COURSE OUTLINE

CSD322

Prepared: Fred Carella   Approved: Cory Meunier

Course Code: Title	CSD322: JAVA III
Program Number: Name	2091: COMPUTER - PROG/ANAL
Department:	COMPUTER STUDIES
Semester/Term:	17F
Course Description:	This course continues application development in Java with an emphasis in web application development. Various technologies and application frameworks will be introduced. Students will write applications using the JSF2 framework. Students will develop the ability to write form based CRUD (Create, Read, Update and Delete) applications, persisting data to a database backend using each of the aforementioned technologies. Applications will be written using the Netbeans IDE and the MySql database.
Total Credits:	4
Hours/Week:	3
Total Hours:	45
Prerequisites:	CSD221
Vocational Learning Outcomes (VLO's): **Please refer to program web page for a complete listing of program outcomes where applicable.**	#1. Troubleshoot and document problems associated with software installation and customization. #2. Analyze and define the specifications of a system based on requirements. #3. Design, test, document, and deploy programs based on specifications. #4. Apply knowledge of the design, modeling, implementation, and maintenance of a database. #6. Propose and justify the design and development of an integrated solution based on an analysis of the business environment. #7. Use relevant methodologies, policies, and standards to develop integrated solutions. #9. Develop and maintain effective working relationships with clients.
Essential Employability Skills (EES):	#1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. #2. Respond to written, spoken, or visual messages in a manner that ensures effective communication. #4. Apply a systematic approach to solve problems. #5. Use a variety of thinking skills to anticipate and solve problems. #6. Locate, select, organize, and document information using appropriate technology and information systems.

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	#7. Analyze, evaluate, and apply relevant information from a variety of sources. #10. Manage the use of time and other resources to complete projects.
Course Evaluation:	Passing Grade: 50%, D
Other Course Evaluation & Assessment Requirements:	The student must pass both the lab and test portions of the course. Attendance: Sault College is committed to student success. There is a direct correlation between academic performance and class attendance, therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session. Absences due to medical or other unavoidable circumstances should be discussed with the instructor. Students are required to be in class on time and attendance will be taken within the first five minutes of class. A missed class will result in a penalty in your marks unless you have discussed your absence with the professor as described above. The penalty depends on course hours and will be applied as follows: Course Hours Deduction 5 hrs/week (75 hrs) 1% / hr 4 hrs/week (60 hrs) 1.5% /hr 3 hrs/week (45 hrs) 2% /hr 2 hrs/week (30 hrs) 3%/hr Absentee reports will be discussed with each student during regular meetings with Faculty Advisors. Final penalties will be reviewed by the professor and will be at the discretion of the professor. Grade Definition Grade Point Equivalent A+ 90 – 100% 4.00 A 80 – 89% B 70 - 79% 3.00 C 60 - 69% 2.00 D 50 – 59% 1.00 F (Fail) 49% and below 0.00 CR (Credit) Credit for diploma requirements has been awarded. S Satisfactory achievement in field /clinical placement or non-graded subject area.

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	U Unsatisfactory achievement in field/clinical placement or non-graded subject area. X A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course. NR Grade not reported to Registrar`s office. W Student has withdrawn from the course without academic penalty.
Evaluation Process and Grading System:	**Evaluation Type** / **Evaluation Weight** Labs — 40% Tests — 60%
Books and Required Resources:	Core JavaServer Faces by Geary Publisher: Pearson ISBN: 978-0-13-701289-3
Course Outcomes and Learning Objectives:	

Evaluation Type	Evaluation Weight
Labs	40%
Tests	60%

Course Outcome 1.

Create databases.

Learning Objectives 1.

• Create database schemas using various tools.
• Manage database schema using various tools.
• Understand the relational database model and apply that understanding to the creation of various related tables.
• Create tables related through primary and foreign keys.
• Create one to one, one to many and many to many relationships between tables.
• Perform queries and data manipulation through the use of appropriate sql statements.
• Understand the role of java ee in the programmed access of data.
• Create entity classes that model database data.
• Understand and apply the Java Persistence API (JPA)
• Write java code that retrieves, persists and updates databases using JPA

Course Outcome 2.

Develop Servlet based applications.

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Learning Objectives 2.

• Identify the various components of a generic web application including the client, the server, the http request, the http response, server side components and databases.
• Identify the role of the servlet in a web application.
• Identify the various parts of the development life cycle including code development, management of deployment descriptors, project compile, application packaging and application deployment.
• Write client side code to create a form based interface to the application.
• Understand sessions and write code that applies knowledge of sessions to provide application authentication and per user data management.

Course Outcome 3.

Develop Java Server Faces (JSF) based applications

Learning Objectives 3.

The majority of the course will be spent on this topic
• Implement a web application that incorporates the following JSF concepts and constructs.
• Managed beans for storing web page state.
• CDI beans for storing web page state.
• Understand and apply Bean Scopes
• Set and get bean properties in a web page using JSF expression language
• Navigation in a web application.
• JSF components for viewing and manipulating data.
• Implement AJAX functionality in a web page.

Date: Friday, September 1, 2017

Please refer to the course outline addendum on the Learning Management System for further information.