Name: _____ Exp. Grad.: Fall _____ / Spring_____

Electrical Engineering
Suggested Curriculum Course Plan for students entering Fall 2024 – Spring 2025

Semester 1		Semester 2		Semester 3		Semester 4	
Course (cr. Hr.)	**X**	**Course (cr. Hr.)**	**X**	**Course (cr. Hr.)**	**X**	**Course (cr. Hr.)**	**X**
Writing I*: *ENGL 101* (4)*		Calculus II: *MATH 152* (4)		Technical Communication: *ENGR 110* (4)		Differential Equations: *MATH 271* (3)	
Calculus I: *MATH 151* (4)		General Chemistry II & Lab: *CHEM 106* (3) & *CHEM 106L* (1)		Calculus III: *MATH 253* (4)		Computer Science I: *CSCI 156* (4) or Software Engineering: *RNEW 303* (4)	
General Chemistry I & Lab: *CHEM 105* (3) & *CHEM 105L* (1)		Physics I & Lab: *PHYS 125* (4) & *PHYS 125L* (0)		Physics II & Lab: *PHYS 126* (4) & *PHYS 126L* (0)		Circuit Theory I & Lab: *ENGR 220* (4) & *ELEC 220L* (0)	
Introduction to Engineering: *ENGR 101* (2)		Computer Aided Design: *ENGR 102 (2)*		Digital Logic: *ELEC 210 (4) & ELEC 210L (0)*		Dynamics: *MECH 212* (3)	
Engineering Foundations II & Lab: *ENGR 117* (2) & *ENGR 117L* (0)		Computer Aided Engineering: *ENGR 104* (2)		Undergraduate Seminar: *ENGR 360* (0)		Undergraduate Seminar: *ENGR 360* (0)	
First-Year Seminar: *ENGR 160* (0)		First-Year Seminar: *ENGR 160* (0)				General Education Elective (4)	
		Common Ground: *UNIV 101* (1)					
Total (16)		**Total (17)**		**Total (16)**		**Total (18)**	

* ENGL 101 if required otherwise General Education elective (2-4).

Semester 5		Semester 6		Semester 7		Semester 8	
Course (cr. Hr.)	**X**	**Course (cr. Hr.)**	**X**	**Course (cr. Hr.)**	**X**	**Course (cr. Hr.)**	**X**
Circuit Theory II & Lab: ELEC 321 (4) & ELEC 321L (0)		Microprocessor Systems & Applications: *ELEC 310* (4)		Senior Capstone Group Project: *ENGR 490* (2)		Senior Capstone Group Project: *ENGR 490* (2)	
Device Electronics: *ELEC 354* (3)		Electronic Circuits: ELEC 356 (4) & ELEC 356L (0)		Power System Operation and Economics: *RNEW 355* (3)		EE Elective (3)	
Engineering Economics: *ENGR 306* (2)		Engineering Statistics: *ENGR 305* (3)		Electric Machinery: *RNEW 468* (3)		Technical Elective (3)	
Thermodynamics I: *MECH 320* (3)		Applied Complex Variables: *ENGR 388* (3)		EE Elective (3)		Undergraduate Seminar: *ENGR 360* (0)	
Signals & Systems: *RNEW 322* (3)		Engineering Design: *ENGR 395* (2)		Technical Elective (3)		Wellness (2)	
Undergraduate Seminar: *ENGR 360* (0)		Control Systems: *MECH 422* (3)		Undergraduate Seminar: *ENGR 360* (0)		Fitness (1)	
		Undergraduate Seminar: *ENGR 360* (0		General Education Elective (2)		General Education Elective (4)	
Total (15)		**Total (19)**		**Total (16)**		**Total (15)**	

Total Credits: 132

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Definitions of Electives for EEGR (12 total credits):

6 Credits - Students complete any one of the following sequences:

- Computer Engineering: VLSI Design ELEC 4X1/Computer Architecture ELEC 4X2
- Renewable Energy: RNEW 432 Solar Energy/RNEW 431 Wind Energy
- Controls: ELEC 422 (currently MECH 422)/ELEC 423
- Power Engineering: Modern Electric Grids ELEC 433/Advanced Power Electronics ELEC 441

6 Credits - Technical Electives which can include:

(A) Most 300- and 400-level courses designated CEMS, CHEM, ELEC, ENGR, MATH, MECH, PHYS, or RNEW. Exceptions include: CHEM 343, MATH 331, MECH 320, and Topics courses unless approved by the Dean. (B) One of FIN 348 or MGMT 328, (C) COOP 385 or ENGR 385/Internship.

Requirements:

1. AU Global Perspective
2. AU Wellness & Physical Education: Well (ATHT 111, 190, 215, 222, BIOL 105, 120, DANC 120, 200, 222, 223, 224, 226, PSYC 251, 322, 351, WELL 100, 101, WGST 351, PFIT: Varsity sport for one season, physical fitness test, any course with PFIT designation which includes some Equestrian, Dance, and ROTC courses.
3. SOE Minimum Credit Requirement of 128 credits
4. SOE GPA requirement of 2.0 and no more than 7 credits of D or D+ in engineering courses.
5. SOE Seminar requirement
6. SOE General Education Requirement of 60 credits comprising: Quantitative Reasoning, Humanities (minimum of six credits with at least two different acronyms, Natural Science, Social Science (minimum of three credits), AU Wellness, Written Communication, and General/Arts (maximum of eight credits).
7. Defense of Capstone Poster & submission of approved Thesis. (ENGR 490 2+2 with the same instructor).

Complete SOE requirements are available in the AU Undergraduate Catalog 2024-2025. https://alfred.edu/academics/undergrad-majors-minors/catalog.cfm

Degree Audit, including What-If, is available via Degree Works. https://my.alfred.edu/degreeworks/index.cfm

Special cases are not covered by this Suggested Curriculum Course Plan; these may include testing out of courses via SAT score. AP exam, etc., double/dual majors, minors, transfer credits, etc.

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