Computer Science

Department Information

- **Department Chair:**
  Simone Ludwig, Ph.D.
- **Graduate Program Coordinator:**
  Changhui Yan, Ph.D.
- **Department Location:**
  258 QBB
- **Department Phone:**
  (701) 231-8562
- **Department Email:**
  gradinfo@cs.ndsu.edu
- **Department Web Site:**
  www.ndsu.edu/cs/ (http://www.ndsu.edu/cs/)
- **Application Deadline:**
  February 1 for fall semester; September 1 for spring semester**
- **Credential Offered:**
  Ph.D., M.S.
- **English Proficiency Requirements:**
  TOEFL ibt 79; IELTS 6.5

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<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>CSCI 713</td>
<td>Software Development Processes</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 724</td>
<td>Survey of Artificial Intelligence</td>
<td>3</td>
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<tr>
<td>CSCI 741</td>
<td>Algorithm Analysis</td>
<td>3</td>
</tr>
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<td>CSCI 765</td>
<td>Introduction To Database Systems</td>
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**Master of Science in Computer Science Degree Requirements**

**Core courses (required of all students):**

- CSCI 713: Software Development Processes
- CSCI 724: Survey of Artificial Intelligence
- CSCI 741: Algorithm Analysis
- CSCI 765: Introduction To Database Systems

**Thesis Option (Plan A)**

- CSCI 790: Graduate Seminar
- CSCI 798: Master's Thesis 6-10

**Comprehensive Study Option (Plan B)**

Additional 600-800 level Computer Science courses selected in consultation with your adviser.

- CSCI 790: Graduate Seminar
- CSCI 797: Master's Paper 2-4

**Culminating Experience-Based Option (Plan C)**

Additional 600-800 level Computer Science courses selected in consultation with your adviser.

**Total Credits**

- 32

- 14-16
- 2
- 2

- 24
- 36

- Research adviser should be selected by the end of the second semester at NDSU.
- Additional 600-800 level Computer Science courses selected in consultation with your adviser.
- A Plan of Study listing coursework and examination committee members should be completed by the end of the second semester at NDSU.
- All course work must be approved by the student's adviser, Supervisory Committee, department chair, and graduate dean through the plan of study.
- A maximum of 9 semester credits may be transferred into the program.
- There may be a maximum of 3 credits of independent study.
- Comprehensive examination (on the core courses), only for plan A and B, should be completed by the end of the fourth semester.
- Final oral examination on the student's research for plan A and B.
Bachelor's to Doctor of Philosophy

Core Courses: (or their equivalent in transfer or examination credits)

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Additional courses selected in consultation with your adviser. 24-39

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<tbody>
<tr>
<td>CSCI 899</td>
<td>Doctoral Dissertation (36-51 credits)</td>
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Total Credits 90

Master's to Doctor of Philosophy

Core Courses: (or their equivalent in transfer or examination credits)

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Additional courses selected in consultation with your adviser. 9-15

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<tr>
<td>CSCI 899</td>
<td>Doctoral Dissertation (30-36 credits)</td>
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Total Credits 60

- A minimum of 15 didactic credits numbered 700-789 or 800-898, of which at least 9 are not included in the Computer Science Core Courses listed above.
- Students who took core courses as part of their M.S. studies at NDSU should discuss replacement courses with the adviser and the Graduate program coordinator.
- 30-45 semester credit hours of research – The Ph.D. requires a research contribution to be made under the supervision of one of the Computer Science department’s graduate faculty members.
- Research proposal presentation and preliminary oral examination (qualifying examination) should be completed by the fourth semester at NDSU.
- Satisfactory completion of the Comprehensive examination at the Ph.D. Level. (written based on the core courses)
- Dissertation
- Final oral examination on the dissertation

Some additional information regarding the course work:

- A student holding a Master of Science degree from an educational institution of recognized standing may use:
  - 30 credits previously completed toward the 90 total credits required for the doctoral degree OR
  - Up to 9 credits previously earned graduate level courses with a grade of B or better may be used toward the 90 total credits for the doctoral degree.

- The 90 credits (including any credits transferred) must be computing-related with at least 45 credits involving significant graduate level computer science material. These credits are offered by a computer science department.
- The 90 credits may include a maximum of 6 credits of non-didactic courses (independent studies or seminars). Seminars are limited to 2 of those credits.
- The student’s supervisory committee, the department chair, the college dean, and the graduate dean all must approve the course work on the plan of study.