Distributed Java

Course Syllabus

Course Information

Credits:	4
Hours:	80
Course Number and Section:	152-198-001
CRN:	20138
Semester and Year:	Spring 2018
Schedule Day(s) of Week and Times:	January 23rd through May 15th every Tuesday 6:00pm to 9:50pm L117
	Hybrid - Face-to-Face

Learning Facilitator/Instructor

Name:	Andy Biewer
email:	abiewer@wctc.edu
Phone Number:	NA
Preferred Communication Method:	email
Expectations for Response Time:	Typically respond to communications within 24 hours.
Office Location:	L120
Office Hours:	NA

Course Description

"Distributed Java" is focused on Java programming for the World Wide Web and other types of distributed computing environments. It is a fourth semester course in the Web & Software Developer associate degree program, and it is the third of four courses in the Java Technical Certificate program, which is open to both non-degree and degree students.

The course covers the N-tier, Model-View-Controller (MVC) architectures of distributed applications and examines three technology stacks in use today for developing web applications. For legacy applications JSPs, Servlets and JDBC are examined. For modern, component-based applications JavaServer Faces, EJBs and JMS are examined. Another modern approach examined is RESTful Web Services. On the client-side technologies such as HTML5, XHTML, JavaScript and Cascading Stylesheets and RESTful web services are examined. Open-source tools such as the popular Spring Framework and Hibernate are used. The course focuses on the technology stack offered by JEE v7 and deployment and administration of Glassfish 4.1 and Tomcat 7/8 application servers.

PREREQUISITES

Completion of Advanced Java (152-135) with a grade of C or better; or equivalent academic and/or commercial experience. This is a very challenging course, requiring mastery of Java fundamentals and design patterns prior to starting this course, plus an ability to devote many hours of independent study and experimentation per week. To insure your success, please evaluate these prerequisite skills carefully.

Linked Program Outcomes

- Design Software Systems
  - Gather user Requirements
  - Identify problem statements
  - Identify software requirements
  - Analyze solutions to meet user reqs and specs
  - Develop an application design
  - Validate design against user requirements
- Develop software applications
  - Write application source code according to specs
  - Debug applications
  - Test applications
  - Deploy applications
  - Demonstrate proficiency using developer tools
  - Explore strategies for developing secure applications
- Utilize industry Standard design patterns and best practices

COURSE COMPETENCIES

At the completion of this course the student will be able to define the n-tier application architecture, develop MVC-based web applications that are database connected and make use of the entire JEE v7 technology stack. In addition, students will be able to develop and deploy web applications using both legacy JSP/Servlet technology as well as the modern JSF (JavaServer Faces) 2.x framework and RESTful web services, plus manage deployments and web servers.

Linked Critical Life Skill(s)

- Problem Solving

Textbook(s) and Other Course Materials

- Williams, Nick, et al. *Professional Java for Web applications*. Wrox/John Wiley & Sons, 2014.
- Other Java Resources as prescribed by the instructor
- A personal computer (for homework) capable of running the latest version of the Java Development Kit (JDK) and the current version of the free IntelliJ IDEA Community Edition.

Technical Support

Students needing technical assistance may contact the WCTC Service Desk at 262-691-5555 or via email at servicedesk@wctc.edu. Additional technology support information is available online at http://wctc.edu/current-students/technology/.

Grading

Course Grade Components and Calculation

Grading is heavily based on effort emphasizing the following (in order):

1. End results - does the code do what it was supposed to do?
2. Quality work - are best practices being followed?
3. Timeliness - was it finished on time?

Each weekly project will have a rubric defined which will outline what is expected of the students for the project. These rubrics will be used for grading. It is your responsibility to read these rubrics and understand what is expected of you.

There will be no submissions of projects to Blackboard. Rather, students will create a `github.com` account, commit all of their work on an ongoing basis, and share their projects with the instructor in this way. Throughout the week, if you need any assistance, I will access your projects via `github.com`, so you need to make sure you have everything which you want me to look at committed.

Students are expected to have their previous weeks submission committed to github.com prior to coming to class the following week.

Each weekly project will be worth 50 points and there will be roughly 15 projects for a total of 750 points for the semester. There may be extra credit opportunities available each week, but these will be determined throughout the semester.

Grading Scale

A	95 – 100	C	79 – 82
A-	93 – 94	C-	77 – 78
B+	91 – 92	D+	75 – 76
B	87 – 90	D	72 – 74
B-	85 – 86	D-	70 – 71
C+	83 – 84	F	69 or below

Assessment Feedback Guidelines

Typically, students should receive instructor feedback on assessed activities submitted for grading within one week of the respective assessment's due date. Such feedback may be

delayed in the case of unique or unforeseen circumstances or when denoted as such within the specific assessed activity.

Course Policies

Attendance

This hybrid course is a blend of classroom instruction and a requirement to complete labs and assignments a minimum of eight hours outside of class. Attendance is mandatory for all scheduled in-class meetings.

Attendance at all scheduled class meetings is required. Each enrollee is considered a learning resource that can contribute to the course in a variety of ways. When you miss class your thoughts, ideas, and questions are not available to the instructor or the rest of the class. You are responsible for any missed assignments, labs and tests. If an absence cannot be avoided, you are expected to notify the instructor **prior** to the start of class.

Per the Business Information Technology department policy, you may be dropped if you miss 2 consecutive lessons or 3 lessons overall. Arriving more than 15 minutes late for class will be counted as a missed class.

Late Work

I will accept work one week past the due date with a 10% penalty. I will not grade anything that is submitted more than one week overdue.

Etiquette

If a student has the need to email the instructor, they are to use the WCTC email system only. All email must include your full name and class time. The student should not assume that their message was received by the instructor until they receive a reply from the instructor confirming receipt. **The instructor will reply in 24 to 48 hours between 7am and 5pm Monday-Fri.** Please plan accordingly and do not expect a response late in the evening or on the weekend. No reply from the instructor means that the instructor did not receive the message. Email should not be used to submit assignments. **You will be expected to access your WCTC email account and Blackboard a minimum of once per day.**

An email to your instructor should be professionally addressed with attention to detail (including grammar and spelling). If your email is not written in a professional manner, it will be ignored.

WCTC Student Policies

WCTC's anti-discrimination policy, equal opportunity policy, student code of conduct, academic ethics policy, and the WCTC Student Handbook are available through this link: www.wctc.edu/syllabus/. Please be sure to review this information to enhance your educational experience here at WCTC.

WCTC Student Support Resources

Information on college-wide accessibility for students with disabilities, technology support, learning support, academic advising, counseling services, veteran services, and other resources are available through this link: www.wctc.edu/syllabus/. Please be sure to review this information to enhance your educational experience here at WCTC.

Course Calendar

In Blackboard