**COLLIN COLLEGE**

**COURSE SYLLABUS**

Course Information

**Course Number**: INEW 2338

**Course Title**: Advanced Java Programming

**Course Description:** A continuation of Java programming techniques such as servlets, and advanced graphical functions. Additionally, topics cover the Java 2 Platform, Enterprise Edition (J2EE) which defines the standard for developing component-based multi-tier enterprise applications. The focus of this class will be on development of Java Servlets and Java Server Pages (JSPs).

**Course Credit Hours**: 3

 Lecture Hours: 3

**Prerequisite**: COSC 1337 or ITSE 2317 or consent of Associate Dean

**Student Learning Outcomes**:

* **State-mandated Outcomes**: Upon successful completion of this course, students will:
	1. Design, write, and test documented Java programs and servlets.
	2. Use advanced graphic functions.
* **Additional Collin Outcomes:** Upon successful completion of this course, students will:

 1. Demonstrate Competency In User Interface Development.

 1.1 Usage of menus and on screen buttons for user selections.

 1.2 Usage of multiple windows for information display.

 1.3 Usage of color and pictorial representations such as icons.

 2. Demonstrate Competency In Web Application Development.

 2.1 Display of information on screen for users

 2.2 Capture and process information derived from a user’s screen.

 2.3 Demonstrate a competency working with Java Servlets and JSPs.

 2.4 Develop lab applications which utilize various JSP tags.

 2.5 Develop lab applications which demonstrate knowledge of JavaBeans.

 2.6 Develop lab applications which demonstrate knowledge of Java Sessions and Cookies

 2.7 Understand how to use Java to interface to and access databases

 3. Demonstrate Competency In Algorithm Development.

 3.1 Complete all programming assignments.

 4. Demonstrate Competency In Program Code Production.

 4.1 Explain the event driven paradigm used by MS-Windows.

 4.2 Explain the messaging system used in interfacing with MS-Windows.

 4.3 Development of multiple instances of a program.

 4.4 Perform special input/output functions for use in the windows environment.

 4.5 Use dynamic memory control.

 4.6 Explain messaging between multiple applications.

 4.7 Determination of the best approach to problem solution.

 4.8 Understanding of dynamic linkages between methods in an MS-Windows program.

 4.9 Control of output to a print device.

 5. Demonstrate Competency In Code Testing & Maintenance.

* 1. Use an MS-Windows based Java language development environment.
	2. Understand the differences between the 16 and 32 bit development systems

 5.3 Locate and explain syntax errors in a Java program.

 5.4 Use techniques for debugging Java programs.

 6. Demonstrate Interfacing Between Applications.

 6.1 Clipboard.

6.2 Direct messaging.

6.3 Dynamic Data Exchange.

* 1. Object linking and Embedding (OLE).

7. Demonstrate Communications Services

* 1. MAPI. SCANS
	2. Windows sockets.

8. Demonstrate An Understanding Of Multi-Tasking And Multi-Threading.

 9. Demonstrate International Considerations.

**Withdrawal Policy:** See the current *Collin Registration Guide* for last day to withdraw.

**Collin College Academic Policies:** See the current *Collin Student Handbook.*

**Americans with Disabilities Act Statement:** Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student’s responsibility to contact the ACCESS office, SCC-D140 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.