Computer Programming Department
Business/Public Service Division
GREENVILLE TECHNICAL COLLEGE

COURSE SYLLABUS

Course Title: Information Systems
Course Number: CPT 113

Lecture hours per week: 3.0 **Lab/Clinic Hours:** **Semester credit hours:** 3.0

Prerequisite: Placement into MAT032 or higher and (placement into RDG 100 or higher)

Catalog Course Description: This course is an introduction to the principles and technologies used in modern management information systems.

Purpose of the course: To present a core of IS principles with which every student should be familiar. Provide a survey of the IS career that will enable all students to understand the relationship of advanced courses to the curriculum as a whole. To teach the changing role of the IS professional and show the value of the career as an attractive field of specialization.

Required text(s) and other materials:

1. M:Information Systems; First Edition; Paige Baltzan and Amy Phillips; McGraw-Hill Irwin; ISBN: 978-0-07-337683-7
2. NOTE: Students in traditional classes must access Blackboard for course-related information. Students in hybrid and online classes will access their online content through Blackboard.

COLLEGE-WIDE STUDENT LEARNING OUTCOMES

1. Communication – Students will demonstrate the ability to use active reading and listening skills and to produce effective written and oral communication for varying audiences.

2. Information Technology and Technological Literacy – Students will demonstrate competency in using computer technology within a field of study.

3. Critical Thinking/Reasoning – Students will demonstrate the ability to apply the scientific method, mathematical processes, and research skills to analyze and solve problems/issues by using reflection and reasoning to justify conclusions.

4. Professional and Personal Responsibility – Students will demonstrate the ability to exhibit conduct, attitudes, and etiquette appropriate to the student's community and chosen career. Students will demonstrate the ability to manage time, to use effective interpersonal skills, and to display responsible behavior.

5. Diversity – Students will demonstrate the ability to recognize diversity and to demonstrate respectful conduct and attitudes toward all. Students will demonstrate the ability to explain how global issues impact life, work, and opportunities.

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COMPUTER PROGRAMMING PROGRAM LEVEL STUDENT LEARNING OUTCOMES

Upon successful completion of the CPT/Programming program, the graduate will be able to:

1. Students will be able to analyze, design, develop, and document solutions that will satisfy the information needs of business users using established design methodologies and standards.
2. Students will be able to design, create, test, and document logical programming solutions to prescribed specifications following established standards and using current development environments and languages for application development and database management.
3. Students will be able to demonstrate the knowledge and ability to install and maintain microcomputer hardware and operating system software.
4. Students will be able to demonstrate the use of a minimum of three business application software packages.
5. Students will be able to demonstrate fundamental team building, project management, and presentation skills by participating in team projects that include team goals and values, a development methodology for documentation and coding, group presentations, and exposure to topics such as diversity, time management, and goal setting.
6. Students will be able to demonstrate the ability to take initiative, assume responsibility, and work under pressure with minimum supervision by successfully completing "hands-on" computer lab assignments.

CPT 113 COURSE OUTCOMES

Students who successfully complete the above course will have demonstrated the skills necessary to accomplish the following objectives with a minimum competency level of 70 percent.

1. Students will be able to demonstrate an understanding of the "language" (key terms and concepts) of information systems with respect to computer hardware, computer software, network communications, the World Wide Web, and programming languages.
2. Students will be able to demonstrate an understanding of the profession of Management Information Systems as it relates to business principles.
3. Students will be able to demonstrate an understanding of the impact of the Internet on business and society and tools for accessing Internet information.
4. Students will be able to recognize the importance and understanding of the changing role of an IS professional by preparing a presentation.
5. Students will be able to demonstrate an understanding of the evolution of theories and practices of MIS systems and their impact on business operations.
6. Students will be able to demonstrate an understanding of development life cycle methodologies.
7. Students will be able to demonstrate an understanding of the importance of a database and the impact on MIS systems.

8. Students will be able to demonstrate team work by completing a team project.

The objectives of the CPT 113 course are intended to meet the CPT/Programming program level student learning outcome numbered 1, 4, and 5 above.

CPT 113 – Main Topics

Chapter 1 – Information Systems in Business

1. Information Technology's Role in Business
2. Information Technology Basics
3. Roles and Responsibilities in Information Technology
4. Measuring Information Technology's Success
5. Identifying Competitive Advantages
6. The Five Forces Model
7. The Three Generic Strategies
8. Value Chain Analysis

Chapter 2 – Strategic Decision Making

1. Decision Making
2. Transaction Processing Systems
3. Decision Support Systems
4. Executive Information Systems
5. Artificial Intelligence
6. Understanding the Importance of Business Processes
7. Business Process Improvement
8. Business Process Reengineering
9. Business Process Modeling and Management

Chapter 3 – Ebusiness

1. Disruptive Technology
2. Evolution of the Internet
3. Web 2.0 and the future of Web 3.0
4. Accessing Internet Information
5. Providing Internet Information
6. Ebusiness Basics and Models
7. Organizational Strategies for Ebusiness
8. Measuring Ebusiness Success
9. Ebusiness Benefits and Challenges
10. New Trends in Ebusiness: Egovernment and Mcommerce

Chapter 4 – Ethics and Information Security

1. Ethics
2. Information Ethics
3. Developing Information Management Policies
4. Ethics in the Workplace
5. How Much Will Downtime Cost Your Business
6. Protecting Intellectual Assets–
7. The First Line of Defense – People
8. The Second Line of Defense - Technology

Chapter 5 – Enterprise Architectures

1. Enterprise and Information Architectures
2. Infrastructure and Application Architecture
3. Service Oriented Architecture
4. Virtualization
5. Grid Computing

Alice – Free Educational Software

1. Introduction to Alice
2. Creating an Alice World
3. Fundamental Programming Concepts

Chapter 6 – Databases and Data Warehouses

1. Organizational Information
2. Storing Organizational Information
3. Relational Database Fundamentals and Advantages
4. Database Management Systems
5. Integrating Information Among Multiple Databases
6. Accessing Organizational Information
7. History of Data Warehousing
8. Data Warehouse Fundamentals
9. Data Mining and Business Intelligence

Chapter 7 – Networks, Telecommunications, and Mobile Technology

1. Network Basics
2. Voice over IP
3. Networking Businesses
4. Increasing the Speed of Business
5. Securing Business Networks
6. Business Drivers for a Mobile Workforce
7. Using Cellular, Satellite, and Wireless Technologies in Business
8. Mobile Workforce Trends

Chapter 8 – Operations Management (OM) and Supply Chain Management

1. Operations Management Fundamentals
2. OM in Business
3. IT's Role in OM

4. Competitve OM Strategy
5. OM and the Supply Chain
6. Supply Chain Fundamentals
7. IT's Role in the Supply Chain
8. Suppy Chain Management Success Factors and Stories
9. Future Supply Chain Trends

Chapter 9 – Customer Relationship Management (CRM) and Business Intelligence (BI)

1. Customer Relationship Management Fundamentals
2. Using Information Technology (IT) to Drive Operational CRM
3. Using Information Technology to Drive Analytical CRM
4. CRM Trends: SRM, PRM, and ERM
5. The Ugly Side of CRM
6. Business Intelligence
7. Operational, Tactical, and Strategic BI
8. Data Mining
9. Business Benefits of BI

Chapter 10 – Enterprise Resource Planning and Collaboration Systems

1. Enterprise Resource Planning
2. Core and Extended ERP Components
3. Integrating SCM, CRM, and ERP
4. Measuring ERP Success
5. Choosing ERP Software
6. Teams, Partnerships, and Alliances
7. Collaboration Systems
8. Knowledge, Content, and Workflow Management Systems
9. Groupware Systems

Chapter 11 – Systems Development and Project Management

1. Developing Software
2. The Systems Development Life Cycle (SDLC)
3. Traditional Software Deveopment Methodology: Waterfall
4. Agile Software Development Methodology
5. Developing Successful Software
6. Managing Software Development Projects
7. Project Management Fundamentals
8. Choosing Strategic Projects
9. Understanding Project Planning
10. Managing and Outsourcing Projects

Chapter 12 – Globalization and Innovation

1. Globalization
2. Global IT Business Strategies
3. Global Enterprise Architectures
4. Global Information Issues
5. Global Systems Development
6. 21st Century Organizational Trends

7. Innovation: Finding New
8. Social Entrepreneurship: Going Green
9. Social Networks: Who's Who
10. Virtual Worlds: It's a Whole New World

NOTE: Hands-on lab assignments and other student projects will be scheduled throughout the semester.

SPECIAL NOTE TO ONLINE STUDENTS: Online students may be required to complete two group projects. This may require students to come to campus for meetings or the use of workgroup software. Students should plan on at least 3 to 4 meetings. The final examination for online students will be administered on the Barton Campus and will be scheduled at a time determined by the department.

CPT 113 – EVALUATION AND GRADING INFORMATION

GRADING POLICY

Emphasis will be placed on tests, assignments, group projects, and a cumulative final exam with the following weights:

Grades for this course will be calculated as follows:

Twenty (20) percent of the final grade will be based on successful completion of assignments related to principles and technologies used in modern management information systems and a two-page paper that discusses topics related to computer programming, telecommunications, the Internet, the Intranet, or the Extranet including at least one foreign country.

Points will be deducted for the following on all lab assignments:

- Incorrect results
- Documentation that is missing or incomplete
- Documentation that is not neat, clean, or readable
- Lateness

Ten (10) percent of the final grade will be based on two group projects grade averages.
Fifty (50) percent of the final grade will be based on test grade averages.
Twenty (20) percent of the final grade will be based on the comprehensive final examination.

Final letter grades will be issued as follows:

A	=	90 - 100
B	=	80 - 89
C	=	70 - 79
D	=	60 - 69
F	=	0 - 59

READ THIS SYLLABUS CAREFULLY

You should read this syllabus carefully and ask your instructor about *any* aspects that you do not understand. The syllabus is an agreement between you and your instructor concerning course objectives, course content, grading, and other policies and procedures particular to this course. The above information is specific to the course. Three additional documents are provided as attachments and *are considered a part of this syllabus*:

Attachment I:

Each instructor will provide a supplement to this syllabus. The supplement will include: a week-by-week plan of instruction based on the section in which you are enrolled; your instructor's name, office hours and/or office location; and your instructor's contact information and recommended best methods to contact your instructor.

Attachment 2:

The Department responsible for developing and teaching has policies and procedures in place to assure quality instruction for all students. These are attached as "Departmental Policies and Procedures."

Attachment 3:

Please note that it is your responsibility to read the current Student Handbook included in Greenville Technical College's Catalog. (See website.) The Student Handbook addresses specific academic and student conduct policies and procedures. Excerpts from the Student Handbook representing the policies and procedures most often referred to in working with students are provided for your convenience as "Attachment 3."

Approved by: _____

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27 Jul 11
Date

This syllabus will remain in effect until revised or reviewed no later than August 2012.