COMPUTER INFORMATION SYSTEMS (COSC, ITSE, ITSW)

COSC 1301. INTRODUCTION TO COMPUTING (LECTURE 3, LAB 1). CREDIT 3. ACGM.
Overview of computer systems-hardware, operating systems, and microcomputer application software, including the Internet, word processing, spreadsheets, presentation graphics, and databases. Current issues such as the effect of computers on society, and the history and use of computers in business, educational, and other modern settings are also studied. This course is not intended to count toward a student’s major field of study in business or computer science. (These courses are no longer cross-listed as BCIS 1301 and 1401).

COSC 1336. PROGRAMMING FUNDAMENTALS I (LECTURE 3, LAB 1). CREDIT 3. ACGM.
Introduces the fundamental concepts of structured programming and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. This course is included in the Field of Study Curriculum for Computer Science.

COSC 1337. PROGRAMMING FUNDAMENTALS II (LECTURE 3, LAB 1). CREDIT 3. ACGM.
This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software. (This course is included in the Field of Study Curriculum for Computer Science.) Prerequisite: COSC 1336 Programming Fundamentals I with a grade of "C" or better.

COSC 2336. PROGRAMMING FUNDAMENTALS III (LECTURE 3, LAB 1). CREDIT 3. ACGM.
Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. Prerequisite: COSC 1337 Programming Fundamentals II with a grade of "C" or better.

COSC 2425. COMPUTER ORGANIZATION (LECTURE 3, LAB 1). CREDIT 4. ACGM.
The organization of computer systems is introduced using assembly language. Topics include basic concepts of computer architecture and organization, memory hierarchy, data types, computer arithmetic, control structures, interrupt handling, instruction sets, performance metrics, and the mechanics of testing and debugging computer systems. Embedded systems and device interfacing are introduced. This course is included in the Field of Study Curriculum for Computer Science. Prerequisite: COSC 1336 Programming Fundamentals I with a grade of "C" or better.

ITSE 1480. COOPERATIVE EDUCATION - COMPUTER PROGRAMMING/PROGRAMMER, GENERAL (LECTURE 1, COOP 26). CREDIT 4. WECM.
This is an intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by College faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. Prerequisites: Completion of 12 credit hours or equivalent work experience.

ITSE 1307. INTRODUCTION TO DATABASE (LECTURE 2, LAB 4). CREDIT 3. WECM.
This course is an introductory course in relational database management systems. Upon successful completion of this course the student will be able to identify database terminology and concepts, plan, define, and design a database, design and generate tables, forms and reports, and design and process queries. This course assumes computer literacy. This course leads to the Microsoft certification in SQL Server Database Administration Fundamentals.

ITSE 2309. DATABASE PROGRAMMING (LECTURE 2, LAB 4). CREDIT 3. WECM.
This course studies database development using database programming techniques emphasizing database structures, modeling, and database access. This course will transfer into certain baccalaureate programs.