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SAMPLE COURSE OUTLINE

Course Code, Number, and Title:

WMDD 4930: Object-Oriented Design and Programming

Course Format:
[Course format may vary by instructor. The typical course format would be:]

Lecture 3 h + Seminar 0 h + Lab 2 h

Credits: 3   **Transfer credit:** For information, visit bctransferguide.ca

Course Description, Prerequisites, Corequisites:

Continues from Object-Oriented Analysis and Design into the programming phase. Implements the fundamental concepts of programming from an object-oriented (OO) perspective: abstraction; objects; classes and class hierarchies; methods; parameter passing; encapsulation and information hiding; inheritance; polymorphism. Application of simple container/collection classes; event-driven programming and GUI; exception handling. Emphasizes good software engineering principles using a language that supports the OO paradigm (e.g., Java or Swift).

Prerequisites: WMDD 4830 with a minimum grade of C

Registration in this course is restricted to students admitted to the Post-Degree Diploma in Web and Mobile App Design and Development.

Learning Outcomes:
Upon successful completion of this course, students will be able to:

- explain encapsulation, information hiding, inheritance, and polymorphism;
- use modeling tools, such as UML, to design objects and object collections prior to coding;
- design, develop, implement and properly document object-oriented programs using an OO language, such as Java or Swift

Instructor(s): TBA
Office: TBA   Phone: 604 323 XXXX   Email: TBA

Office Hours: TBA

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Textbook and Course Materials:
[Textbook selection may vary by instructor. An example of texts and course materials for this course might be:}

Liang, D. "Introduction to Java Programming, Brief". NJ. 2014. Chapter 1-18.

Lynda.com

Apple. The Swift Programming Language. Online

Note: *This course may use an electronic (online) instructional resource that is located outside of Canada for mandatory graded class work. You may be required to enter personal information, such as your name and email address, to log in to this resource. This means that your personal information could be stored on servers located outside of Canada and may be accessed by U.S. authorities, subject to federal laws. Where possible, you may log in with an email pseudonym as long as you provide the pseudonym to me so I can identify you when reviewing your class work.*

Assessments and Weighting:
Final Exam 30%
Other Assessments %
(An example of other assessments might be:) %

Midterm Exam: 15%
Assignments: 30%
Lab work: 10%
Project: 15%

Proportion of individual and group work:
Individual: 70%
Group: 30%

Grading System: Letter grade
Specific grading schemes will be detailed in each course section outline.

Passing grade: C

Topics Covered:
[Topics covered may vary by instructor. An example of topics covered might be:]

- Basic syntax of implementation language (eg. Java or Swift)
- Fundamental Data Types
- Decisions, Iterations
- Arrays, Strings and built-in dynamic structures
- Introduction to OOP. - Encapsulation, Inheritance and Polymorphism

This generic outline is for planning purposes only.

- Using Objects
- Designing Classes, Testing, and UML
- Implementing Classes (using inheritance via Interfaces and polymorphism)
- Event Handling and Graphical User Interfaces
- Exception Handling
- File I/O and Streams

As a student at Langara, you are responsible for familiarizing yourself and complying with the following policies:

College Policies:

E1003 - Student Code of Conduct
F1004 - Code of Academic Conduct
E2008 - Academic Standing - Academic Probation and Academic Suspension
E2006 - Appeal of Final Grade
F1002 - Concerns about Instruction
E2011 - Withdrawal from Courses

Departmental/Course Policies:

This generic outline is for planning purposes only.