SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

SAULT COLLEGE

COURSE OUTLINE

COURSE TITLE: Java III – Web Application Development

CODE NO. :   CSD322   **SEMESTER:**   5

PROGRAM: Computer Programmer

AUTHOR: Fred Carella

DATE: Fall 2015   **PREVIOUS OUTLINE DATED:**   Fall 2014

APPROVED: Colin Kirkwood

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                              DEAN/CHAIR   **DATE**

TOTAL CREDITS: 4

PREREQUISITE(S):   CSD221

HOURS/WEEK: 3

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I.   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.

II.   LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1.   Create databases.
      Potential Elements of the Performance:

      This section builds on, and applies skills developed in previous courses to…
      * 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

2.   Develop Servlet based applications.
      Potential Elements of the Performance:

      * Identify the various components of a generic web application

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> 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.

3.   Develop Java Server Faces (JSF) based applications.

Potential Elements of the Performance:
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.

III.   TOPICS:

1.   Create databases.
2.   Develop Servlet based applications.
3.   Develop Java Server Faces (JSF) based applications

IV.   REQUIRED RESOURCES/TEXTS/MATERIALS:

Core JavaServer Faces
ISBN: 978-0-13-701289-3

Java EE 5 Tutorial in PDF format:
download from
http://java.sun.com/javaee/5/docs/tutorial/doc/JavaEETutorial.pdf

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V.   EVALUATION PROCESS/GRADING SYSTEM:

	Weight
Tests	
Topics 1 - 3	60%
Labs	
Labs 1 - 5	40%
Totals:	100%

The following semester grades will be assigned to students:

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.
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.

If a faculty member determines that a student is at risk of not being successful in their academic pursuits and has exhausted all strategies available to faculty, student contact information may be confidentially provided to Student Services in an effort to offer even more assistance with options for success. Any student wishing to restrict the sharing of such information should make their wishes known to the coordinator or faculty member.

VI.   SPECIAL NOTES:

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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 professor. 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 Mentors. Final penalties will be reviewed by the professor and will
be at the discretion of the professor.

VII.   COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located in D2L and on the
portal form part of this course outline.
Course Outline Amendments:
The faculty member reserves the right to change the information contained
in this course outline depending on the needs of the learner and the
availability of resources.

Retention of Course Outlines:
It is the responsibility of the student to retain all course outlines for possible
future use in acquiring advanced standing at other postsecondary
institutions.

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Prior Learning Assessment**:**
Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question. Please refer to the Student Key Dates Calendar for the deadline date by which application must be made for advance standing.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio. Student Services, located in E1101, can provide information regarding the Prior Learning Assessment and Recognition policy or it can be viewed on the student portal.

Substitute course information is available in the Registrar's office.

Student Portal:
The Sault College portal allows you to view all your student information in one place. **mysaultcollege** gives you personalized access to online resources seven days a week from your home or school computer. Single log-in access allows you to see your personal and financial information, timetable, grades, records of achievement, unofficial transcript, and outstanding obligations, in addition to announcements, news, academic calendar of events, class cancellations, your learning management system (LMS), and much more. Go to https://my.saultcollege.ca.

Communication:
The College considers *Desire2Learn (D2L)* as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of this Learning Management System (LMS) communication tool.

Accessibility Services:
If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with the Accessibility Services office. Visit Room E1101, call Ext. 2703 or email studentsupport@saultcollege.ca so that support services can be arranged for you.

Audio and Video Recording Devices in the Classroom:
Students who wish to use electronic devices in the classroom will seek permission of the faculty member before proceeding to record instruction. Students with disabilities who require audio or visual recording devices in the classroom as an accommodation will receive approval from their counsellor once the Audio and Video Recording Devices in the Classroom Policy has been reviewed by the student. Recorded classroom instruction will be used only for individual academic use and will not be used for any other purpose. Recordings may only be used for individual study of materials presented during class and may not be published or distributed. Intentional misuse of audio and video recordings or intentional misrepresentation when requesting the use of a device for recording shall constitute a violation of this policy and laws protecting intellectual property.

Academic Dishonesty:
Students should refer to the definition of "academic dishonesty" in the *Student Code of Conduct*. Students who engage in academic dishonesty will be issued a sanction under the Student Code of Conduct which could lead to and include expulsion from the course/program. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, students must use a documentation format for referencing source material.

Tuition Default:
Students who have defaulted on the payment of tuition (tuition has not been paid in full, payments were not deferred or payment plan not honoured) as of the first week of November (fall semester courses), first week of March (winter semester courses) or first week of June (summer semester courses) will be removed from placement and clinical activities due to liability issues. This may result in loss of mandatory hours or incomplete course work. Sault College will not be responsible for incomplete hours or outcomes that are not achieved or any other academic requirement not met as of the result of tuition default. Students are encouraged to communicate with Financial Services with regard to the status of their tuition prior to this deadline to ensure that their financial status does not interfere with academic progress.