

CS140

Business Concepts for Application Developers

[Onsite]

Course Description:

This course covers fundamental business concepts and terminology. Students are exposed to organizational structures and processes at a general level. The foundations discussed in this course will help students better understand the business needs reflected in software applications development.

Prerequisite(s) and/or Corequisite(s):

Prerequisites: CS100 Introduction to Programming or equivalent, CS110 Introduction to Web Applications or equivalent

Credit hours: 4

Contact hours: 50 (30 Theory Hours, 20 Lab Hours)

Syllabus: Business Concepts for Application Developers

Instructor: _____

Office hours: _____

Class hours: _____

Major Instructional Areas

1. Organizations
2. Management concepts
3. Business information systems
4. Competitive advantage
5. Information technology (IT) infrastructure
6. Business intelligence technologies
7. Business applications
8. Information systems
9. Ethical and social issues

Course Objectives

1. Describe key features of business organizations.
2. Explain the role of business information systems.
3. Describe IT infrastructure components.
4. Explain the role of business intelligence technologies.
5. Describe methods for securing information systems.
6. Describe the role of enterprise applications.

7. Describe how information systems support business information and decision making.
8. Describe information systems project management procedures.
9. Describe concerns related to ethical and social issues.

SCANS Objectives

SCANS is an acronym for Secretary's Commission on Achieving Necessary Skills. The committee, created by the National Secretary of Labor in the early 1990s, created a list of skills and competencies that the committee feels are necessary for employees to function in a high-tech job market.

1. Acquire and evaluate information.
2. Apply and adapt new knowledge and skills in both familiar and changing situations.
3. Demonstrate the ability to effectively and efficiently utilize the ITT Tech Virtual Library.
4. Select and analyze information and communicate the results.
5. Analyze systems and develop new or alternative systems.
6. Demonstrate the ability to make a rational decision based on analysis of accepted theories, evidence, and logical thinking.

Course Outline

Note: All graded activities, except the Project and Exams, are listed below in the pattern of <Unit Number>.<Assignment Number>. For example, Lab 1.1 refers to the 1st lab activity in Unit 1.

Unit	Activities
1– Organization Fundamentals	<ul style="list-style-type: none"> • Content Covered: <ul style="list-style-type: none"> <i>Organizations Through the Eyes of a Project Manager:</i> <ul style="list-style-type: none"> ○ Chapter 1, “Organizational Expectations and Professionalism”

Unit	Activities
	<ul style="list-style-type: none"> ○ Chapter 2, "The Organization" ● Labs: 1.1 ● Assignments: 1.1 ● Project: Part 1
<p>2– Organizations and Management</p>	<ul style="list-style-type: none"> ● Read from <i>Organizations Through the Eyes of a Project Manager</i>: <ul style="list-style-type: none"> ○ Chapter 3, "Project Management: Organizational Overview" ○ Chapter 4, "Management Concepts" ● Labs: 2.1 ● Assignments: 2.1 ● Project: Part 2
<p>3– Business Information Systems</p>	<ul style="list-style-type: none"> ● Read from <i>Essentials of Management Information Systems</i>: <ul style="list-style-type: none"> ○ Chapter 1, "Business Information Systems in Your Career" ○ Chapter 2, "E-Business: How Businesses Use Information Systems" ● Labs: 3.1 ● Assignments: 3.1 ● Project: Part 3 ● Quizzes: 3.1
<p>4– Competitive Advantage</p>	<ul style="list-style-type: none"> ● Read from <i>Essentials of Management Information Systems</i>: <ul style="list-style-type: none"> ○ Chapter 3, "Achieving Competitive Advantage with Information Systems" ● Labs: 4.1

Unit	Activities
	<ul style="list-style-type: none"> • Assignments: 4.1 • Project: Part 4
<p>5– IT Infrastructure</p>	<ul style="list-style-type: none"> • Read from <i>Essentials of Management Information Systems</i>: <ul style="list-style-type: none"> ○ Chapter 4, “IT Infrastructure: Hardware and Software” • Read from Student Handout: <ul style="list-style-type: none"> ○ “Operating Systems and Applications” • Labs: 5.1, 5.2 • Assignments: 5.1 • Project: Part 5 • Quizzes: 5.1
<p>6– Business Intelligence Technologies</p>	<ul style="list-style-type: none"> • Read from <i>Essentials of Management Information Systems</i>: <ul style="list-style-type: none"> ○ Chapter 5, “Foundations of Business Intelligence: Databases and Information Management” • Labs: 6.1 • Assignments: 6.1 • Project: Part 6 • Exam 1
<p>7– Communication Technologies</p>	<ul style="list-style-type: none"> • Read from <i>Essentials of Management Information Systems</i>: <ul style="list-style-type: none"> ○ Chapter 6, “Telecommunications, the Internet, and Wireless Technology” • Read from Student Handout: <ul style="list-style-type: none"> ○ “Networking Basics”

Unit	Activities
	<ul style="list-style-type: none"> • Labs: 7.1 • Assignments: 7.1 • Project: Part 7 • Quizzes: 7.1
<p>8– Security Issues and Enterprise Applications</p>	<ul style="list-style-type: none"> • Read from <i>Essentials of Management Information Systems</i>: <ul style="list-style-type: none"> ○ Chapter 7, “Securing Information Systems” ○ Chapter 8, “Achieving Operational Excellence and Customer Intimacy: Enterprise Applications” • Labs: 8.1 • Assignments: 8.1 • Project: Part 8 • Quizzes: 8.1
<p>9– Electronic Markets and Decision Making</p>	<ul style="list-style-type: none"> • Read from <i>Essentials of Management Information Systems</i>: <ul style="list-style-type: none"> ○ Chapter 9, “E-Commerce: Digital Markets, Digital Goods” ○ Chapter 10, “Improving Decision Making and Managing Knowledge” • Labs: 9.1 • Assignments: 9.1 • Project: Part 9
<p>10– Building and Managing Systems</p>	<ul style="list-style-type: none"> • Read from <i>Essentials of Management Information Systems</i>: <ul style="list-style-type: none"> ○ Chapter 11, “Building Information Systems and Managing Projects” ○ Chapter 12, “Ethical and Social Issues in

Unit	Activities
	<p style="text-align: center;">Information Systems”</p> <ul style="list-style-type: none"> • Labs: 10.1 • Assignments: 10.1 • Project: Part 10 • Quizzes: 10.1
<p>11– Course Review and Exam</p>	<ul style="list-style-type: none"> • Course Review • Exam 2 • Project: Presentations

Instructional Methods

This course is designed to promote a variety of teaching strategies that support the outcomes described in the course objectives and that foster higher cognitive skills. Delivery makes use of various media and delivery tools.

The purpose of this course is to provide you with some fundamental business concepts and terminology you might encounter on the job. It will also include an introduction to requirements gathering. You will be required to apply what you have learned about Windows and Web applications when making basic application design decisions.

This course is fundamentally different from most of the courses in this curriculum in that it focuses on understanding business processes and identifying requirements rather than on developing specific solutions to meet those requirements.

Along with an introduction to business concepts, the course emphasizes soft-skill requirements such as working in a team environment, analysis, documentation, and presentation.

Most of the labs deal with identifying and specifying business requirements. In some of the labs, you will prepare short presentations about aspects of design. You will be expected to critique each others' work and offer constructive suggestions.

Written assignments will take several forms, but are designed to work together to emphasize the core goals of the course. You will be required to research different aspects of business requirements and prepare written reports.

The course project will be a team project. You will work with your team to create and deliver a presentation based on a business case study and your own research. Your presentation will include PowerPoint slides and a written presentation script.

In addition, five quizzes and two exams will check your understanding of the material presented throughout the course.

Instructional Materials and References

Student Textbook Package

- Laudon, Kenneth C., and Jane P. Laudon. *Essentials of Management Information Systems*. 8th ed. Upper Saddle River, NJ: Pearson Prentice Hall, 2009.
- Fedora Live CD

Other Required Resources

In addition to the student textbook package, the following are also required in this course:

- Internet access
- ITT Tech Virtual Library > School of Study > School of Information Technology > Selected Textbooks > CS140 Business Concepts for Application Developers

Hoffman, Harvey F. *Organizations Through the Eyes of a Project Manager*. Upper Saddle River, NJ: Pearson Prentice Hall, 2003.

Chapters 1-4, Appendix Three, and Appendix Four

- Student Handouts (to be distributed by the instructor):
 - Operating Systems and Applications
 - Networking Basics

References

ITT Tech Virtual Library

Log on to the ITT Tech Virtual Library at <http://www.library.itt-tech.edu/> to access online books, journals, and other reference resources selected to support ITT Tech curricula.

Books

You may click “Books” or use the “Search” function on the home page to find the following books.

- Books 24x7
 - Bytheway, Charles, W. *FAST Creativity & Innovation: Rapidly Improving Processes, Product Development and Solving Complex Problems. Ft. Lauderdale, FL: J. Ross Publishing, Inc., 2007.*
 - Conway, Susan D. *The Think Factory: Managing Today's Most Precious Resource, People! Hoboken, NJ: John Wiley & Sons, 2007.*
 - Denton, D. Keith. *Empowering Intranets to Implement Strategy, Build Teamwork, and Manage Change. Westport, CT: Praeger Publishers, 2002.*
 - Eunson, Baden. *Communication in the Workplace. Milton, Qld., Australia: John Wiley & Sons, 2007.*
 - Hass, Kathleen B., Don J. Wessels, and Kevin Brennan. *Getting It Right: Business Requirement Analysis Tools and Techniques. Vienna, VA: Management Concepts, 2008.*
 - Illing, Gerhard, and Martin Peitz. *Industrial Organization and the Digital Economy. Cambridge, MA: The MIT Press, 2006.*
 - Koomey, Jonathan G. *Turning Numbers into Knowledge: Mastering the Art of Problem Solving. 2nd ed. Oakland, CA: Analytics Press, 2008.*
 - Kudyba, Stephan, and Richard Hoptroff. *Data Mining and Business Intelligence: A Guide to Productivity. Hershey, PA: Idea Group Publishing, 2001.*
 - Liebowitz, Stan. *Rethinking the Network Economy—The True Forces that Drive the Digital Marketplace. New York: AMACOM 2002.*

- Marchand, Donald, William Kettinger, and John Rollins. *Making the Invisible Visible: How Companies Win with the Right Information, People and IT*. Chichester, West Sussex, UK: John Wiley & Sons (UK), 2001.
- Meeker, Heather J. *The Open Source Alternative—Understanding Risks and Leveraging Opportunities*. Hoboken, NJ: John Wiley & Sons, 2008.
- Miller, Gloria J., Dagmar Bräutigam, and Stefanie V. Gerlach. *Business Intelligence Competency Centers: A Team Approach to Maximizing Competitive Advantage*. Hoboken, NJ: John Wiley & Sons 2006.
- Watson, Jr., Thomas J. *A Business and Its Beliefs: The Ideas That Helped Build IBM*. New York: McGraw-Hill, 2003.

Periodicals

You may click “Periodicals” or use the “Search” function on the home page to find the following periodicals.

- Business Source Premier
- Regional Business News
- Information Week

Reference Resources

You may click “Reference Resources” or use the “Search” function on the home page to find the following reference resources.

- Business Dictionary
- Business Resources on the Web

Other References

The following resources may be found **outside** of the ITT Tech Virtual Library, whether online or in hard copy.

Web site

- Microsoft Developer Network

<http://msdn.microsoft.com/en-us/default.aspx>

This Web site provides development tools and information on mobile embedded development, .Net framework development, and Office solutions development.

All links to Web references outside of the ITT Tech Virtual Library are always subject to change without prior notice.

Course Evaluation and Grading

Evaluation Criteria Table

The final grades will be based on the following categories:

CATEGORY	WEIGHT
Labs	20%
Exam 1	20%
Exam 2	20%
Quizzes	10%
Assignments	15%
Project	15%
Total	100%

Note: Students are responsible for abiding by the Plagiarism Policy.

Grade Conversion Table

The final grades will be calculated from the percentages earned in the course, as follows:

A	90-100%	4.0
B+	85-89%	3.5
B	80-84%	3.0
C+	75-79%	2.5
C	70-74%	2.0
D+	65-69%	1.5
D	60-64%	1.0
F	<60%	0.0