

# Computer Science and Information Systems

University of Wisconsin-River Falls  
[www.uwrf.edu/csis](http://www.uwrf.edu/csis)

**Program** The Computer Science and Information Systems (CSIS) Department offers its graduates a common foundation for analysis, design and development of computer and information systems within two major options.

**Computer Science Option:** A technical and theoretical emphasis provides students comprehensive understanding of software engineering, computing techniques and the underlying theories. Graduates will develop skills relevant to the analysis, design and implementation of sophisticated software/hardware systems and communication networks.

**Information Systems Option:** The analysis and design of information systems with an emphasis on managing, storing, transmitting and providing ready access to information is the key to the IS option. Graduates will develop skills relevant to the analysis, design and implementation of sophisticated information systems. (Management information systems is an option in the Business Administration major.)

**Faculty** The CSIS faculty have a wide range of interests including: computer networks, internet technologies, computer graphics, image processing, computer vision, artificial intelligence, neural networks, object-oriented programming, systems analysis, database management systems, and design of information systems. Professors can arrange for independent study to explore current trends in the computer field beyond those offered in the standard curriculum. A full-time faculty member is assigned as an advisor to each student.

**Why Major in Computer and Information Systems?** Computers are woven into the fabric of our business and personal lives, and the use of computing in our society will expand even further in the future. In the global environment of rapidly changing technology, there is a growing business dependence on information systems and the digital networks in all career fields. As a result, computer skills and competencies are in high demand. Recently, Jobs Rated Almanac identified the top ten jobs based on job security, income and satisfaction levels. On the list were several computer-related jobs, including website manager, computer systems analyst, computer programmer and software engineer.

As a computer professional in either option, you can pursue any of the following areas: web development and e-commerce, networking, analysis and design of information systems, software development, multimedia and graphics, and database design and implementation.

**Strengths of the Program** CSIS faculty care about you and your success and serve as teachers, mentors, and advisors. A tutoring and peer learning program increases student interaction, encourages teamwork, and offers assistance with department core courses. A mentorship program matches new students with upper level students, and upper level students with working professionals, to provide encouragement and assistance along the way. The internship and placement program searches out real world work opportunities and strives for 100% placement upon graduation. Undergraduate research promotes student involvement with faculty.

The CSIS Department has an active local chapter of the Association of Computing Machinery (ACM) providing students opportunities to meet and learn from other students, professional speakers and faculty.

**T**he computer science and information systems department offers its graduates an excellent environment to acquire skills for analysis, design and development of sophisticated software systems. The university is committed to quality undergraduate education, with a program in which teaching is emphasized and the advancement of business and scientific know-how research is encouraged. Faculty are concerned with the quality of their teaching and carry on active research projects, often with the assistance of students.



# CS AND IS OPTIONS

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## Bachelor of Science Degree. Academic Advising Plan.

CS = computer science requirement; IS = information systems requirement  
(Management information systems is an option in the Business Administration major. Please consult the University online catalog and academic advising plan for the major requirements.)

### Semester 1 (Fall)

CBE 100 Orientation to CBE.....	1
CSIS 161 Programming I .....	3
General Education CW (ENGL 100) .....	3
General Education M (MATH 166) or (MATH 156) .....	4 or 3
General Education HW (P ED 108).....	1
General Education SB .....	3
<b>CS: Total semester credits</b> .....	<b>15</b>
<b>IS: Total semester credits</b> .....	<b>14</b>

### Semester 2 (Spring)

CSIS 162 Programming II .....	3
General Education CA (ENGL 200) .....	3
General Education CS .....	3
General Education S .....	3
CS: MATH 167 Calculus II.....	4
IS: General Education SB .....	3
<b>CS: Total semester credits</b> .....	<b>16</b>
<b>IS: Total semester credits</b> .....	<b>15</b>

### Semester 3 (Fall)

CSIS 237 Data Structures and Algorithms .....	3
CSIS 247 Introduction to Computer Networks .....	3
CSIS 333 Database Management Systems.....	3
MATH 236 Discrete Mathematics.....	4
<b>General Education SB</b> .....	<b>3</b>
<b>Total semester credits</b> .....	<b>16</b>

### Semester 4 (Spring)

CBE 200 Professional Development I .....	1
CSIS 355 Computer Organization and Assembly Language .....	3
CSIS Elective course .....	3
Minor course .....	3
General Education HF .....	3
General Education SL .....	3
<b>Total semester credits</b> .....	<b>16</b>

### Semester 5 (Fall)

CSIS elective course .....	3
American cultural diversity (d).....	3
Minor courses (two) .....	6
General Education HW activity.....	5
CS: MATH 256 or 361 or 336.....	3
IS: General Education EC .....	3
<b>Total semester credits</b> .....	<b>15.5</b>

### Semester 6 (Spring)

CBE 300 Professional Development II .....	1
Minor course .....	3
CS: CSIS 343 Software Engineering .....	3
CS: CSIS elective course .....	3
CS: General Education SB.....	3
IS: CSIS elective courses (two).....	6
IS: General electives .....	3
<b>Total semester credits</b> .....	<b>13</b>

### Semester 7 (Fall)

Minor courses (two) .....	6
Global perspectives (g) .....	3
General Education HW activity.....	5
CS: CSIS 429 Operating Systems .....	3
CS: General Education EC.....	3
IS: CSIS 423 Introduction to Systems Analysis.....	3
IS: General Education MD.....	3
<b>Total semester credits</b> .....	<b>15.5</b>

### Semester 8 (Spring)

CSIS 484 Seminar .....	1
Minor courses (two) .....	6
CS: General Education MD .....	3
CS: CSIS elective course .....	3
IS: CSIS 433 Design Analysis MIS .....	3
IS: General elective courses .....	5
<b>CS: Total semester credits</b> .....	<b>13</b>
<b>IS: Total semester credits</b> .....	<b>15</b>

## Summary of Degree Requirements

General Education CS/IS .....	39/38 cr.
American Cultural Diversity and Global Persp. ....	6 cr.
CS and IS .....	37 cr.
Required Supporting Courses CS/IS .....	10/7 cr.
Minor .....	24 cr.
General Electives CS/IS .....	4/8 cr.
Credits to Degree .....	120 cr.

April 2008

This academic plan is an example of how students might choose to fulfill program requirements within a period of four years. After consulting with their advisers, students may make other course choices which would meet the program requirements and be more suitable for them.