



UNIVERSITY OF
THESSALY

DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING
SCHOOL OF ENGINEERING

| SEMESTER | COURSE CODE | COURSE | ECTS | INSTRUCTOR |
|----------|-------------|---|------|------------|
| | | | | |
| WS | ECE119 | Digital Design (Core) | 6 | |
| WS | ECE317 | Artificial Intelligence (Elective) | 6 | |
| WS | ECE319 | Compilers (Elective) | 6 | |
| WS | ECE321 | Concurrent Programming (Elective) | 6 | |
| WS | ECE325 | Digital Signal Processing (Elective) | 6 | |
| WS | ECE327 | Digital Systems VLSI (Elective) | 6 | |
| WS | ECE329 | Education Technologies (Elective) | 6 | |
| WS | ECE331 | Electrical Machines (Elective) | 6 | |
| WS | ECE333 | Digital Systems Lab (Elective) | 6 | |
| WS | ECE337 | Linear Programming (Elective) | 6 | |
| WS | ECE339 | Applied Statistics (Elective) | 6 | |
| WS | ECE335 | Electric Power Generation Systems (Elective) | 6 | |
| WS | ECE341 | Advanced Electronics (Elective) | 6 | |
| WS | ECE411 | Power Systems II (Elective) | 6 | |
| WS | ECE415 | High Performance Computing Systems (Elective) | 6 | |
| WS | ECE419 | Logical and Functional Programming (Elective) | 6 | |
| WS | ECE447 | Neuro-Fuzzy Computing (Elective) | 6 | |
| WS | ECE449 | Smart Grids (Elective) | 6 | |
| WS | ECE437 | Electrical Installations (Elective) | 6 | |

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|-----------|--------|--|----------|--|
| WS | ECE431 | CAD Algorithms (Elective) | 6 | |
| WS | ECE439 | Special Topics/ Projects (Elective) | 6 | |
| WS | ECE445 | Parallel and Distributing Computing (Elective) | 6 | |
| WS | ECE461 | Machine Learning for Data Science and Analytics (Elective) | 6 | |
| WS | ECE463 | Telecommunications Systems II (Elective) | 6 | |
| WS | ECE421 | Electromagnetic Fields II (Elective) | 6 | |
| WS | ECE423 | Information and Coding Theory (Elective) | 6 | |
| WS | ECE425 | Testing and Verification of Digital Circuits (Elective) | 6 | |
| WS | ECE429 | High Voltage Engineering (Elective) | 6 | |
| WS | ECE433 | Computer Graphics (Elective) | 6 | |
| WS | ECE441 | Inter-Network Protocol Design (Elective) | 6 | |
| WS | ECE455 | Hardware Security (Elective) | 6 | |
| WS | ECE443 | Speech and Audio Processing (Elective) | 6 | |
| WS | ECE457 | Introduction to Computer Vision (Elective) | 6 | |
| WS | ECE519 | Analog Circuit Lab (Elective) | 6 | |
| WS | ECE513 | Circuit Simulation Algorithms (Elective) | 6 | |
| WS | ECE515 | Mobile and Pervasive Computing (Elective) | 6 | |
| WS | ECE555 | Advanced Topics in Computer Networks (Elective) | 6 | |
| WS | ECE541 | Database Management Systems II (Elective Course) (Elective) | 6 | |
| WS | ECE553 | Design Thinking (Elective) | 6 | |
| WS | ECE527 | Antennas (Elective) | 6 | |
| WS | ECE535 | Microwaves (Elective) | 6 | |
| WS | ECE549 | Protection of Power Systems (Elective) | 6 | |

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|-----------|--------|--|----------|--|
| WS | ECE557 | Manufacturing of Semiconductor Devices (Elective) | 6 | |
| WS | ECE561 | Formal Verification of Cryptosystems (Elective) | 6 | |
| WS | ECE563 | Radar Systems and Remote Sensing (Elective) | 6 | |
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| SS | ECE316 | Power Systems I (Core) (Elective) | 6 | |
| SS | ECE314 | Electromagnetic Fields I (Elective) | 6 | |
| SS | ECE318 | Operating Systems (Elective) | 6 | |
| SS | ECE326 | Object Oriented Programming (Elective) | 6 | |
| SS | ECE328 | Information Retrieval (Elective) | 6 | |
| SS | ECE330 | SoC CAD Lab (Elective) | 6 | |
| SS | ECE342 | Alternative Energy Sources (Elective) | 6 | |
| SS | ECE348 | Distributed Systems (Elective) | 6 | |
| SS | ECE334 | Pattern Recognition (Elective) | 6 | |
| SS | ECE338 | Parallel Computer Architecture (Elective) | 6 | |
| SS | ECE340 | Embedded Systems (Elective) | 6 | |
| SS | ECE344 | Power Electronics (Elective) | 6 | |
| SS | ECE320 | Measurement Systems (Elective) | 6 | |
| SS | ECE324 | Introduction to the Theory of Computation (Elective) | 6 | |
| SS | ECE350 | Electrotechnical Materials (Elective) | 6 | |
| SS | ECE352 | Image Processing (Elective) | 6 | |
| SS | ECE354 | Introduction to Nanoelectronics (Elective) | 6 | |
| SS | ECE458 | Special Topics/ Projects (Elective) | 6 | |
| SS | ECE424 | Multiagent Systems (Elective) | 6 | |
| SS | ECE418 | Blockchain Technologies and Decentralized Applications (Elective) | 6 | |
| SS | ECE420 | Game Architecture and Development (Elective) | 6 | |

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| SS | ECE422 | Data Mining (Elective) | 6 | |
| SS | ECE460 | Advanced Data Management (Elective) | 6 | |
| SS | ECE434 | Complex Networks (Elective) | 6 | |
| SS | ECE470 | Software Engineering (Elective) | 6 | |
| SS | ECE436 | Wireless Communications (Elective) | 6 | |
| SS | ECE450 | Computer Networks II (Elective) | 6 | |
| SS | ECE444 | Physical CAD Algorithms (Elective) | 6 | |
| SS | ECE452 | Special Topics in Applied Mathematics (Elective) | 6 | |
| SS | ECE456 | Control and Stability of Power Systems (Elective) | 6 | |
| SS | ECE414 | Applied Stochastic Processes (Elective) | 6 | |
| SS | ECE416 | Network Optimization (Elective) | 6 | |
| SS | ECE468 | Network and Information System Security (Elective) | 6 | |
| SS | ECE472 | Industrial Automation and Control (Elective) | 6 | |
| SS | ECE474 | Special Topics of Electrical Installations (Elective) | 6 | |
| SS | ECE480 | Deep Learning and its Applications (Elective) | 6 | |
| SS | ECE482 | Computational Modeling of Materials for Microelectronic Applications (Elective) | 6 | |
| SS | ECE484 | Radhard Circuit Design (Elective) | 6 | |
| SS | ECE486 | Electroacoustics (Elective) | 6 | |
| SS | ECE488 | Design of Quantum Computers (Elective) | 6 | |
| SS | ECE490 | Industrial IoT (Internet of Things) and Applications (Elective) | 6 | |
| SS | ECE492 | Introduction to Robotics (Elective) | 6 | |
| SS | ECE494 | Processor Design (Elective) | 6 | |
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