

Computer Programming Department
Business/Public Service Division
GREENVILLE TECHNICAL COLLEGE

COURSE SYLLABUS

Course Title: Computer Technology Senior Project

Course Number: CPT 275

Lecture hours per week: 3.0

Lab/Clinic Hours:

Semester credit hours: 3.0

Prerequisite: CPT 264, CPT 286, IST 278, SPC 205, MAT 109 or MAT 110 or higher

Catalog course description: This course includes the design, development, testing, and implementation of an instructor-approved project.

Purpose of the course: This course will provide the student with the opportunity to utilize the concepts and skills from previous coursework to analyze and develop a real-life project. This project will also allow the student to be a participant in a long-term team project and to deal with technical issues where independent research will be required.

Required text(s) or other materials:

1. ExamGuide IT Project; Kathy Schwalbe; Course Technology; ISBN: 978-0-619-06349-8
2. Microsoft Office Project 2007; Rachel Biheller Bunin; Course Technology; ISBN: 978-1-4239-0594-3
3. The student will also use the texts and support materials from CPT 264, IST 278, CPT 186, and/or CPT 286 and other relevant coursework. In addition, the Internet may be used along with other resource materials available from the instructor.
4. 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.

Approved March 26, 2009

COMPUTER TECHNOLOGY PROGRAM STUDENT LEARNING OUTCOMES
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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 275 COURSE OUTCOMES

Students who successfully complete this course will have demonstrated the skills required to accomplish the following objectives with a minimum competence level of 70 percent.

1. Demonstrate the ability to analyze a user request and prepare a design document using a structured design methodology and established standards.
2. Demonstrate the ability to create, test, and document the code called for by a design document using current development environments and languages for application and database management.
3. Demonstrate the use of three business application software packages (Project Management, Word Processing, and Presentation Software).

4. Demonstrate project plan knowledge and time management and goal setting through the creation of a project plan.
5. Demonstrate the ability to work with others through participation in team building assignment and commitment to team goals and values.
6. Develop and Participate in a group presentation.

The objectives of the CPT 275 course are intended to meet the CPT/Programming program competencies numbered 1, 2, and 5 above.

CPT 275 – Main Topics

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|----------------------|--|
| <u>Week 1</u> | Form Team
Prepare Mission Statement
Write Resume
Exam Guide IT Project Domain 1 (pages 1 -31) |
| <u>Week 2</u> | Present Mission Statement
Receive Project Assignment
Start Project Definition
Work on Microsoft Project tutorial exercise one and two |
| <u>Week 3</u> | Work on Functional Specification
Work on Microsoft Project tutorial exercise three and four |
| <u>Week 4</u> | Complete Functional Specification
Present Functional Specification
Complete and Submit Database Design
Work on Microsoft Project tutorial exercise five and six |

Exam 1 – Scope Definition (Independent Evaluation not related to Team Project)

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|----------------------|--|
| <u>Week 5</u> | Work on System Design Specification
Study Domain 2 (Preliminary/Project Planning) |
| <u>Week 6</u> | Complete System Design Specification
Study Domain 2 (Preliminary/Project Planning)
Create Project Plan |

Weeks 7 and 8

Work on Project Implementation (Logical Unit Coding, Database Creation, etc.)

Exam 2 – Preliminary/Project Planning (Independent Evaluation not related to Team Project)

Weeks 9 and 10

Continue Working on Project Implementation (Logical Unit Coding, Database Creation, etc.)
Study Doman 3

Exam 3 – Tracking Projects (Independent Evaluation not related to Team Project)

Week 11 Write System Test Plan
 Write Users Guide
 Write Installation Plan
 Write Installation Guide

Week 12 Test System

Week 13 Demo System
 Seek user sign-off
 Write Users Guide
 Write Installation Plan
 Write Installation Guide

Weeks 14 through 15

Complete Test Plan for Project Enhancement
Complete and Submit Project
Complete a two-page paper that discusses development methodologies being used around the world.

Week of Finals

Wrap-Up
Transfer of all Materials
Project Check-List

CPT 275 – COURSE SPECIFIC REQUIREMENTS

A USB portable storage device such as a flash drive will be needed for coursework storage.

CPT 275 – EVALUATION AND GRADING INFORMATION

GRADING POLICY: Students grades will consist of the combined scores for project documentation, project coding, peer evaluations, and exams. The individual grades will be calculated as follows:

Tests	40 percent
Presentations	10 percent
Peer Evaluations	7 percent

Supervisor/Instructor Contact Evaluation (*Status Reports, Interactions*) 7 percent

Deliverable Evaluation Part 1 (Documentation) 12 percent

Mission Statement, Charter, Functional Specs, Design Documents, Users Guide, a two-page paper that discusses development methodologies being used around the world, etc.

Deliverable Evaluation Part 2 (Database Design/Queries) 12 percent

Is the database normalized? Is the system table driven? Easy to maintain? etc.

Deliverable Evaluation Part 3 (*Did Software Meet Requirements?*) 12 percent

NOTE: ALL TESTS AND EXAMS ARE RETAINED BY THE INSTRUCTOR.

The following factors will also be considered in grading programs:

- a. The program must work correctly and produce the desired results.
- b. The program must be written in the style specified by the instructor and described in class.
- c. The program must be written with compactness in mind.
- d. The documentation should be clear and meaningful.

All assignments (i.e., labs, projects, research papers, etc.) for this course must be completed and submitted to the instructor by the due date established in order to receive credit for the assignment.

Final letter grades will be issued as follows:

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

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 1:

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."

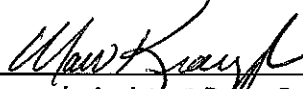
Attachment 3:

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."

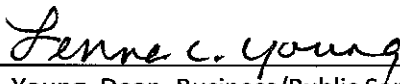
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18 Dec 10
Date

This syllabus will remain in effect until revised or reviewed no later than August 2011.