Computer Technology Department
Business~~/Public Service~~ and Technology Division
GREENVILLE TECHNICAL COLLEGE

COURSE SYLLABUS

Course Title: DHTML and JavaScript
Course Number: IST 239

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.

~~**Approved by:** _____~~
~~Beau Sanders, Department Head, Computer Technology Department~~
~~beau.sanders@gvltec.edu, (864) 250-8314, Barton Campus, Building 103/311~~

~~**Approved by:** _____~~
~~Wanda Clark, Associate Vice President~~
~~*for the Dean of Business/Public Service Division*~~
~~**Date** *Dean's Office: (864) 250-8196, Barton Campus, Engineering Technology Building 103/104*~~

~~*This syllabus will remain in effect until revised or reviewed no later than August 2015.*~~

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GREENVILLE TECHNICAL COLLEGE

COURSE SYLLABUS

Course Title: DHTML and JavaScript
Course Number: IST 239

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

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

Catalog Course Description: This course includes concepts and skills for developing dynamic functionality and interactivity for web sites using JavaScript. Variables, operators, conditionals, functions, objects (image and form), properties, methods, cookies, frames, and arrays. Note: Course taught via College Online only.

Purpose of the 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-side scripting topics will include script integration, language syntax, data storage, control structures, functions, and procedures. Server-side scripting topics will include Active Server Pages (ASP), request and response objects and the integration of databases.

Required text(s) or other materials:
1. Sams Teach Yourself HTML5 Mobile Application Development; Author: Kyrnin; Publisher: SAMS; ISBN: 978-0-672-33440-~~JavaScript and Ajax; 2nd Edition; Carey & Canovatchel; Course Technology; ISBN: 978-1-4390-4403-2~~
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.

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

IST 239 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. Students will be able to demonstrate basic knowledge of HTML and XHTML as required for scripting.

2. Students will be able to demonstrate the ability to write, execute, and debug JavaScript for imbedding in web pages.

3. Demonstrate the use of basic JavaScript syntax including variable declaration and use, functions and constructor functions, loops statements, decision statements, and arrays.

4. Demonstrate the use of basic Document Object Model objects including window object, document object, retrieval of browser information, request and response objects, maintaining state between client and server, and passing values between client and server.

5. Demonstrate server-side JavaScript programming and how it is implemented using AJAX.

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

IST 239 – MAIN TOPICS

PLAN OF INSTRUCTION:

TEXT
CHAPTER ~~**MAJOR**~~ **TOPIC**~~**S**~~

~~Tutorial 1: Programming with JavaScript~~
~~Tutorial 1 Lab Assignment~~

~~Tutorial 2: Working with Operators and Expressions~~
~~Tutorial 2 Lab Assignment~~

~~Tutorial 3: Working with Arrays, Loops, and Conditional Statements~~
~~Tutorial 3 Lab Assignment~~

~~**Test 1:** Chapters 1-3~~

~~Tutorial 4: Working with Objects and Styles~~
~~Tutorial 4 Lab Assignment~~

~~Tutorial 5: Working with Forms and Regular Expressions~~
~~Tutorial 5 Lab Assignment~~

~~Tutorial 6: Working with the Event Model~~
~~Tutorial 6 Lab Assignment~~

~~**Test 2:** Chapters 4-6~~

~~Tutorial 7: Working with Dynamic Content~~
~~Tutorial 7 Lab Assignment~~

~~Tutorial 8: Designing Rollovers and Slide Shows~~
~~Tutorial 8 Lab Assignment~~

~~Tutorial 9: Storing Data with Cookies~~

~~Tutorial 9 Lab Assignment~~

~~**Test 3:** Chapters 7-9~~

~~Tutorial 10: Designing Pop-Up Windows~~
~~Tutorial 10 Lab Assignment~~

~~Tutorial 11: Exploring Object-Based Programming (Optional)~~
~~Tutorial 11 Lab Assignment (Optional)~~
Hour 1 Improving Mobile Web Application Development with HTML5

Hour2 New HTML5 Tags and Attributes with Mobile Development

Hour 3 Styling Mobile Pages with CSS3

Hour 4 Detecting Mobile Devices and HTML5 Support

Hour 5 JavaScript and HTML5 Web Applications

Hour 6 Building a Mobile Web Application

Hour 7 Upgrading a Site to HTML5

Hour 8 Converting Web Apps to Mobile

Test Project 1

Hour 9 Adding Meaning with HTML5 Sectioning and Semantic Elements

Hour 10 Drawing with the HTML5 Canvas Element

Hour 11 Fonts and Typography in HTML5

Hour 12 Audio and Video in HTML5

Hour 13 HTML5 Forms

Hour 14 Editing Content and User Interaction with HTML5

Hour 15 Microformats and Microdata

Hour 16 Working with HTML5 Drag-and-Drop Functionality

Hour 17 HTML5 Links

Test Project 2

Hour 18 Web Application APIs and Datasets

Hour 19 WebSockets, Web Workers, and Files

Hour 20 Offline Web Applications

Hour 21 Web Storage in HTML5

Hour 22 Controlling the Browser History with the History API

Hour 23 Adding Location Detection with Geolocation

Hour 24 Converting HTML5 Apps to Native Apps

Test Project 3

Final Exam Portfolio Project

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

IST 239 – COURSE SPECIFIC REQUIREMENTS

There are no specific course requirements other than attachment 1.

IST 239 – EVALUATION AND GRADING INFORMATION

Grades for this course will be calculated as follows:

Exams represent 50 percent of the final grade: ~~30~~ 50 percent for ~~chapter tests~~Test Projects and 20 percent for the ~~final exam project~~Final Exam Project. Class participation is 10% of the final grade.

Lab assignments count ~~40~~ 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.

Final letter grades will be issued as follows:

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

~~Business/Public Service Division – Assistant Dean Information~~

During the semester, if you have any issues that need to be addressed at an administrative level, the Business/Public Service has two assistant deans in addition to the Dean who will be glad to speak with you about your concerns. They are available via email, phone, or in their offices as provided below:

Mary Locke, Assistant Dean, Business/Public Service for Student Services
mary.locke@gvltec.edu, (864) 250-8629, Barton Campus, Engineering Technology Building 103/304

Elizabeth Mann, Assistant Dean, Business/Public Service for Teaching and Learning
elizabeth.mann@gvltec.edu, (864) 250-8491, Barton Campus, Criminal Justice Building 121/124