Introduction to Information Systems

BUS 391.01/02/05 – Spring 2014

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Course Description: This course is intended to prepare you for the use of computer and communication technologies in business. An understanding of these technologies will assist you in your career by increasing your own personal productivity and by increasing your effectiveness in the development and use of organizational information systems. To accomplish this intent, we will focus on information technologies from both a conceptual basis and a skill development basis. Thus, the class will consist of lecture/discussion with a hands-on lab experience.

Objectives: Upon completion of this class, the student should be able to:

1. Understand new technologies such as Cloud Computing Understand what QuickBooks software is and how it supports business activities in terms of processing transactions and in building a website.
2. Describe how information systems can be used to tie together parts of a company or to tie together two different companies.
3. Understand the technical foundations of information systems that support a company's operations.
4. Describe how information systems affect a company's competitive position
5. Describe how information systems enable a new way of doing business
6. Recognize when a database would help solve a business problem
7. Analyze data using a relational database
8. Implement a business oriented database in Microsoft Access
9. Recognize when a database or when a spreadsheet is more appropriate for investigating data, and discuss reasons for the choice that was made
11. Describe how choices of hardware, software, and operating system can affect the performance of an information system
13. Describe how the Internet works, including DNS, packet switching, and its foundations in TCP/IP
14. Describe how different alternatives for developing an information system, and how to choose among those alternatives
15. Understand diagramming techniques such as ERD to describe an information system
16. Understand many of the ways that Excel can be used to analyze data
17. Implement a relatively complex spreadsheet for data analysis

LEARNING OBJECTIVES

- LO 1.1 Apply knowledge to identify opportunities and solve business problems.
  - Specifically with a focus on solving business problems using technology
- LO 3.1 Exhibit the ability to work in a diverse environment
  - Diversity comes in many forms. You will be asked to work with others to share knowledge, communicate in classroom discussions, work in teams while acknowledging the differences and strengths of others.
- LO 4.2 Demonstrate effective oral communication skills.
  - You will be asked to effectively express yourself in classroom discussions by speaking knowledgably and with conciseness. You will also be asked to listen carefully to classroom presentations and classroom discussions.
- LO 4.3 Demonstrate effective participation in teams.
  - Project work will be team based requiring effectiveness in managing team and personal initiatives and taking leadership roles within your team in various capacities.

Text: There is one required text and other optional material: The required text is as follows:

Business Driven Technology by Paige Baltzan, 5th Edition. A special edition has been created and is sold by the bookstore.

Grading Policy: Grades will be determined based upon performance on homework, exams and in-class participation. The weights assigned to each factor are as follows:

FACTOR	WEIGHT
Exam (3)	22% each
Lab Exam Access	6%
Lab Exam Excel	6%
Tutorials	2%
Web/QuickBooks Project	7%
Access Project	7%
Excel Project	6%

IMPORTANT: To receive credit for the Access and the Excel projects, you must score 70% or higher on the Access and Lab exam respectively. You must also receive a favorably evaluation from your teammates (e.g., if your teammate says you did not participate on the project or participated very little and you are unable to illustrate that this is not the case, then your project grade will be diminished appropriately … see Teamwork section below).

Incidents of academic dishonesty (e.g., submitting a project that is clearly derived from someone else's work, answering a question on an exam that was asked on a version different than the one you were given, etc.) will be given to the university for their consideration.

No makeup exams are allowed unless there is a valid reason such as a medical situation; traditional family vacations do not count as a valid reason.

Class attendance is suggested but not required. I may take attendance and use this information to push a student to the next higher grade if they are close.

Teamwork: Many of the homework exercises may be done in teams of two. When submitting your work, submit only one copy listing both team members. Also, if you work on a team, your performance on exams has to match your performance on your project. If your exam performance does not match your team project performance, your score on the project will be adjusted (i.e., this means that if you receive a high score on your team project and one member of your team does great on the exam and you do poorly, then your grade on the team project will be adjusted downward).

Level of Effort: The class is structured so that a significant part of the learning takes place outside of class. The readings, assignments, and projects will take 2 to 3 hours of work for every hour that we spend inside class. Note that this means that you will not be able to successfully read the material, do the labs and complete the project immediately prior to the due date and the exam. Please plan accordingly.

OUTLINE

BUS 391 Part 1: Integration. The first part of the class looks at how information systems can be integrated to provide better value to the organization, to customers, and to suppliers. We'll look at integrated applications with a focus on business operations. We will also look at E Commerce and web site analytics and review concepts such as CRM, SCM, cloud computing, and the evolving internet.

Readings for Part 1

Primary Focus:

- Chapter 1: Business Driven Technology
- Chapter 2: Identifying Competitive Advantages
- Chapter 3: Strategic Initiatives for Implementing Competitive Advantages
- Chapter 6: Valuing Organizational Information
- Chapter 12: Integrating the Organization From End to End – Enterprise Resource Planning
- Plug In B10 Enterprise Resource Planning
- Computer fundamentals chapter (this will be posted on Polylearn)

Backup Readings:

- Plug In B8 Supply Chain Management
- Plug In B9 Customer Relationship Management
- Chapter 10: Extending the organization – Supply Chain Management
- Chapter 11: Building a Customer-Centric Organization – Customer Relationship Management

Project One: In the first project you have four major tasks: (1) identify a business you would like to run, (2) setup and execute some transactions using QuickBooks Online, (3) setup an E Commerce website using Shopify.com, and (4) setup Google Analytics and embed this functionality into your Shopify website. If time allows we will look at middleware that connects these two systems. The first set of lectures presents the concepts and skills to perform this project.

Thursday, April 3, 2014

Introduction
Type of Information Systems
Enterprise Information Systems

Read Chapters 1, 2, 3 and 6 to understand how information systems provide operational and competitive advantages and to understand the nature of competitive forces in a marketplace, how companies compete, and (importantly) how can information technology play a role in enabling companies to be value to your customer in a better way than other companies? How will you measure the success of the use of technology?

Tuesday, April 8, 2014

ERP Session 1 – Managing the revenue and expense business cycles: using cloud based applications for operational success

QuickBooks Setup
Lab QuickBooks 1: Overview, Login
Lab QuickBooks 2: Business setup / Accounts setup
Lab QuickBooks 3: Customer, Vendor, and Product setup

Read Chapters 12 and Plug In B10 to understand the essence of an i*ntegrated software application* that supports the various *business processes* in an organization. Sign up for a QuickBooks account (be certain to sign up for the right account). When working on QuickBooks, contrast the *business functions* that QuickBooks software application provides compared to the set of functions discussed in these readings. Look up the term Cloud Computing. Why would QuickBooks be considered *Cloud Computing*? Read the cases that provide some additional insights.

Thursday, April 10, 2014

ERP Session 2

QuickBooks Operations
Lab QuickBooks 4: Managing the revenue cycle
Lab QuickBooks 5: Managing the expense cycle
Lab QuickBooks 6: Management Reporting

Read Chapters and Plug Ins on CRM and SCM to contrast the functions associated with these applications with functions offered by QuickBooks.

Tuesday, April 15, 2014

E-Commerce Fundamentals I
Lab S1: Shopify: Business Setup
Lab S2: Shopify operations
Lab S3: Google Analytics

Read Chapter 14 and Plug In B11 on E Business to get a general idea about E Business. Sign up for a Shopify account and view the tutorials on how to use this Create a GMAIL account and sign up for Google Analytics; embed Google Analytics code in your Shopify web site.

Thursday, April 17, 2014

In this section we continue to develop our understanding of E Commerce and web and web based technologies and look at issues such as middleware.

Tuesday, April 22, 2014

Exam 1
The exam will consist of multiple choice, true false, short answer and essay type questions that ask you to explain what something is, how it is useful, and why it is important. Be sure to know the work you did on your project.

BUS 391: Part 2: Information. The second part of the class focuses on managing data. Data (and information) are critical to the success of an organization. This section of the class covers this important topic from a strategic as well as a technical perspective.

Project: You will be asked to develop an Access-based information system. In doing so, you will understand the basics of how data can be organized to support decision making while ensuring access, integrity, and other key aspects of managing data. We will begin this section with a discussion of how business applications are developed by looking at the systems development life cycle. We will contrast this method with other techniques such as prototyping and agile development.

Thursday, April 24, 2014

Systems Analysis and Design

Systems are built by users, managers, and technical staff. To build/choose a system is an important consideration. We explore this topic to help you answer the question "What are the techniques for creating an information system?" Along with answering this question, we will address the issue of why so many system development projects fail.

Tuesday, April 29, 2014

Database Management Systems I
Lab DB1: Access (Create db, Table, Form, Report);

This will be one of the more difficult parts of the class. Please read Chapter 6 prior to the start of lecture. You will be asked to build a system that manages information for your business that was not managed by QuickBooks. In doing so, you'll need to determine the requirements for the new system (using skills learned in the Systems Analysis and Design lecture, along with the skills you will learn to model data.

Thursday, May 1, 2014

Database Management Systems II
Lab DB2: Access (Managing integrity)

Tuesday, May 6 , 2014

Database Management Systems III
Lab DB3: Access (Multi table databases)

Thursday, May 8, 2014

Database Management Systems IV
Lab DB4: Access (Database objects/properties)
Lab DB5: Access (Interface Design)

Tuesday, May 13, 2014

Exam 2
The exam will consist of multiple choice, true false, short answer and essay type questions that ask you to explain what something is, how it is useful, and why it is important. Be sure to know the work you did on your project. The exam will consist of both a written part and a hands on part using the lab computer.

BUS 391: Part 3: Analysis. The third part of the class focuses on analysis and decision making. In this section we will look at Excel as a means of modeling problem solving techniques

Project: The project will consist of a set of decisions that you are asked to make through modeling the problem domain and determining a best answer.

Readings: Will be announced.

Thursday, May 15, 2014

. Decision Support systems / Excel

Tuesday, May 20, 2014

Decision Support systems / Excel

Thursday, May 22, 2014

Decision Support systems / Excel

Tuesday, May 27, 2014

NO CLASS – MONDAY SCHEDULE

Thursday, May 29, 2014

Decision Support systems / Excel

Tuesday, June 3, 2014

IS Fundamentals

In this session we will discuss some fundamental computer concepts such as computer architecture, operating systems, programming languages, and cloud based computing.

Thursday, June 5, 2014

Exam 3
The exam will consist of multiple choice, true false, short answer and essay type questions that ask you to explain what something is, how it is useful, and why it is important. Be sure to know the work you did on your project. The exam will consist of both a written part and a hands on part using the lab computer.

No final exam is schedule