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## COURSE OUTLINE

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<b>Course Name and Code</b>	PROGRAMMING: JAVA WEB TECHNOLOGIES (2008-2009) PROG2240
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<b>Total Hours</b>	45
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<b>Credits</b>	3
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<b>Prerequisite(s)</b>	PROG1800	PROGRAMMING: WEB FUNDAMENTALS
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**Corequisite(s)**

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### Course Description

This course teaches the student to build Web applications using the Java development environment. The student will learn server side development including session management, database access, testing, debugging and exception handling.

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### Course Outcomes

Successful completion of this course will enable the student to:

1. Identify the relative merits of using Java-based technologies for developing a web site in comparison to other technologies.
2. Use a JSP editor and JSP debugging tool such as NetBeans 6.x.
3. Use a Java Web container such as Apache Tomcat 6.x.
4. Develop a simple and interactive Web site using JavaServer Pages (JSP), servlets and JavaBeans.
5. Incorporate the use of the session object to temporarily store user preferences and information.
6. Incorporate Expression Language (EL) and JSP Standard Tag Library (JSTL) into an application to create JSP pages without relying on scripting elements.
7. Write unit tests using the JUnit framework.
8. Use <sql:> tags to store and access data from a relational database such as MySQL.



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## COURSE OUTLINE

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<b>Unit Outcomes</b>	<b>Resources/Tests/Assignments</b>
6.1    Write test methods using JUnit. 6.2    Build and run a test suite using NetBeans.	
7.0 <u>Describe and use JSP error-handling mechanisms</u>	<u>Chapters 7 and 11</u>
7.1    Describe the various sources of errors such as JSP coding errors, logical errors, and user data-entry errors. 7.2    Handle errors using the JSP error page mechanism. 7.3    Handle errors using JSTL catch tag.	
8.0 <u>Describe and use database access techniques</u>	<u>Chapters 13, 14 and lecture notes</u>
8.1    Describe Java Database Connectivity (JDBC). 8.2    Write data classes that provide object to relational (OR) mapping and all of the database methods that your servlets need. 8.3    Write JSPs that connect to relational databases such as MySQL, and execute <sql:> tags to manage persistent data.	

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## COURSE OUTLINE

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### Required Student Resources (Including textbooks and workbooks)

Murach J., Steelman, A. *Murach's Java Servlets and JSP, 2<sup>nd</sup> Edition* . Mike Murach & Associates.  
ISBN-13: 978-1-890774-44-8.

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### Optional Resources

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### Evaluation

In order to successfully complete this course, the student is required to meet *all* of the following evaluation criteria:

Quizzes and Assignments	40%
Tests and Examinations	<u>60%</u>
	100%

A passing grade in both the test and assignment portion independently is required in order to attain standing in this course. If the student fails one or both portions, then the lowest failing mark is submitted.

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### Other

The policies and procedures in the Conestoga College Student Guide apply to this course. A test or examination may be “open book” at the discretion of the instructor. The only book(s) that may be used for such a test or examination is the mandatory course textbook(s).

Students are responsible for securing and backing up files created on college lab computers.

Full time faculty reserves the right to revise and update course content to reflect evolving industry expectations for program graduates.

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Conestoga College is committed to providing academic accommodations for students with documented disabilities. Please contact the Disability Services Office.

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**Prepared by**      Meyer Tanuan

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<b>School</b>	Information Technology	<b>Campus</b>	Doon
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<b>Date</b>	2008-09-18	<b>Previous Outline Dated</b>	2007-09-12
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