Request for Calendar Change Form

Tracking No:
(Senate Secretary's Office use only)
Date:

To Secretary of Senate
From Name(Dean): Faculty
Science and Environmental Studies

Department the change relates to
Department of Computer Science
Contact Person
Dr. M.W. Benson, Chair

Is the proposed calendar change Undergraduate

Instructions:

1. In all cases please complete and attach section 1 and 2
2. If the calendar change affect other departments/schools/faculties complete and attach section 3
3. If the answer to any of the questions below is yes, explain. Attach separate sheets with reference to the question

	Yes	No
1. Do the proposed changes affect other departments/ schools/faculties in terms of their calendar change?	☐	☑
2. Is a transition plan needed for student in progress?	☐	☑
3. Are the proposed changes likely to affect student enrollment in your department/school/faculty?	☐	☑
4. Are the proposed changes likely to affect student enrollment in other departments/schools/faculties at Lakehead University?	☐	☑
5. Will the proposed changes require additional teaching space and/or teaching staff and/or equipment and/or other resources?	☐	☑
6 Will the proposed changes affect existing teaching loads within your department/school/faculty?	☐	☑
7. Will the proposed changes increase demand for teaching support services such as the library, computing services and technical staff ?	☐	☑
8. Will the proposed change require direct or in-kind support from outside the academic unit?	☐	☑
9. Do the proposed changes include change in course(s) which is/are required core course(s) for a major?	☑	☐
10. Do the proposed changes include a change in course which is service/required course(s) in another program?	Yes	No

	☐	☑
11. Do the proposed changes include change in course(s) which is/are open elective available to any student in any program?	Yes ☐	No ☑
12. Do the proposed changes include change in course(s) which is/are elective in a major i.e. restricted to students in a major?	Yes ☑	No ☐

Signatures: Date approved by faculty council

Section 1
Description of the Proposed Calendar Change: Updating course content
Rationale of the Proposed Calendar Change(s): (Corresponding to Section 2 where required) The changes involve course content updates in order to better reflect current approaches.

Section 2	
Existing Calendar Entries: (Page reference based on hard copy or URL based on electronic version of calendar)	Proposed Calendar Entries/Addition/ Deletion -If only addition, specify page number and placement in university calendar -If only deletion, write Deleted
1 Page 190 in 2008-2009 Calendar Computer Science 4411 Programming Languages 3-0; 0-0 Prerequisite: Computer Science 2412 The basic elements of programming languages and programming paradigms (such as imperative, logic, functional, object-oriented, scripting and web-services description) are explored. Representative languages are selected from Modula-3, Java 2, Prolog, Common Lisp, ML and Haskell. How programming languages are created and their relationship with the underlying hardware. Evaluating the merits of existing and emerging languages.	Computer Science 4411 Programming Languages 3-0; 0-0 Prerequisite: Computer Science 2412 The basic elements of programming languages and programming paradigms are explored. A kernel language approach based on Mozart OZ is used to teach programming that situates most of the widely-known programming paradigms (including imperative, object-oriented, concurrent, logic, and functional) in a uniform setting that shows their deep relationships and how to use them together. The kernel approach is compared to the approaches used by variety of dedicated languages (e.g. SALSA, ProfessorJ, ML, CLOS, Prolog).
2 Page 190 in 2008-2009 Calendar Computer Science 4413 Programming Language Processors 0-0; 3-0 Prerequisite: Computer Science 4411 Compiler organization, compiler-writing tools, finite automata and regular expressions, context-free grammars, scanning and parsing, semantic checking, run-time organization, implementation of a run-time model, storage allocation, code generation, and optimization. Students will be required to implement one or more parts of a compiler for a modern language.	Computer Science 4413 Programming Language Processors 0-0; 3-0 Prerequisite: Computer Science 4411 Compiler organization, compiler-writing tools, finite automata and regular expressions, context-free grammars, scanning and parsing, semantic checking, run-time organization, implementation of a run-time model, storage allocation, code generation, and optimization. Students will be required to implement a front-end compiler for a modern language.
3 Page 191 in 2008-2009 Calendar Computer Science 4475 Topics in Artificial Intelligence 3-0; or 3-0 Prerequisite: Computer Science 2412 Introduction to artificial intelligence (AI) and its	Computer Science 4475 Topics in Artificial Intelligence 3-0; or 3-0 Prerequisite: Computer Science 2412 Introduction to artificial intelligence (AI) and its

applications. Topics include one or more of the following: knowledge representation and discovery, rule-based inference and deduction, theorem proving, logic programming, reasoning and learning models, expert system, natural language understanding and intelligent user interfaces.	applications. Topics include several of the following: Logic and Reasoning, AI Languages, State-Space Search, Heuristics, Constraints-Satisfaction Problem, Game-Problem Solving, Planning, Machine Learning, Agent and Multi-Agents Programming, Neural Networks, Genetic algorithms and Reasoning about Uncertainty. Students will design and implement a medium scale project as part of the course requirements.
4 Page 191 in 2008-2009 Calendar	
Computer Science 4478 Object-Oriented Design and Methodology 3-0; or 3-0 Prerequisite: Computer Science 2477 Tools used in the software industry to develop large, complex software systems using modern software engineering methods and models. Analysis of application scenarios and design of information systems using Unified Modeling Language. Best-practice formulas, such as the "Gang-of-Four" (GoF) patterns, several PLOP workshop patterns, and aspect-oriented programming. Case studies and exercises illustrate and apply the patterns.	Computer Science 4478 Object-Oriented Design and Methodology 3-0; or 3-0 Prerequisite: Computer Science 2477 Object oriented technology is based on a few simple concepts, techniques and methods that, when combined, produce significant improvements in software construction. This course exposes the student to such technology which starts from the OMG Agility and continues through a variety of add-on topics including Design Patterns, Aspect-Orientation, Testing and Refactoring, Architectural Design Patterns, CBSE, Actor-Orientation, Service-Orientation and Multi-Agents. Individual and group projects are used to test the applicability of these concepts using modern IDEs (e.g. NetBeans, Eclipse) with variety of plug-in APIs (e.g. AspectJ). The projects are focused on using design patterns for game development.

Section 3

The Faculty(ies) affected by the proposed calendar change

Department of Software Engineering, Faculty of Engineering

I have been consulted regarding the attached calendar change and understand the academic and budgetary implication on my Dept./School/Faculty.

I agree to this calendar change proposal Yes ✓ No ☐

Name: Andrew P. Dean

Faculty: SES

Date: May 1 '09

Signature of Dean