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Computer Technology Department
Business and Technology Division
GREENVILLE TECHNICAL COLLEGE
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<div align="center">**COURSE SYLLABUS**</div>

Course Title: Computer Technology Senior Project
Course Number: CPT 275

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 following 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: _____
                    Phillip Cluley, Department Head for Computer Technology
                    Phillip.Cluley@gvltec.edu (864) 250-8655, Barton Campus, Building 103/309

Approved by: _____   Date: _____
                    Joel D. Welch, Ph.D., PE
                    Dean, Technology Division

This syllabus will remain in effect until revised or reviewed no later than August 2016.

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

Prerequisites: CPT 264; CPT 286, or IST 203, or IST 258, or IST 278; SPC 205 or SPC 209; and MAT 103 or higher.   Computer Technology students must obtain a minimum grade of "C" in all CPT and IST courses.

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 for Programming Students (Students that have taken CPT286 or IST278:

1. *Microsoft Office Project 2010*; Bunin; Course Technology/Cengage Learning;
   ISBN: 978-0-619-06349-8
2. The student will also use the texts and support materials from previous relevant coursework. In addition, the Internet may be used along with other resource materials available from the instructor.
3. 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.

Required text(s) or other materials for Network Systems Administration Students (Students that have taken IST202 and/or IST258 (IST190 or IST191 is helpful):

1. Traditional and online students will use text books from previous courses.

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.

Revised December 31, 2012

COMPUTER TECHNOLOGY PROGRAM LEVEL STUDENT LEARNING OUTCOMES

Upon successful completion of the Computer Technology Degree students will be able to:

1. Install computer and network hardware.

2. Install computer operating systems and application software.

3. Design, create and test computer programming solutions.

4. Demonstrate the ability to take initiative, assume responsibility, and work under pressure with minimum supervision by successfully completing "hands-on" computer assignments.

5. Analyze, troubleshoot, and correct computer related technical problems.

Revised August 2012

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. *(Programming Students Only)* Demonstrate the ability to analyze a user request and prepare a design document using a structured design methodology and established standards.

2. *(Programming Students Only)* 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. *(Programming Students Only)* Demonstrate project plan knowledge and time management and goal setting through the creation of a project plan.

4. *(Programming Students Only)* Demonstrate the ability to work with others through participation in team building assignment and commitment to team goals and values.

5. *(Network Systems Administration Students Only)* Create a network solution proposal based on predefined customer requirements.

6. *(Network Systems Administration Students Only)* Evaluate the customer requirements to identify and determine computer hardware and software requirements.

7. *(Network Systems Administration Students Only)* Design and implement a Windows Server network.

8. *(Network Systems Administration Students Only)* Design a network solution that includes a network domain structure, network security, and network connectivity.

The outcomes of the CPT 275 course are intended to meet the Computer Technology program level student learning outcomes.

Revised August 2014

This course features two main parts: **Guest Speakers and Field Trips with IT Leaders in the Upstate** and for Programming Students their **Programming Final Project** or for the **Network Systems Administration Students** their **Networking or Systems Administration Performance Exam**.

The exact list of speakers and field trips will not be available until just before the semester starts. Based on previous semesters, topics covered by guest speakers and field trips to their businesses included:
- How to Start Your Own Computer Consulting Business
- Tour of a manufacturing plant to see how IT is implemented
- Tour of the Greenville County Schools System IT Department
- Resume Writing and Successful Interviewing Techniques
- Tour of the Greenville County Library System's IT Department
- Tour of Concentrix Cisco Support Center
- Tour of IBM facilities in Greenville
- Computer and Network Security

The **Programming Final Project** may include the following elements:
- Form Team
- Prepare Team Mission Statement
- Prepare Individual Resumes
- Project Planning
- Project Specifications
- System Design Specification
- Implement Project
- Create System Test Plan
- Create Installation and Users Guide
- Test Project System
- Demo Completed Project

The **Network Administration or Systems Administration Performance Exam** may include the following elements depending on which version of the Performance Exam the student is given:
- Connecting network servers and/or routers and switches per a network diagram
- Installing and configuring to specifications Windows Server, Windows, and Linux
- Configuring computer and network security to specification
- Configure a Windows domain and active directory with DNS
- Configuring Cisco routers and switches
- Installing and configuring to specifications various services which may include DNS, DHCP, email, FTP, NTP, proxy server, web server, and others

Revised August 2014

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

GRADING POLICY FOR PROGRAMMING STUDENTS

Programming Students' overall grade will be calculated on the following items:

Guest Speaker and Field Trip Reports... 30 percent
Programming Final Project .... 70 percent

The **Computer Technology Department Programming Final Project** grade (70% of overall grade) will be broken down into the following items:

Deliverable Evaluation Part 1 (Documentation) .... 20 percent
Mission Statement, Charter, Functional Specs, Design Documents
Deliverable Evaluation Part 2 (Database Design/Queries) .... 20 percent
Finalized Testing Report
Deliverable Evaluation Part 3 .... 20 percent
Project Turnover, Users Guide, Presentation Demo to Class
Peer Evaluations .... 5 percent
Supervisor/Instructor Contact Evaluation *(Status Reports, Interactions)* .... 5 percent

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.

GRADING POLICY FOR NETWORK SYSTEMS ADMINISTRATION STUDENTS

Reports on Field Trips and Guest Speakers .... 30 percent
Network Systems Administration Performance Exam .... 70 percent

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

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.

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

Final letter grades will be issued as follows:

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