Simon Fraser University   TEL 778.782.3042   gradstudies@sfu.ca
Maggie Benston Centre 1100   FAX 778.782.3080   www.sfu.ca/grad
8888 University Drive
Burnaby, BC V5A 1S6

MEMORANDUM

ATTENTION	Senate	**DATE**	October 14, 2021
FROM	Jeff Derksen, Chair of Senate Graduate Studies Committee (SGSC)		
RE:	New Course Proposals		

For information:

Acting under delegated authority at its meeting of October 4, 2021, SGSC approved the following new course, effective **Summer 2022:**

Faculty of Applied Sciences

School of Computing Science

    1) New course: CMPT 772 - Software Product Engineering and Management

MEMORANDUM

Attention	Dr. Jeff Derksen Dean, Graduate Studies	Date: Aug 17,2021
From	Dr. Parvaneh Saeed, psaeedi@sfu.ca Faculty of Applied Science, Graduate Studies Committee	

Re: FAS-CMPT 772 new course

The faculty of Applied Sciences Graduate Studies Committee would like to propose a new graduate course, Software Product Engineering, and Management, effective Summer 2022.

This course provides a hands-on experience for systematic software development skills driven by quantitative decision-making. The main objective of this course is to provide an introduction to modern software engineering with a focus on initiating, designing, building, testing, and delivering software in today's industry.

Regards,
Parvaneh Saeedi

SFU

COMPUTING SCIENCE

MEMO

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ATTENTION	**Parvaneh Saeedi, Associate Director**
FROM	Jiangchuan Liu, Graduate Program Director
RE	New Course Proposal – CMPT 772
DATE	August 9, 2021

NEW COURSE PROPOSAL - Effective Summer 2022

CMPT 772 – Software Product Engineering and Management

The School of Computing Science is proposing a new graduate course effective Summer 2022 – Software Product Engineering and Management. Systematic software development skills driven by quantitative decision making are essential to working in the software industry today. The GPC is proposing a hands-on and project driven course that aims to provide an introduction to modern software engineering with focus to initiate, design, build, test, and deliver software in today's industry.

If you have any questions, please let me know.

[signature]

Jiangchuan Liu
Graduate Chair, School of Computing Science

New Graduate Course Proposal

Course Subject (eg. PSYC) CMPT	Number (eg. 810) 772	Units (eg. 4) 3

Course title (max. 100 characters)

Software Product Engineering and Management

Short title (for enrollment/transcript - max. 30 characters)   Software Product Eng. & Mgmt.

Course description for SFU Calendar (course descriptions should be brief and should never begin with phrases such as "This course will..." or "The purpose of this course is..." If the grading basis is satisfactory/unsatisfactory include this in the description)

Introduction to modern software engineering with focus to initiate, design, build, test, and deliver software in today's industry.

Rationale for introduction of this course

Systematic software development skills driven by quantitative decision making are essential to working in the software industry today. We are proposing a hands-on and project driven course that provides experience using these skills. The course will be available to all Professional Master's

Term of initial offering (eg. Fall 2019) Summer 2022	Course delivery (eg. 3 hrs/week for 13 weeks) 3 hrs/week
Frequency of offerings/year 1 offering/year	Estimated enrollment per offering 150

Equivalent courses (courses that replicates the content of this course to such an extent that students should not receive credit for both courses)

Prerequisite and/or Corequisite

Criminal record check required? ☐ Yes if yes is selected, add this as prerequisite	Additional course fees? ☐ Yes ☑ No

Campus where course will be taught ☑ Burnaby   ☐ Surrey   ☐ Vancouver   ☐ Great Northern Way   ☐ Off campus

Course Components * ☑ Lecture   ☐ Seminar   ☐ Lab   ☐ Independent   ☐ Capstone   ☐ _____

Grading Basis   ☑ Letter grades   ☐ Satisfactory/ Unsatisfactory   ☐ In Progress / Complete

Repeat for credit? ☐ Yes ☑ No	Total repeats allowed? _____	Repeat within a term? ☐ Yes ☑ No
Required course? ☐ Yes ☑ No	Final exam required? ☑ Yes ☐ No	Capstone course? ☐ Yes ☑ No

Combined with a undergrad course? ☐ Yes ☑ No   If yes, identify which undergraduate course and the additional course requirements for graduate students:

* See important definitions on the curriculum website.

⬤➤ RESOURCES

If additional resources are required to offer this course, provide information on the source(s) of those additional resources.

Faculty member(s) who will normally teach this course
Shervin Shirmohammadi, Nick Sumner, Steven Ko, Saba Alimadadi

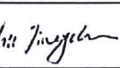| Additional faculty members, space, and/or specialized equipment required in order to offer this course |
| --- |
| |

⬤➤ CONTACT PERSON

Academic Unit / Program	Name (typically, Graduate Program Chair)	Email
Computing Science	Jiangchuan Liu	jcliu@sfu.ca

⬤➤ ACADEMIC UNIT APPROVAL

A course outline must be included.

Non-departmentalized faculties need not sign

Graduate Program Committee	Signature	Date
Alaa Alameldeen		August 12, 2021
Department Chair	Signature	Date
Jiangchuan Liu		Aug 12, 2021

⬤➤ FACULTY APPROVAL

The course form and outline must be sent by FGSC to the chairs of each FGSC (fgsc-list@sfu.ca) to check for an overlap in content

Overlap check done? ☑ YES

This approval indicates that all the necessary course content and overlap concerns have been resolved. The Faculty/Academic Unit commits to providing the necessary resources.

Faculty Graduate Studies Committee	Signature	Date
Parvaneh Saeedi		Aug 17, 2021

A library review will be conducted. If additional funds are necessary, DGS will contact the academic unit prior to SGSC.

⬤➤ SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee	Signature	Date
Jeff Derksen		October 13, 2021

ADMINISTRATIVE SECTION (for DGS office only) Library Check: YES_____
Course Attribute:_____
Course Attribute Value:_____
Instruction Mode:_____
Attendance Type:_____

If different from regular units:
Academic Progress Units: _____
Financial Aid Progress Units: _____

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CMPT 772: Software Product Engineering and Management

- Area II (Systems)

DESCRIPTION

Introduction to modern software engineering with focus to initiate, design, build, test, and deliver software in today's industry; software engineering project versus software product engineering with emphasis on the latter; producing software with DevOps and agile methods such as Scrum and extreme programming; management of risks, change, and expectations; post-performance analysis and continuous process improvement; hands-on teamwork in producing software with an agile method through multiple iterations involving feature specification, architecture and design, implementation, testing, and deployment.

TOPICS

- Software Development
- Software Product Engineering
- Software Project Management
- Software Development Methodologies

GRADING

- Assignments (20%)
- Term Project (50%)
- Midterm (10%)
- Final Exam (20%)

MATERIALS

(optional) Ian Sommerville, *Engineering Software Products: An Introduction to Modern Software Engineering* (Pearson, 2020).