MS Degree Plan
Computer Systems Engineering and Instrumentation

Core Courses (Select 4)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Offered</th>
<th>Date Scheduled</th>
<th>Date Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 521</td>
<td>Comp. Arch.</td>
<td>Spring</td>
<td></td>
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</tr>
<tr>
<td>CPSD 501</td>
<td>Software Syst. Des.</td>
<td>Fall</td>
<td></td>
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</tr>
<tr>
<td>CPSC 502</td>
<td>Communications I</td>
<td>Summer</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*</td>
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</table>

* Any of the following: PHYS 501, PHYS 503, PHYS 504, PHYS 541

Concentration Courses (Choose 4 courses from the following. At least 2 must be 600 level)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Offered</th>
<th>Date Scheduled</th>
<th>Date Taken</th>
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</thead>
<tbody>
<tr>
<td>PHYS 503</td>
<td>Data Acquisitin &amp; Instrum.</td>
<td>Fall</td>
<td></td>
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</tr>
<tr>
<td>PHYS 522</td>
<td>Microprocessors</td>
<td>Spring</td>
<td></td>
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</tr>
<tr>
<td>PHYS 621</td>
<td>Digital Signal Processing</td>
<td>Even Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPSC 525</td>
<td>Obj Orient. Prog &amp; Desn</td>
<td>Spring</td>
<td></td>
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<tr>
<td>CPSC 550</td>
<td>Distributed Operating Syst.</td>
<td>Spring</td>
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<tr>
<td>CPSC 611</td>
<td>Communications II</td>
<td>Fall</td>
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<tr>
<td>CPSC 621</td>
<td>Parallel Processors</td>
<td>Odd Spring</td>
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</table>

Thesis Option Courses: Offered at any time. Once you start your thesis you must take at least one hour of thesis each semester (not counting summer). You must take at least 3 hours of thesis.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
<th>Date Scheduled</th>
<th>Date Taken</th>
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<tbody>
<tr>
<td>CPSC 619 or PHYS 629</td>
<td>Design (prethesis)</td>
<td>3</td>
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<tr>
<td>PCSE 699</td>
<td>Thesis</td>
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Non-thesis Option Courses: Any 4 courses from the MSAPCS program.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Offered</th>
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</thead>
<tbody>
<tr>
<td>CPSC 501</td>
<td>Software System Design</td>
<td>Fall</td>
</tr>
<tr>
<td>CPSC 502</td>
<td>Communications I</td>
<td>Summer</td>
</tr>
<tr>
<td>CPSC 510</td>
<td>Artificial Intelligence I</td>
<td>Fall</td>
</tr>
<tr>
<td>CPSC 521</td>
<td>Computer Architecture</td>
<td>Spring</td>
</tr>
<tr>
<td>CPSC 525</td>
<td>Obj Orient. Prog &amp; Desn</td>
<td>Spring</td>
</tr>
<tr>
<td>CPSC 550</td>
<td>Distributed Operating Syst.</td>
<td>Spring</td>
</tr>
<tr>
<td>CPSC 560</td>
<td>Intro to Compilers</td>
<td>Spring</td>
</tr>
<tr>
<td>CPSC 570</td>
<td>Theoretical Comp. Sci</td>
<td>Fall</td>
</tr>
<tr>
<td>CPSC 585</td>
<td>Multimedia</td>
<td>Fall</td>
</tr>
<tr>
<td>CPSC 611</td>
<td>Communications II</td>
<td>Fall</td>
</tr>
<tr>
<td>CPSC 621</td>
<td>Parallel Processors</td>
<td>Odd Spring</td>
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<tr>
<td>CPSC 642</td>
<td>Artificial Intelligence II</td>
<td>Even Spring</td>
</tr>
<tr>
<td>CPSC 595</td>
<td>Advanced Topics</td>
<td>As Needed</td>
</tr>
<tr>
<td>CPSC 599</td>
<td>Independent Study</td>
<td>As Needed</td>
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<tr>
<td>CPSC 619</td>
<td>Design (prethesis)</td>
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<tr>
<td>CPSC 699</td>
<td>Thesis</td>
<td>Any</td>
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<tr>
<td>MATH 580</td>
<td>Advanced Num. Analysis</td>
<td>As Needed</td>
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<tr>
<td>MATH 680</td>
<td>Numerical Methods</td>
<td>As Needed</td>
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<tr>
<td>PHYS 501</td>
<td>Dynamical Systems</td>
<td>Fall</td>
</tr>
<tr>
<td>PHYS 502</td>
<td>Quantum Physics</td>
<td>Even Fall</td>
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<tr>
<td>PHYS 503</td>
<td>Data Acquisitn &amp; Instrum.</td>
<td>Fall</td>
</tr>
<tr>
<td>PHYS 504</td>
<td>Electromagnetic Theory</td>
<td>Even Spring</td>
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<tr>
<td>PHYS 506</td>
<td>Thermo &amp; Stat. Mechanics</td>
<td>Spring</td>
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<tr>
<td>PHYS 521</td>
<td>Comp Arch (CPSC 521)</td>
<td>Spring</td>
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<tr>
<td>PHYS 522</td>
<td>Microprocessors</td>
<td>Spring</td>
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<tr>
<td>PHYS 523</td>
<td>Comp Arch (1 hour)</td>
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<tr>
<td>PHYS 524</td>
<td>Microprocessors (1 hour)</td>
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<tr>
<td>PHYS 531</td>
<td>Optics</td>
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<tr>
<td>PHYS 541</td>
<td>Modeling and Simulation</td>
<td>Odd Spring</td>
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<tr>
<td>PHYS 621</td>
<td>Digital Signal Processing</td>
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<tr>
<td>PHYS 631</td>
<td>Physics of Solids</td>
<td>Odd Fall</td>
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<tr>
<td>PHYS 632</td>
<td>Optoelectronic Materials</td>
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<td>PHYS 634</td>
<td>Superconducting Materials</td>
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<tr>
<td>PHYS 595</td>
<td>Advanced Topics</td>
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<tr>
<td>PHYS 599</td>
<td>Independent Study</td>
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<tr>
<td>PHYS 629</td>
<td>Design (prethesis)</td>
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<td>PHYS 639</td>
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<td>PHYS 649</td>
<td>Design (prethesis)</td>
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<tr>
<td>PHYS 699</td>
<td>Thesis</td>
<td>Any</td>
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</table>