Graduate Program Proposals

Department of Computer & Information Science & Engineering (CISE)

Graduate Council 3/20/14
CISE Degree Programs: Current Structure
CISE Degree Programs: Proposed Structure

Core Programs
- PhD Computer Science
- MS Computer Science Engineering
- MS Computer Engineering
- MS Computer Science Liberal Arts & Sciences
- BS Computer Science Liberal Arts & Sciences
- BS Computer Science Engineering
- BS Computer Engineering Joint with Elect & Comp Eng
CISE Degree Programs: Current Structure

- BS Computer Science
- BS Digital Arts & Sciences
- Computer Science Liberal Arts & Sciences
- Computer Science Engineering
- Computer Engineering Joint with Elect & Comp Eng
- MS
- PhD Computer Engineering
- MS Computer Engineering
CISE Degree Programs: Proposed Structure

Core Programs

- PhD

MS
- Computer Science
- Liberal Arts & Sciences

MS
- Computer Science
- Engineering

MS
- Computer Engineering

BS
- Computer Science
- Liberal Arts & Sciences

Computer Science
- Engineering

Computer Engineering
- Joint with Elect & Comp Eng
CISE Degree Programs: Proposed Structure

Core Programs

- PhD

Interdisciplinary

- MS Digital Arts & Sciences
- MS Computer Science Liberal Arts & Sciences

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- MS Computer Science Engineering
- MS Computer Engineering

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Computer Engineering
## Proposed Core Requirements

<table>
<thead>
<tr>
<th>CS CLAS (9)</th>
<th>CS Engineering (12)</th>
<th>Comp Eng (12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COT 5405 Analysis of Algorithms</td>
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</tr>
<tr>
<td></td>
<td>COP 5555 Programming Language Principles</td>
<td>CDA 5155 Computer Architecture Principles</td>
</tr>
</tbody>
</table>

2 from 5:
- COT 5615 Mathematics for Intelligent Systems
- COT 6315 Formal Languages and Computation Theory
- CNT 5106C Computer Networks
- COP 5536 Advanced Data Structures
- COP 5555 Programming Language Principles

2 from 4:
- CDA 5155 Computer Architecture Principles
- COP 5615 Distributed Operating System Principles
- CNT 5106C Computer Networks
- COP 5536 Advanced Data Structures

2 from 3:
- CNT 5106C Computer Networks
- COP 5615 Distributed Operating System Principles
- CDA 5636 Embedded Systems
## Other Requirements (non-thesis)

<table>
<thead>
<tr>
<th>CS CLAS (21)</th>
<th>CS Engineering (18)</th>
<th>Comp Eng (18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 graduate-level credits:</td>
<td>18 graduate-level credits:</td>
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</tr>
<tr>
<td>• At least 9 CISE</td>
<td>• At least 12 CISE</td>
<td>• At least 9 CISE</td>
</tr>
<tr>
<td>• At least 9 non-CISE, with at least 3 CLAS</td>
<td>• Max 6 non-CISE with approval</td>
<td>• Max 9 ECE or other non-CISE courses with approval</td>
</tr>
<tr>
<td>• The student’s program must form a coherent specialization which must be approved by the Graduate Affairs Committee.</td>
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</table>

30 Credits total

30 Credits total

30 Credits total
# Other Requirements (thesis)

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<tr>
<td>21 graduate-level credits:</td>
<td>18 graduate-level credits:</td>
<td>18 graduate-level credits:</td>
</tr>
<tr>
<td>• At least 6 CISE non-research</td>
<td>• At least 9 CISE non-research</td>
<td>• At least 6 CISE</td>
</tr>
<tr>
<td>• At least 6 non-CISE, with at least 3 CLAS</td>
<td>• Max 6 non-CISE with approval</td>
<td>• Max 9 ECE or other non-CISE courses with approval</td>
</tr>
<tr>
<td>• 6 <a href="#">CIS 6971</a> MS research</td>
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<tr>
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</tr>
<tr>
<td></td>
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</tr>
</tbody>
</table>
Other (common to all)

- Up to 1 credit of **CIS 6935** (Graduate Seminar) allowed.
- Up to 3 credits of **CIS 6905** (Individual Study) allowed.
- EXCLUDES **CIS 6910, CIS 6940**.
- Up to 3 credits of EGN5949 (internship) allowed.
CISE Degree Programs: Proposed Structure

Core Programs

- PhD Computer Science
- MS Computer Science
- BS Computer Science

+ Digital Arts & Sciences
+ Computer Science
+ Engineering

MS
- Digital Arts & Sciences
- Computer Science
- Liberal Arts & Sciences

BS
- Digital Arts & Sciences
- Computer Science
- Liberal Arts & Sciences
- Computer Engineering
- Joint with Elect & Comp Eng

PhD Computer Engineering
- MS Computer Engineering
- BS Computer Engineering
- Joint with Elect & Comp Eng
PhD Proposal

- No BOG mechanism for changing the CIP code on a program
- Propose new PhD in Computer Science while maintaining existing PhD in Computer Engineering
  - students can choose appropriate label based on their research topic
  - requirements the same
  - we guess that 2/3 of our PhD students will choose CS once available, both degrees will be viable