Course Description

ACG4401 | Accounting Information Systems | 3.00 credits

This is an information systems course for accounting students, and not a traditional accounting course, nor a traditional MIS course. The course aims to provide students with a broad conceptual knowledge of accounting information systems, the need for and control of accounting information systems, current topics in accounting information systems, and discussions of specific transaction-cycle based accounting information systems. The course seeks to examine the linkages between information systems and accounting, and it also provides an overview of how to store, retrieve, analyze, and control data using information systems. Students must pass the course with a grade of "C" or higher. Prerequisites: ACG3113 and ACG3343

Course Competencies:

Competency 1: The student will understand the Accounting Information System by:

1. Recognizing the primary information flows within the business environment
2. Grasping the difference between accounting information systems and management information systems
3. Knowing the principal features of the general model for information systems
4. Distinguishing between external auditing, internal auditing, and advisory services as they relate to accounting information systems
5. Grasping the broad objectives of transaction cycles
6. Understanding the relationship between traditional accounting records and their digital equivalents in computer-based systems
7. Recognizing the documentation techniques used for representing manual procedures and the computer components of systems
8. Comprehending the broad issues pertaining to business ethics
9. Having a basic understanding of ethical issues related to the use of information technology
10. Distinguishing between management fraud and employee fraud
11. Being familiar with common types of fraud schemes
12. Comprehending the objectives and application of both physical and IT control activities

Competency 2: The student will learn the transaction cycles and business processes by:

1. Understanding the fundamental tasks performed in the revenue cycle regardless of the technology in place
2. Recognizing the fundamental tasks that constitute the purchases and cash disbursements process
3. Identifying the fundamental tasks that constitute the payroll and fixed asset processes
4. Identifying the functional departments involved in the business processes and tracing the flow of the transaction cycles through the organization
5. Specifying the documents, journals, and accounts that provide audit trails, promote the maintenance of historical records, support internal decision-making, and sustain financial reporting
6. Understanding the risks associated with revenue cycle, purchases and cash disbursement activities, payroll, and fixed asset processes, and being familiar with the controls that reduce these risks
7. Understanding the basic elements and procedures encompassing a traditional production process
8. Understanding the data flows and procedures in a traditional cost accounting system
9. Understanding the shortcomings of traditional accounting methods in a world-class environment
10. Recognizing the key features of activity-based costing and value stream accounting
11. Understanding the operational features of the general ledger system (GLS), financial reporting system (FRS), and management reporting system (MRS)
12. Identifying the elements of a responsible accounting system
13. Be familiar with data analytics concepts and techniques

Competency 3: The student will understand the advanced technologies in accounting information by:

1. Comprehending the operational problems inherent in the flat-file approach to data management that gave rise to the database concept
2. Identifying the stages in database design, including entity identification, data modeling
3. Constructing the physical database, and preparing user views
4. Grasping the operational features of distributed databases and recognizing the issues that need to be considered in deciding on a particular database configuration
5. Recognizing the economic foundations of the resources, events, and agents (REA) model
6. Grasping the key differences between traditional entity relationships and REA modeling
7. Creating an entity-wide REA diagram by applying the view integration steps to a business case
8. Comprehending the general functionality and key elements of ERP (enterprise resource planning) systems
9. Recognizing the various aspects of ERP configuration, including servers, databases, and bolt-on software
10. Grasping the purpose of data warehousing as a strategic tool and recognizing the issues related to the design, maintenance, and operation of a data warehouse
11. Identifying the internal control and auditing implications associated with erps
12. Comprehending the business benefits of internet commerce and being aware of several internet business models
13. Recognizing issues of security, assurance, and trust about electronic commerce

Competency 4: The student will identify systems development activities by:

1. Pinpointing the key stages in the SDLC (systems development life cycle)
2. Recognizing how a firm's business strategy will shape its information system
3. Understanding the technical, economic, legal, operational, and schedule (TELOS) model for assessing project feasibility
4. Familiarizing themselves with cost-benefit analysis issues related to information systems projects.
5. Understanding the role of accountants in the SDLC

Competency 5: The student will identify computer controls and IT auditing by:

1. Recognizing the structure of a financial audit and the role of the IT audit component
2. Understanding the key features of sections 302 and 404 of the Sarbanes Oxley act
3. Understanding management and auditor responsibilities under sections 302 & 404
4. Recognizing the risks of incompatible functions and how to structure the IT function
5. Understanding the key elements of a disaster recovery plan
6. Determining the benefits, risks, and audit issues related to information technology outsourcing
7. Recognizing the principal threats to the operating system and the control techniques used to minimize the possibility of actual exposures
8. Recognizing the principal risks associated with electronic commerce conducted over intranets and the internet and understanding the control techniques used to reduce these risks
9. Recognizing the unique exposures that arise in connection with electronic data interchange and understand how these exposures can be reduced
10. Describing the controls and audit tests relevant to the system's development process
11. Grasping the risks and controls associated with program change procedures and the role of the source program library
12. Recognizing the computer-assisted auditing techniques (caatts) used to verify the effective functioning of application controls
13. Understanding the auditing techniques used to perform substantive tests in an IT environment

Learning Outcomes:

- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information
- Use computer and emerging technologies effectively