Luzerne County Community College

Standard Course Syllabus

Course Number:	CIS 266
Course Title:	Internet Programming with Java
Department:	Computer Information Systems
Credits: 3	Lecture hours: 3 Laboratory hours: 0 Clinical hours: 0
Prerequisites:	CIS 156 Programming with JAVA
Corequisites:	None

Course Description:

This course covers creation of Internet based applications using the Java programming language. This course will cover both server and client side Java concepts. Concepts covered by this course include JSP (Java Server Pages), Servlets, JavaBeans, JDBC, Swing, Applet, and network programming.

This course will cover concepts via in class discussion, in class examples, and hands-on exercise.

Java is the hottest programming technology on the Internet today. In addition to the creation of Java based web applications using JSP, this course will cover the creation of both multiuser servers and the network client software needed to connect to them. Students will create and deploy their own multiuser server software through our classroom server.

Course Goals:

This course provides students the opportunity to:

1. Present the student with basic web design knowledge.
2. Provide the student with techniques required to create interactive web applications.
3. Familiarize the student with how relational database servers, such as MySql and Oracle, can be used to power a web based application.
4. Introduce students to TCP/IP networking concepts and the creation of client/server applications.
5. Familiarize the student with the creation of Java applications and Applets.

Student Learning Objectives or Outcomes:

Upon successful completion of this course, students will be able to:
Goal 1:

1.a. Identify common design mistakes when creating a web based application.

1.b. Discuss the process of editing a web page using text editors and web page editors.

1.c. Cover commonly used HTML tags and discuss how this knowledge is important to a web designer.

Goal 2:

2.a. Discuss how to incorporate server side Java code into a web page.

2.b. Cover the JSP (Java Server Pages) technology.

2.c. Indentify HTML form elements and how to handle form data within JSP code.

2.d. Understand the difference between embedded Java code in a webpage and compiled server side code.

2.e. Cover the creation and use of Java Servlets within web based applications.

2.f. Discuss JavaBean programming concepts and how they apply to web based applications.

2.g. Create full featured web based applications which employ JSP, Servlet, and JavaBean technology.

Goal 3:

3.a. Discuss the concepts of relational databases.

3.b. Explain JDBC (Java Database Connectivity) and how it can be used within Java applications and web pages.

3.c. Use SQL (Structured Query Language) to query databases.

Goal 4:

4.a. Discuss TCP networking concepts.
4.b. Discuss the communication which takes place between network server and client software.
4.c. Cover the creation of network server software and accompanying client software.

Goal 5:

5.a. Discuss AWT (Abstract Windowing Toolkit).
5.b. Cover Swing programming concepts.
5.c. Cover programming Java Applets and graphical applications.

Sequence of Topics:

1. HTML/Basic web design
2. Java Server Pages (JSP)
3. Web forms
4. Servlets
5. Javabeans
6. JDBC
7. Structured Query Language
8. Network Programming
9. Swing
10. Applets & Applications

Assessment and Grading:

The following are acceptable assessment methods for this course:

1. Class Participation
2. Exams
3. Homework Assignments
4. Lab Exercises
5. Oral Presentations
6. Projects
7. Quizzes
8. Research Papers

Reference, Resources, and Learning Materials:

Suggested Texts:
Murach, Joel and Andrea Steelman, Murach's Java Servlets and JSP (2nd Edition), Mike Murach and Associates Inc., 2008. (ISBN 978-1-890774-44-8)

Required Equipment:
Thumb or pen drive

Computer Software:
NetBeans

Other Course Requirements: None