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

M.S.Cp.E. (Thesis Option)
- Core Courses: 15 credit-hours
- Specialization: 12 credit-hours
- Emphasis Area: 0 credit-hours
- Thesis: 6 credit-hours
- Total: 33 credit-hours

- Core Courses: 15 credit-hours
- Specialization: 12 credit-hours
- Emphasis Area: 9 credit-hours
- Project: 3 credit-hours
- Total: 39 credit-hours

Software Engineering
Area of Interest

Core Courses
(Core Courses are required for both Thesis and Non-Thesis Option)
- CECS 6120 – Computer Architecture
- CECS 6130 – Data Communication Networks
- CECS 6150 – Object Oriented Design
- CECS 6510 – Software Engineering I
- CECS 6605 – Advanced Database Systems

Specialization Courses
(These courses are required for both Thesis and Non-Thesis Option)
- CECS 6430 – Advanced Software Architecture
- CECS 6750 – Software Testing
- CECS 7510 – Software Engineering II
- CECS 7520 – Human Computer Interaction (HCI)

Emphasis Area Courses
(The students in Non-Thesis Option must complete 9 credit-hours from one of these Emphasis Areas)

Database and Secure Operations
- CECS 6015 – IT Auditing and Secure Operations
- CECS 6035 – Contingency Planning
- CECS 7240 – Database Security

Big Data
- CECS 7410 – Parallel and Distributed Processing
- CECS 7412 – Fundamentals of Big Data Analytics
- CECS 7414 – Big Data Analytics Programming and Applications

Digital Evidence & Auditing
- CECS 6015 – IT Auditing and Secure Operations
- CECS 6045 – Law, Investigation, and Ethics
- CECS 6046 – Electronic Discovery & Digital Evidence

Thesis
- CECS 7971 – Thesis (6 credits)
- CECS 7972 – Thesis Extension (0 credits)

Project
- CECS 7900 – Project for MCpE (3 credits)
- CECS 7901 – Project Extension for MCpE (0 credits)

Contact Information:
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# Universidad Politécnica de Puerto Rico
## Graduate School
### Master Program in Computer Engineering

**Internet Engineering Area of Interest**

#### Core Courses
(Core Courses are required for both Thesis and Non-Thesis Option)
- CECS 6120 – Computer Architecture
- CECS 6130 – Data Communication Networks
- CECS 6150 – Object Oriented Design
- CECS 6605 – Advanced Database Systems
- CECS 6760 – Internet Engineering I

#### Specialization Courses
(These courses are required for both Thesis and Non-Thesis Option)
- CIS 6715 – E-Commerce and Web Inf. Systems
- CECS 7130 – Advanced Computer Networks
- CECS 7520 – Human Computer Interaction (HCI)
- CECS 7560 – Internet Engineering II

#### Emphasis Area Courses
(The students in Non-Thesis Option must complete 9 credit-hours from one of these Emphasis Areas)

**Database and Secure Operations**
- CECS 6015 – IT Auditing and Secure Operations
- CECS 6035 – Contingency Planning
- CECS 7240 – Database Security

**Big Data**
- CECS 7410 – Parallel and Distributed Processing
- CECS 7412 – Fundamentals of Big Data Analytics
- CECS 7414 – Big Data Analytics Programming and Applications

**Digital Evidence & Auditing**
- CECS 6015 – IT Auditing and Secure Operations
- CECS 6045 – Law, Investigation, and Ethics
- CECS 6046 – Electronic Discovery & Digital Evidence

### Thesis
- CECS 7971 – Thesis (6 credits)
- CECS 7972 – Thesis Extension (0 credits)

### Project
- CECS 7900 – Project for MCpE (3 credits)
- CECS 7901 – Project Extension for MCpE (0 credits)

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