

Electrical Engineering: Smart Grid Specialization 2026-2027

Year	Course	Course	Course	Course	Course	Course
1-1	ENGR 1015U Introduction to Engineering	ENGR 1050U Engineering Communications and Technology Impacts (Credit restrictions: COMM 1050U/ SOCI 1470U)	MATH 1010U Calculus I	MATH 1850U Linear Algebra for Engineers	PHY 1010U Physics I	
1-2	CHEM 1800U Chemistry for Engineers (Credit restrictions: CHEM 1010U/CHEM 1020U/CHEM 1110U)	ENGR 1025U Engineering Design (ENGR 1015U, ENGR 1050U)	ENGR 1200U Introduction to Programming for Engineers	MATH 1020U Calculus II (MATH 1010U)	PHY 1020U Physics II (PHY 1010U)	
2-1	ELEE 2200U Electrical Engineering Fundamentals (MATH 1020U, MATH 1850U, PHY 1020U)	ELEE 2450U Digital Systems (ENGR 1200U)	ELEE 2530U Electrical Engineering Mathematics: Essentials & Applications (MATH 1020U, MATH 1850U)	MECE 2640U Thermodynamics and Heat Transfer (MATH 1020U, PHY 1010U)	SOFE 2710U Object Oriented Programming and Design (ENGR 1200U)	
2-2	ELEE 2210U Circuit analysis (ELEE 2200U, ELEE 2530U)	ELEE 2250U Introductory Electronics (ELEE 2200U)	ELEE 2520U Fundamentals of Electromagnetics (ELEE 2200U, ELEE 2530U)	ENGR 2100U Computational Engineering Applications (ENGR 1200U, MATH 1850U, ELEE 2530U or MATH 2860U)	Liberal Studies Elective	
3-1	ELEE 3110U Signals and Systems (ENGR 2100U, ELEE 2210U)	ELEE 3230U Electronic Circuit Design (ELEE 2250U)	ELEE 3240U Applications for Electromagnetics (ELEE 2520U)	ELEE 3250U Electric Machines (ENGR 2100U, Coreq: ELEE 3240U)	ELEE 3450U Microprocessors and Computer Architecture (ELEE 2450U)	
3-2	ELEE 3070U Probability and Random Signals (ELEE 3110U)	ELEE 3100U Introduction to Control Systems (ELEE 3110U)	ELEE 3130U Communication Systems (ELEE 3110U)	ELEE 3180U Design Principles & Project Management in Electrical Engineering (ELEE 2250U, ELEE 2450U, ELEE 2520U, SOFE 2710U)	ELEE 3260U Power Systems (ELEE 3250U or MECE 3410U)	ENGR 3360U Engineering Economics
4-1	ELEE 4115U Fundamentals of Smart Grid (ELEE 3260U)	ELEE 4120U Introduction to Power Electronics (ELEE 3100U, ELEE 3230U, ELEE 3250U)	ELEE 4140U Power System Protection Relaying (ELEE 3100U, ELEE 3230U, ELEE 3250U, ELEE 3260U)	ENGR 4111U Capstone Systems Design I (Successful completion of all program-respective courses in years one through three)	Engineering Elective	
4-2	ELEE 4125U Smart Grid Networking and Security (ELEE 4115U)	ENGR 4222U Capstone Systems Design II (ENGR 4111U)	ENGR 4760U Ethics, Law and Professionalism for Engineers	Engineering Elective	Liberal Studies Elective	