The Integrated Program

Today's technology-dependent and ever-changing technology environment requires graduates with strong technical and leadership skills. In response to this need, Western Illinois University's computer science department offers an integrated program that will allow students to complete both a Bachelor of Science degree and a Master of Science degree in just five years.

The program provides an opportunity for outstanding undergraduates to complete a traditional four year undergraduate degree in computer science and then, with one additional year, earn a master's degree.

Coursework for the bachelor's degree will differ from the standard bachelor degree requirements only in that the student must take three graduate level courses as part of their depth courses in the bachelor's program requirements.

Students may apply for admission to the computer science integrated program after completing 60 semester hours of undergraduate coursework of which a minimum of 30 semester hours must be at WIU. Applicants must have a 3.25 cumulative grade point average and a 3.25 grade point average in the computer science major.

The integrated five-year B.S./M.S. Computer Science degree builds on the department's and the College of Business and Technology's foundation of academic excellence and promotes the intellectual and personal growth of our students. The program will also send much needed, qualified master's graduates into the workplace one year sooner.

Opportunities in Graduate Studies

At Western Illinois University, graduate study in computer science offers the exciting opportunity to work with faculty in their research in artificial intelligence; architecture, database, graphics, languages, networking, and systems design. You will also be able to access a variety of computer hardware and the best of current software.

Our goals for the integrated five-year B.S./M.S. program are to offer the knowledge you need to pursue careers in research and commercial environments, and to give you the ability to stay current in our dynamic and rapidly changing discipline. Our graduates have been successful in Ph.D. programs, in industrial research laboratories, in software and hardware design, and in middle and upper-level management for a variety of companies.

Two Options for the Integrated Five-Year M.S. Degree

For maximum flexibility in meeting your goals, the program offers two options by which the integrated five-year Master of Science degree may be earned. You can choose from a more commercial project-oriented option, or the traditional research-based thesis option. In each, you will take courses that stress projects, teamwork, and a fundamental knowledge of computing. You will graduate with competence and confidence: the competence to do the job, and the confidence to know you can do it.

Option 1, the Thesis Plan, requires 18 semester hours of course work and six hours of research as a graduate student. The final written thesis will be a formal document describing the research and will be prepared in
accordance with requirements of the School of Graduate Studies.

Option 2, the Project Plan, requires 21 semester hours of course work, and three hours of directed study research as a graduate student. A final written report on the research project is required.

Distribution of Integrated Program Requirements & Hours

**B.S. Undergraduate Component:**
- Choose 3 (9 semester hours) from the following:
  - CS 410 (G) Operating Systems (3)
  - CS 420 (G) Computer Communication and Networks (3)
  - CS 460 (G) Artificial Intelligence Methods (3)
  - CS 465 (G) Graphics
  - CS 470 (G) Database Systems (3)
  (Note: students in the B.S./M.S. program must complete these courses with the “G” designation.)

**M.S. Graduate Component:**
- **Core Courses**
  - CS 560 Computer Architecture I (3)
  - Remaining classes from:
    - CS 410 (G) Operating Systems (3)
    - CS 470 (G) Database Systems (3)
    - CS 460 (G) Artificial Intelligence Methods (3)
    - CS 420 (G) Computer Communication and Networks (3)
    - CS 465 (G) Graphics (3)
  *Total Core Hours:********** 3 - 9 s.h.*

- **Depth Courses** (Select one class from each of two different subject areas):
  - **Subject Area 1:**
    - CS 512 Advanced Operating Systems
    - CS 513 Topics in Operating Systems
  - **Subject Area 2:**
    - CS 522 Advanced Database Design and Administration
    - CS 523 Topics in Database Systems
  - **Subject Area 3:**
    - CS 548 Advanced Artificial Intelligence
    - CS 549 Topics in Artificial Intelligence
  - **Subject Area 4:**
    - CS 556 Advanced Computer Networks
    - CS 557 Topics in Computer Networks
  - **Subject Area 5:**
    - CS 561 Advanced Computer Architecture II
    - CS 562 Topics in Computer Architecture
  - **Subject Area 6:**
    - CS 566 Advanced Computer Graphics
    - CS 567 Topics in Computer Graphics
  *Total Depth Course Hours: **********6 s.h.*

- **Additional Hours:** Select a plan from the following: 9 s.h.
  - **Thesis Plan**
    - CS Electives (3 - 9).
    - CS 600 Research (3)
    - CS 601 Thesis (3)
  - **Project Plan**
    - CS Electives (6 - 12)
    - CS 599 Master's Project (3)
  *Total Additional Hours: **********9 – 15 s.h.*

*Total M.S. Program Hours: **********24 s.h.*

**Computer Facilities**

At WIU, you will have access to a large IBM mainframe and SUN computers and we have large laboratories of the latest microcomputers. Our access to microcomputers is as good as any university in the United States. It is our goal to give you experience on a variety of computing equipment and its associated software, so that you can judge which type of equipment is best suited for the problems you encounter during your working career.

**The Faculty**

Department faculty have a variety of experience, degrees, and research interests. The faculty have doctorates from such universities as Florida State University, Illinois Institute of Technology, Indian Institute of Science, Northwestern University, Southern Methodist University, University of Illinois, University of Iowa, and University of Western Ontario. Their current research interests are in the areas of artificial intelligence, computer architecture, databases, distributed progressing, graphics, languages, networking, simulation, and software engineering.

**Consider a Career in Computer Science at Western Illinois University!**

For more information, please contact c-science@wiu.edu or call (309) 298-1452.