

Common Course Outline

EBUS 222

Java For The Web

3 Semester Hours

The Community College of Baltimore County

Description

Java For The Web is designed to teach students about Web applications using Java and how to implement them. Students will build Java Server Pages that process form data, generate dynamic content back to the client, and interact with databases. The content in this course will be applied to the development of an e-business Web site.

Prerequisites: CINS 146 and EBUS 106 or programming experience or consent of program coordinator

Overall Course Objectives

Upon completion of this course the student will be able to:

1. Explain Web client/server architecture;
2. Explain the difference between static and dynamic Web pages;
3. Create a simple Web page which is generated in JSP;
4. Compare JSP to alternate technologies;
5. Create interactive Web content using JavaScript;
6. Insert a client-side script into an HTML page;
7. Insert a server-side script into an HTML page;
8. Set up client-side validation;
9. Design a form to collect information from users;
10. Use GET and POST methods to send form information to the server;
11. Retrieve information from a form;
12. Output information to users;
13. Use variables to store information obtained from a form;
14. Use variables in JSP scripts;
15. Describe the function of JSP data types;
16. Explain the control structures in JSP scripts;
17. Use logical operators and arrays in JSP scripts;
18. Manipulate strings in JSP scripts;
19. Use enumeration objects;
20. Use JSP page directives to determine some characteristics of JSP pages;
21. Incorporate include directives and actions to include content from other files;
22. Create a page using simple JSP scripting elements;
23. Use the request object to obtain header, client, and server information;
24. Process form input fields using the request object;
25. Create arrays using the request object;
26. Control the output stream using the out object;
27. Explain the difference between forwarding and redirecting;
28. Write JavaBeans;

29. Install bean classes;
30. Use beans with action tags;
31. Set a bean's properties;
32. Connect beans with forms;
33. Use beans in scriptlets;
34. Write a file bean to read from and write to files;
35. Explain the difference between variables defined in declarations and variables defined in scriptlets;
36. Create page scope, request scope, and application scope beans;
37. Explain basic database and DBMS concepts;
38. Manipulate databases via JSP Web applications using SQL;
39. Connect to databases from JSP pages using the JDBC or JDBC-ODBC bridge;
40. Create tables and insert data into tables via JSP pages;
41. Get data for tables via JSP pages;
42. Add data to a table using forms; and
43. Create a bean, and use it to access a database.

Major Topics

- I. Introduction to JSP
- II. Client-side and server-side scripting
- III. Basic Form –processing techniques
- IV. Variables and JSP control structures
- V. Scripting with JSP elements
- VI. Process the client request
- VII. Applications, Sessions, and Cookies
- VIII. JavaBeans
- IX. Scopes of variables and JavaBeans
- X. Databases with JSP

Course Requirements (List only those requirements that will be common to all sections of the course.)

Grading/exams: Grading procedures will be determined by the individual faculty member, will be provided the first week of class, and will include the following:

- Minimum of 1 test
- Comprehensive final or project

Writing: The individual faculty member will determine specific writing assignments.

Other Course Information

- This course is a required course for the Technology Track of the E-Business.
- This course is taught online.

Individual faculty members may include additional course objectives, major topics, and other course requirements to the minimum expectations stated in the Common Course Outline.

Date