

ECE Specialty Areas Abbreviations used in Appendices B, C, and D

Major

CPE Computer Engineering

COMP ARCH	Computer Architecture
NETWORKING	Networking
SOFTWARE	Software
VLSI SYSTEMS	VLSI Systems

EE Electrical Engineering

BIOELECTRONICS	Bioelectronics
CIRCUITS	Circuits
COMMUNICATIONS	Communications
MW CKTS/APP EM	Microwave Circuits and Applied Electromagnetics
EPM	Physical Electronics, Photonics & Magnetics
PWR ELEC	Power Electronics
PWR SYS	Power Systems
ROBOTICS/MECH/CONTROL INSTR	Robotic, Mechatronics, Control and Instrumentation
SIGNAL PROC/COMP INTEL	Signal Processing and Computational Intelligence

Appendix B: ECE Course Detail, listed by specialty (Last Updated 8/2022)

CONSULT COURSE CATALOG FOR AVAILABILITY each TERM

COURSE NO.		MAJOR	COURSE TITLE	SPECIALTY AREA	SEMESTER
ECE	505	EE	NEURAL INTERFACE ENGINEERING	BIOELECTRONICS	F
ECE(BME)	518	EE	WEARABLE BIOSENSORS & MICROSYSTEMS	BIOELECTRONICS	F
ECE(BME)	522	EE	MEDICAL INSTRUMENTATION	BIOELECTRONICS	S
ECE	511	EE	ANALOG ELECTRONICS	CIRCUITS	F
ECE	712	EE	INTEGRATED CIRCUIT DESIGN FOR WIRELESS COMMUNICATIONS	CIRCUITS	S
ECE	714	EE	ADVANCED INTEGRATED CIRCUIT DESIGN: DATA CONVERTERS	CIRCUITS	FE
ECE	718	EE	COMPUTER-AIDED CIRCUIT ANALYSIS	CIRCUITS	V
ECE	733	EE	DIGITAL ELECTRONICS	CIRCUITS	F
ECE	515	EE	DIGITAL COMMUNICATIONS	COMMUNICATIONS	S
ECE	582	EE	WIRELESS COMMUNICATION SYSTEMS	COMMUNICATIONS	F
ECE	751	EE	DETECTION AND ESTIMATION THEORY	COMMUNICATIONS	SO
ECE	752	EE	INFORMATION THEORY	COMMUNICATIONS	SO
ECE	762	EE	ADVANCED DIGITAL COMMUNICATIONS SYSTEMS	COMMUNICATIONS	FO
ECE	766	EE	SIGNAL PROCESSING FOR COMMUNICATIONS AND NETWORKING	COMMUNICATIONS	FE
ECE	767	EE	ERROR-CONTROL CODING	COMMUNICATIONS	SE
ECE(CSC)	506	CPE	ARCHITECTURE OF PARALLEL COMPUTERS	COMP ARCH	F/S
ECE	560	CPE	EMBEDDED SYSTEM ARCHITECTURE	COMP ARCH	F
ECE	561	CPE	EMBEDDED SYSTEM OPTIMIZATION	COMP ARCH	S
ECE	563	CPE	MICROPROCESSOR ARCHITECTURE	COMP ARCH	F/S
ECE	705	CPE	MEMORY SYSTEMS	COMP ARCH	V
ECE	706	CPE	ADVANCED PARALLEL COMPUTER ARCHITECTURE	COMP ARCH	V
ECE	721	CPE	ADVANCED MICROARCHITECTURE	COMP ARCH	V
ECE	785	CPE	TOPICS IN ADVANCED COMPUTER DESIGN	COMP ARCH	S
ECE	786	CPE	ADVANCED COMPUTER ARCHITECTURE: DATA PARALLEL PROCESSORS	COMP ARCH	S
ECE	523	EE	PHOTONICS AND OPTICAL COMMUNICATIONS	EPM	S
ECE	530	EE	PHYSICAL ELECTRONICS (REQUIRED FOR NEP MAJORS)	EPM	F
ECE	531	EE	PRINCIPLES OF TRANSISTOR DEVICES	EPM	V
ECE	538	EE	INTEGRATED CIRCUITS TECHNOLOGY AND FABRICATION	EPM	F
ECE	557	EE	PRINCIPLES OF MOS TRANSISTORS	EPM	V
ECE(CHE)	568	EE	CONVENTIONAL AND EMERGING NANOMANUFACTURING TECHNIQUES AND THEIR APPLICATIONS IN NANOSYSTEMS	EPM	F
ECE(MSE)(PY)	589	EE	SOLID STATE SOLAR AND THERMAL HARVESTING	EPM	S
ECE	722	EE	ELECTRONIC PROPERTIES OF SOLID STATE MATERIALS	EPM	V
ECE	723	EE	OPTICAL PROPERTIES OF SEMICONDUCTORS	EPM	V
ECE	724	EE	ELECTRONIC PROPERTIES OF SOLID STATE DEVICES	EPM	V
ECE	725	EE	QUANTUM ENGINEERING	EPM	V
ECE	739	EE	INTEGRATED CIRCUIT TECHNOLOGY & FABRICATION LABORATORY	EPM	V
ECE	524	EE	RADIO SYSTEM DESIGN	MW CKTS/APP EM	S
ECE	532	EE	PRINCIPLES OF MICROWAVE CIRCUITS	MW CKTS/APP EM	V
ECE	540	EE	ELECTROMAGNETIC FIELDS	MW CKTS/APP EM	SE
ECE	541	EE	ANTENNAS AND ARRAYS	MW CKTS/APP EM	SO
ECE	549	EE	RF DESIGN FOR WIRELESS	MW CKTS/APP EM	F
ECE	719	EE	MICROWAVE CIRCUIT DESIGN USING SCATTERING PARAMETERS	MW CKTS/APP EM	V
ECE(CSC)	547	CPE	CLOUD COMPUTING TECHNOLOGY	NETWORKING	V
ECE(CSC)	570	CPE	COMPUTER NETWORKS	NETWORKING	F/S
ECE(CSC)	573	CPE	INTERNET PROTOCOLS	NETWORKING	F/S
ECE(CSC)	574	CPE	COMPUTER AND NETWORK SECURITY	NETWORKING	F/S
ECE(CSC)	575	CPE	INTRODUCTION TO WIRELESS NETWORKING	NETWORKING	S
ECE(CSC)	577	CPE	SWITCHED NETWORK MANAGEMENT	NETWORKING	F
ECE	578	CPE	LTE AND 5G COMMUNICATIONS	NETWORKING	F
ECE(CSC)	773	CPE	ADVANCED TOPICS IN INTERNET PROTOCOLS	NETWORKING	S
ECE(CSC)	774	CPE	ADVANCED NETWORK SECURITY	NETWORKING	S
ECE(CSC)	775	CPE	ADVANCED TOPICS IN WIRELESS NETWORKING	NETWORKING	F
ECE(CSC)	776	CPE	DESIGN & PERFORMANCE EVALUATION OF NETWORK SYSTEMS & SERVICES	NETWORKING	V
ECE(CSC)	777	CPE	TELECOMMUNICATIONS NETWORK DESIGN	NETWORKING	V
ECE	533	EE	POWER ELECTRONICS DESIGN & PACKAGING	PWR ELEC	S
ECE	534	EE	POWER ELECTRONICS	PWR ELEC	F
ECE(MAE)	535	EE	DESIGN OF ELECTROMECHANICAL SYSTEMS	PWR ELEC	S
ECE	553	EE	SEMICONDUCTOR POWER DEVICES	PWR ELEC	F
ECE	554	EE	ELECTRIC MOTOR DRIVES	PWR ELEC	V
ECE	732	EE	DYNAMICS AND CONTROL OF ELECTRIC MACHINES	PWR ELEC	F
ECE	734	EE	POWER MANAGEMENT INTEGRATED CIRCUITS	PWR ELEC	FO
ECE	735	EE	WIDE BAND GAP SEMICONDUCTOR POWER DEVICES	PWR ELEC	S
ECE	550	EE	POWER SYSTEM OPERATION AND CONTROL	PWR SYS	F
ECE	551	EE	SMART ELECTRIC POWER DISTRIBUTION SYSTEMS	PWR SYS	S

Key to course offerings: F/S-Fall/Spring, F-Fall, FE-Fall Even Years, FO-Fall Odd Years,
S-Spring, SA-Spring Alternate Years, SE-Spring Even Years, SO-Spring Odd Years, V-Variable, depending on instructor availability

Appendix B: ECE Course Detail, listed by specialty (Last Updated 8/2022)

CONSULT COURSE CATALOG FOR AVAILABILITY each TERM

COURSE NO.		MAJOR	COURSE TITLE	SPECIALTY AREA	SEMESTER
ECE	552	EE	RENEWABLE ELECTRIC ENERGY SYSTEMS	PWR SYS	S
ECE	581	EE	ELECTRIC POWER SYSTEM PROTECTION	PWR SYS	S
ECE	583	EE	ELECTRIC POWER ENGINEERING PRACTICUM I (RESTRICTED TO MS-EPSE STUDENTS)	PWR SYS	S
ECE	584	EE	ELECTRIC POWER ENGINEERING PRACTICUM II (RESTRICTED TO MS-EPSE STUDENTS)	PWR SYS	F
ECE	585	EE	THE BUSINESS OF THE ELECTRIC UTILITY INDUSTRY	PWR SYS	F
ECE	586	EE	COMMUNICATION AND SCADA SYSTEMS FOR SMART GRID	PWR SYS	F
ECE	587	EE	POWER SYSTEM TRANSIENTS ANALYSIS	PWR SYS	F
ECE	736	EE	POWER SYSTEM STABILITY AND CONTROL	PWR SYS	V
ECE	753	EE	COMPUTATIONAL METHODS FOR POWER GRID OPERATION & PLANNING	PWR SYS	S
ECE	516	EE	SYSTEM CONTROL ENGINEERING	ROBOTICS/MECH/ CONTROL INSTR	S
ECE(BME)	536	EE	DIGITAL CONTROL SYSTEMS	ROBOTICS/MECH/ CONTROL INSTR	F
ECE	555	EE	COMPUTER CONTROL OF ROBOTS	ROBOTICS/MECH/ CONTROL INSTR	S
ECE	556	EE	AGENT-BASED MECHATRONICS SYSTEMS	ROBOTICS/MECH/ CONTROL INSTR	F
ECE	726	EE	ADVANCED FEEDBACK CONTROL	ROBOTICS/MECH/ CONTROL INSTR	V
ECE	756	EE	ADVANCED MECHATRONICS	ROBOTICS/MECH/ CONTROL INSTR	V
ECE	513	EE	DIGITAL SIGNAL PROCESSING	SIGNAL PROC/ COMP INTEL	F
ECE	542	EE	NEURAL NETWORKS	SIGNAL PROC/ COMP INTEL	V
ECE	558	EE	DIGITAL IMAGING SYSTEMS	SIGNAL PROC/ COMP INTEL	F
ECE	588	EE	SYSTEMS BIOLOGY MODELING OF PLANT REGULATION	SIGNAL PROC/ COMP INTEL	F
ECE	759	EE	PATTERN RECOGNITION	SIGNAL PROC/ COMP INTEL	SE
ECE	763	EE	COMPUTER VISION	SIGNAL PROC/ COMP INTEL	S
ECE	765	EE	PROBABILISTIC GRAPHICAL MODELS FOR SIGNAL PROCESSING AND COMPUTER VISION	SIGNAL PROC/ COMP INTEL	V
ECE(CSC)	517	CPE	OBJECT-ORIENTED DESIGN & DEVELOPMENT	SOFTWARE	F/S
ECE	565	CPE	OPERATING SYSTEMS DESIGN	SOFTWARE	F
ECE	566	CPE	CODE GENERATION AND OPTIMIZATION	SOFTWARE	S
ECE	544	EE	DESIGN OF ELECTRONIC PACKAGING & INTERCONNECTS	VLSI SYSTEMS	S
ECE	546	EE/CPE	VLSI SYSTEMS DESIGN	VLSI SYSTEMS	S
ECE	564	CPE	DIGITAL ASIC DESIGN	VLSI SYSTEMS	F
ECE	720	CPE	ELECTRONIC SYSTEM LEVEL & PHYSICAL DESIGN	VLSI SYSTEMS	F
ECE	745	CPE	ASIC VERIFICATION	VLSI SYSTEMS	S
ECE	748	CPE	ADVANCED FUNCTIONAL VERIFICATION WITH UNIVERSAL VERIFICATION METHODOLOGY	VLSI SYSTEMS	F
ECE	514	EE	RANDOM PROCESSES	SEE FOOTNOTE	F
ECE	591	EE/CPE	SPECIAL TOPICS IN ECE (depends on topic)	SEE FOOTNOTE	V
ECE	592	EE/CPE	SPECIAL TOPICS IN ECE (depends on topic)	SEE FOOTNOTE	V
ECE	600	EE/CPE	ECE GRADUATE ORIENTATION: MANDATORY FOR INCOMING STUDENTS	SEE FOOTNOTE	F
ECE	633	EE/CPE	INDIVIDUAL TOPICS IN ECE (MS)	SEE FOOTNOTE	V
ECE	634	EE/CPE	INDIVIDUAL STUDIES IN ECE (MS)	SEE FOOTNOTE	V
ECE	695	EE/CPE	MASTER'S THESIS RESEARCH	SEE FOOTNOTE	V
ECE	696	EE/CPE	SUMMER THESIS RESEARCH (MS)	SEE FOOTNOTE	V
ECE	699	EE/CPE	MASTER'S THESIS PREPARATION	SEE FOOTNOTE	V
ECE	791	EE/CPE	SPECIAL TOPICS IN ECE (depends on topic)	SEE FOOTNOTE	V
ECE	792	EE/CPE	SPECIAL TOPICS IN ECE (depends on topic)	SEE FOOTNOTE	V
ECE	833	EE/CPE	INDIVIDUAL TOPICS IN ECE (PHD Level)	SEE FOOTNOTE	V
ECE	834	EE/CPE	INDIVIDUAL STUDIES IN ECE FOR QUALIFYING REVIEW (PHD Level)	SEE FOOTNOTE	V
ECE	895	EE/CPE	DOCTORAL DISSERTATION RESEARCH	SEE FOOTNOTE	V
ECE	896	EE/CPE	SUMMER DISSERTATION RESEARCH (PHD)	SEE FOOTNOTE	V
ECE	899	EE/CPE	DOCTORAL DISSERTATION PREPARATION	SEE FOOTNOTE	V
FOOTNOTE		COURSE IS NOT ASSOCIATED WITH ANY SPECIFIC SPECIALTY AREA AND CANNOT BE USED TO SATISFY THE BREADTH REQUIREMENT FOR A DEGREE.			

Key to course offerings: F/S-Fall/Spring, F-Fall, FE-Fall Even Years, FO-Fall Odd Years,
S-Spring, SA-Spring Alternate Years, SE-Spring Even Years, SO-Spring Odd Years, V-Variable, depending on instructor availability

Appendix C: ECE Course Detail, listed by specialty (Last Updated 8/2022)

CONSULT COURSE CATALOG FOR AVAILABILITY *each TERM*

COURSE NO.		MAJOR	COURSE TITLE	SPECIALTY AREA	SEMESTER
ECE	505	EE	NEURAL INTERFACE ENGINEERING	BIOELECTRONICS	F
ECE(CSC)	506	CPE	ARCHITECTURE OF PARALLEL COMPUTERS	COMP ARCH	F/S
ECE	511	EE	ANALOG ELECTRONICS	CIRCUITS	F
ECE	513	EE	DIGITAL SIGNAL PROCESSING	SIGNAL PROC/ COMP INTEL	F
ECE	514	EE	RANDOM PROCESSES	SEE FOOTNOTE	F
ECE	515	EE	DIGITAL COMMUNICATIONS	COMMUNICATIONS	S
ECE	516	EE	SYSTEM CONTROL ENGINEERING	ROBOTICS/MECH/ CONTROL INSTR	S
ECE(CSC)	517	CPE	OBJECT-ORIENTED DESIGN & DEVELOPMENT	SOFTWARE	F/S
ECE(BME)	518	EE	WEARABLE BIOSENSORS & MICROSYSTEMS	BIOELECTRONICS	F
ECE(BME)	522	EE	MEDICAL INSTRUMENTATION	BIOELECTRONICS	S
ECE	523	EE	PHOTONICS AND OPTICAL COMMUNICATIONS	EPM	S
ECE	524	EE	RADIO SYSTEM DESIGN	MW CKTS/APP EM	S
ECE	530	EE	PHYSICAL ELECTRONICS (REQUIRED FOR NEP MAJORS)	EPM	F
ECE	531	EE	PRINCIPLES OF TRANSISTOR DEVICES	EPM	V
ECE	532	EE	PRINCIPLES OF MICROWAVE CIRCUITS	MW CKTS/APP EM	V
ECE	533	EE	POWER ELECTRONICS DESIGN & PACKAGING	PWR ELEC	S
ECE	534	EE	POWER ELECTRONICS	PWR ELEC	F
ECE(MAE)	535	EE	DESIGN OF ELECTROMECHANICAL SYSTEMS	PWR ELEC	S
ECE(BME)	536	EE	DIGITAL CONTROL SYSTEMS	ROBOTICS/MECH/ CONTROL INSTR	F
ECE	538	EE	INTEGRATED CIRCUITS TECHNOLOGY AND FABRICATION	EPM	F
ECE	540	EE	ELECTROMAGNETIC FIELDS	MW CKTS/APP EM	SE
ECE	541	EE	ANTENNAS AND ARRAYS	MW CKTS/APP EM	SO
ECE	542	EE	NEURAL NETWORKS	SIGNAL PROC/ COMP INTEL	V
ECE	544	EE	DESIGN OF ELECTRONIC PACKAGING & INTERCONNECTS	VLSI SYSTEMS	S
ECE	546	EE/CPE	VLSI SYSTEMS DESIGN	VLSI SYSTEMS	S
ECE(CSC)	547	CPE	CLOUD COMPUTING TECHNOLOGY	NETWORKING	V
ECE	549	EE	RF DESIGN FOR WIRELESS	MW CKTS/APP EM	F
ECE	550	EE	POWER SYSTEM OPERATION AND CONTROL	PWR SYS	F
ECE	551	EE	SMART ELECTRIC POWER DISTRIBUTION SYSTEMS	PWR SYS	S
ECE	552	EE	RENEWABLE ELECTRIC ENERGY SYSTEMS	PWR SYS	S
ECE	553	EE	SEMICONDUCTOR POWER DEVICES	PWR ELEC	F
ECE	554	EE	ELECTRIC MOTOR DRIVES	PWR ELEC	V
ECE	555	EE	COMPUTER CONTROL OF ROBOTS	ROBOTICS/MECH/ CONTROL INSTR	S
ECE	556	EE	AGENT-BASED MECHATRONICS SYSTEMS	ROBOTICS/MECH/ CONTROL INSTR	F
ECE	557	EE	PRINCIPLES OF MOS TRANSISTORS	EPM	V
ECE	558	EE	DIGITAL IMAGING SYSTEMS	SIGNAL PROC/ COMP INTEL	F
ECE	560	CPE	EMBEDDED SYSTEM ARCHITECTURE	COMP ARCH	F
ECE	561	CPE	EMBEDDED SYSTEM OPTIMIZATION	COMP ARCH	S
ECE	563	CPE	MICROPROCESSOR ARCHITECTURE	COMP ARCH	F/S
ECE	564	CPE	DIGITAL ASIC DESIGN	VLSI SYSTEMS	F
ECE	565	CPE	OPERATING SYSTEMS DESIGN	SOFTWARE	F
ECE	566	CPE	CODE GENERATION AND OPTIMIZATION	SOFTWARE	S
ECE(CHE)	568	EE	CONVENTIONAL AND EMERGING NANOMANUFACTURING TECHNIQUES AND THEIR APPLICATIONS IN NANOSYSTEMS	EPM	F
ECE(CSC)	570	CPE	COMPUTER NETWORKS	NETWORKING	F/S
ECE(CSC)	573	CPE	INTERNET PROTOCOLS	NETWORKING	F/S
ECE(CSC)	574	CPE	COMPUTER AND NETWORK SECURITY	NETWORKING	F/S
ECE(CSC)	575	CPE	INTRODUCTION TO WIRELESS NETWORKING	NETWORKING	S
ECE(CSC)	577	CPE	SWITCHED NETWORK MANAGEMENT	NETWORKING	F
ECE	578	CPE	LTE AND 5G COMMUNICATIONS	NETWORKING	F
ECE	581	EE	ELECTRIC POWER SYSTEM PROTECTION	PWR SYS	S
ECE	582	EE	WIRELESS COMMUNICATION SYSTEMS	COMMUNICATIONS	F
ECE	583	EE	ELECTRIC POWER ENGINEERING PRACTICUM I (RESTRICTED TO MS-EPSE STUDENTS)	PWR SYS	S
ECE	584	EE	ELECTRIC POWER ENGINEERING PRACTICUM II (RESTRICTED TO MS-EPSE STUDENTS)	PWR SYS	F
ECE	585	EE	THE BUSINESS OF THE ELECTRIC UTILITY INDUSTRY	PWR SYS	F
ECE	586	EE	COMMUNICATION AND SCADA SYSTEMS FOR SMART GRID	PWR SYS	F
ECE	587	EE	POWER SYSTEM TRANSIENTS ANALYSIS	PWR SYS	F
ECE	588	EE	SYSTEMS BIOLOGY MODELING OF PLANT REGULATION	SIGNAL PROC/ COMP INTEL	F
ECE(MSE)(PY)	589	EE	SOLID STATE SOLAR AND THERMAL HARVESTING	EPM	S
ECE	591	EE/CPE	SPECIAL TOPICS IN ECE (depends on topic)	SEE FOOTNOTE	V
ECE	592	EE/CPE	SPECIAL TOPICS IN ECE (depends on topic)	SEE FOOTNOTE	V
ECE	600	EE/CPE	ECE GRADUATE ORIENTATION: MANDATORY FOR INCOMING STUDENTS	SEE FOOTNOTE	F
ECE	633	EE/CPE	INDIVIDUAL TOPICS IN ECE (MS)	SEE FOOTNOTE	V
ECE	634	EE/CPE	INDIVIDUAL STUDIES IN ECE (MS)	SEE FOOTNOTE	V
ECE	695	EE/CPE	MASTER'S THESIS RESEARCH	SEE FOOTNOTE	V
ECE	696	EE/CPE	SUMMER THESIS RESEARCH (MS)	SEE FOOTNOTE	V

Key to course offerings: F/S-Fall/Spring, F-Fall, FE-Fall Even Years, FO-Fall Odd Years,
S-Spring, SA-Spring Alternate Years, SE-Spring Even Years, SO-Spring Odd Years, V-Variable, depending on instructor availability

Appendix C: ECE Course Detail, listed by specialty (Last Updated 8/2022)

CONSULT COURSE CATALOG FOR AVAILABILITY each TERM

COURSE NO.		MAJOR	COURSE TITLE	SPECIALTY AREA	SEMESTER
ECE	699	EE/CPE	MASTER'S THESIS PREPARATION	SEE FOOTNOTE	V
ECE	705	CPE	MEMORY SYSTEMS	COMP ARCH	V
ECE	706	CPE	ADVANCED PARALLEL COMPUTER ARCHITECTURE	COMP ARCH	V
ECE	712	EE	INTEGRATED CIRCUIT DESIGN FOR WIRELESS COMMUNICATIONS	CIRCUITS	S
ECE	714	EE	ADVANCED INTEGRATED CIRCUIT DESIGN: DATA CONVERTERS	CIRCUITS	FE
ECE	718	EE	COMPUTER-AIDED CIRCUIT ANALYSIS	CIRCUITS	V
ECE	719	EE	MICROWAVE CIRCUIT DESIGN USING SCATTERING PARAMETERS	MW CKTS/APP EM	V
ECE	720	CPE	ELECTRONIC SYSTEM LEVEL & PHYSICAL DESIGN	VLSI SYSTEMS	F
ECE	721	CPE	ADVANCED MICROARCHITECTURE	COMP ARCH	V
ECE	722	EE	ELECTRONIC PROPERTIES OF SOLID STATE MATERIALS	EPM	V
ECE	723	EE	OPTICAL PROPERTIES OF SEMICONDUCTORS	EPM	V
ECE	724	EE	ELECTRONIC PROPERTIES OF SOLID STATE DEVICES	EPM	V
ECE	725	EE	QUANTUM ENGINEERING	EPM	V
ECE	726	EE	ADVANCED FEEDBACK CONTROL	ROBOTICS/MECH/ CONTROL INSTR	V
ECE	732	EE	DYNAMICS AND CONTROL OF ELECTRIC MACHINES	PWR ELEC	F
ECE	733	EE	DIGITAL ELECTRONICS	CIRCUITS	F
ECE	734	EE	POWER MANAGEMENT INTEGRATED CIRCUITS	PWR ELEC	FO
ECE	735	EE	WIDE BAND GAP SEMICONDUCTOR POWER DEVICES	PWR ELEC	S
ECE	736	EE	POWER SYSTEM STABILITY AND CONTROL	PWR SYS	V
ECE	739	EE	INTEGRATED CIRCUIT TECHNOLOGY & FABRICATION LABORATORY	EPM	V
ECE	745	CPE	ASIC VERIFICATION	VLSI SYSTEMS	S
ECE	748	CPE	ADVANCED FUNCTIONAL VERIFICATION WITH UNIVERSAL VERIFICATION METHODOLOGY	VLSI SYSTEMS	F
ECE	751	EE	DETECTION AND ESTIMATION THEORY	COMMUNICATIONS	SO
ECE	752	EE	INFORMATION THEORY	COMMUNICATIONS	SO
ECE	753	EE	COMPUTATIONAL METHODS FOR POWER GRID OPERATION & PLANNING	PWR SYS	S
ECE	756	EE	ADVANCED MECHATRONICS	ROBOTICS/MECH/ CONTROL INSTR	V
ECE	759	EE	PATTERN RECOGNITION	SIGNAL PROC/ COMP INTEL	SE
ECE	762	EE	ADVANCED DIGITAL COMMUNICATIONS SYSTEMS	COMMUNICATIONS	FO
ECE	763	EE	COMPUTER VISION	SIGNAL PROC/ COMP INTEL	S
ECE	765	EE	PROBABILISTIC GRAPHICAL MODELS FOR SIGNAL PROCESSING AND COMPUTER VISION	SIGNAL PROC/ COMP INTEL	V
ECE	766	EE	SIGNAL PROCESSING FOR COMMUNICATIONS AND NETWORKING	COMMUNICATIONS	FE
ECE	767	EE	ERROR-CONTROL CODING	COMMUNICATIONS	SE
ECE(CSC)	773	CPE	ADVANCED TOPICS IN INTERNET PROTOCOLS	NETWORKING	S
ECE(CSC)	774	CPE	ADVANCED NETWORK SECURITY	NETWORKING	S
ECE(CSC)	775	CPE	ADVANCED TOPICS IN WIRELESS NETWORKING	NETWORKING	F
ECE(CSC)	776	CPE	DESIGN & PERFORMANCE EVALUATION OF NETWORK SYSTEMS & SERVICES	NETWORKING	V
ECE(CSC)	777	CPE	TELECOMMUNICATIONS NETWORK DESIGN	NETWORKING	V
ECE	785	CPE	TOPICS IN ADVANCED COMPUTER DESIGN	COMP ARCH	S
ECE	786	CPE	ADVANCED COMPUTER ARCHITECTURE: DATA PARALLEL PROCESSORS	COMP ARCH	S
ECE	791	EE/CPE	SPECIAL TOPICS IN ECE (depends on topic)	SEE FOOTNOTE	V
ECE	792	EE/CPE	SPECIAL TOPICS IN ECE (depends on topic)	SEE FOOTNOTE	V
ECE	833	EE/CPE	INDIVIDUAL TOPICS IN ECE (PHD Level)	SEE FOOTNOTE	V
ECE	834	EE/CPE	INDIVIDUAL STUDIES IN ECE FOR QUALIFYING REVIEW (PHD Level)	SEE FOOTNOTE	V
ECE	895	EE/CPE	DOCTORAL DISSERTATION RESEARCH	SEE FOOTNOTE	V
ECE	896	EE/CPE	SUMMER DISSERTATION RESEARCH (PHD)	SEE FOOTNOTE	V
ECE	899	EE/CPE	DOCTORAL DISSERTATION PREPARATION	SEE FOOTNOTE	V
FOOTNOTE		COURSE IS NOT ASSOCIATED WITH ANY SPECIFIC SPECIALTY AREA AND CANNOT BE USED TO SATISFY THE BREADTH REQUIREMENT FOR A DEGREE.			

Key to course offerings: F/S-Fall/Spring, F-Fall, FE-Fall Even Years, FO-Fall Odd Years,
S-Spring, SA-Spring Alternate Years, SE-Spring Even Years, SO-Spring Odd Years, V-Variable, depending on instructor availability

Appendix D: ECE Course Detail Quick Look (Last Updated 8/2022)

CONSULT COURSE CATALOG FOR AVAILABILITY each TERM

COURSE #	MAJOR	SPECIALTY AREA	SEMESTER	COURSE #	MAJOR	SPECIALTY AREA	SEMESTER
ECE	505	EE	BIOELECTRONICS	F	ECE(MSE) 589	EE	EPM
ECE(CSC)	506	CPE	COMP ARCH	F/S	ECE 705	CPE	COMP ARCH
ECE	511	EE	CIRCUITS	F	ECE 706	CPE	COMP ARCH
ECE	513	EE	SIGNAL PROC/ COMP INTEL	F	ECE 712	EE	CIRCUITS
ECE	514	EE	SEE FOOTNOTE	F	ECE 714	EE	CIRCUITS
ECE	515	EE	COMMUNICATIONS	S	ECE 718	EE	CIRCUITS
ECE	516	EE	ROBOTICS/MECH/ CONTROL INSTR	S	ECE 719	EE	MW CKTS/APP EM
ECE(CSC)	517	CPE	SOFTWARE	F/S	ECE 720	CPE	VLSI SYSTEMS
ECE(BME)	518	EE	BIOELECTRONICS	F	ECE 721	CPE	COMP ARCH
ECE(BME)	522	EE	ROBOTICS/MECH/ CONTROL INSTR	S	ECE 722	EE	EPM
ECE	523	EE	EPM	S	ECE 723	EE	EPM
ECE	524	EE	MW CKTS/APP EM	S	ECE 724	EE	EPM
ECE	530	EE	EPM	F	ECE 725	EE	EPM
ECE	531	EE	EPM	V	ECE 726	EE	ROBOTICS/MECH/ CONTROL INSTR
ECE	532	EE	MW CKTS/APP EM	V	ECE 732	EE	PWR ELEC
ECE	533	EE	PWR ELEC	S	ECE 733	EE	CIRCUITS
ECE	534	EE	PWR ELEC	F	ECE 734	EE	PWR ELEC
ECE(MAE)	535	EE	PWR ELEC	S	ECE 735	EE	PWR ELEC
ECE(BME)	536	EE	ROBOTICS/MECH/ CONTROL INSTR	F	ECE 736	EE	PWR SYS
ECE	538	EE	EPM	F	ECE 739	EE	EPM
ECE	540	EE	MW CKTS/APP EM	SE	ECE 745	CPE	VLSI SYSTEMS
ECE	541	EE	MW CKTS/APP EM	SO	ECE 748	CPE	VLSI SYSTEMS
ECE	542	EE	SIGNAL PROC/ COMP INTEL	V	ECE 751	EE	COMMUNICATIONS
ECE	544	EE	VLSI SYSTEMS	S	ECE 752	EE	COMMUNICATIONS
ECE	546	EE/CPE	VLSI SYSTEMS	S	ECE 753	EE	PWR SYS
ECE(CSC)	547	CPE	NETWORKING	V	ECE 756	EE	ROBOTICS/MECH/ CONTROL INSTR
ECE	549	EE	MW CKTS/APP EM	F	ECE 759	EE	SIGNAL PROC/ COMP INTEL
ECE	550	EE	PWR SYS	F	ECE 762	EE	COMMUNICATIONS
ECE	551	EE	PWR SYS	S	ECE 763	EE	SIGNAL PROC/ COMP INTEL
ECE	552	EE	PWR SYS	S	ECE 765	EE	SIGNAL PROC/ COMP INTEL
ECE	553	EE	PWR ELEC	F	ECE 766	EE	COMMUNICATIONS
ECE	554	EE	PWR ELEC	V	ECE 767	EE	COMMUNICATIONS
ECE	555	EE	ROBOTICS/MECH/ CONTROL INSTR	S	ECE(CSC) 773	CPE	NETWORKING
ECE	556	EE	ROBOTICS/MECH/ CONTROL INSTR	F	ECE(CSC) 774	CPE	NETWORKING
ECE	557	EE	EPM	V	ECE(CSC) 775	CPE	NETWORKING
ECE	558	EE	SIGNAL PROC/ COMP INTEL	F	ECE(CSC) 776	CPE	NETWORKING
ECE	560	CPE	COMP ARCH	F	ECE(CSC) 777	CPE	NETWORKING
ECE	561	CPE	COMP ARCH	S	ECE 785	CPE	COMP ARCH
ECE	563	CPE	COMP ARCH	F/S	ECE 786	CPE	COMP ARCH
ECE	564	CPE	VLSI SYSTEMS	F	ECE 591	EE/CPE	SEE FOOTNOTE
ECE	565	CPE	SOFTWARE	F	ECE 592	EE/CPE	SEE FOOTNOTE
ECE	566	CPE	SOFTWARE	S	ECE 600	EE/CPE	SEE FOOTNOTE
ECE(CHE)	568	EE	EPM	F	ECE 633	EE/CPE	SEE FOOTNOTE
ECE(CSC)	570	CPE	NETWORKING	F/S	ECE 634	EE/CPE	SEE FOOTNOTE
ECE(CSC)	573	CPE	NETWORKING	F/S	ECE 695	EE/CPE	SEE FOOTNOTE
ECE(CSC)	574	CPE	NETWORKING	F/S	ECE 696	EE/CPE	SEE FOOTNOTE
ECE(CSC)	575	CPE	NETWORKING	S	ECE 699	EE/CPE	SEE FOOTNOTE
ECE(CSC)	576	CPE	NETWORKING	V	ECE 791	EE/CPE	SEE FOOTNOTE
ECE(CSC)	577	CPE	NETWORKING	F	ECE 792	EE/CPE	SEE FOOTNOTE
ECE	578	CPE	NETWORKING	F	ECE 833	EE/CPE	SEE FOOTNOTE
ECE(CSC)(OR)	579	CPE	NETWORKING	F/S	ECE 834	EE/CPE	SEE FOOTNOTE
ECE	581	EE	PWR SYS	S	ECE 895	EE/CPE	SEE FOOTNOTE
ECE	582	EE	COMMUNICATIONS	F	ECE 896	EE/CPE	SEE FOOTNOTE
ECE	583	EE	PWR SYS	S	ECE 899	EE/CPE	SEE FOOTNOTE
ECE	584	EE	PWR SYS	F			
ECE	585	EE	PWR SYS	F			
ECE	586	EE	PWR SYS	F			
ECE	587	EE	PWR SYS	F			
ECE	588	EE	SIGNAL PROC/ COMP INTEL	F			

FOOTNOTE	COURSE IS NOT ASSOCIATED WITH ANY SPECIFIC SPECIALTY AREA AND CANNOT BE USED TO SATISFY THE BREADTH REQUIREMENT FOR A DEGREE.
----------	---

Key to course offerings: F/S-Fall/Spring, F-Fall, FE-Fall Even Years, FO-Fall Odd Years, S-Spring, SA-Spring Alternate Years, SE-Spring Even Years, SO-Spring Odd Years, V-Variable, depending on instructor availability