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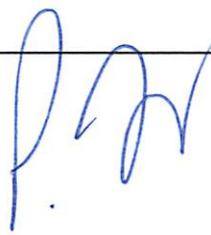
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MEMORANDUM

ATTENTION Senate
FROM Peter Liljedahl, Acting Dean of
Graduate Studies
RE: Faculty of Science

DATE June 15 2015
No. GS2015.29

**For the information of Senate:**

Acting under delegated authority at its meeting of June 8, 2015, SGSC approved the following course changes effective **Spring 2016**:

Department of Molecular Biology and Biochemistry

Course change (title, description): MBB 702

Course change (description): MBB 723

Course change (title, description, prerequisite): MBB 806

SFU

MEMO

Faculty of Science

ATTENTION Wade Parkhouse, Dean of Graduate Studies

FROM Carl Lowenberger, Associate Dean, Faculty of Science

RE Graduate Courses change: MBB 702 "Developmental Biology of Cell Signaling" and MBB 723 "Protein Structure and Function"

DATE May 14, 2015

TIME 2:26:30
PM

The graduate program in the Department of Molecular Biology and Biochemistry seeks minor changes to MBB 702 "Developmental Biology of Cell Signaling" in terms of course title and description and to MBB 723 "Protein Structure and Function" in terms of description to link with the undergraduate course MBB 423 as described in the attached memo.

These are minor changes to existing courses. These changes have my approval and that of the Faculty of Science Graduate Committee.



Carl Lowenberger

MOLECULAR BIOLOGY AND BIOCHEMISTRY
Memorandum

To: Chair, Faculty Graduate Studies Committee,
Faculty of Science

Re: Graduate Course Change – MBB 702
Graduate Course Change – MBB 723

From: Michel Leroux, Chair, MBB Graduate
Studies Committee

Date: January 26, 2015

We are requesting approval of the following:

1. MBB 702: Developmental Biology of Cell Signalling – graduate course change

The course title and description have been updated to better reflect the content of the course.

Graduate Course Change form attached.

2. MBB 723: Protein Structure and Function – graduate course change

MBB 324, Protein Biochemistry, was recently developed and added to the MBB program. Material was moved out of MBB 423 and into MBB 324 which now lays the foundations of protein biochemistry required for students to take MBB 423. MBB 723 description changes are made to reflect the MBB 423 course changes. MBB 423 and MBB 723 are normally combined.

Graduate Course Change form attached.

Sincerely,



Dr. M.R. Leroux



Graduate Course Change

Attach a separate document if more space is required.

Course Subject/Number MBB 702	Units 3
Course Title Developmental Genetics	
Rationale for Change: The course title and description have been updated to better reflect the content of the course.	

Proposed Changes (Check all that apply)

Course number
 Units*
 Title
 Description
 Prerequisite
 Other _____

Complete only the fields to be changed

FROM	TO
Course Subject/Number	Course Subject/Number
Units	Units*
Course Title Developmental Genetics	Course Title (max 100 characters) Developmental Biology of Cell Signalling
Course Short Title	Course Short Title (max 30 characters) Dev. Biol. of Cell Signalling
Description Selected topics in the developmental genetics of drosophila.	Description Aspects of developmental and cellular biology in the context of signal transduction pathways. The diverse mechanisms used in cell signaling and how the various approaches to the study of signal transduction in organismal development complement each other will be examined with an emphasis on current literature.
Prerequisite	Prerequisite
Other	Other

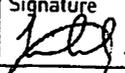
* Program requirements may need to be revised when course units are changed. Please review the calendar and submit any relevant program revisions resulting from this course change.

REMINDER: All course changes must be identified on a cover memo and confirmed as approved when submitted to FGSC and SGSC.

CONTACT PERSON

Department / School / Program MBB	Contact name Mimi Fourie	Contact email mbb@sfu.ca
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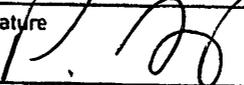
DEPARTMENTAL APPROVAL

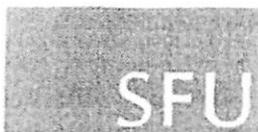
Department Graduate Program Committee Michel Leroux	Signature 	Date Jan. 26, 2015
Department Chair Lynne Quarmby	Signature 	Date Jan 26, 2015

FACULTY APPROVAL

Faculty Graduate Studies Committee (FGSC) Carm Lowenkop	Signature 	Date May 13/2015
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SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC) Peter Liljedahl	Signature 	Date June 17 2015
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Graduate Course Change

Attach a separate document if more space is required.

Course Subject/Number	MBB 723	Units	3
Course Title	Protein Structure and Function		
Rationale for Change: MBB 324, Protein Biochemistry, was recently developed and added to the MBB program. Material was moved out of MBB 423 and into MBB 324 which now lays the foundations of protein biochemistry required for students to take MBB 423. MBB 723 description changes are made to reflect the MBB 423 course changes. MBB 423 and MBB 723 are normally combined.			

Proposed Changes (Check all that apply)

Course number
 Units*
 Title
 Description
 Prerequisite
 Other _____

Complete only the fields to be changed

FROM	TO
Course Subject/Number	Course Subject/Number
Units	Units*
Course Title	Course Title (max 100 characters)
Course Short Title	Course Short Title (max 30 characters)
Description Transition state theory; specificity in enzyme catalyzed reactions; use of recombinant DNA techniques to describe and modify enzyme catalysis, catalytic activities through monoclonal antibody techniques.	Description Mechanistic principles for how protein molecules achieve diverse functions such as chemical catalysis and conformational switching. Students will learn to critique hypotheses about structural mechanisms, and to interpret the primary literature reporting on structural evidence from X-ray diffraction and spectroscopy.
Prerequisite	Prerequisite
Other	Other

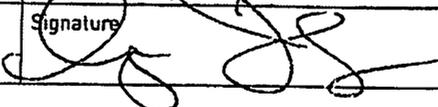
* Program requirements may need to be revised when course units are changed. Please review the calendar and submit any relevant program revisions resulting from this course change.

REMINDER: All course changes must be identified on a cover memo and confirmed as approved when submitted to FGSC and SGSC.

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Department / School / Program MBB	Contact name Mimi Fourie	Contact email mbb@sfu.ca
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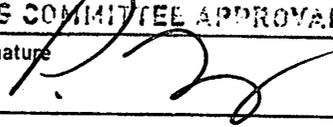
DEPARTMENTAL APPROVAL

Department Graduate Program Committee Michel Leroux	Signature 	Date Jan. 26, 2015
Department Chair Lynne Quarmby	Signature 	Date Jan 26, 2015

FACULTY APPROVAL

Faculty Graduate Studies Committee (FGSC) CARE Couvenga	Signature 	Date May 13/2015
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SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC) Peter Liljedahl	Signature 	Date June 17 2015
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MOLECULAR BIOLOGY AND BIOCHEMISTRY

MBB 723

Protein Structure and Function (3)

Calendar Description:

Mechanistic principles for how protein molecules achieve diverse functions such as chemical catalysis and conformational switching. Students will learn to critique hypotheses about structural mechanisms, and to interpret the primary literature reporting on structural evidence from X-ray diffraction and spectroscopy.

Course Details:

3 lecture hours + 1 tutorial hour / week

Through examination of modern research literature, students will learn to assess primary literature reports of structure data, and to formulate hypotheses and apply structural reasoning in investigations of molecular mechanism. Pre-requisites: Any 4th year biochemistry course OR permission of instructor

Topics

Structural basis of protein function:

- Stability and flexibility
- Enzymatic catalysis
- Integrating multiple functions

Obtaining and assessing structural data:

- X-ray crystallography
- Electron microscopy
- Spectroscopic techniques

Grading

Quizzes/iClicker	15
Midterm Exam I	15
Written Assignment	15
Midterm Exam II	15
Written Research Project	40

Notes:

Grading is subject to change depending on enrolment.

Materials + Supplies:

iClicker transmitter required during lectures (available from SFU Bookstore)

Required Reading:

This course is not textbook-based. Course readings and research journal articles will be available in Library Reserves.

MOLECULAR BIOLOGY AND BIOCHEMISTRY

MBB 423

PROTEIN STRUCTURE AND FUNCTION (3)

Prerequisite: MBB 323 or MBB 324.

CALENDAR DESCRIPTION:

Mechanistic principles for how protein molecules achieve diverse functions such as chemical catalysis and conformational switching. Students will learn to critique hypotheses about structural mechanisms, and to interpret the primary literature reporting on structural evidence from X-ray diffraction and spectroscopy.

COURSE DETAILS:

3 lecture hours + 1 tutorial hour / week

Through examination of modern research literature, students will learn to assess primary literature reports of structure data, and to formulate hypotheses and apply structural reasoning in investigations of molecular mechanism

Topics

Structural basis of protein function:

- Stability and flexibility
- Enzymatic catalysis
- Integrating multiple functions

Obtaining and assessing structural data:

- X-ray crystallography
- Electron microscopy
- Spectroscopic techniques

Grading

Quizzes/Clicker	15%
Midterm Exam I	15%
Written Assignment	15%
Midterm Exam II	15%
Final Exam	40%

Grading is subject to change depending on enrolment.

MATERIALS + SUPPLIES:

iClicker transmitter required during lectures (available from SFU Bookstore).

REQUIRED READING:

This course is not textbook-based. Course readings and research journal articles will be available in Library Reserves.



MEMO

Faculty of Science

ATTENTION SGSC

FROM Carl Lowenberger, Associate Dean, Faculty of Science

RE Graduate Course Change – MBB 806

DATE April 30, 2015

TIME 2:52:16
PM

The graduate program in the Department of Molecular Biology and Biochemistry seeks to change the course description for MBB 806 from “PhD Graduate Research Seminar” to “PhD Graduate Research Candidacy Examination” to align better with their PhD program, as described in the attached memo.

The changes are minor and this course will be required for all students in the MBB program. This course change has my approval and that of the Faculty of Science Graduate Committee.

A handwritten signature in cursive script that reads "Carl Lowenberger".

C. Lowenberger

MOLECULAR BIOLOGY AND BIOCHEMISTRY
Memorandum

To: Chair, Faculty Graduate Studies Committee,
Faculty of Science

From: Michel Leroux, Chair, MBB Graduate
Studies Committee

Re: Graduate Course Change – MBB 806

Date: April 28, 2015

We are requesting a graduate course change of MBB 806 for the Spring 2016 term.

New title and description of MBB 806. Our MBB 806 represents an important stepping stone for students wishing to complete a PhD degree. The new title and description aligns better with this fact.

The Graduate Course Change form is attached.

Sincerely,



Dr. M.R. Leroux



Graduate Course Change

Attach a separate document if more space is required.

Course Subject/Number	MBB 806	Units	3	Effective Term and Year	Spring 2016
Course Title	PhD Graduate Research Seminar				
Rationale for Change: MBB 806 represents an essential course that students must complete successfully to continue in our graduate program, and obtain a PhD degree. The new title and description aligns better with this fact.					

Proposed Changes (Check all that apply)

- Course number
 Units*
 Title
 Description
 Prerequisite
 Other Course Short Title

Complete only the fields to be changed

FROM	TO
Course Subject/Number	Course Subject/Number
Units	Units*
Course Title PhD Graduate Research Seminar	Course Title (max 100 characters) PhD Graduate Research Candidacy Examination
Course Short Title PhD Graduate Research Seminar	Course Short Title (max 30 characters) PhD Grad Res Candidacy Exam
Description Oral presentation and defense of a written PhD research proposal. Students will be examined on their progress and grasp of knowledge relevant to the proposed research and their capacity to complete the proposed thesis research. Open only to students in the PhD molecular biology and biochemistry graduate program.	Description Oral presentation and defense of a written PhD research proposal. Students will be examined on their knowledge relevant to the proposed research, capacity to complete the proposed thesis research (including any relevant preliminary results), and understanding of the broader field of study. All PhD students enrolled in the MBB PhD graduate program must take MBB 806.
Prerequisite	Prerequisite Permission of the student's supervisory committee.
Other	Other

* Program requirements may need to be revised when course units are changed. Please review the calendar and submit any relevant program revisions resulting from this course change.

REMINDER: All course changes must be identified on a cover memo and confirmed as approved when submitted to FGSC and SGSC.

CONTACT PERSON

Department / School / Program MBB	Contact name Mimi Fourie	Contact email mbb@sfu.ca
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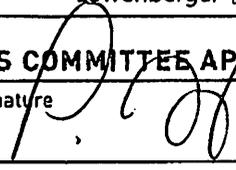
DEPARTMENTAL APPROVAL

Department Graduate Program Committee Michel Leroux	Signature 	Date April 27, 2015
Department Chair Lynne Quarmby	Signature 	Date April 28, 2015

FACULTY APPROVAL

Faculty Graduate Studies Committee (FGSC) Carl Lowenberger	Signature Carl Lowenberger <small>Digitally signed by Carl Lowenberger DN: cn=Carl Lowenberger, ou=SFU, ou=AS30, email=clowenb@sfu.ca, c=CA Date: 2015.04.30 15:30:02 -0700</small>	Date April 30/2015
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SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC) Peter Liljedahl	Signature 	Date June 17 2015
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