Course Descriptions

CET-Computer Engineering Tech
CET235 - Digital Electronics Design
This is a first course in digital electronics dealing with the theory and practice of modern electronic computer
circuitry. Major units of the course include logic gates, integrated circuits, latches, counters, shift registers,
arithmetic circuits and memory elements. Laboratory exercises reinforce the theoretical concepts by providing
hands-on experience with digital integrated circuits, logic system simulation software, and digital troubleshooting
equipment. Co-requisite: College Algebra or equivalent. (4 cr.) Typically Fall.

CET270 - Introduction to Microprocessor Design
This course introduces the microprocessor from both the hardware and software viewpoints. It covers the stored
program concept, addressing modes, the instruction set, bus operation and machine language implementation of
software algorithms. Laboratory exercises are based on a microprocessor evaluation system and/or simulator to
provide hands-on experience with course topics. Prerequisite: CET 235. (4 cr.) Typically Spring.

CET335 - Microprocessor Interfacing
This course deals with advanced concepts in the programming and the interfacing of microprocessors/
microcontrollers to the outside world as demonstrated by a variety of application examples. It covers the
advanced architecture of modern processors and the many I/O peripherals now commonly found on-board the
device. Detailed studies of computer I/O and interrupt techniques as applied to analog-to-digital, digital -to-analog,
timers, parallel and serial interfaces are included. Laboratory activities provide the student with experience in
developing the hardware and software required to incorporate microprocessors into systems that solve real-world
interfacing problems. Prerequisite: CET 270. (4 cr.) Typically Fall.

CET350 - Technical Computing Using Java
This course enables the student to acquire a thorough understanding of the Java language and its application in
solving engineering-related problems. Both Java programs and Applets will be studied. Emphasis is placed on
efficient software development using structured programming techniques. Students are required to write, test and
run programs using an appropriate version of Java. This course will also apply the object-oriented programming
paradigm and build on the concepts of data abstraction, information hiding, and modularity. Prerequisite: CSC
124; corequisite: MAT 281. (3 cr.)

CET360 - Microprocessor Engineering
This course examines the product development cycle of a typical microcontroller-based product. Methods of
hardware and software development as well as their integration and debugging are studied. The student will
design and implement a major term project utilizing theses concepts plus various laboratory development tools as
well as produce written documentation on the project, including both requirements/specification and final reports.
Also included is a survey of recent developments in microcontroller technology. Prerequisites: CET 335, ENG
217. (4 cr.) Typically Spring.

CET440 - Computer Networking
This course involves the electronic hardware of networking systems such as those used to connect
heterogeneous computers. Major topics include locality, topologies, media standards, Internet working devices
and protocols. Hands-on application of network theory is provided via a laboratory-style term project involving
a multiuser network computer system. The student will design and develop the hardware and communication
software required to implement access to a network-available, shared resource. Prerequisite: CSC 124. (4 cr.)
Typically Spring.

CET485 - Special Topics in CET
This course allows current topics in computer engineering technology to be offered in a timely fashion. The topics
are not covered in other courses and will not be regularly offered as a special topic; however, they are appropriate
to a senior-level course. The course topic depends upon current trends in computer engineering technology,
interests of the student, and the instructor. The student may take the course multiple times as long as each
instance covers topics different than those already covered. Prerequisite: Permission of the Instructor. (Variable
crs. 1-12)
Course Descriptions

CET490 - Senior Project I
This course introduces students to software engineering. They will study its history, terminology, requirements, specifications and design. Students will write requirements, specifications and design documents, and one or more papers on software engineering topics. Prerequisites: CET 360, ENG 217. (3 crs.) Typically Fall.

CET492 - Senior Project I
This course is a continuation of the Senior Project I software engineering course and the capstone course of the program. The project proposal developed and designed in the first senior project class will be implemented in this course. The student will produce a project users' manual and will demonstrate proficiency in the academic program through the development of the project. Prerequisite: CET 490. (3 crs.) Typically Spring.

CET495 - Computer Engineering Technology Internship
Student interns work with professionals in a computer engineering technology-related field to apply their understanding of computer hardware and software. The intent of the internship is to provide the student with practical work experience solving actual problems in a dynamic environment, yielding enhanced job opportunities upon graduation. Upper-level class standing and permission of the adviser, the department chair and the dean are required before course enrollment. (3 crs.)