SOFTWARE DEVELOPMENT & ENGINEERING, MS

Campus: NYC, Westchester, Online

Although competency in programming is required for admission into the program, any student lacking knowledge of the object-oriented paradigm will be required to take SE 602 Fundamental Computer Science I with Java. Credits taken for the preparatory course do not count toward the degree. However, the grade earned is computed into the student's GPA.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SE 602</td>
<td>Fundamental Computer Science I with Java</td>
<td>(4)</td>
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### Core Requirements

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SE 616</td>
<td>Introduction to Software Engineering</td>
<td>4</td>
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<tr>
<td>SE 673</td>
<td>Software Design Methodologies</td>
<td>4</td>
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<tr>
<td>SE 675</td>
<td>Requirements Engineering</td>
<td>3</td>
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<tr>
<td>SE 677</td>
<td>Software Reliability &amp; Quality Assurance</td>
<td>3</td>
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<tr>
<td>SE 679</td>
<td>Contemporary Software Engineering Theory and Practice</td>
<td>4</td>
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### Recommended Electives

Select 12 credits of the following:

- Software Engineering Electives
  - SE 700 Independent Study in Software Engineering
  - SE 741 Formal Software Development
  - SE 765 Distributed Software Development
  - SE 770 Software Risk Management

- Other Electives
  - IS 637 Information Systems Project and Change Management
  - IS 639 Information Systems Planning and Policy
  - CS 639 Mobile Application Development
  - CS 653 Cryptography and Computer Security
  - IT 660 Network Security
  - IT 662 Web and Internet Security

### Capstone

Select six credits from the following options:

- Option 1
  - SE 000 SE-Advanced Elective
  - SE 785 Software Engineering Studio

- Option 2
  - SE 701 Software Development Thesis I
  - SE 702 Software Development Thesis II

- Option 3
  - SE 000 SE-Advanced Elective

IEEE 000 IEEE Certification

1 IEEE Certification is equivalent to 3 credits of graduate-level coursework.