COMPUTER SCIENCE (M.S.)

For details about this program, including program description, admission requirements, and contact information, click here (https://www.montclair.edu/graduate/programs-of-study/computer-science-ms/).

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CSIT 515</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 545</td>
<td>Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 571</td>
<td>Computer Algorithms and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 696</td>
<td>Research Methods in Computing</td>
<td>3</td>
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Elective Courses

Complete 5 courses from the list below. 15

Culminating Experience

Complete one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CSIT 697</td>
<td>Master's Project</td>
<td>3</td>
</tr>
<tr>
<td>CSIT 698</td>
<td>Master's Thesis</td>
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Total Credits 30

Elective Courses

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>CSIT 514</td>
<td>Compiler Construction</td>
<td>3</td>
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<tr>
<td>CSIT 527</td>
<td>Principles of Secure Programming</td>
<td>3</td>
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<tr>
<td>CSIT 528</td>
<td>Statistics for Data Science</td>
<td>3</td>
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<tr>
<td>CSIT 529</td>
<td>Parallel and Distributed Computing</td>
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<tr>
<td>CSIT 531</td>
<td>Robotics</td>
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<tr>
<td>CSIT 535</td>
<td>Human-Computer Interaction (HCI)</td>
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<td>CSIT 537</td>
<td>Web Development</td>
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<tr>
<td>CSIT 540</td>
<td>Computer Networks</td>
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<tr>
<td>CSIT 547</td>
<td>Operating Systems</td>
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<td>CSIT 548</td>
<td>Scalable Distributed Systems</td>
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<td>CSIT 550</td>
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<td>CSIT 551</td>
<td>Mobile Computing</td>
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<td>CSIT 552</td>
<td>Python for Data Science</td>
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<tr>
<td>CSIT 553</td>
<td>Exploratory Data Analysis and Visualization</td>
<td>3</td>
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<tr>
<td>CSIT 554</td>
<td>Big Data Analytics</td>
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<td>CSIT 555</td>
<td>Database Systems</td>
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<tr>
<td>CSIT 556</td>
<td>Introduction to Data Science</td>
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<td>CSIT 557</td>
<td>Advanced Techniques in Data Science</td>
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<tr>
<td>CSIT 558</td>
<td>Data Mining</td>
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<td>CSIT 560</td>
<td>Network Security</td>
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<td>CSIT 561</td>
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<td>CSIT 562</td>
<td>Web Security</td>
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<td>CSIT 565</td>
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<td>CSIT 566</td>
<td>Computer Forensics</td>
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<td>CSIT 567</td>
<td>Cryptography</td>
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<td>CSIT 580</td>
<td>Network Science</td>
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<td>CSIT 595</td>
<td>Special Topics in Computer Science</td>
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<tr>
<td>CSIT 598</td>
<td>Machine Learning</td>
<td>3</td>
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CSIT 599 | Advanced Algorithms for Data Science               | 3       |
| CSIT 610 | Information Technology Project Management         | 3       |
| CSIT 615 | Advanced Software Engineering                     | 3       |
| CSIT 616 | Software Process Management                       | 3       |
| CSIT 635 | Advanced Human-Computer Interaction (HCI)         | 3       |
| CSIT 655 | Advanced Database Systems                         | 3       |
| CSIT 656 | Scientific Databases                              | 3       |
| CSIT 670 | Advanced Computer Algorithms and Analysis         | 3       |
| CSIT 691 | Independent Study: Computer Science               | 3       |
| CSIT 695 | Readings in Computer Science                      | 1-4     |

1 CSIT 696 is the prerequisite for CSIT 697 and CSIT 698.