

CMPE 4373 Senior Design I Hardware [0-9]

Apply the knowledge and skills gained in previous courses to synthesize a solution to a significant and realistic problem integrating software and hardware design. Participate in team project activities including problem formulation and proposal, project analysis, software and hardware requirements specification, project planning and software and hardware design. Software design documentation and oral presentation are an integral part of the course. Prerequisites: Consent of instructor and either CSCI 3340 or CMPE 3340.

CMPE 4374 Senior Design II Hardware [0-9]

Continuation of CMPE 4373. Team project activities include software and hardware design reviews, implementation, quality assurance, software and hardware testing, integration, project documentation, presentations and demonstration. Also covers social and ethical implications of the computer engineering profession. Cannot receive credit for both CMPE 4372 and CMPE 4374. Prerequisites: CMPE 4373 and consent of instructor.

CMPE 4375 Introduction to VLSI Design [3-0]

This course provides an introduction to the area of CMOS VLSI design and design of VLSI circuits, including CMOS logic circuits, integrated circuit layout and design tools and overview of integrated circuit fabrication. Crosslisted with ELEE 4375. Prerequisites: CMPE/ELEE 2330 and CMPE 3403.

CMPE 4378 Signal Integrity and Electromagnetic Compatibility [3-0]

Distortion of digital signals analyzed via lumped element and transmission line models, power distribution in electronic systems, printed circuit layout guidelines, basic electromagnetic principles as applied to shielding and grounding, EMI regulations. Prerequisites: CMPE 3322 or ELEE 3321; and PHYS 2425.

CMPE 4381 Interactive Systems and User Interface Design [3-0]

Presents principles and practice of information communication between user and system. The course examines results of past research, as well as evolving trends in interface design and implementation. Equivalent course: CSCI 4381. A student may receive credit in only one course. Prerequisites: CSCI 3333 or CMPE 3333, or consent of the instructor.

CMPE 4382 Computer Visualization [3-0]

Focuses on design and implementation of computer graphics systems to provide visual representation of large data sets. Presents current theory and practice of computer visualization systems and advanced display techniques. Prerequisites: CSCI 3333 or CMPE 3333 or consent of the instructor

CMPE 4390 Communications Networks [3-0]

This course covers engineering principles of data communications, including the following topics: communication media and signal encoding schemes, point-to-point communication standards, layering concepts, data link protocols, network protocols, transport layer protocols, error control, flow control, congestion control, routing algorithms, virtual circuits, call setup procedure, TCP/IP protocol, internetworking, switching and switching fabric, frame relays, ATM and emerging technologies. Crosslisted with ELEE 4390. Prerequisites: CMPE 3437 or ELEE 3435.

*Computer Science***CSCI 1101 Introduction to Computer Science** [0-3]

An introduction to the breadth of the field of computer science. Topics include an introduction to computer science as a career, overviews of various computer science areas and topics, and foundations of computational problem solving.

CSCI 1105 Digital Technology in the Modern World [1-0]

The course will consider the power and limitations of modern day technology, what technology can and cannot do, and personal responsibility related to digital technology. The course emphasizes active learning to enhance critical thinking, critical analysis of information gained from technical sources, and life-long learning competencies. Students use digital technology to support and enhance communication, using current productivity technologies and exploring emerging technologies.

CSCI 1170 Engineering Computer Science I Laboratory [0-3]

The course includes hands-on instruction and laboratory exercises in developing programs written in a high-level object oriented programming language applying the principles taught in the CSCI 1370 lecture course. Equivalence course: CMPE 1170. A student may receive credit in only one course. Corequisite: CSCI 1370 (or CSCI 1378).

CSCI 1178 Engineering Computer Science I Laboratory (Honors) [0-3]

The course includes hands-on instruction and laboratory exercises in developing programs written in a high-level object oriented programming language applying the principles taught in the CSCI 1378 lecture course. Co-requisite: CSCI 1378. Equivalence course: CSCI 1170. A student may receive credit in only one course. Corequisite: CSCI 1378 (Honors).

CSCI 1201 Introduction to Computer and Information Technology [2-0]

A computer literacy course to develop awareness of the expanding role of computer and information technology and to provide knowledge and skills related to personal and social uses of computers. Topics include applications of computers, societal and ethical issues involving computers, history, the Internet, packaged software and hardware and software terminology. Assignments will be given to provide hands-on experience in personal software packages and information networks.

CSCI 1301 Introduction to Computing [3-0]

This course provides an overview of computer information systems and introduces computer hardware, software, the Internet, and Office applications. Current issues such as the effect of computers on society, business, education, etc., are also studied. This course does not count toward major in business or computer science.

CSCI 1370 Engineering Computer Science I [3-0]

An introduction to computer science and computer engineering. The fundamentals of a high-level programming language will be introduced. Methods of problem solving, techniques of algorithmic development and concepts of procedural and object-oriented programming will be emphasized. Societal and social issues related to computer science/engineering will be introduced. Equivalent course: CMPE 1370. Will replace a grade received in CSCI 1380. Cannot receive credit for both CSCI 1380 or CMPE 1370. Prerequisites: Grade of 'C' or better in MATH 1314 or placement in a higher level Math course. Co-requisite: CSCI 1170 (or CSCI 1178).

CSCI 1378 Engineering Computer Science I (Honors) [3-0]

An introduction to computer science and computer engineering. The fundamentals of a high-level programming language will be introduced. Methods of problem solving, techniques of algorithmic development and concepts of procedural and object-oriented programming will be emphasized.. Societal and social issues related to computer science/engineering will be introduced. Equivalent course: CMPE 1378. Will replace a grade received in CSCI 1380. Cannot receive credit for both CSCI 1380 and CMPE 1378. Prerequisites: Grade of 'C' or better in MATH 1314 or placement in a higher level Math course; and CSCI 1101; and admission to the honors program. Co-requisite: CSCI 1178.

CSCI 1380 Computer Science I [3-0]

An introduction to computer science and computer programming is given, in which the fundamentals of a high-level programming language will be introduced. Methods of problem solving, techniques of algorithmic development and concepts of structured object-oriented programming will be emphasized. For degree programs requiring a three hour course in computer science. Two hours will fulfill Computer Literacy Core requirement. Equivalent courses: CSCI 1370 or CMPE 1370. A student may receive credit for only one course from CSCI 1380, CSCI 1370 or CMPE 1370. Will replace a grade received in CSCI 1370 or CMPE 1370. Prerequisites: Concurrent enrollment or credit for MATH 1314 or higher level mathematics course.

CSCI 1387 Computer Science I (Honors) [3-0]

An introduction to computer science and computer programming is given, in which the fundamentals of a high-level programming language will be introduced. Methods of problem solving, techniques of algorithmic development and concepts of structured object-oriented programming will be emphasized. For degree programs requiring a three hour course in computer science. Two hours will fulfill Computer Literacy Core requirement. Equivalent courses: CSCI 1370 or CMPE 1370 or CSCI 1380. A student may receive credit for only one course from CSCI 1380, CSCI 1370 or CMPE 1370. Will replace a grade received in CSCI 1370 or CMPE 1370. Prerequisites: Concurrent enrollment or credit for MATH 1314 or higher level mathematics course.

CSCI 2333 Computer Organization and Assembly Language [3-0]

An introduction to computer organization, use of assembly language programming, basic instruction sets, arithmetic and logical operations, addressing modes and macro definition. Several computer programming projects are included. Equivalent course: CMPE 2333. A student may receive credit in only one course. Prerequisites: CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378) or CSCI 1380 (or CSCI 1387).

CSCI 2344 Programming in Unix/ Linux Environment [3-0]

The course presents the UNIX file system, the commonly used utilities, editors, shell programming and scripting. It includes instruction in software development in the UNIX/Linux environment. In addition, a brief overview of the internal components of the operating system will be covered. Prerequisites: CSCI 1370 (or CSCI 1378) or CSCI 1380 (or CSCI 1387) or consent of instructor.

CSCI 2380 Computer Science II [3-0]

A second programming course includes problem solving by structured design; provides an introduction to elementary data structures, including linked lists, stacks, queues, trees and graphs, and advanced programming techniques, including recursion, sorting and searching. Equivalent course: CMPE 2380. A student may receive credit in only one course. Prerequisites: CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378) or CSCI 1380 (or CSCI 1387) or consent of instructor.

CSCI 2388 Computer Science II (Honors) [3-0]

A second programming course includes problem solving by structured design; provides an introduction to elementary data structures, including linked lists, stacks, queues, trees and graphs, and advanced programming techniques, including recursion, sorting and searching. Equivalent course: CMPE 2388. A student may receive credit in only one course. Prerequisites: CSCI 1378 or CSCI 1370 or CMPE 1370 or consent of instructor.

CSCI 3300 Internship in Computer Science [0-0-3]

This course is designed to give students an opportunity to gain practical experience in the computer science career field by working with a participating employing firm or organization. The student will be supervised by a faculty member acting as a liaison between the university and the employing organization to ensure compliance with specific learning and experience requirements. The employment can be either paid or unpaid, and normally would include practical experience spread over one academic term or summer. May be repeated once. A maximum of three hours of credit from CSCI 3300 can be used toward the computer science major. Prerequisites: Junior standing, minimum 12 hours of Computer Science (CSCI) completed and approved by both the department and employer providing the practicum/internship experience.

CSCI 3310 Discrete Data Structures [3-0]

An introduction to some of the more important concepts, techniques, and structures of discrete mathematics. It provides a bridge between computer science and mathematics. Topics include functions and relations, sets, countability, groups, graphs, propositional and predicate calculus, and permutations and combinations. Students will be expected to develop simple proofs for problems drawn primarily from computer science and applied mathematics. Prerequisites: MATH 2413 with grade of 'C' or better; and CSCI/CMPE 1370 (or CSCI/CMPE 1378).

CSCI 3326 Object Oriented Programming in JAVA [3-0]

The Java programming language and environment will be introduced with an emphasis on object-oriented programming. Application areas will include Internet-based programming, applets, and HTML, and topics will include control structures, classes, methods, inheritance, Java libraries and packages. Object-oriented aspects will include graphics, GUI, exception handling, multithreads, multimedia and networking. Prerequisites: CSCI 1380 (or CSCI 1387) or CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378) or consent of instructor.

CSCI 3327 Object Oriented Programming in Visual Basic [3-0]

The Visual Basic programming language and environment will be introduced with an emphasis on window-based programming and the use of objects in Visual Basic. Topics will include control structures, graphical user interface concepts, classes, methods, inheritance and the Visual Basic interface and libraries. Prerequisites: CSCI 1380 (or CSCI 1387) or CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378) or consent of instructor.

CSCI 3328 Object-Oriented Programming In C# [3-0]

The C# programming language and .NET environment will be introduced with an emphasis on windows-based, event driven programming and the use of objects, LINQ and XML. Topics may include UML, generic collections, database connections, XML, inheritance and polymorphism, exception handling, event driven programming, concurrent programming, windows forms, files and streams, databases, and Web Services. Prerequisite: CSCI 1380 or CSCI 1370 or CMPE 1370 or consent of instructor. Prerequisites: CSCI 1380 (or CSCI 1387) or CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378) or consent of instructor.

CSCI 3333 Algorithms and Data Structures [3-0]

This course is a continuation of data structures topics covered in CSCI 2380. Content includes theoretical topics in algorithmic efficiency and complexity, along with abstract data types, including graphs, networks, trees, and priority queues. Search topics, including hashing, trees, external search trees (B-trees), and sorting algorithms including external sorting are introduced and compared. Computational complexity topics include the class P and NP, NP-completeness and reducibility, NP-completeness proofs, and NP-complete problems. Equivalent course: CMPE 3333. A student may receive credit in only one course. Prerequisites: CSCI/CMPE 2380 (or CSCI/CMPE 2388); and credit/registration for MATH 2346 or CSCI 3310 or MATH 2305.

CSCI 3334 Systems Programming [3-0]

This course covers the design and implementation of system software. It investigates the relationship between software design and machine architecture. Topics may include assemblers, macro-processors, compilers, loaders, debugging environments, program development and archival tools, command language interpreters (shells), file systems, I/O support, processes, threads, and inter-process communication. Equivalent course: CMPE 3334, a student may receive credit in only one course. Prerequisites: CSCI/CMPE 2380; and CSCI/CMPE 2333, ELEE 3435, or CMPE 3437.

CSCI 3336 Organization of Programming Languages [3-0]

This course describes the fundamental concepts of programming languages by discussing the design of the various language constructs, examining the design choices for these constructs, critically comparing design alternatives and discussing implementation techniques. The underlying theory and formal modes of describing the syntax and semantics including finite automata and regular expressions, context-free grammars, context-sensitive languages and the Chomsky Hierarchy are included. Prerequisites: CSCI 2380 (or CSCI 2388) or CMPE 2380 (CMPE 2388).

CSCI 3340 Software Engineering I [3-0]

A formal approach to the state-of-the-art techniques in software design and development. Emphasis will be on Project Planning, Requirements, Specification, and System Design and includes object design, testing, and implementation. Provides the student with the opportunity to work on large projects in a group situation. Equivalent course: CMPE 3340. A student may receive credit in only one course. Prerequisites: CSCI 2380 (or CSCI 2388) or CMPE 2380 (CMPE 2388), and 3 advanced hours in CSCI courses.

CSCI 3341 Software Engineering II [3-0]

The course will cover the analysis of requirements and software architecture with a major emphasis on object design, implementation, testing and validation, maintenance and software re-engineering. Methods for evaluating software for correctness, and reliability, system testing techniques, testing tools and limitations of testing, Advance Software Engineering topics such as Design Patterns, Aspect Oriented Engineering, Interactive Design Methods, and Formal Specification are included. Students will work a large group projects. Equivalent course: CMPE 3341. A student may receive credit in only one course. Prerequisites: CSCI 3340 or CMPE 3340.

CSCI 3342 Internet Programming [3-0]

Introduction to web application programming. Covers the fundamentals of developing applications for web browsers, within the dominant HTTP-based client/server model. A wide range of technologies and development methodologies are covered, including database and server architectures, server-side frameworks, client-side languages/libraries, remote invocation models and web application security. Specific topics in web development change rapidly, but some examples include SQL, HTML, TLS, PHP, Java EE (servlets, JSP, etc), ASP.NET. Prerequisites: CSCI 2380 (or CSCI 2388) or CMPE 2380 (CMPE 2388), and CSCI 3326 or CSCI 3327 or CSCI 3328.

CSCI 3350 Numerical Methods [3-0]

This course studies the numerical solutions to various problems occurring in engineering, science and mathematics. These problems include finding solutions to nonlinear equations, solutions to linear and nonlinear systems of equations, interpolation of data, approximation of functions, numerical integration and solutions to differential equations. It also studies the influence of data representation and computer architecture on the choice and development of algorithms. Equivalent course: MATH 3349. A student may receive credit in only one course. Prerequisites: MATH 2413 (or MATH 2487) and CSCI 1380 (or CSCI 1387) or CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378).

CSCI 3370 Introduction to Game Development [3-0]

This is a project based course in which programmers and designers collaborate to create a video game. The course investigates theory and practice of developing computer games from a variety of perspectives. Prerequisites: CSCI/CMPE 3333; and CSCI/CMPE 3326 or CSCI/CMPE 3327 or CSCI/CMPE 3328 or consent of instructor.

CSCI 4185 Research Seminar [1-0]

Students will have the opportunity to conduct faculty-sponsored research in the area of mutual interest resulting in oral and written presentation of their work to other students and faculty. May be repeated up to 6 credit hours. Up to three credit hours can be used to meet CSCI degree requirements. Cross-listed with CMPE 4185. Prerequisites: Consent of instructor.

CSCI 4301 Digital Image Processing [3-0]

The course presents fundamental concepts and applications of digital image processing. Topics include basic color, image perception and transformation, image enhancement and compression, and image analysis, and computer vision. Equivalent course: CMPE 4301. A student may receive credit in only one course. Prerequisites: CSCI 3333 or CMPE 3333.

CSCI 4302 Multimedia Systems [3-0]

This course presents the broad field of multimedia systems. Topics include the digital interactive multimedia, creation of multimedia, and various issues involving technology, design and effectiveness of multimedia applications. Students will have the opportunity to learn programming techniques for integrating video, sound, animation and graphics for multimedia systems. Prerequisites: CSCI 3333 or CMPE 3333 or consent of instructor.

CSCI 4303 Computer Vision [3-0]

This course covers the fundamental and advanced ideas of developing computerized procedures to extract numeric and symbolic information from images. Prerequisites: CSCI 3333 or CMPE 3333 or consent of instructor.

CSCI 4310 Design and Analysis of Algorithms [3-0]

The course presents elements of the design and analysis of computer algorithms. Topics include in-depth study of algorithms' design strategies such as dynamic programming, divide-and-conquer and greedy methods; algorithms for graph problems, geometric problems and other selected problems; and computational complexity. Prerequisites: CSCI 3333 or consent of instructor.

CSCI 4318 Cyber Security [3-0]

This course explores cyber security fundamentals, standards of good practice, and basic theory in depth. Topics will include privacy, confidentiality, integrity, and encryption. Key areas include network attacks and defenses, operating systems flaws, malware, social engineering and digital rights management. Prerequisites: CSCI 2344; and CSCI/CMPE 3333.

CSCI 4319 Digital Forensics [3-0]

This course explores the science, technology, procedures and laws of acquiring and analyzing evidence from digital media and computing devices. Current forensic tools will be surveyed. Topics include volatile and nonvolatile data analysis, network based evidence collection, forensic analysis techniques, web, email, and registry activity reconstruction and study of available tools. Prerequisites: CSCI 2344; and CSCI/CMPE 2380.

CSCI 4321 E-Commerce [3-0]

This course covers e-commerce implementation including e-commerce security and prevention, e-commerce scalable architecture design, Internet infrastructure, web server administration, e-payment, mobile commerce systems, and business to business systems. Prerequisites: CSCI 3333 or CMPE 3333 or consent of instructor.

CSCI 4325 Automata, Formal Languages, and Computability [3-0]

The course presents formal computation models. Topics include finite state machine, pushdown state machine, Turing machine, halting problem, definition and properties of formal grammars and their languages as well as theory of computability and complexity including the complexity of optimization and approximation problems. Prerequisites: CSCI 3333 or CMPE 3333 and CSCI 3336.

CSCI 4327 Compiler Construction [3-0]

Syntax analysis and semantic processing for a block-structured language. Compilation vs. interpretation; lexical analysis based on finite automata; syntax-directed translation; symbol tables; run-time storage allocation; error detection and recovery; code generation and optimization. Students are required to write a compiler. Equivalent course: CMPE 4327. A student may receive credit in only one course. Prerequisites: CSCI 3334 or CMPE 3334 or consent of the instructor.

CSCI 4333 Database Design and Implementation [3-0]

Study of logical (hierarchical, network, relational) and physical (sequential, indexed, relative) organization of databases. Database management systems and their features, querying databases, distributed databases, and data compression. Equivalent course: CMPE 4333, a student may receive credit in only one course. Prerequisites: CSCI 3333 or CMPE 3333.

CSCI 4334 Operating Systems [3-0]

This course provides a study of the basic concepts of operating systems: process management, memory management, file systems, resource allocation, and protection. Equivalent course: CMPE 4334. A student may receive credit in only one course. Prerequisites: CSCI 3333 or CMPE 3333 and CSCI 3334 or consent of the instructor.

CSCI 4335 Computer Architecture [3-0]

A study of the operational units and their interconnections of a modern computer as well as the theory behind the design of the instruction set, control unit, registers, memory hierarchy and addressing modes, bus structures, input/output, and storage units. Similarities between CISC and RISC architectures and related issues such as instruction level parallelism and superscalar processors are discussed. Students may receive credit for only one of CSCI 4335, CMPE 4335, CMPE 4380, or ELEE 4380. Equivalent course: CMPE 4335. Prerequisites: CSCI 2333 or CMPE 2333 or CMPE 3437, and CSCI 3333 or CMPE 3333.

CSCI 4336 Parallel and Distributed Computing [3-0]

Presents principles and practices of parallel and distributed computing. Topics include parallel and distributed computation models and architectures; design, analysis and implementation of parallel algorithms; and methods of parallel and distributed programming. Equivalent course: CMPE 4336. A student may receive credit in only one course. Prerequisites: CSCI 4335 or CMPE 4335 or CMPE 4380.

CSCI 4341 Topics in Computer Science [3-0]

Topics or problems in computer science; subject matter changes from semester to semester. May be repeated for credit as topic varies. Prerequisites: Consent of instructor.

CSCI 4343 Data Mining [3-0]

This course gives the fundamentals of applying artificial intelligence techniques for analysis, learning and prediction of information using data extracted from databases. Topics include data mining system architecture and data processing, pattern recognition, attribute relevance analysis, class discrimination, rule association, correlation analysis, classification, prediction, cluster analysis and query languages. Prerequisites: CSCI 4333.

CSCI 4344 Bioinformatics [3-0]

This course will provide an introduction to the rapidly evolving field of bioinformatics with the overarching goal of understanding how computer science plays an integral part both in application and algorithmic aspects. Prerequisites: CSCI/CMPE 3333 or consent of instructor.

CSCI 4345 Computer Networks [3-0]

An introduction to data communication topics, including data transmission, encoding, data link control, switching, network topologies, protocols, internet working and data security. Examples of existing networks and network architectures are studied. Equivalent course: CMPE 4345. A student may receive credit in only one course. Prerequisites: CSCI 3333 or CMPE 3333.

CSCI 4350 Artificial Intelligence [3-0]

Study of intelligent machines and machine learning. Includes problem solving and heuristic search, natural language understanding, game playing, database and expert systems. Artificial Intelligence projects will be implemented using an AI language such as LISP, Prolog, C++ or Ada. Equivalent course: CMPE 4350. A student may receive credit in only one course. Prerequisites: CSCI 3333 or CMPE 3333.

CSCI 4352 Machine Learning [3-0]

This course provides an introduction to machine learning, data mining, and statistical pattern recognition. Topics include: supervised learning, unsupervised learning, reinforcement learning and best practices in machine learning. Prerequisites: CSCI 3333 or CMPE 3333 or consent of instructor.

CSCI 4355 Expert Systems [3-0]

This course covers the theoretical and practical principles of modern expert systems. Prerequisites: CSCI 3333 or CMPE 3333.

CSCI 4360 Computer Graphics and Interactive Systems [3-0]
Presents fundamental concepts of computer graphics. Topics include display hardware, transformations, geometric modeling, shading two- and three-dimensional display algorithms and graphics software systems. Prerequisites: CSCI 3333 or CMPE 3333 or consent of instructor.

CSCI 4363 Advanced Databases [3-0]
This course will cover a number of advanced topics in modern data intensive systems. Topics may include non-relational databases (nosql), spatial databases and data warehousing. Prerequisites: CSCI 4333 or consent of instructor.

CSCI 4365 Computer and Network Security [3-0]
This course examines the internetworking architecture and routing, design and implementation issues related to secure and reliable networks, cryptography, firewalls, digital signatures, worms, viruses, logic bombs and spyware. Equivalent course: CMPE 4363. A student may receive credit only in one course. Prerequisites: CSCI 4345 or CMPE 4345.

CSCI 4370 Advanced Game Development [3-0]
This course in advanced game development covers core techniques in 3D game development. Students explore industry-standard engines and middleware, and develop independent engine components using low-level technologies. Topics include: real-time 3D pipelines, collision detection and response, animation, particle effects, scripting and networking. Prerequisites: CSCI 3370 or consent of instructor.

CSCI 4381 Interactive Systems and User Interface Design [3-0]
Presents principles and practice of information communication between user and system. The course examines results of past research, as well as evolving trends in interface design and implementation. Equivalent course: CMPE 4381. A student may receive credit in only one course. Prerequisites: CSCI 3333, or CMPE 3333 or consent of the instructor.

CSCI 4382 Computer Visualization [3-0]
Focuses on design and implementation of computer graphics systems to provide visual representation of large data sets. Presents current theory and practice of computer visualization systems and advanced display techniques. Prerequisites: CSCI 3333 or CMPE 3333 or consent of the instructor.

CSCI 4383 Bioinformatics Imaging [3-0]
This course provides an introduction to the physical and computational principles of medical imaging systems. Topics covered include fundamentals of x-ray radiography, x-ray computed tomography, ultrasound imaging and magnetic resonance imaging. Current techniques for visualization, segmentation, and analysis of medical image data will be discussed. Prerequisites: CSCI 3333 or CMPE 3333 or consent of the instructor

CSCI 4390 Senior Project [3-0]
Students will construct a software product, following it through the stages from initial specification to the final completed project, including user manual. Prerequisites: CSCI 3340 or CMPE 3340 and consent of instructor.

Electrical Engineering

ELEE 1101 Introduction to Electrical Engineering [0-3]
Introduction to electrical engineering as a career, fundamentals of analysis and graphical presentation of data using software tools, approaches to problem solving, and a basic design project.