



Office of Graduate Studies and Postdoctoral Fellows

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MEMORANDUM

ATTENTION Senate
FROM Wade Parkhouse, Chair of Senate
Graduate Studies Committee (SGSC)
RE: Faculty of Science

DATE March 3 2015
No. GS2015.16

A handwritten signature in dark ink, appearing to read 'Wade Parkhouse', is written over the 'No.' field of the memorandum.

For information:

Acting under delegated authority at its meeting of March 2, 2015, SGSC approved the following new course effective Fall 2015:

Department of Molecular Biology and Biochemistry

New course: MBB 700: Selected Topics in Biotechnology and Business

SFU

RECEIVED

OCT 29 2014

OFFICE OF GRADUATE STUDIES
AND POSTDOCTORAL FELLOWS

MEMO

Faculty of Science

ATTENTION Mary-Ellen Kelm, Acting Dean, Graduate Studies

FROM Peter Ruben, Associate Dean, Faculty of Science

RE New Course Request - MBB

DATE October 27, 2014

TIME 2:02 PM

The graduate program in the Department of Molecular Biology and Biochemistry seeks to initiate a new course, MBB 700, "Selected Topics in Biotechnology and Business". An undergraduate version of this course has been taught as MBB 400 and has been audited by graduate students. The Department seeks to make the course available to graduate students for credit. In light of the University's initiatives in the areas of innovation and entrepreneurship, this course is highly relevant should be very successful.

I have sought comments from other Faculties and no overlaps or concerns have been reported to me. This new course has my approval and that of the Faculty of Science Graduate Committee.



P. Ruben

MOLECULAR BIOLOGY AND BIOCHEMISTRY

Memorandum

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

From: Michel Leroux, Chair, MBB Graduate
Studies Committee

Re: New Graduate Course Proposal – MBB 700

Date: October 16, 2014

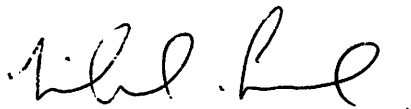
We are requesting approval of a new graduate course:

MBB 700 – Selected Topics in Biotechnology and Business

MBB 400 has been an integral part of the MBB-BUS JMA and has been audited by graduate students. Because of its value and relevance we would like to make it available to graduate students for credit.

The New Graduate Course Proposal form is attached.

Sincerely,



Dr. M.R. Leroux

New Graduate Course Proposal Form

PROPOSED COURSE

Subject (eg. MAPH) MBB	Number (eg. 810) 700	Units (eg. 4) 1
Course Title (max 80 characters) Selected Topics in Biotechnology and Business		
Short Title (appears on transcripts, max 25 characters) Sel. Top. Biotech. & Business		
Course Description for SFU Calendar ☐ see attached document ☐ Learning outcomes identified A survey of the legal, economic and social aspects of technology transfer in the areas of molecular biology, biochemistry, and biotechnology presented by a series of local experts. Topics will include patents, contracts, intellectual property, capitalization and others. The format will be a formal lecture followed by a workshop.		
Available Course Components: ☒ Lecture ☐ Seminar ☐ Laboratory ☐ Practicum ☐ Online ☐ _____		
Grading Basis ☒ Letter grades ☐ Satisfactory/Unsatisfactory ☐ In Progress/Complete		This is a capstone course ☐ Yes ☒ No
Prerequisites (if any) ☐ see attached document (if more space is required)		
Permission of the instructor.		
☒ This proposed course is combined with an undergrad course: Course number and units: MBB 400-1		
Additional course requirements for graduate students ☐ See attached document (if this space is insufficient) Additional emphasis on case study (2 pages and additional weight)		
Campus at which course will be offered (check all that apply) ☒ Burnaby ☐ Vancouver ☐ Surrey ☐ GNW ☐ _____		
Estimated enrolment	Date of initial offering September 2015	Course delivery (eg. 3 hrs/week for 13 weeks) 2 hrs/week for 13 weeks
☐ Yes ☒ No Practicum work done in this class will involve children or vulnerable adults (If the "Yes" box is checked, all students will require criminal record checks)		
Justification ☐ See attached document (if more space is required) MBB 400 has been an integral and important part of the MBB-BUS JMA and has been audited by graduate students. Because of its value and relevance we would like to make it available to graduate students for credit.		

RESOURCES

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

Faculty member(s) who will normally teach this course ☐ information about their competency to teach the course is appended David Vocadlo
Number of additional faculty members required in order to offer this course There will be invited speakers most weeks
Additional space required in order to offer this course ☐ see attached document None
Additional specialized equipment required in order to offer this course ☐ see attached document None
Additional Library resources required (append details) ☐ Annually \$ _____ ☐ One-time \$ _____ None

PROPOSED COURSE from first page

Program (eg. MAPH) MBB	Number (eg. 810) 700	Units (eg. 4) 1
Course title (max 80 characters) Selected Topics in Biotechnology and Business		

APPROVAL SIGNATURES

When a department proposes a new course it must first be sent to the chairs of each faculty graduate program committee where there might be an overlap in course content. The chairs will indicate that overlap concerns have been dealt with by signing the appropriate space or via a separate memo or e-mail (attached to this form).

The new course proposal must also be sent to the Library for a report on library resources.

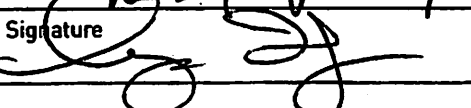
Once overlap concerns have been dealt with, signatures indicate approval by the department, home faculty and Senate Graduate Studies Committee.

Other Faculties

The signature(s) below indicate that the Dean(s) or designate of other Faculties affected by the proposed new course support(s) the approval of the new course.

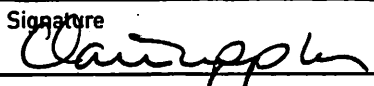
Name of Faculty	Signature of Dean or Designate	Date

Departmental Approval (non-departmentalized faculties need not sign)

Department Graduate Program Committee Michel Leroux	Signature 	Date July 2/2014
Department Chair Lynne Quarmby	Signature 	Date July 28, 2014

Faculty Approval

Faculty approval indicates that all the necessary course content and overlap concerns have been resolved, and that the Faculty/Department commits to providing the required Library funds and any other necessary resources.

Faculty Graduate Program Committee Dr. Clair Cupples	Signature 	Date 16.2.15
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for Dr. Carl Lowenberger

Senate Graduate Studies Committee Approval

SGSC approval indicates that the Library report has been seen, and all resource issues dealt with. Once approved, new course proposals are sent to Senate for information.

Senate Graduate Studies Committee Wade Parkhouse	Signature 	Date Mar 11/15
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CONTACT

Upon approval of the course, the Office of the Dean of Graduate Studies will consult with the department or school regarding other course attributes that may be required to enable the proper entry of the new course in the student record system.

Department / School / Program mbb	Contact name Mimi Fourie	Contact email mbb@sfu.ca
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MBB 700-1 G100

SPECIAL TOPICS IN BIOTECHNOLOGY AND BUSINESS

Calendar Description:

A survey of the legal, economic and social aspects of technology transfer in the areas of molecular biology, biochemistry, and biotechnology presented by a series of local experts. Topics will include patents, contracts, intellectual property, capitalization and others. The format will be a formal lecture followed by a workshop.

Course Details:

This course is an introduction to the biotechnology landscape from an original scientific discovery/idea to the technology transfer phase and finally to launch phase into the market. There will be discussions on commercialization, patents, clinical trials, business plans, start-ups, VC, ethics, including the many challenges and hurdles faced by biotechnology companies during the development to market phases. A discussion of different career opportunities in the biotechnology sector is also explored.

The course format will include formal lectures (delivered by the instructor and/or an invited speaker), group discussion, some readings, one-page report and presentations.

Weekly Topics:

1. Instructor: Introduction to the biotechnology and pharmaceutical industry and academic research field.
2. Instructor: Introduction to the biotechnology development phases: challenges and hurdles
3. Invited speaker: Research and development phase in the company: QC and QA
4. Invited speaker: Patents, licensing and IPs: Perspectives from academia and industry
5. Invited speaker: Different phases of clinical trials
6. Invited speaker: Commercialization centers and their role in the biotech phases
7. Instructor: Marketing, market research and analysis and pricing policy
8. Instructor and Invited Speaker: Entrepreneurship and biotech start-ups: From the ground up to acquisitions and mergers.
9. Invited speaker: Ethics and Biotechnology
10. Invited speaker: Fundraising and Venture Capital
11. Invited speaker: The role of the CEO in a biotechnology company
12. Instructor and Panelist: Career opportunities beyond the lab
13. Business pitch

Grading:

One Case Study (Individual assignment – 2-page summary)	15%
Industry Analysis (Presentation and 1 page executive summary) – (Group assignment)	15%
“Dragon’s Den-style” pitch/presentation (Group assignment)	70%

Notes:

Pitches will be made to a selected panel of entrepreneurs, scientists and business representatives from the biotech industry. Students will be graded based on the quality of their research into their business of choice, the quality of their pitch and the likelihood of their pitch getting funded