



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



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

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**

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

**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

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.

<b>Electives Related to more than One Area of Interest</b>	<b>SE Electives</b>
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	CECS 6750 – Software Testing CECS 7510 – Software Engineering II CECS 7802 – Special Topics in Software Engineering
	<b>Other Electives</b>
	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** (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 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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