SFU OFFICE OF THE ASSOCIATE VICE-PRESIDENT, ACADEMIC

8888 University Drive, Burnaby, BC Canada V5A 1S6
TEL: 778.782.4636 FAX: 778.782.5876
avpcio@sfu.ca www.sfu.ca/vpacademic

MEMORANDUM

ATTENTION	Senate	**DATE**	August 7, 2016
FROM	Mark Lechner, Acting Chair Senate Committee on Undergraduate Studies	**PAGES**	1/1
RE:	Faculty of Science		

for Jolliffe

For information:

Acting under delegated authority at its meeting of August 6, 2016 SCUS approved the following curriculum revisions effective Summer 2017.

1. Department of Statistics and Actuarial Science (SCUS 16-22d)

   (i) New Course Proposal: STAT 452-3, Introduction to Statistical Learning and Prediction and Q designation (Fall 2017)

2. Department of Molecular Biology and Biochemistry (SCUS 16-27)

   (i) New Course Proposal: MBB 200-3, Selected Topics in Molecular Biology and Biochemistry
   (ii) Prerequisite change for MBB 402

SFU

FACULTY OF SCIENCE
Dean of Science

TASC II 9900
8888 University Drive,
Burnaby, BC
Canada V5A 1S6

TEL 778.782.4590
FAX 778.782.3424

sfu.ca/science

MEMORANDUM

ATTENTION	Senate Committee for Undergraduate Studies, SFU	**DATE**	July 22, 2016
FROM	Carl Lowenberger, Chair, Science UCC		
RE:	Submission of Undergraduate Curriculum Business from the Faculty of Science for inclusion on the Agenda of the August 2016 SCUS Meeting		

STATISTICS AND ACTUARIAL SCIENCE

Motion 1: STAT 452 –New Course proposal – removal of 'introductory' (originally at July SCUS)

MOLECULAR BIOLOGY AND BIOCHEMISTRY (MBB)

Motion 1: MBB 200 – New Special Topics Course proposal
Motion 2: MBB 402 – Prerequisite Change

SCUS AUGUST

SFU SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL

COURSE SUBJECT STAT **NUMBER** 452

COURSE TITLE
LONG — for Calendar/schedule, no more than 100 characters including spaces and punctuation

Statistical Learning and Prediction

AND
SHORT — for enrollment/transcript, no more than 30 characters including spaces and punctuation

Stat Learning and Prediction

CAMPUS where course will be normally taught: ■ Burnaby ☐ Surrey ☐ Vancouver ☐ Great Northern Way ☐ Off campus

COURSE DESCRIPTION (FOR CALENDAR). 50 WORDS MAXIMUM. ATTACH A COURSE OUTLINE TO THIS PROPOSAL

An introduction to the essential modern supervised and unsupervised statistical learning methods. Topics include review of linear regression, classification, statistical error measurement, flexible regression and classification methods, clustering and dimension reduction.

REPEAT FOR CREDIT ☐ YES ■ NO How many times? ☐ Within a term? ☐ YES ☐ NO

LIBRARY RESOURCES
NOTE: Senate has approved (S.93-11) that no new course should be approved by Senate until funding has been committed for necessary library materials. Each new course proposal must be accompanied by a library report and, if appropriate, confirmation that funding arrangements have been addressed.

Library report status, see lib.sfu.ca/collections/course-assessments

RATIONALE FOR INTRODUCTION OF THIS COURSE
If more space is needed, please use the provided text box on page 4 of this document

Statistical learning and prediction methods are rapidly becoming the methods of choice for data analysis in business, industry, and research. They are also important components of many research programs in statistics. There is increasing demand for graduands with the skilled that this course would cover, and the department has been receiving requests to mount a course that addresses this need. The department currently has a graduate-level course, Stat 852, that covers closely related topics. However, the level of instruction in Stat 852 is such that only the very best among undergraduate majors can be expected to do well in the course.

SCHEDULING AND ENROLLMENT INFORMATION
Term and year course would first be offered (e.g. FALL 2014) Fall 2017

Term(s) in which course will typically be offered ☐ Spring ☐ Summer ■ Fall

☐ Other *(describe)*

Will this be a required or elective course in the curriculum? ☐ Required ■ Elective

What is the probable enrollment when offered? Estimate: 40

UNITS

Indicate number of units: 3

Indicate no. of contact hours for: 3 Lecture | Seminar 1 Tutorial | Lab | Other – please explain

OTHER

FACULTY Which of your present CFL faculty have the expertise to offer this course?

Bornn, Campbell, Loughin, Bingham, and likely others

WQB DESIGNATION (attach approval from Curriculum Office)

Q

PREREQUISITE AND / OR COREQUISITE

Stat 302 or Stat 305 or Stat 350 or equivalent.

EQUIVALENT COURSES

Does this course replicate the content of a previously-approved course to such an extent that students should not receive credit for both courses?

No

COURSE – LEVEL EDUCATIONAL GOALS (OPTIONAL)

FEES

Are there any proposed student fees associated with this course other than tuition fees? ☐ YES ■ NO

RESOURCES

List any outstanding resource issues to be addressed prior to implementation: space, laboratory equipment, etc:

None

OTHER IMPLICATIONS

Final Exam required: ■ YES ☐ NO

Criminal Record Check required: ☐ YES ■ NO

OVERLAP CHECK

Checking for overlap is the responsiblity of the Associate Dean.

Each new course proposal must have confirmation of an overlap check completed prior to submission to the Faculty Curriculum Committee.

Name of Originator

Tom Loughin

RATIONALE

More space if needed.

Stat 452 would be taught at a more introductory level with greater emphasis on application and interpretation. This course would be co-listed as Stat 652 for access by graduate students in non-mathematical disciplines, who would be poorly served by Stat 852.

UNIVERSITY CURRICULUM AND INSTITUTIONAL LIAISON
OFFICE OF THE VICE-PRESIDENT, ACADEMIC

8888 University Drive, Burnaby, BC
Canada V5A 1S6

TEL: 778.782.3312
FAX: 778.782.5876

slrhodes@sfu.ca
www.sfu.ca/ugcr

MEMORANDUM

ATTENTION Carl Lowenberger, Associate Dean, Faculty of Science

DATE May 16, 2016

FROM Susan Rhodes, Director
University Curriculum & Institutional Liaison

PAGES 1

RE: STAT Q designation approval

The University Curriculum Office has approved **Q** designation for the following proposed new Faculty of Science course, effective Fall 2017 (1177):

STAT 452-3 Introduction to Statistical Learning and Prediction

Please forward this memo to your Faculty UCC and then on to SCUS and Senate for further approval

cc: Robin Insley, Undergraduate Curriculum Chair, Department of Statistics and Actuarial Science

SFU SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL
1 OF 3 PAGES

COURSE SUBJECT MBB **NUMBER** 200

COURSE TITLE LONG — for Calendar/schedule, no more than 100 characters including spaces and punctuation

Selected Topics in Molecular Biology and Biochemistry

COURSE TITLE SHORT — for enrollment/transcript, no more than 30 characters including spaces and punctuation

Selected Topics in MBB

CAMPUS where course will be normally taught: ☒ Burnaby ☐ Surrey ☐ Vancouver ☐ Great Northern Way ☐ Off campus

COURSE DESCRIPTION — 50 words max. Attach a course outline. Don't include WQB or prerequisites info in this description box.

The topics in this course will vary from term to term, depending on faculty availability and student interest.

REPEAT FOR CREDIT ☒ YES ☐ NO How many times? 3 Within a term? ☐ YES ☐ NO

LIBRARY RESOURCES

NOTE: Senate has approved (S.93-11) that no new course should be approved by Senate until funding has been committed for necessary library materials. Each new course proposal must be accompanied by the email that servwes as proof of assessment. For more information, please visit www.lib.sfu.ca/about/overview/collections/course-assessments.

Library review done? COMPLETED

RATIONALE FOR INTRODUCTION OF THIS COURSE

MBB has two, 400 level special topics courses but does not have a lower division special topics course This prevents us from offering unique courses at the 200 level so we propose to add that option by creating MBB 200 .

SCHEDULING AND ENROLLMENT INFORMATION

Term and year course would first be offered (e.g. FALL 2016) Summer 2017

Term in which course will typically be offered ☐ Spring ☐ Summer ☐ Fall

Other *(describe)* it will vary

Will this be a required or elective course in the curriculum? ☐ Required ☒ Elective

What is the probable enrollment when offered? Estimate: will vary by topic

UNITS

Indicate number of units: 3

Indicate no. of contact hours: 3 Lecture ☐ Seminar 1 Tutorial ☐ Lab ☐ Other; explain below

OTHER

FACULTY

Which of your present CFL faculty have the expertise to offer this course?

Any MBB faculty can propose and teach a special topics course

WQB DESIGNATION

(attach approval from Curriculum Office)

PREREQUISITE AND / OR COREQUISITE

Will be announced before the start of the term and will depend upon the nature of the topic offered

EQUIVALENT COURSES

Does this course replicate the content of a previously-approved course to such an extent that students should not receive credit for both courses?

no

FEES

Are there any proposed student fees associated with this course other than tuition fees? ☐ YES ■ NO

COURSE – LEVEL EDUCATIONAL GOALS (OPTIONAL)

RESOURCES

List any outstanding resource issues to be addressed prior to implementation: space, laboratory equipment, etc:

OTHER IMPLICATIONS

Final exam required ☐ YES ☐ NO

Criminal Record Check required ☐ YES ■ NO

OVERLAP CHECK

Checking for overlap is the responsiblity of the Associate Dean.

Each new course proposal must have confirmation of an overlap check completed prior to submission to the Faculty Curriculum Committee.

Name of Originator

Ingrid Northwood

SFU

SENATE COMMITTEE ON
UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

COURSE SUBJECT	MBB	NUMBER	402	TITLE	Developmental Biology of Signal Transduction

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

	Course number		Credit		Title		Description	x	Prerequisite

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using ~~strike through~~, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand.

MBB 402 (3)
Aspects of developmental biology in the context of signal transduction pathways. The diverse mechanisms used in cell signalling 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.

PREREQUISITES:
MBB 331 or BISC 302W with a minimum grade of C.

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)

Summer 2017

RATIONALE (must be included)

By including BISC 302W "Genetic Analysis" as an alternate pre-requisite to MBB 331 "Molecular Biology", BISC students will now be able to enroll in MBB 402