ACCOUNTING AND INFORMATION SYSTEMS

Undergraduate Program Information

The Bachelor of Accountancy degree is available to students choosing accounting as a major. The curriculum is designed to prepare you for the excellent opportunities that exist in public accounting practice and in business, government and nonprofit organizations. It is also appropriate for those who may choose to seek either the Master of Accountancy or the Master of Business Administration degree after graduation.

The Information Systems program students for a variety of administrative and technical positions in a wide range of organizations. Potential employers include information system service organizations, public accounting/consulting firms, manufacturing and merchandising business, banks and other financial institutions, government and others that rely on information systems to support their business.

Graduate Program Information

The major objective of the Master of Accountancy (MAcc) program is to provide students with an increased depth of knowledge of accounting to prepare students more adequately for careers as professional accountants in financial institutions, government, not-for-profit organizations and public practice. The program is designed to provide a technical and theoretical foundation in accountancy at the advanced level and yet allow the student to take courses to accommodate individual needs. The Master of Accountancy also provides students a path to satisfy the 150 credits necessary to become a Certified Public Accountant.

Degrees for the Department

Bachelor Degrees

- Accounting - Bachelor of Accountancy (https://catalogs.nmsu.edu/nmsu/business/accounting-information-systems/accounting-bachelor-accountancy/)
- Information Systems - Bachelor of Business Administration (https://catalogs.nmsu.edu/nmsu/business/accounting-information-systems/information-systems-bachelor-business-administration/)
- Information Systems - Bachelor of Business Administration (Online) (https://catalogs.nmsu.edu/global/nmsu-global/information-systems-bba-online/)

Master Degree

- Accounting - Master of Accountancy (https://catalogs.nmsu.edu/nmsu/graduate-school/accounting-master-accountancy/)

Minors for the Department

- Accounting - Undergraduate Minor (https://catalogs.nmsu.edu/nmsu/business/accounting-information-systems/accounting-undergraduate-minor/)
- Enterprise Systems - Undergraduate Minor (https://catalogs.nmsu.edu/nmsu/business/accounting-information-systems/enterprise-systems-undergraduate-minor/)
- Information Systems - Graduate Minor (https://catalogs.nmsu.edu/nmsu/graduate-school/information-systems-graduate-minor/)
- Information Systems - Undergraduate Minor (https://catalogs.nmsu.edu/nmsu/business/accounting-information-systems/information-systems-undergraduate-minor/)

Kevin Melendrez, Ph.D., Department Head

Professor Clemons, Mora-Monge; ***Associate Professor*** Arslan, Ewing, Joo, Melendrez, Zhang; ***Assistant Professor*** Cano-Bejar, Fuqua, Park, Perez, Rosser; ***College Associate Professor*** Hamilton; **College Assistant Professor** Mitchell, Shindi; ***Emeritus Professor*** Billiot, Foster, Mills, Oliver, Scribner, Seipel, Tunnell

F. Arslan, Ph.D. (Texas - El Paso)- information systems; M. J. Billiot (emeritus), D.B.A. (Mississippi State) C.P.A.-managerial and financial accounting; A. Cano-Bejar, Ph.D. (National Tsing Hua) - information systems; R. Clemons, Ph.D. (Texas A&M) C.P.A - taxation; R. Ewing, Ph.D. (Kentucky) C.P.A., C.M.A. - managerial accounting; T. Foster (emeritus), Ph.D. (Penn State); D. Fuqua, Ph.D. (New Mexico State) - supply chain optimization and big data predictive analytics; P. Hamilton, MBA (New Mexico State); T. Joo, Ph.D. (Arkansas) C.P.A - financial accounting and taxation; K. Melendrez, Ph.D. (Arizona)– financial accounting; S. Mills (emeritus), Ph.D. (Texas Tech) C.P.A.; P. Mitchell, MAcc (New Mexico State) C.P.A.; C. Mora -Monge, Ph.D. (Toledo) - supply chain management, information systems; R. Oliver (emeritus) Ph.D. (New Mexico State); J. Park, Ph.D. (Louisiana State) - financial accounting and accounting information systems; R. Perez, Ph.D. (Oregon) - financial accounting and audit; D. Rosser, Ph.D. (Arkansas) - financial accounting and audit; E. Scribner (emeritus), Ph.D.(Oklahoma State)- C.P.A.; C. Seipel (emeritus), Ph.D.(Oklahoma State)– C.P.A., C.F.E.; R. Shindi, Ph.D. (New Mexico State) - human-computer interaction; L. Tunnell (emeritus), Ph.D. (Oklahoma State) C.P.A.; Y. Zhang, Ph.D. (Texas Tech) - financial accounting.

Accounting Courses

ACCT 200. A Survey of Accounting
3 Credits (3)
Emphasis on financial statement interpretation and development of accounting information for management. For engineering, computer science, and other non business majors. Community Colleges only.
Prerequisite: one C S course or consent of instructor.

ACCT 2110. Principles of Accounting I
3 Credits (3)
An introduction to financial accounting concepts emphasizing the analysis of business transactions in accordance with generally accepted accounting principles (GAAP), the effect of these transactions on the financial statements, financial analysis, and the interrelationships of the financial statements.
Learning Outcomes

1. Analyze business transactions, their effects on the financial statements and the interrelationships of the financial statements involving the following:Cash transactions; Receivables and Net Realizable Value; Operational Assets and Depreciation; Inventory; Current Liabilities; Long-term Liabilities
2. Define, identify and demonstrate the impact of adjusting entries on financial statements.
3. Explain and demonstrate the differences between cash and accrual basis accounting.
4. Define and identify generally accepted accounting principles.

ACCT 2120. Principles of Accounting II
3 Credits (3)
An introduction to the use of accounting information in the management decision making processes of planning, implementing, and controlling

business activities. In addition, the course will discuss the accumulation and classification of costs as well as demonstrate the difference between costing systems.
Prerequisite(s): ACCT 2110.

Learning Outcomes

1. Identify the differences between financial and managerial accounting.
2. Illustrate the accumulation of costs in cost accounting systems.
3. Describe the basic elements of the budgeting process, its objectives and budget preparation.
4. Define and classify cost behavior.
5. Perform cost-volume-profit analysis for decision-making.
6. Perform differential (incremental) analysis for business decision making.
7. Explain the cause of the variance and its effect on the income statement.
8. Explain and demonstrate the difference between traditional costing and activity-based costing.

ACCT 301. Financial Accounting I
3 Credits (3)
Concepts, principles, and practices of financial accounting, stressing the determination of income and financial position. A student who does not pass the class within three attempts will not be allowed to take class for a fourth.
Prerequisite(s): C or better in ACCT 2110 or (OATS 120 and OATS 121) and ACCT 2120.

ACCT 302. Financial Accounting II
3 Credits (3)
A continuation of ACCT 301.
Prerequisite(s): C- or better in ACCT 301.

ACCT 351. Accounting Systems
3 Credits (3)
Covers accounting information systems as processors of data for financial reporting and control of economic organizations.
Prerequisite: C or better in ACCT 2110 or (OATS 120 and OATS 121) and ACCT 2120.

ACCT 353. Cost Accounting
3 Credits (3)
The development and use of cost accounting information for inventory valuation, income determination, and cost control. A student who does not pass the class within three attempts will not be allowed to take class for a fourth.
Prerequisite(s): C or better in ACCT 2110 or (OATS 120 and OATS 121) and ACCT 2120.

ACCT 403. Federal Taxation I
3 Credits (3)
Basic federal income tax laws; emphasis on determination of taxable income of individuals. A student who does not pass the class within three attempts will not be allowed to take class for a fourth.
Prerequisite(s): C or better in ACCT 2110 or (OATS 120 and OATS 121) and ACCT 2120.

ACCT 451. Auditing Theory and Practices
3 Credits (3)
Auditing standards, audit evidence, auditors reports and opinions, and professional responsibilities.
Prerequisite(s): ACCT 351 and C- or better in ACCT 302.

ACCT 455. Federal Taxation II
3 Credits (3)
Federal income tax laws applicable to partnerships, corporations, fiduciaries, tax research, tax planning.
Prerequisite(s): C- or better in ACCT 403 or consent of instructor.

ACCT 456. Accounting for Nonprofit Organizations
3 Credits (3)
Control and reporting problems unique to governmental units and other nonprofit organizations. Fund accounting principles, procedures, and reports.
Prerequisite(s): C- or better in ACCT 302.

ACCT 458. Accounting Data Analytics
3 Credits (3)
Data Analytics in financial and managerial accounting and auditing. Restricted to: Accounting majors.
Prerequisite: C- or Better in ACCT 301.

Learning Outcomes

1. Understand how both financial and managerial accountants as well as auditors can benefit from using data analytics.
2. Understand how data is collected, created, stored, and shared by technology and be able to identify and evaluate the veracity of sources of unstructured and structured data for use in analysis.
3. Create visualizations of data to provide clear insights into associations, relationships, outliers and other data intimations related to accounting anomalies.
4. Understand and be able to identify business risks and ethical issues related to data collection, storage, and use.

ACCT 490. Selected Topics
1-3 Credits
Current topics in accounting. Prerequisites vary according to the seminar offered. May be repeated for a maximum of 12 credits under different subtitles.

ACCT 498. Independent Study
1-3 Credits
Individual studies directed by consenting faculty with the prior approval of the department head. May be repeated up to 3 credits. Consent of Instructor required.
Prerequisite(s): Consent of instructor.

ACCT 500. Concepts in Accounting
1 Credit (1)
Development, interpretation, and use of accounting information for financing, investing, operating, and managerial decision making.
Prerequisite(s): Admitted to MBA program.

ACCT 503. Accounting for Managers
3 Credits (3)
Concepts and principles of financial and managerial accounting. Presents techniques used to measure business transactions, prepare financial statements, techniques for management decision-making, planning, and control. Not open to MAcc students. May be repeated up to 3 credits.
Prerequisite: Graduate students only.

Learning Outcomes

1. Interpret and apply relevant financial accounting information.
2. Understand cost behaviors and perform breakeven analyses.
3. Prepare and analyze budgets and profitability reports.
4. Use accounting information to make management decisions involving activity-based costing and strategic management.
5. Students can think critically to solve problems.
6. Students can understand management issues from a global perspective.

ACCT 510. Technical and Professional Communication for Accountants
3 Credits (3)
Effective writing strategies for professional communications. Students will learn to write with a professional style and proper English usage and to work with a variety of technical and lay audiences. Emphasis on initiation, planning, composition, and evaluation of business and accounting workplace scenarios to develop communication skills used in a business environment. Restricted to: Master of Accountancy majors.

ACCT 530. Advanced Accounting
3 Credits (3)
This course is designed to provide in-depth study of current financial accounting concepts related to business combinations, financial statement consolidations, and foreign currency transactions and translations. Restricted to: Master of Accountancy majors.
Prerequisite(s): ACCT 302 with a grade of C or better.

ACCT 544. Financial Statement Analysis and Valuation
3 Credits (3)
Valuation of firms using financial information, financial statement analysis, and the valuation of individual assets and liabilities. Restricted to: Master of Accountancy majors.
Prerequisite(s): Acct 302; Graduate students only.

ACCT 550. Special Topics
3 Credits (3)
Seminars in current topics in various areas of accounting including financial, managerial, auditing, taxation, systems, and fund accounting. Prerequisites vary according to topic being offered.

ACCT 551. Advanced Auditing Theory and Practice
3 Credits (3)
Understanding and evaluating internal control in an EDP environment. Statistical sampling applications and current issues in auditing. Restricted to: Master of Accountancy majors.
Prerequisite(s): ACCT 451.

ACCT 555. Federal Tax Research
3 Credits (3)
Tax research methodology including case materials, critical judicial decisions, journal articles, and research services. Emphasis on tax planning. Restricted to: Master of Accountancy majors.
Prerequisite(s): ACCT 403.

ACCT 558. Artificial Intelligence in Accounting
3 Credits (3)
This course covers the concepts and applications of artificial intelligence (AI) in accounting. The course topics are automation, machine learning including advanced data analytics and natural language processing, and generative AI. Restricted to Master of Accountancy Students.
Learning Outcomes
1. Explain the main concepts and components of AI and how they relate to accounting.
2. Identify the opportunities and challenges of using AI in accounting.
3. Compare and contrast different types of AI and their applications in accounting.
4. Apply various AI tools to perform accounting tasks and solve accounting problems.
5. Critically assess the ethical, social, and professional implications of using AI in accounting.

ACCT 559. Ethics and Professionalism in Accounting
3 Credits (3)
Introduction to ethical reasoning, integrity, objectivity, independence , and professional accounting issues Students will apply the concepts and theories to accounting-specific cases. Restricted to: Master of Accountancy majors.
Prerequisite(s): C or better in ACCT 451.

ACCT 560. Taxation of Corporations and Shareholders Advanced
3 Credits (3)
Effects of taxation on the organization, operation, and reorganization of corporations and on their shareholders. Restricted to: Master of Accountancy majors.
Prerequisite(s): ACCT 403.

ACCT 564. Financial Accounting Research
3 Credits (3)
Interpretation and application of accounting principles to financial reporting issues of business and nonbusiness organizations. Consent of Instructor required. Restricted to: Master of Accountancy majors.
Prerequisite(s): ACCT 302.

ACCT 580. Professional Accountancy
3 Credits (3)
Prepares students for the accounting profession and professional certification through study of a wide range of topics similar to those a student might encounter in their first year of employment. Restricted to: Master of Accountancy majors.

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

ACCT 599. Master's Thesis
15 Credits
Thesis.

Business Computer Systems

BCIS 1110. Introduction to Information 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.
Learning Outcomes
1. Describe the social impact of information literacy and systems in relation to commerce, education, and personal activities.
2. Explain how to use the information resources legally, safely, and responsibly in relation to ethical, security, and privacy issues.
3. Evaluate bias, accuracy and relevance of information and its sources.
4. Use productivity tools for communications, data analysis, information management and decision-making.
5. Describe and use current information systems and technologies

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. May be repeated up to 3 credits.
Prerequisite: C- or better in BCIS 1110; and MATH 1215.
Learning Outcomes
1. Students are proficient in Python and knowledgeable on programming.

2. Students can use programming knowledge to work on business case studies involving data.

BCIS 338. Business Information Systems I
3 Credits (3)
This course covers the business and managerial applications/ implications of management information systems (MIS) and an introduction to business analytics. In doing so, the course blends technical know-how with decision-making and systems integration. Additionally, this course provides you with working knowledge of productivity software (i.e., spreadsheet software).
Prerequisite: BCIS 1110 or consent of instructor.
Learning Outcomes
1. Students can explain how information systems and business analytics are used in business.
2. Students can construct intermediate and Advance levels of Excel spreadsheet application.
3. Students can construct intermediate-level O365 Cloud applications, Databases, and Collaborations.
4. Students can describe what business professionals need to know about computer hardware/Software/Security/Social Media and Business Intelligent.
5. Students can describe what business professionals need to know about and business processes and improvement.
6. Apply information systems viz. spreadsheet and analytics software, to solve business problems.

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. Specifically, we will focus on both operational databases and analytical databases (Data Warehouse and Data Marts). Cross-listed with BCIS 575.
Prerequisite: BCIS 338 or consent of instructor.
Learning Outcomes
1. Describe fundamental database terminology and explain the primary features of database management systems.
2. Explain relational database concepts, such as primary key and referential integrity, normalization, and triggers.
3. Explain what a data model is.
4. Write SQL, the standard language of relational databases, at an advanced level.
5. Design a data model and code/implement it as a database solution using SQL.
6. Describe the fundamental concepts of Data Warehouses.
7. Design and build data warehouses.
8. Describe emergent database topics such as big data, data lakes, NoSQL.
9. Understand how a database can be used with Python programming language and MS Excel.

BCIS 480. Introduction to Cybersecurity: Exploring Computer, Network, and Data Security Principles
3 Credits (3)
This course introduces students to fundamental principles of cybersecurity and computer security. Through comprehensive exploration, students gain a deep understanding of diverse cybersecurity concepts spanning various domains. The curriculum covers essential aspects of computer security, including cryptography, authentication, access control, threat identification, counterattack strategies, and detection/prevention methods. These concepts are applied across application software, operating systems, networks, mobile apps, and databases. The course also covers securing network-based applications and network security fundamentals like TCP/IP, firewalls, intrusion detection, and vulnerability management. Ultimately, students develop a robust foundation in cybersecurity and computer security, preparing them for the digital landscape. Cross-listed with BCIS 580. May be repeated up to 3 credits.
Prerequisite: BCIS 338 or consent of instructor.
Learning Outcomes
1. Describe the key security requirement of confidentiality, integrity, and availability.
2. Discuss the types of security threats and attacks that must be dealt with and give examples of the types of threats and attacks that apply to different categories of computer and network assets.
3. Explain the fundamental security design principles.
4. Define e-commerce, understand how e-commerce differs from e-business, identify the primary technological building blocks underlying e-commerce, and recognize major current themes in e-commerce.
5. Identify and describe the unique features of e-commerce technology and discuss their business significance.
6. Understand the scope of e-commerce crime and security problems, the key dimensions of e-commerce security, and the tension between security and other values.
7. Identify the key security threats in the e-commerce environment.
8. Describe how technology helps secure Internet communications channels and protect networks, servers, and clients.

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 software will be utilized in multiple hand-on examples of ERP software, serving as a real-world illustration of an ERP system.
Prerequisite: C- or better in BCIS 338 or BCIS 350 or ACCT 351.
Learning Outcomes
1. Explain business processes common to most businesses--order processing, inventory management, and procurement.
2. Distinguish between master and transactional data common to most organizations.
3. Describe the cash-to-cash cycle in a production environment.
4. Explain how a business process often spans different functional areas of the business: accounting, marketing, and material management.
5. Describe how enterprise systems, such as SAP, integrate business functional areas into one enterprise-wide information system.
6. Use critical thinking to make decisions.

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.
Prerequisites: 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. Not open to students who have taken BCIS 350. Students must be Graduate Students to enroll. May be repeated up to 3 credits.
Learning Outcomes
1. Describe foundations of systems development.
2. Explain systems development life cycle and key methodologies.
3. Depict how to conduct planning in systems development.
4. Determine and structure system requirements.
5. Apply principles and guidelines to design interfaces, forms and databases.
6. Understand the major issues in the systems implementation and maintenance.

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. No S/U or audit option.
Prerequisite: BCIS 338.
Learning Outcomes
1. Identify the reasons for and the evolution of computerized support in managerial decision making.
2. Describe the business intelligence (BI) methodology and concepts.
3. Identify and explain various types of analytics.
4. Explain the nature of data in the context of BI and Business Analytics.
5. Describe statistical modeling and its relationship to business analytics.
6. Apply descriptive and inferential statistics techniques.
7. Explain the importance of data/information visualization and apply different types of visualization techniques.
8. Explain the basic concepts of data warehousing.
9. Explain data integration and the extraction, transformation, and load (ETL) processes. 1
10. Describe the essence of business performance management (BPM). 1
11. Describe balanced scorecard and Six Sigma as performance measurement systems. 1
12. Explain the objectives and benefits of data mining. 1
13. Learn the standardized data mining process. 1
14. Enhance your communication (presentation and report writing), creative thinking, problem-solving, and analytical skills.

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. No S/U or audit option.
Prerequisite: BCIS 561.
Learning Outcomes
1. Identify and explain various types of analytics.
2. Define data mining as an enabling technology for business analytics.
3. Learn the standardized data mining processes and the different methods and algorithms of data mining.
4. Build working knowledge of the existing data mining software tools.
5. Describe text analytics and understand the need for text mining.
6. Learn the process of carrying out a text mining project and the common methods for sentiment analysis.

BCIS 575. Database Management Systems
3 Credits (3)
Design, development, and use of database management systems in the business environment. Not open to students who have taken BCIS 475.
Prerequisite: BCIS 350 or BCIS 550.
Learning Outcomes
1. Describe fundamental database terminology and explain the primary features of database management systems. (Cognitive Level: Understand)
2. Explain relational database concepts, such as primary key and referential integrity, normalization, and triggers. (Cognitive Level: Understand)

3. Explain what a data model is. (Cognitive Level: Understand)
4. Write SQL--the standard language of relational databases--at an advanced level. (Cognitive Level: Apply)
5. Design a data model and code/implement it as a database solution using SQL. (Cognitive Level: Create)
6. Describe the fundamental concepts of Data Warehouses. (Cognitive Level: Understand)
7. Design and build data warehouses. (Cognitive Level: Create)
8. Describe emergent database topics such as graph databases, big data, data lakes, NoSQL. (Cognitive Level: Understand)
9. Demonstrate how a database can be used with Python programming language and MSExcel. (Cognitive Level: Apply)

BCIS 580. Introduction to Cybersecurity: Exploring Computer, Network, and Data Security Principles
3 Credits (3)
This course introduces students to fundamental principles of cybersecurity and computer security. Through comprehensive exploration, students gain a deep understanding of diverse cybersecurity concepts spanning various domains. The curriculum covers essential aspects of computer security, including cryptography, authentication, access control, threat identification, counterattack strategies, and detection/prevention methods. These concepts are applied across application software, operating systems, networks, mobile apps, and databases. The course also covers securing network-based applications and network security fundamentals like TCP/IP, firewalls, intrusion detection, and vulnerability management. Ultimately, students develop a robust foundation in cybersecurity and computer security, preparing them for the digital landscape. Not open to students who have taken BCIS 480. No S/U or audit option. May be repeated up to 3 credits.
Prerequisite: BCIS 338 or equivalent or consent of instructor.
Learning Outcomes
1. Describe the key security requirement of confidentiality, integrity, and availability.
2. Discuss the types of security threats and attacks that must be dealt with and give examples of the types of threats and attacks that apply to different categories of computer and network assets.
3. Explain the fundamental security design principles.
4. Define e-commerce, understand how e-commerce differs from e-business, identify the primary technological building blocks underlying e-commerce, and recognize major current themes in e-commerce.
5. Identify and describe the unique features of e-commerce technology and discuss their business significance.
6. Understand the scope of e-commerce crime and security problems, the key dimensions of e-commerce security, and the tension between security and other values.
7. Identify the key security threats in the e-commerce environment.
8. Describe how technology helps secure Internet communications channels and protect networks, servers, and clients.

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. Not open to students who have taken BCIS 482.
Prerequisite: BCIS 338 or equivalent or consent of instructor.
Learning Outcomes
1. Explain the fundamental concepts of the management of information security within the context of organizations.
2. Describe commonly used information systems (IS) security standards and guidelines.
3. Create IS security management and policy as well as risk management plans.
4. Explain the behavioral aspects of IS security and discuss the development of security culture within organizations.
5. Explain the technical aspects of IS security, including issues related to cryptography and network security.
6. Describe and evaluate the regulatory aspects of information system security (primarily within the United States and European Union context).

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 Enterprise software. Not open to students who have taken BCIS 485. May be repeated up to 3 credits.
Prerequisite: C- or better in ACCT 351 or BCIS 502.
Learning Outcomes
1. Business processes common to most businesses, including order processing, procurement, inventory management, etc.
2. How a business process often spans different functional areas of the business: accounting, marketing, etc.
3. How enterprise systems, such as SAP, integrate business functional areas into one enterprise-wide information system.
4. Process modeling to depict the sequence of tasks completed in a business process.
5. Master data common to most businesses (e.g. customer, vendor, inventory, etc.).
6. The issues involved in implementing an ERP system.

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.

Department of Accounting and Information Systems

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