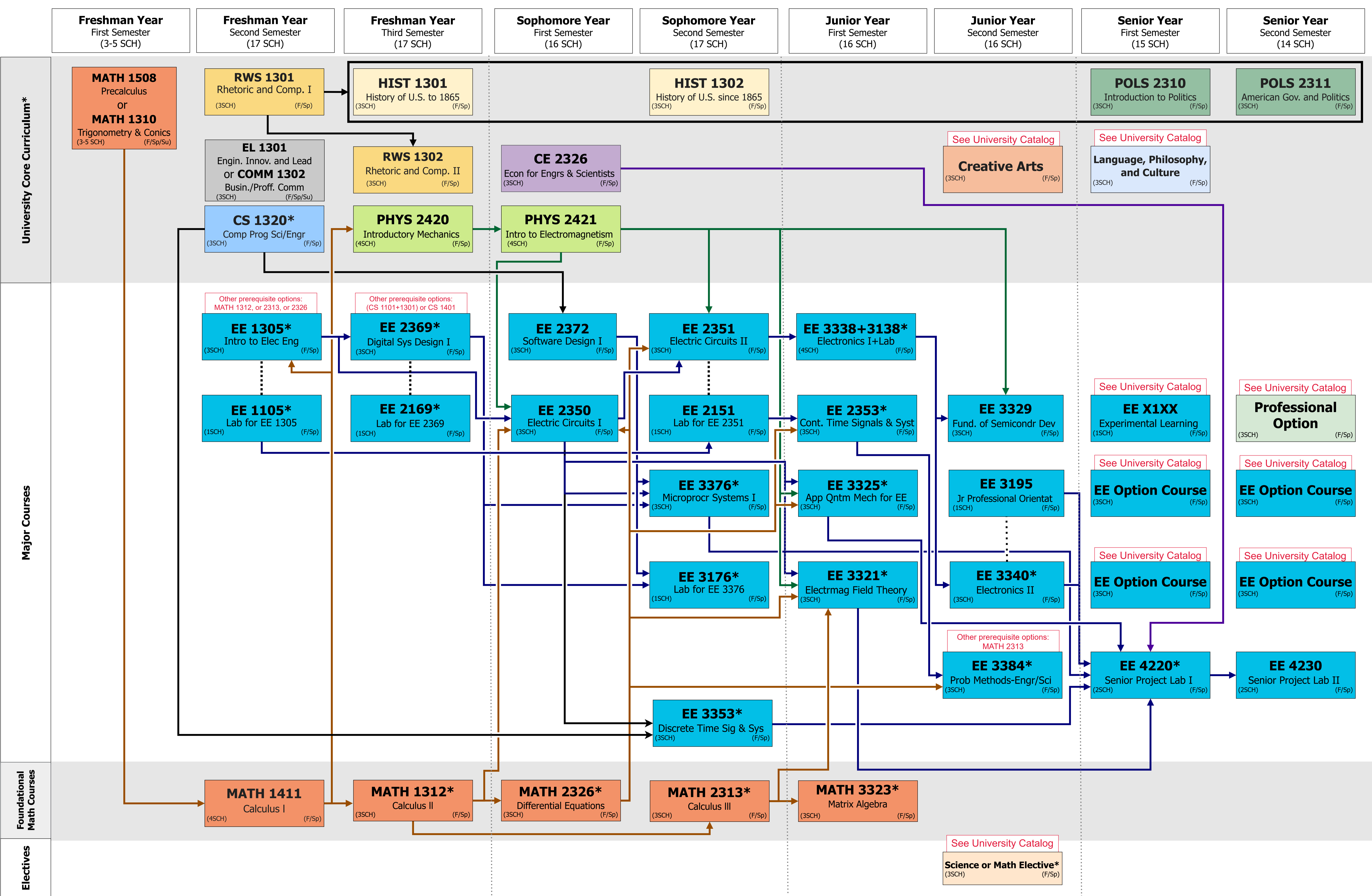


Bachelor of Science in Electrical Engineering (Starting with Precalculus)

Required Semester Credit Hours (SCH): 128

Refer to the University Catalog for all degree requirements at catalog.utep.edu. Many core curriculum courses are also offered in the summer (Su). Students are encouraged to register early and check Goldmine for course availability. The flowchart below may not reflect all student schedules; courses can be shifted to different semesters where applicable.

*C or better required.
Arrow indicates a prerequisite.
Color-coded boxes group the course subject.
F/Sp/Su indicates the semesters Fall/Spring/Summer.
Dotted line indicates corequisite courses.



Bachelor of Science in Electrical Engineering (Starting with Calculus)

Required Semester Credit Hours (SCH): 128

Refer to the University Catalog for all degree requirements at catalog.utep.edu.

Many core curriculum courses are also offered in the summer (Su). Students are encouraged to register early and check Goldmine for course availability.

The flowchart below may not reflect all student schedules; courses can be shifted to different semesters where applicable.

