

Syllabus

George Mason University EDIT 530

Instructor: Alexander Clayborne, (301) 213-9109, Acedirect@multimediaace.com

Text: "JavaScript Bible 4th Edition" by Danny Goodman, ISBN 0-7645-3342-8

Methodology: This is an introductory course for beginners in programming and scripting. Using JavaScript, students will create code that enables web pages to be more interactive.

Programming fundamentals that will be covered include:

- Variables
- Functions
- Expressions
- Control Structures
- Objects

The JavaScript programming fundamentals covered will be applicable to scripting principals done in most programming languages and many authoring programs including Authorware and Toolbook. JavaScript helps create interactive web pages by interacting with HTML and browser plugins. The basics of how JavaScript interacts with plugins, like Flash and Shockwave will be covered.

Course Objectives: By the end of the course, students should be able to:

- Create mouse-over actions for web graphics
- Validate HTML form data prior to email submission
- Judge and store the answers from multiple-choice questions
- Set up a navigational structure for Web Based Instruction (WBI)

Prerequisites: Students must have an understanding of the basic elements of HTML page creation, as the subject matter builds on these concepts.

Requirements: Attendance in class is mandatory, as discussions, lectures, and hands-on activities are important parts of the course.

Each student is expected to complete all readings, assigned exercises and projects, and participate in class discussions.

Students missing a class are responsible for completing any assignments, readings, etc prior to the next class.

Access to a multimedia capable computer and software is required. GMU makes computers and required software available during open lab time. Required software

includes: Netscape Navigator 3.0 + or Microsoft Internet Explorer 3.0 +, Notepad or other text editor.

Assignments: Complete exercises assigned from this syllabus and in class assignments

Evaluation: Grades will be based on the completion of course requirements and on the scope, quality, and creativity of the assignments. An Incomplete will be given only under unusual extenuating circumstances.

Attendance/class participation = 15%

Exercises/Assignments = 40%

Final Project = 45%

Class 1

Discussion: What JavaScript is
Why use JavaScript
What JavaScript can do
Interactivity

In Class Exercise:

Using Notepad to create your first script.

Assignments:

Read "JavaScript Bible" pp. 1-68

Complete exercises 2 & 3 pg. 55

Complete exercises 1 & 2 pg. 68

Class 2

Discussion: Browser and Document Objects
Dot syntax
Values and variables
Assignments and comparisons
Where to put your scripts

In Class Exercise:

Practice writing script elements, review basics.

Assignments:

Read "JavaScript Bible" pp. 71-81 "Programming Fundamentals"

Class 3

Discussion: Variables
Expressions
Strings to Numbers

Operators
Introduction of Fundamentals Part 2

In Class Exercise:

JavaScript exercise on pg. 76 (in gray box)
Exercise #4 on pg. 82

Assignments:

Review pp. 71- 81 in "JavaScript Bible"
Assignment to be announced in class

Class 4

Discussion: Decisions and Loops
If - Then - Else constructions (control)
Functions
Arrays

In Class Exercise:

Practice using functions, and control structures
Review Ex #1 on pg. 98

Assignments:

Do exercise #1 on pg. 98
Read "JavaScript Bible" pp. 83 - 97

Class 5

Discussion: Window and Document Objects
Forms
Button Objects

In Class Exercise:

Review Chapters 1-7

Assignments:

Exercises #4 & #5 pg. 98
Read JavaScript Bible pp. 99 - 128

Class 6

Discussion: String searches
Frames/Multiple window communication
Event Handlers
Final Project

In Class Exercise:

Do Exercise #5 pg. 129

Assignment:

Read "JavaScript" Bible pp.131 - 166

Class 7

Discussion: Pre-caching
Simple Image Rollovers
Flash plugin scripting

In Class Exercise:

Creating simple rollovers
Work on Final Project

Assignments:

Read pp. 625 - 637 in "JavaScript Bible"

Class 8

Discussion: Form Validation
Cookies

In Class Exercise:

Validating form information
Work on Final Project

Class 9

Discussion: Forms
Navigation
DHTML

In Class Exercise:

Review
Work on Final Project

Class 10

Discussion: Review/Questions
Turn in Final Projects

Student Information Sheet

Name:

Contact Phone:

Type of Employment:

(Job title and/or duties)

E-mail address:

Major at GMU:

Major of Undergraduate
Degree:

(and any other degrees)

Special Areas of Interest
in

regard to multimedia:

Related Multimedia:

Experience

Expectations of the
course:
