

GREENVILLE TECHNICAL COLLEGE

Business and Technology Division Computer Technology Course Syllabus DHTML and JavaScript IST 239

[Credit/Contact Hours](#)

[Prerequisite](#)

[Co-requisite](#)

[Course Description](#)

[Purpose of Course](#)

[Required Texts](#)

[Additional Materials](#)

[Course Outcomes](#)

[Program Student Learning Outcomes](#)

[Greenville Technical College Core Competencies](#)

[Instructional Agreement](#)

[Grading Scale](#)

[Course Policies](#)

Credit/Contact Hours:

3.0

Prerequisite:

IST 237 and CPT 186. Computer Technology students must obtain a minimum grade of "C" in all CPT and IST courses.

Co-requisite:

None

Course Description:

This course covers designing internet pages and applications for personal/business use, writing the required program code in languages such as HTML, Java, and VRML, testing and debugging programs, uploading and maintaining internet pages and applications. Note: Course taught via College Online only.

Purpose of Course:

This course introduces the student programming concepts that involve the integration of client-side and server-side scripts into web pages. The emphasis of the course is on client-side scripting where client-side scripts are used to create dynamic web pages that respond to user input. Client-

GREENVILLE TECHNICAL COLLEGE

side scripting topics will include script integration, language syntax, data storage, control structures, functions, and procedures.

Required Texts:

1. JavaScript; 6th Edition; Vodnik and Gosselin; Cengage Learning; ISBN: 978-1-305-07844-4
2. Access to an Internet-capable computer system.
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.

Additional Materials:

There are no specific course requirements other than attachment 1.

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. Create and validate HTML and CSS code using the current approved standards.
2. Produce code that will link to internal and external content used in a web application.
3. Produce forms for the input of data.
4. Use CSS to control the presentation of web page content using techniques common to desktop and mobile devices.

The objectives of the IST 239 course are intended to meet the CPT program level student learning outcomes.

GREENVILLE TECHNICAL COLLEGE

Program 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.

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Greenville Technical College Core Competencies:

Communication Core Competency: Students will demonstrate effective written and oral communication skills to convey information, ideas, or opinions.

- Written Communication: Students will demonstrate effective written communication skills to convey information, ideas, or opinions.
- Oral Communication: Students will demonstrate effective oral communication skills to convey information, ideas, or opinions.

Critical Thinking Core Competency: Students will demonstrate effective reasoning, problem solving, or quantitative skills to develop an opinion or conclusion.

- Critical Reasoning: Students will employ inquiry, analysis, and synthesis of information to formulate and/or evaluate an opinion or conclusion.
- Problem Reasoning: Students will design and formulate a strategy to answer a question or achieve a desired goal.
- Quantitative Reasoning: Students will be able to analyze numerical information or observable facts resulting in informed conclusions.

Information Literacy Core Competency: Students will be able to locate, evaluate, and use information effectively from diverse sources.

GREENVILLE TECHNICAL COLLEGE

Professionalism Core Competency: Students will demonstrate conduct and etiquette appropriate to the community and chosen career.

- Professionalism: Students will display professional conduct and work habits.
- Teamwork: Students will collaborate with others to accomplish a shared goal.

Instructional Agreement:

This syllabus is an agreement between the student and instructor concerning course objectives, course content, grading and other policies and procedures particular to the course as well as any posted program, departmental, and divisional policies. It is also the student's responsibility to become familiar with the Student Handbook/College Catalog found in the Student Resource area of Blackboard.

Grading Scale:

Grades for this course will be calculated as follows:

Exams represent 50 percent of the final grade: 50 percent for Test Projects and 20 percent for the Final Exam Project. Class participation is 10% of the final grade.

Lab assignments count 30 percent of the final grade.

1. Programming assignments will be assigned from selected chapters for 40 percent of the grade.
2. The following factors will be considered in grading assignments:
 - a. The program must work correctly and produce the desired results.
 - b. The program must be written in the style described in the text or described in class.
 - c. Write with compactness in mind.
 - d. 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.

GREENVILLE TECHNICAL COLLEGE

Final letter grades will be issued as follows:	A = 90 - 100
	B = 80 - 89
	C = 70 - 79
	D = 60 - 69
	F = 0 - 59

Course Policies:

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PLAN OF INSTRUCTION:

TEXT

CHAPTER TOPIC

- Chapter 1 Introduction to JavaScript
- Chapter 2 Working with Functions, Data Types, and Operators
- Chapter 3 Building Arrays and Controlling Flow
- Chapter 4 Debugging and Error Handling
- Chapter 5 Working with the Document Object Model (DOM) and DTML
- Chapter 6 Enhancing and Validating Forms
- Chapter 7 Using Object-Oriented JavaScript
- Chapter 8 Manipulating Data in Strings and Arrays
- Chapter 9 Managing State Information and Security
- Chapter 10 Programming for Touchscreens and Mobile Devices
- Chapter 11 Updating Web Pages with AJAX (Optional)
- Chapter 12 Introduction to JQuery

The instructor reserves the right to modify the Plan of Instruction by changing the sequence of text material or testing content.

GREENVILLE TECHNICAL COLLEGE