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

**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

**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

**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  
E-mail: escuelagraduada@pupr.edu  
Phone: 787-622-8000 Ext. 686

**Core Courses**
- M.S.Cp.E. (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
Universidad Politécnica de Puerto Rico
Graduate School
Master Program in Computer Engineering

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

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
EE 6720 – Pattern Recognition
CIS 6715 – E-Commerce and Web Information System

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

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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**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

**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
- EE 6720 – Pattern Recognition
- CIS – E-Commerce and Web Information System

**IE Electives**
- CECS 7230 – Network Security
- CECS 7560 – Internet Engineering II
- CECS 7804 – Special Topic in Internet Engineering

**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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**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