Universidad Politécnica de Puerto Rico
Graduate School
Master Program in Computer Engineering

**M.S.Cp.E.** (Thesis Option)
- Core Courses: 15 credit-hours
- Electives: 12 credit-hours
- Thesis: 6 credit-hours
- Total: 33 credit-hours

**M.Eng.Cp.E.** (Non-Thesis Option)
- Core Courses: 15 credit-hours
- Electives: 21 credit-hours
- Design Project: 3 credit-hours
- Total: 39 credit-hours

**Digital Signal Processing Area of Interest**

**Core Courses**
- EE 5720 – Digital Signal Processing
- EE 6010 – Mathematical Methods for Signal Processing
- EE 6020 – Stochastic Processes
- EE 6030 – Linear Systems
- CECS 6120 – Computer Architecture

**Elective Courses** (3 credits each)

- EE 7712 – Image Processing
- EE 7740 – Algorithms for DSP
- EE 7780 – Special Topics in Signal Processing

Student must complete the remaining number of required credit-hours by selecting courses from this list of electives. In addition to the current list of elective courses, the student could select as an elective any course with GMP code that is not specified in this list.

**Electives Related to more than One Area of Interest**
- CECS 6230 – IT Operations
- CECS 6240 – Technology-Based Start-Up
- CECS 6430 – Advanced Software Architectures
- CECS 7010 – Computer Graphics
- CECS 7020 – Advanced Computer Graphics
- CECS 7130 – Advanced Computer Networks
- CECS 7530 – Data Mining and Data Warehousing
- CECS 7550 – Artificial Intelligence
- CECS 7570 – Computer Security
- EE 6720 – Pattern Recognition

**DSP Elective Courses**
- GMP 6010 – Professional Writing and Presentations
- GMP 6050 – Professional Internship through COOP Program
- GMP 6510 – Research Methodology

**Other Electives**
- CECS 7900 – Project for Master in Computer Engineering
- CECS 7901 – Project Extension for Master in Computer Engineering

Contact Information:
Graduate School
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Software Engineering Area of Interest

**Core Courses**
- CECS 6120 – Computer Architecture
- CECS 6130 – Data Communication Networks
- CECS 6150 – Object Oriented Design
- CECS 6510 – Software Engineering I
- CECS 6605 – Advanced Database Systems

**Elective Courses (3 credits each)**

Student must complete the remaining number of required credit-hours by selecting courses from this list of electives. In addition to the current list of elective courses, the student could select as an elective any course with GMP code that is not specified in this list.

**Electives Related to more than One Area of Interest**
- CECS 6230 – IT Operations
- CECS 6430 – Advanced Software Architectures
- CECS 7010 – Computer Graphics
- CECS 7020 – Advanced Computer Graphics
- CECS 7130 – Advanced Computer Networks
- CECS 7520 – Human Computer Interaction
- CECS 7530 – Data Mining and Data Warehousing
- CECS 7550 – Artificial Intelligence
- CECS 7570 – Computer Security
- CIS 6715 – E-Commerce and Web Information System
- EE 6720 – Pattern Recognition

**SE Electives**
- CECS 6750 – Software Testing
- CECS 7510 – Software Engineering II
- CECS 7802 – Special Topics in Software Engineering

**Other Electives**
- GMP 6010 – Professional Writing and Presentations
- GMP 6050 – Professional Internship through COOP Program
- GMP 6510 – Research Methodology

**Thesis**
- CECS 7971 – Thesis
- CECS 7972 – Thesis Extension

**Project**
- CECS 7900 – Project for Master in Computer Engineering
- CECS 7901 – Project Extension for Master in Computer Engineering

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Internet Engineering
Area of Interest

Core Courses
- CECS 6120 – Computer Architecture
- CECS 6130 – Data Communication Networks
- CECS 6150 – Object Oriented Design
- CECS 6605 – Advanced Database Systems
- CECS 6760 – Internet Engineering I

Elective Courses

Student must complete the remaining number of required credit-hours by selecting courses from this list of electives. In addition to the current list of elective courses, the student could select as an elective any course with GMP code that is not specified in this list.

Electives Related to more than One Area of Interest
- CECS 6230 – IT Operations
- CECS 6430 – Advanced Software Architectures
- CECS 7010 – Computer Graphics
- CECS 7020 – Advanced Computer Graphics
- CECS 7130 – Advanced Computer Networks
- CECS 7520 – Human Computer Graphics
- CECS 7530 – Data Mining and Data Warehousing
- CECS 7550 – Artificial Intelligence
- CECS 7570 – Computer Security
- CIS – E-Commerce and Web Information System
- EE 6720 – Pattern Recognition

IE Electives
- CECS 7230 – Network Security
- CECS 7760 – Internet Engineering II
- CECS 7804 – Special Topic in Internet Engineering

Other Electives
- GMP 6010 – Professional Writing and Presentations
- GMP 6050 – Professional Internship through COOP Program
- GMP 6510 – Research Methodology

Thesis
- CECS 7971 -- Thesis
- CECS 7972 -- Thesis Extension

Project
- CECS 7900 – Project for Master in Computer Engineering
- CECS 7901 – Project Extension for Master in Computer Engineering

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