## BCIS-BUSINESS COMPUTER SYSTEMS

### BCIS 110. Fundamentals of Information Literacy and Systems
3 Credits (3)
Examination of information systems and their impact on commerce, education, and personal activities. Utilization of productivity tools for communications, data analysis, information management and decision-making.

### BCIS 321. Introduction to Software Development and Programming
3 Credits (3)
Computer algorithm development and programming logic in the context of business information systems using current programming environments. Includes program design, data types, data structures, control structures, arrays, and principles of object oriented programming.

**Prerequisite(s):** C- or better in BCIS 110 or C S 110 and MATH 120.

### BCIS 338. Business Information Systems I
3 Credits (3)
Application, design and use of computerized information systems in business environment.

**Prerequisite(s):** BCIS 110G or C S 110G or consent of instructor.

### BCIS 350. Information Systems Analysis and Design
3 Credits (3)
An introduction to the analysis and design of secure information systems.

**Prerequisite(s):** Concurrently with BCIS 338 or consent of instructor.

### BCIS 461. Business Analytics I
3 Credits (3)
This course provides an understanding of how organizations can utilize technology to successfully collect, organize, manipulate, use, and present data. The course blends the use of current technology with the managerial practices involving business analytics. The emphasis of the course will be on data management practices and the production of descriptive analytics. Crosslisted with: BCIS 561.

**Prerequisite(s):** BCIS 338 or consent of instructor.

### BCIS 466. Business Analytics II
3 Credits (3)
This course provides an understanding of how organizations can build and test predictive models, utilizing business-related data to estimate model parameters. The emphasis of the course will be on utilizing data management systems to produce useful predictive analytics. Crosslisted with: BCIS 566.

**Prerequisite(s):** BCIS 461 or consent of the instructor.

### BCIS 475. Database Management Systems
3 Credits (3)
Design, development, and use of database management systems in the business environment.

**Prerequisite(s):** BCIS 338 or consent of instructor.

### BCIS 480. E-Commerce Security
3 Credits (3)
Introduction to securing network-based applications from internal and external threats. Fundamentals of network security, including TCP/IP, firewalls, intrusion detection, and vulnerability.

**Prerequisite(s):** BCIS 338 or consent of instructor.

### BCIS 482. Management of Information Security
3 Credits (3)
Provides management overview of information security and thorough examination of administration of information security. Surveys field of information security including planning, policy and programs, protection and people relative to information security.

**Prerequisite(s):** BCIS 338 or consent of instructor.

### BCIS 485. Enterprise Resource Planning
3 Credits (3)
This course covers concepts in enterprise resource planning (ERP). Topics include how ERP integrates business processes across functional areas—such as the procurement process and the sales order process—and how businesses use ERP information systems in day-to-day operations as well as for performance monitoring. SAP R/3 software will be used in several hands-on examples of ERP software as a real-world example of an ERP system.

**Prerequisite(s):** C- or better in BCIS 338 or BCIS 350 or ACCT 351.

### BCIS 490. Selected Topics
1-3 Credits
Current topics in business systems analysis. Consent of Instructor required.

### BCIS 498. Independent Study
1-3 Credits
Individual studies directed by consenting faculty with prior approval of the department head. May be repeated for a maximum of 3 credits.

**Prerequisite(s):** junior or above standing and consent of instructor.

### BCIS 502. Business Information Systems
3 Credits (3)
Analysis of information systems as integral parts of business organizations, including the responsibility of management to understand their capabilities and uses in handling the organization's information flow and providing appropriate information for decision making.

**Prerequisite:** graduate students only.

### BCIS 550. Information Systems Analysis and Design
3 Credits (3)
Information systems development methodologies and the system life cycle. Justifying and managing systems development projects. Taught with BCIS 350 with differentiated assignments for graduate students.

**Prerequisite(s):** Graduate Students Only.

### BCIS 561. Business Analytics I
3 Credits (3)
This course provides an understanding of how organizations can utilize technology to successfully collect, organize, manipulate, use, and present data. The course blends the use of current technology with the managerial practices involving business analytics. The emphasis of the course will be on data management practices and the production of descriptive analytics. Not open to students who have taken BCIS 461. Taught with BCIS 461 with differentiated assignments for graduate students. No S/U or audit option. Crosslisted with: BCIS 461.

**Prerequisite(s):** BCIS 338 or consent of instructor.
BCIS 566. Business Analytics II
3 Credits (3)
This course provides an understanding of how organizations can build and test predictive models, utilizing business-related data to estimate model parameters. The emphasis of the course will be on utilizing data management systems to produce useful predictive analytics. Not open to students who have taken BCIS 466. Taught with BCIS 466 with differentiated assignments for graduate students. No S/U or audit option. Crosslisted with: BCIS 466.
Prerequisite(s): BCIS 461 or consent of the instructor.

BCIS 575. Database Management Systems
3 Credits (3)
Design, development, and use of database management systems in the business environment. Taught with BCIS 475 with differentiated assignments for graduate students. Consent of Instructor required.
Prerequisite(s): BCIS 350.

BCIS 580. E-Commerce Security
3 Credits (3)
Introduction to securing network-based applications from both internal and external threats. Fundamentals of network security including TCP/IP, firewalls, intrusion detection and vulnerability discussed. Not open to students who have taken BCIS 480. Taught with BCIS 480 with differentiated assignments for graduate students. No S/U or audit option.
Prerequisite(s): C- or better in BCIS 460 or consent of instructor.

BCIS 582. Management of Information Security
3 Credits (3)
Provides management overview of information security and thorough examination of administration of information security. Surveys field of information security including planning, policy and programs, protection and people relative to information security. Taught with BCIS 482 with differentiated assignments for graduate students.
Prerequisite(s): BCIS 110 or equivalent.

BCIS 585. Enterprise Resource Planning & Business Processes
3 Credits (3)
Enterprise-wide information systems and their use in enterprise resource planning (ERP). This course will examine the many cross-functional business processes. Other topics include ERP implementation issues, change management, and business process re-engineering. Hands-on exercises use SAP/3 Enterprise software. Taught with BCIS 485 with differentiated assignments for graduate students.
Prerequisite(s): C- or better in ACCT 351 or BCIS 502 or consent of instructor.

BCIS 590. Special Topics
1-3 Credits (1-3)
Seminars in selected current topics in business computer systems. May be repeated up to 3 credits.
Prerequisite(s): Vary according to topic being offered.

BCIS 598. Independent Study
1-3 Credits
Individual studies directed by consenting faculty with prior approval of department head. A maximum of 3 credits may be earned.
Prerequisite: consent of instructor.