

COMPUTING FUNDAMENTALS, CERT

for the degree of Graduate Certificate in Computing Fundamentals (on campus or online)

The Graduate Certificate in Computing Fundamentals provides students with Bachelor's degree or higher in a non-computing discipline with an accelerated foundation in computing fundamentals. The Graduate Certificate requires four bridging courses in fundamentals of computing and algorithms and two excursions in computing courses. To allow flexibility and gain deeper knowledge in a computing subject of interest, students are required to complete an independent study along with a graduate-level elective.

The Graduate Certificate in Computing Fundamentals requires a minimum of 20 credit hours distributed over eight courses as follows. A course cannot be used to satisfy more than one requirement within the certificate.

Admission Requirements

The iCAN program is a broadening participation program designed for college graduates without a background in computer science. Successful completion of the iCAN program results in a student receiving a Computing Fundamentals Certificate. Below are the admission requirements for the iCAN program (<https://cs.illinois.edu/academics/graduate/ican/application-process/>).

- A baccalaureate degree (or higher) in any field other than computer science.
- College algebra
- Overall GPA of 3.0 or above.
- Unofficial transcripts are accepted for application review.
- Test scores: A GRE score is not required for admission into the iCAN program.

Financial Aid

The department offers tuition scholarships for the iCAN program based on financial need and application materials.

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Graduation Requirements

Minimum Cumulative GPA: 2.75 (as required for awarding of the Campus Graduate Certificate)

Minimum hours required for certificate completion: 20 hours

Students who have successfully completed this certificate may use the certificate to satisfy the following degree requirements, subject to department approval, and provided they apply and are admitted to the degree program:

- 8 hours of breadth or elective course coursework for Master of Computer Science
- 8 hours of breadth or elective coursework for Master of Science in Computer Science
- 8 hours of required or elective coursework for Master of Science in Bioinformatics: Computer Science
- 8 hours of elective coursework for PhD in Computer Science

* The 8 credit hours of transferable coursework may not include the bridging courses: CS 400, CS 401, CS 402, and CS 403.

** A letter grade of B or above, or an S is required for transfer.

Coursework Requirements

| Code | Title | Hours |
|------------------------------|---|-----------|
| Core Coursework | | 17 |
| CS 400 | Accelerated Fundamentals of Computing I | 3 |
| CS 401 | Accelerated Fundamentals of Algorithms I | 3 |
| CS 402 | Accelerated Fundamentals of Computing II | 3 |
| CS 403 | Accelerated Fundamentals of Algorithms II | 3 |
| CS 491 | Seminar (Section: Seminar – Excursions in Computing I) | 1 |
| CS 491 | Seminar (Section: Seminar – Excursions in Computing II) | 1 |
| CS 597 | Individual Study | 3 |
| Additional Coursework | | 3 |

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|------------------------------|---|
| Elective 400-level CS course | 3 |
|------------------------------|---|

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|--------------------|-----------|
| Total Hours | 20 |
|--------------------|-----------|

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Other Graduate Programs in the Department of Computer Science

- degrees:
 - Computing Fundamentals, CERT (p. 1)
 - Computer Science, MS (<http://catalog.illinois.edu/graduate/engineering/computer-science-ms/>)
 - optional concentrations:
 - Computational Science and Engineering (<http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/>)
 - Computer Science, PhD (<http://catalog.illinois.edu/graduate/engineering/computer-science-phd/>)
 - optional concentrations:
 - Computational Science and Engineering (<http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/>)
 - Bioinformatics: Computer Science, MS (<http://catalog.illinois.edu/graduate/engineering/concentration/computer-science/bioinformatics/>)
- joint programs:
 - Computer Science, MCS & Architecture, MArch (http://catalog.illinois.edu/graduate/engineering_faa/joint-degree/computer-science-mcs-architecture-march/)
 - Computer Science, MCS & Law, JD (http://catalog.illinois.edu/graduate/engineering_law/joint-degree/computer-science-mcs-law-jd/)

The Department of Computer Science (CS) offers other graduate programs leading to the degrees of Master of Science and Doctor of Philosophy in Computer Science, as well as a Computer Science concentration under the interdisciplinary Master of Science in Bioinformatics.

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Department of Computer Science

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 Department of (<https://cs.illinois.edu/>) Computer Science website
 Program website (<https://cs.illinois.edu/academics/graduate/ican/>)
 1210 Siebel Center, 201 N Goodwin, Urbana, IL 61801
 (217) 333-4428
 Program (ican@cs.illinois.edu)email (ican@cs.illinois.edu)

Grainger College of Engineering

Grainger College of Engineering website (<https://grainger.illinois.edu/>)

Admissions

Graduate College Admissions & Requirements (<https://grad.illinois.edu/admissions/apply/>)
 Department Admissions & Requirements (<https://cs.illinois.edu/admissions/graduate/applications-process-requirements/>)