ACCT 307 – Accounting Information Systems

Undergraduate Curriculum Committee Course Outline

I. Course Description

Development and use of accounting information systems for managerial control and external reporting.

II. Teaching Methods and Materials:

Methods:
Lectures
Materials:
Textbook to be determined by the instructor

III. Course Objectives:

The primary objective of this course is to help Accounting major students understand the development and use of accounting information systems for managerial control and financial reporting.

IV. Student Learning Outcomes:

Upon completion of this course, students should gain an understanding of:

1. System analysis and design of various accounting information systems in the current business.
2. Documentation, flowcharts of accounting information systems (e.g., activity models and BPMN diagrams), and file structure (e.g., structure models and UML class diagrams).
3. Design and use of relational databases and queries using Structured Query Language (SQL).
4. Communicate to stakeholders the management and control of the accounting processing function using information systems.
5. Understand the tools for data analytics and visualization.
6. Enterprise risk management including internal control, encryption, and information security management.
7. Control and safeguards for computer fraud and financial irregularities.

V. Course Content

Topic 1: Accounting Information Systems and Firm Value

1. Definition of AIS and characteristics of useful information

2. Role of accountants in AIS

3. Explain how AIS affects firm value

4. Impact of AIS on internal and external business processes, firm profitability, and stock prices

Topic 2: Accountants as Business Analysts

1. Roles of accounting in business

2. Business process documentation

3. Type of business models

4. Activity models and BPMN (activity) diagrams

Topic 3: Data Modeling

1. Structure models

2. Unified Modeling Language (UML) class models for relational database design

3. Decision requirements and business rules

Topic 4: Relational Databases and Enterprises Systems

1. Fundamentals of relational databases

2. Structured Query Language (SQL)

3. Enterprise systems

Topic 5: Sales and Collections Business Process

1. Business activities of the sales and collection process

2. Activity model of the sales and collection process using BPMN

3. UML class diagrams and relational database for the sales and collection process

4. Use multiplicities to implement foreign keys in relational tables

Topic 6: Purchases and Payment Business Process

1. Business activities of the purchase and payment process

2. Activity model of the purchase and payment process using BPMN

3. UML class diagrams and relational database for the purchase and payment process

Topic 7: Data Analytics in Accounting

1. Big data and data analytics

2. Audit data standards

3. Responsibilities of firms and auditors regarding privacy and data protection

4. Data analytical tools

Topic 8: Reporting Processes and eXtensible Business Reporting Language (XBRL)

1. Explain how data warehouses are created and used

2. Business intelligence

3. Digital dashboards

4. Financial reporting and XBRL

Topic 9: Accounting Information Systems and Internal Controls

1. Ethics, the Sarbanes-Oxley Act of 2002, and corporate governance

2. COSO internal control framework

3. COBIT framework

Topic 10: Information Security and Computer Fraud

1. Information security and systems integrity

2. Computer fraud and abuse

3. Vulnerability assessment and management

4. System availability, disaster recovery planning and business continuity management

Topic 11: Monitoring and Auditing AIS

1. Risks involved with computer hardware and software

2. Computer-assisted audit techniques

3. Continuous auditing in AIS

Topic 12: Evaluating IT initiatives and investments

1. Explain the major steps in the economic justification of an IT initiative.

2. Explain the potential benefits of IT initiatives and how to evaluate them.

3. Assess potential costs of IT initiatives and how to evaluate them.

4. Describe the potential risks of IT initiatives and corresponding risk-mitigation techniques.

VI. Grade*:

Recommended grade components: Grade Scale:

Homework	20%	A-: 90-92%	A: 93-100%	
Attendance	10%	B-: 80-82%	B: 83-86%	B+: 87-89%
Group Project	30%	C-: 70-72%	C: 73-76%	C+: 77-79%
Midterm Exam	20%	D-: 60-62%	D: 63-66%	D+: 67-69%
Final Exam	20%	F: <60%		
Total	100%			

*Individual instructor reserves the right to adjust the grading scheme