

**JEFFERSON COLLEGE**

**COURSE SYLLABUS**

**CIS287**

**ADVANCED WEB DEVELOPMENT**

3 Credit Hours

Revised by: David McNair  
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## CIS287 Advanced Web Development

### I. CATALOGUE DESCRIPTION

- A. Pre-requisites:
1. Reading Proficiency
  2. CIS165 Programming for the Web with a Grade of “C” or Better
- B. 3 Credit Hours
- C. Advanced Web Development teaches students through lecture and laboratory experiences, the tools and methods to develop a web-based system, which interfaces with core business systems. Students will gain hands-on experience developing applications for interactive websites including: database integration using related tables, database development and updates, web forms, web services, reporting features, creating and designing interactive controls, and applications for web development including Dreamweaver. (S)

### II. EXPECTED LEARNING OUTCOMES/CORRESPONDING ASSESSMENT MEASURES

Describe the process to develop best coding practices for JavaScript, C# systems using information processing, arrays, classes, operators, and functions	Class Participation Hands-On Examinations Lab Assignments
Use Dreamweaver to demonstrate effective use of web pages, page navigation, debugging, and template development	Class Participation Hands-On Examinations Lab Assignments
Analyze web page application development that includes classes, inheritance, overloading, and effective use of data types	Class Participation Hands-On Examinations Lab Assignments
Create applications that utilize functions, pointers, references calculations and formulas, conditional formatting, forecasting, graphics, and charts	Class Participation Hands-On Examinations Lab Assignments
Create and modify existing code to debug and trouble shoot errors	Class Participation Hands-On Examinations Lab Assignments
Create logical coding statements that diagnose and problem solve a function or coding procedure	Class Participation Hands-On Examinations Lab Assignments
Create general objects that are of the best use for application	Class Participation Hands-On Examinations Lab Assignments

### III. OUTLINE OF TOPICS

- A. Static and Dynamic Websites
  - 1. Review topics
  - 2. .net framework
  - 3. Web forms and assemblies
  - 4. Case projects
  
- B. Introduction to Visual Studio
  - 1. Navigation
  - 2. User controls
  - 3. Problem solving
  - 4. Cascading style sheets
  - 5. Classes
  
- C. Database Applications
  - 1. Dreamweaver Webform controls
  - 2. MSDE and SQL server
  - 3. Displaying data
  - 4. Binding multiple tiers
  - 5. Dreamweaver Validation
  - 6. Webform controls
  
- D. Server Controls
  - 1. Data relationships
  - 2. Adrotator control
  - 3. Master/detail records
  - 4. Calendar control
  - 5. Stylesheets
  
- E. Data Sources
  - 1. Object-oriented programming
  - 2. Variables and data types
  - 3. Collections
  - 4. Procedures
  - 5. Bound controls
  - 6. Creating a class

- F. ASP.net
  - 1. Web applications
  - 2. Web forms
  - 3. Validator controls
  - 4. Managing web projects
  - 5. Case projects
  
- G. Web Forms Database development using Dreamweaver
  - 1. Advanced database controls and connections
  - 2. Database tools
  - 3. Datalist controls
  - 4. Using HTML templates
  - 5. Table relationships
  
- H. Data Driven Web Applications
  - 1. Data sources
  - 2. Datagrid control
  - 3. Updating and modifying records
  - 4. Error status messages
  - 5. Web Services

#### IV. METHOD(S) OF INSTRUCTION

- A. Lecture
  
- B. Labs
  
- C. Tutorials

#### V. REQUIRED TEXTBOOK(S)

Paul J. Deitel, Harvey M. Deitel, and Abby Deitel; *Internet & World Wide Web: How to Program*, (Current Edition), Pearson

#### VI. REQUIRED MATERIALS

USB Flash Drive (at least 32 GB)

#### VII. SUPPLEMENTAL REFERENCES

Online tutorial sites and documentation will be used extensively throughout the course.

## VIII. METHOD OF EVALUATION

- |    |                       |     |
|----|-----------------------|-----|
| A. | Class Participation   | 10% |
| B. | Hands-on Examinations | 20% |
| C. | Lab Assignments       | 70% |

## IX. ADA AA STATEMENT

Any student requiring special accommodations should inform the instructor and the Coordinator of Disability Support Services (Technology Center 101; phone 636-481-3169).

## X. ACADEMIC HONESTY STATEMENT

All students are responsible for complying with campus policies as stated in the Student Handbook (see College Website <http://www.jeffco.edu>).

## XI. ATTENDANCE STATEMENT

Regular and punctual attendance is expected of all students. Any one of these four options may result in the student being removed from the class and an administrative withdrawal being processed: (1) Student fails to begin class; (2) Student ceases participation for at least two consecutive weeks; (3) Student misses 15 percent or more of the coursework; and/or (4) Student misses 15 percent or more of the course as defined by the instructor. Students earn their financial aid by regularly attending and actively participating in their coursework. If a student does not actively participate, he/she may have to return financial aid funds. Consult the College Catalog or a Student Financial Services representative for more details.

## XII. OUTSIDE OF CLASS ACADEMICALLY RELATED ACTIVITIES

The U.S. Department of Education mandates that students be made aware of expectations regarding coursework to be completed outside the classroom. Students are expected to spend substantial time outside of class meetings engaging in academically related activities such as reading, studying, and completing assignments. Specifically, time spent on academically related activities outside of class combined with time spent in class meetings is expected to be a minimum of 37.5 hours over the duration of the term for each credit hour.