

# Department of Computer Information Systems

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The Computer Information Systems (CIS) Department mission is to provide its students with rigorous programs of study to prepare them to assume technology leadership roles within business, industrial or technology-based organizations, and for challenging careers in computer science and information technology.

Students may choose from two separate and distinct areas of study. One area of study is integrated with courses in business and leads to a bachelor of business administration degree with emphasis in computing. Alternatively, students may earn a bachelor of science degree in computer science. Curricula for both the computer science degree and the computer information systems degree provide the necessary academic foundation for success in an exciting and rapidly changing discipline. In addition to intensive study of computer science topics, the degree plan requires several mathematics-oriented courses. Both degree programs are current and based on curriculum models recommended by recognized professional organizations in computing.

As a reflection of the department's mission, students will benefit from the teaching of full-time faculty throughout the four years of study. The faculty are academically qualified and technically competent professionals who regard teaching the highest priority. In addition, many are engaged in applied research so that they may bring to their teaching a balance between theory and practice.

Department faculty and staff are committed to working with students to help cultivate practical skills, assimilate relevant scientific knowledge and the ability to engage in life-long learning so that students may be competitive in global technological environments. This is accomplished by creating learning environments that foster the acquisition of skills considered essential for students' personal and professional growth. While the department encourages collaborative learning by providing opportunities for students to work as team members to solve real-world problems, it also promotes growth at the personal level.

## University Core Curriculum Requirements

Refer to the "University Core Curriculum" section of this catalog.

Discipline	Course Prefix
Computer Information Systems .....	CIS
Computer Science .....	CS
Quantitative Business Analysis .....	QBA

NOTE: See the "Academic Courses and Abbreviations" and "Course Descriptions" sections of this catalog for a complete list of courses offered by the University.

## Bachelor of Business Administration (B.B.A.) Degree

### Major in Computer Information Systems (Major Code: 308)

#### University Core Curriculum Requirements

Refer to the "University Core Curriculum" section of this catalog. For all bachelor of business administration degree requirements, students must take ECON 2301.

#### B.B.A. Degree Requirements

The goal of the Computer Information Systems (CIS) course of study is to prepare professionals trained in technical aspects of computer systems, knowledgeable of applications areas and able to grow professionally in a rapidly changing field. The CIS program is career oriented to prepare graduates with the background to advance to high-level positions in areas such as programming, systems analysis, systems design, project leadership and systems management.

#### Department Core Requirements

- CIS 1315, 2390; CS 2315.

#### Computer Information Systems Core Requirements

- CIS 3350, 3360, 3372, 3385. (4390 completed as part of B.B.A. core for CIS major.)
- 12 hours from CIS 3382, 4098, 4310, 4350, 4370, 4372, 4382, 4392; CS 3303, 3315.

#### Required Courses from Other Disciplines

- QBA 3350 or 4352.
- CIS majors are exempt from CIS 3330 in the B.B.A. core.
- A minimum of 127 credit hours is required.

#### Teacher Secondary Certification

The Department of Computer Information Systems offers a secondary teacher certification major in computer information systems (CIS). Computer information systems may also be selected as a second teaching field with other certification majors. Consult the "Division of Education" section of this catalog for core curriculum and certification majors requirements related programs offered by this department.

#### Minor in Computer Information Systems

The minor in computer information systems is available to any student pursuing a B.B.A. degree. Students wishing to complete a minor in computer information systems must take CIS 1315, 2390 and CS 2315, and then select nine hours from CIS 3350, 3360, 3382, 3385, 4372, 4382 or CS 3315.

# Department of Computer Information Systems

Curriculum Guide (suggested course sequence)			
Major in Computer Information Systems			
First Year		Second Year	
<b>Semester 1</b> Lab science .....4 hrs. ENGL 1301 .....3 hrs. MATH 1314 or 1324* .....3 hrs. CIS 1315 .....3 hrs. PHED 1111 or activity .....1 hr. 14 hrs.	<b>Semester 2</b> Lab science .....4 hrs. ENGL 1302 .....3 hrs. CIS 2315 .....3 hrs. MATH 1325 .....3 hrs. PHED 1111 or activity .....1 hr. SCOM 1315 or 1321 .....3 hrs. 17 hrs.	<b>Semester 1</b> CIS 2390 .....3 hrs. ENGL 2332 or 2333 .....3 hrs. ACCT 2301 .....3 hrs. ECON 2301 .....3 hrs. POSC 2305 .....3 hrs. ENGL 2371, HIST 2372, PHIL 1301 or SPAN 2312 .....3 hrs. QBA 2342 .....3 hrs. 21 hrs.	<b>Semester 2</b> CIS 3360 .....3 hrs. ACCT 2302 .....3 hrs. ECON 2302* .....3 hrs. COB writing component .....3 hrs. HIST 1301 or 1302 .....3 hrs. 15 hrs.
Third Year		Fourth Year	
<b>Semester 1</b> BUSI 3312 .....3 hrs. MGT 3330 .....3 hrs. FIN 3320 .....3 hrs. QBA 4331, CIS 4355 or 4370**** .....3 hrs. CIS 3350 .....3 hrs. 15 hrs.	<b>Semester 2</b> MKT 3340 .....3 hrs. CIS 3385 .....3 hrs. ECON adv. elective** .....3 hrs. QBA 3350 or 4352 .....3 hrs. Elective .....3 hrs. HUMA 1315, ARTS 1303, 1304, MUSI 1306 or THRE 1310 .....3 hrs. 18 hrs.	<b>Semester 1</b> CIS/CS adv elective .....3 hrs. CIS/CS adv elective .....3 hrs. POSC 2306 .....3 hrs. MGT 4315 .....3 hrs. Elective .....3 hrs. HIST 1301 or 1302 (second course) .....3 hrs. 15 hrs.	<b>Semester 2</b> CIS 4390 .....3 hrs. CIS/CS adv. elective .....3 hrs. CIS/CS adv. elective .....3 hrs. Elective .....3 hrs. 12 hrs.

\*MATH 1324, SCOM 1321, ECON 2301 and COB writing component are required for B.B.A.  
 \*\*12 hours CIS/CS advanced electives from CIS 3382, 4098, 4355, 4372, 4382, 4392; CS 3303, 33135, 4320.  
 \*\*\* QBA 3350 or 4352 advanced elective is required.  
 \*\*\*\*To meet College of Business writing requirement.

## Bachelor of Science (B.S.) Degree

### Major in Computer Science (Major Code: 307)

The computer science curriculum is designed to provide the student with significant exposure to the theory, abstraction and design components of the field of computer science. Students completing this curriculum will be able to demonstrate (1) a system-level perspective; (2) appreciation of the interplay between theory and practice; (3) familiarity with common themes such as abstraction, complexity and evolutionary change; and (4) adaptability to the enormous pace of change in computing. Students will have significant project experience.

#### University Core Curriculum Requirements

Refer to the "University Core Curriculum" section of this catalog.

#### Department Core Requirements

- CIS 1315, 2390; CS 2315.

#### Computer Science Core Requirements

- CIS 3350, 4390; CS 2325, 2377, 3307, 4325, 4352.

#### Computer Science Advanced Electives

- 21 hours from CIS 3360, 3382, 3385, 4098, 4372, 4382, 4392; CS 3303, 3315, 4305, 4320, 4330, 4360, 4385.

#### Required Courses from Other Disciplines

- MATH 2375, 2413, 2414; QBA 2342.; general electives to total the minimum 123 hours.

#### Minor in Computer Science

The minor in computer science is available to any student pursuing a B.S. degree. Students wishing to complete a minor in computer science must take CIS 1315, CS 2315, 2377, and then select nine hours from CIS 3350, CS 3303, 3307, 3315, 4305, 4320, 4325, 4330, 4352 or 4385.

Curriculum Guide (suggested course sequence)			
Major in Computer Science			
First Year		Second Year	
<b>Semester 1</b> Lab science .....4 hrs. ENGL 1301 .....3 hrs. MATH 1314 or 1324* .....3 hrs. HIST 1301 or 1302 .....3 hrs. CIS 1315 .....3 hrs. PHED 1111 or activity .....1 hr. 17 hrs.	<b>Semester 2</b> Lab science .....4 hrs. ENGL 1302 .....3 hrs. CS 2315 .....3 hrs. SCOM 1315 or 1321 .....3 hrs. MATH (CS) 2375 .....3 hrs. 16 hrs.	<b>Semester 1</b> ENGL 2332 or 2333 .....3 hrs. CS 2325 .....3 hrs. CIS 2390 .....3 hrs. QBA 2342*** .....3 hrs. MATH 2413 .....4 hrs. 16 hrs.	<b>Semester 2</b> ENGL 2371, HIST 2372, PHIL 1301 or SPAN 2312 .....3 hrs. POSC 2305 .....3 hrs. Elective .....3 hrs. CS 2377 .....3 hrs. MATH 2414*** .....4 hrs. PHED 1111 or activity .....1 hr. 17 hrs.
Third Year		Fourth Year	
<b>Semester 1</b> HIST 1301 or 1302 .....3 hrs. HUMA 1315, ARTS 1303, 1304, MUSI 1306 or THRE 1310 .....3 hrs. 15 hrs.	<b>Semester 2</b> POSC 2306 .....3 hrs. ANTH 2351, ECON 2301, GEOG 1302, PSYC 2301, SOC 1301 .....3 hrs. CS 3307 .....3 hrs. CIS/CS elective** .....3 hrs. CIS/CS elective** .....3 hrs. 15 hrs.	<b>Semester 1</b> CS 4352 .....3 hrs. CIS/CS elective** .....3 hrs. CIS/CS elective** .....3 hrs. 15 hrs.	<b>Semester 2</b> CIS 4390 .....3 hrs. CS 4325 .....3 hrs. CIS/CS elective** .....3 hrs. Elective .....3 hrs. Elective .....4 hrs. 16 hrs.

\*Or other higher level math course.  
 \*\*21 hours advanced electives from CIS 3360, 3382, 3385, 4098, 4372, 4382, 4392, CS 3303, 3315, 4305, 4320, 4330, 4360, 4385.  
 \*\*\*Required courses from other departments: MATH 2375, 2413, 2414, QBA 2342 and general elective to total the minimum 127 hours.

## Cooperative Education Program

The department offers a cooperative education (co-op) program for students majoring in any field within the department. The co-op program combines classroom study with a planned program of related work experience with industry or government agencies. The program provides students opportunities to earn a portion of their college expenses while gaining work experience which enhances their academic studies. The co-op program could extend the time necessary to complete a degree. Past co-op wages have averaged \$8-\$17.50 per hour.