# Bachelors of Science in Computer Information Systems

## *Option in Information Technology (72 Semester Units - 108 Quarter Units)*

Catalog Fall 2016          Major Catalog Date: _____

Name _____     CIN _____
     Last             First          MI

_____                   _____
Street Address            City          ZIP Code          Quarter Admitted

_____     _____
Adviser's Signature          Date          Student's Signature          Date

**SEMESTER - Lower Division Required IS Core Courses (6 Units)**

| | | | Units | Complete? |
|---|---|---|---|---|
| CIS | 1200 | Business Computer Systems | 3 | |
| CIS | 2830 | Introduction to Application Programming | 3 | |

**Lower Division Required Business Core Courses (3 Units)**

| | | | Units | Complete? |
|---|---|---|---|---|
| ACCT | 2100 | Principles of Financial Accounting | 3 | |
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**QUARTER - Lower Division Core Courses (32 Units)**

| | | | Units | Complete? |
|---|---|---|---|---|
| CIS | 100 | Business Computer Systems | 4 | |
| CIS | 283 | Introduction to Application Programming with Java *preq: CIS 100* | 4 | |
| ACCT | 210 | Principles of Financial Accounting | 4 | |
| ACCT | 211 | Principles of Managerial Accounting *preq: ACCT 210* | 4 | |
| ECON | 201 | Principles of Economics I: Microeconomics | 4 | |
| ECON | 202 | Principles of Economics II: Macroeconomics *preq: ECON 201* | 4 | |
| ECON | 209 | Applied Business & Economics Statistics I | 4 | |
| FIN | 205 | Legal and Regulatory Environment of Business | 4 | |

**SEMESTER - Upper Division Required Business Core Courses (9 Units)**

| | | | Units | Complete? |
|---|---|---|---|---|
| | | | | |
| BUS[2] | 3050 | Business Communication *preq: WPE* | 3 | |
| CIS | 3010 | Management Information Systems | 3 | |
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| MGMT | 3070 | Organizational Behavior and Management | 3 | |
| | | | | |
| | | | | |

**Upper Division Required IS Core Courses (15 Units)**

| | | | Units | Complete? |
|---|---|---|---|---|
| CIS | 3050 | Database Design and Development | 3 | |
| CIS | 3060 | Systems Analysis and Design | 3 | |
| CIS | 4100 | Hardware and Software Architecture | 3 | |
| CIS | 4840 | Communications Systems | 3 | |
| CIS[2] | 4900 | Capstone: Information Systems | 3 | |

**QUARTER - Upper Division Core Courses (56 Units)**

| | | | Units | Complete? |
|---|---|---|---|---|
| ACCT | 310 | Accounting Info for Decision Making *preq: ACCT 211* | 4 | |
| BUS | 305 | Business Communication *preq: WPE* | 4 | |
| CIS | 301 | Management Information Systems *preq: CIS 100* | 4 | |
| ECON | 309 | Appl Bus & Econ Stats II *preq: ECON 209, MATH 102* | 4 | |
| FIN | 303 | Business Finance *preq: ACCT 210* | 4 | |
| MGMT | 306 | Operations Management *preq: ECON 209* | 4 | |
| MGMT | 307 | Management and Organizational Behavior | 4 | |
| MGMT | 308 | Business Responsibilities in Society | 4 | |
| MKT | 304 | Principles of Marketing | 4 | |
| CIS | 405 | Database Design and Development | 4 | |
| CIS | 406 | Systems Analysis and Design *preq: CIS 405* | 4 | |
| CIS | 410 | Hardware and Software Architecture *preq: CIS 283* | 4 | |
| CIS | 484 | Communications Systems *preq: CIS 100* | 4 | |
| CIS | 490 | Capstone: Information Systems *preq: Senior, WPE, BSCIS Core* | 4 | |

*Note 1: BUS 3050 is designated as a Writing Intensive (WI) course.*

*Note 2: CIS 4900 is the capstone course. Students can take CIS 4900 after they have completed all other lower & upper division core courses.*

# Bachelors of Science in Computer Information Systems

## *Option in Information Technology (72 Semester Units - 108 Quarter Units)*

**OPTION: Information Technology (39-42 Units)**  |  **OPTION: Information Technology (20 Units)**

*Semester - Select 39 to 42 units (13 to 14 courses) of electives from the IS/IT Elective Courses (Other functional areas outside of the College of Business and Economics can be considered with the approval of the advisor.)*

Note: The exact number of units to be fulfilled for option courses will be determined by the number of double counted General Education courses.

*Quarter - Information Technology Electives (20 Units): Select five courses*

| | | | | Complete? | | | | | Complete? |
|---|---|---|---|---|---|---|---|---|---|
| **Enterprise Systems** | | | | | CIS | 398 | Cooperative Education in Information Systems | 1-4 | |
| CIS | 4200 | Business Intelligence and Data Warehouse | 3 | | | | | | |
| CIS | 4510 | Fundamentals of ERP Technology | 3 | | CIS | 451 | Fundamentals of ERP Technology *preq: CIS 301* | 4 | |
| CIS | 4560 | Introduction to Big Data | 3 | | | | | | |
| CIS | 4590 | Advanced System Development | 3 | | CIS | 459 | Advanced Information Systems Development preq: CIS 301 | 4 | |
| CIS | 4760 | Project Planning with Microsoft Project | 3 | | CIS | 476 | Project Planning with Microsoft Project *preq: CIS 100* | 4 | |
| CIS | 4810 | Healthcare Application Systems | 3 | | | | | | |
| CIS | 4860 | Managing Information Systems Projects | 3 | | CIS | 486 | Managing Information Systems Projects *preq: CIS 301, MGMT 307* | 4 | |
| CIS | 4870 | Decision Support Systems | 3 | | CIS | 487 | Decision Support Systems *preq: CIS 100, FIN 303, MGMT 306* | 4 | |
| **Application Development** | | | | | | | | | |
| CIS | 3200 | Data Processing and Analytics | 3 | | CIS | 320 | Data Processing and Analytics *preq: CIS 100* | 4 | |
| CIS | 3610 | Web Design and Development | 3 | | CIS | 361 | Web Design and Development *preq: CIS 100* | 4 | |
| CIS | 3830 | Multimedia and Game Application Programming | 3 | | CIS | 383 | Multimedia and Game Application Programming *preq: CIS 100* | 4 | |
| CIS | 4450 | Networked Application Development | 3 | | CIS | 445 | Network Application Development *preq: CIS 405* | 4 | |
| CIS | 4550 | Visual Basic .NET Database Application | 3 | | | | | | |
| CIS | 4570 | Advanced Java Programming | 3 | | CIS | 457 | Advanced Java Programming *preq: CIS 283* | 4 | |
| CIS | 4580 | E-Business Application Development with Oracle | 3 | | CIS | 458 | E-business Application Development with Oracle *preq: CIS 405, 283* | 4 | |
| CIS | 4590 | Advanced Information Systems Development | 3 | | | | | | |
| **Networking, Telecom, And Infrastructure** | | | | | | | | | |
| CIS | 3850 | Systems and Network Administration | 3 | | | | | | |
| CIS | 4220 | Routing Configuration and Router Administration | 3 | | | | | | |
| CIS | 4230 | Intermediate Routing and LAN Switching | 3 | | | | | | |
| CIS | 4240 | Wide Area Networks | 3 | | | | | | |
| CIS | 4720 | Wireless Communications and Networks | 3 | | CIS | 472 | Wireless Communications and Networks *preq: CIS 100* | 4 | |
| CIS | 4730 | Network Security Essentials and Practice | 3 | | CIS | 473 | Network Security Essentials and Practice *preq: CIS 100* | 4 | |
| CIS | 4850 | Local Area Networks | 3 | | CIS | 485 | Local Area Networks *preq: CIS 484* | 4 | |
| **Information Security and Privacy** | | | | | | | | | |
| CIS | 4370 | Security Risk Management and Internal Controls | 3 | | CIS | 437 | Security Risk Management and Internal Controls *preq: CIS 301* | 4 | |
| CIS | 4380 | Computer Forensics and Investigations | 3 | | CIS | 438 | Computer Forensics and Investigations *preq: CIS 301* | 4 | |
| CIS | 4880 | Information Security | 3 | | CIS | 488 | Information Security *preq: CIS 301* | 4 | |
| **Current Issues** | | | | | | | | | |
| CIS | 4540 | Special Topics in Computer Information Systems | 3 | | CIS | 454 | Special Topics in Computer Information Systems *preq: Varies* | 4 | |
| CIS | 4980 | Cooperative Education in Information Systems | 1-3 | | CIS | 498 | Cooperative Education in Information Systems | 1-4 | |