MEMO

Dean of
Graduate Studies

STREET ADDRESS
Maggie Benston Student
Services Centre 1100
Burnaby   BC   V5A 1S6
Canada

MAILING ADDRESS
8888 University Drive
Burnaby   BC   V5A 1S6
Canada

TO Senate	TEL
FROM Wade Parkhouse, Dean, Graduate Studies	
RE Faculty of Science	**[GS2012.21]**
CC Peter Ruben	
DATE 17 May 2012	

For information:
Acting under delegated authority at its meeting of 14 May 2012, SGSC approved the
following curriculum revisions:

Effective Date is January 2013

Faculty of Science   **[GS2012.21]**
Department of Statistics and Actuarial Science
i) New courses:
    STAT 645-3 Applied Multivariate Analysis
    STAT 675-3 Applied Discrete Data Analysis
    STAT 685-3 Applied Time Series Analysis

i) Delete course:
    STAT 602-3

Senators wishing to consult a more detailed report of curriculum revisions may do so by *going*
to Docushare: https://docushare.sfu.ca/dsweb/View/Collection-12682
If you are unable to access the information, please call 778-782-3168 or email
shelley_gair@sfu.ca.

SIMON FRASER UNIVERSITY   ENGAGING THE WORLD

Simon Fraser University

MEMORANDUM

To:	Wade Parkhouse Dean of Graduate Studies	**From:**	Richard Lockhart, Chair Statistics & Act Sci
Re:	STAT 645, 675, 685 Comments for SGSC	**Date:**	May 2, 2012

Dear Wade:

Tim Swartz, our Graduate Chair, has passed on the SGSC's concerns surrounding our proposal to make three of our applied undergraduate courses available to graduate students in other departments by cross-listing them with graduate and undergraduate numbers. I am attaching modified course proposal forms which make clear the separate nature of the graduate marking and clarify our intention to require graduate students to bring relevant research problems to the class whenever this is possible within their programs.

The SGSC also made a number of other suggestions which would require more resources; we agree that all the things they request would be useful but we don't have the resources.

Here are brief replies to the four specific comments raised in your email to us:

a,d) You ask us to schedule an extra contact hour for graduate students and indicate a preference for a completely separate course. I would like to do this but cannot within the faculty resources I have available. These courses are service courses which will likely draw small numbers of students from a mixture of other departments where the student's advisory committee considers that a course like this would be useful to that particular student. To mount separate courses would surely require a faculty appointment and I don't see that as likely.

b,c) You ask us to require a research presentation from other graduate students and to clarify that graduate students will be graded separately. We have strengthened the language around the research presentation requirement. We do think that it will usually be sensible for the instructor to require such a presentation but have left the word "normally" in the documents to provide for situations where the student has no relevant research data or program or has not yet arrived at a point in the degree where this could work. We have changed the language on the forms to clarify that graduate students will be evaluated separately and that the project requirements will be more substantial but we don't want to be more prescriptive to instructors concerning assignments and examinations.

I wish I had the resources to do more for graduate students in other departments. We already are running 3 such service courses a year – two cross-listed – and we cannot do more without extra resources.

My best,

Richard Lockhart, Chair

SFU Connect

Fwd: SGSC Follow up : STATS courses

From : Wade Parkhouse <wade_parkhouse@sfu.ca>   Wed, Apr 25, 2012 08:31 AM

Subject : Fwd: SGSC Follow up : STATS courses

To : tim swartz <tim@stat.sfu.ca>

Cc : Peter Ruben <pruben@sfu.ca>, Sheilagh
MacDonald <sheilagh@sfu.ca>

Tim,

Your new course proposals listed below were tabled at the April SGSC meeting. SGSC would like them revised and brought forward for another SGSC meeting. As these are "piggy-backed courses" SGSC felt that more detail was needed in relation to the expectations for receiving graduate credit in these courses. They felt that in general, merely indicating that "where feasible and appropriate, students in Stat XXX would be encouraged to present their research problems involving categorical data as active case studies for class" , and having graduate students submit a more extensive project related to their speciality, were insufficient. Specific questions/comments:

a) Why wouldn't the graduate students have extra contact with the instructor as a separate group? In many units this takes the form of an extra contact hour per week.

b) Would it not make more sense to **require** that "students in Stat XXX would be encouraged to present their research problems involving categorical data as active case studies for class"?

c) How is the grading scheme being adjusted for graduate students relative to undergraduate students given that it appears they are writing the same examinations/assignments? Are they the same? If so, how will the grading scale be differentiated to reflect a graduate level course? Separate exams/assignments are usually preferable.

d) Please explain why a separate graduate course cannot be offered as this is always preferable.

Please address these points in a memo and make whatever changes you feel appropriate in the courses.

The committee was very appreciative of the intent of these courses, that being to improve opportunities for UG and Grad students in other disciplines.

Wade

5.6 Faculty of Science
[GS2012.21]
Department of Statistics and Actuarial Science

i)   New courses:
STAT 645-3 Applied Multivariate Analysis
STAT 675-3 Applied Discrete Data Analysis

STAT 685-3 Applied Time Series Analysis
Concerns were raised re: combined undergraduate/graduate courses.
Tabled: To be sent back to the department for greater clarity re: the role of graduate students, the additional requirements and the grading scheme.

Rick Routledge
Department of Statistics and Actuarial Science
Simon Fraser University

Room K 10561	TEL 778.782.4478	routledg_at_stat.sfu.ca
8888 University Drive, Burnaby, BC	FAX 778.782.4368	www.stat.sfu.ca/~routledg
Canada V5A 1S6		

MEMORANDUM

ATTENTION	Dr. Peter Ruben, Associate Dean of Science, Research and Graduate Studies	**DATE**	March 1, 2012
FROM	Rick Routledge	**PAGES**	1/1
RE:	Graduate Curriculum Revisions		

We are hereby submitting proposal for changes to graduate courses approved at a meeting of the Department of Statistics and Actuarial Science on February 10, 2012. These are associated with a larger proposal for changes to the undergraduate major, honors, and minor programs in statistics offered by the department. The graduate courses in the attached proposal are to be taught in parallel with undergraduate courses which we propose to delete, add, or amend as part of the curriculum review package. These changes are aimed at improving opportunities for graduate and undergraduate students focusing in other disciplines to learn specialized techniques in applied statistics. We hope that your committee will find this to be a positive development.

Sincerely,

Rick Routledge

Rick Routledge

cc. Dr. George Agnes, Associate Dean of Science, Academic
   Dr. Richard Lockhart, Chair, Department of Statistics and Actuarial Science

SC K10545   TEL 778.782.3803   www.stat.sfu.ca
8888 University Drive, Burnaby, BC   FAX 778.782.4368
Canada V5A 1S6

MEMORANDUM

ATTENTION: FACULTY OF SCIENCE GRADUATE STUDIES COMMITTEE	**DATE**	March 6, 2012
FROM DR. TIM SWARTZ, DEPARTMENT GRADUATE CHAIR	**PAGES**	1
RE: DELETION OF STAT 602 GENERALIZED LINEAR AND NONLINEAR MODELLING		

STAT 602 is to be replaced by STAT 645, a course focused more on the primary application (to the analysis of discrete date) of this general methodology. The companion undergraduate course, STAT 402, is similarly to be replaced by STAT 445 and this is why this graduate course deletion is initated.

This proposal is to be presented to the Faculty of Science Graduate Curriculum Committee for further procedure in order to have the course deleted from the Calendar.

The course deletion was approved at the Department of Statistics and Actuarial Science meeting held on February 10, 2012.

Regards,

DELETION: STAT 602 - Cross listed - NO

Dr. Tim Swartz, Graduate Program Chair

New Graduate Course Proposal Form

▆▆▆▆▶ PROPOSED COURSE

Program (eg. MAPH) STAT	Number (eg. 810) 645	Units (eg. 4) 3

Course Title (max 80 characters)
Applied Multivariate Analysis

Short Title (appears on transcripts, max 25 characters)
Appl. Multivariate Anal.

Course Description for SFU Calendar   ☐ see attached document   ☑ Learning outcomes identified

Introduction to principal components, cluster analysis, and other commonly used multivariate techniques.

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)

STAT 302 or STAT 305 or STAT 650 or permission of instructor. Open only to graduate students in departments other than Statist. & Actuarial Sci.

☑ This proposed course is combined with an undergrad course: Course number and units: _STAT 445-3_   ✔

Additional course requirements for graduate students   ☐ See attached document (if this space is insufficient)

Students in STAT 645 will normally present their research problems involving categorical data as active case studies for the class. Graduate students will also be required to submit a project related to their specialty; graduate student projects will be more extensive than those of students in STAT 445.

Campus at which course will be offered (check all that apply) ☑ Burnaby ☐ Vancouver ☐ Surrey ☐ GNW ☐ _____

Estimated enrolment 10	Date of initial offering Spring 2013 (tentative)	Course delivery (eg. 3 hrs/week for 13 weeks) 3 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)

This course, along with STAT 445, is designed to serve a need for basic training in applied multivariate analysis for advanced undergraduate and graduate students in other disciplines as well as for undergraduate students majoring in statistics. It is a spin-off of a major revision to the department's un

▆▆▆▆▶ 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
Altman, Bingham, Campbell, Graham, Hu, Insley, Lockhart, Loughin, McNeney, Routledge, Schwarz, Swartz, Tang, Thompson

Number of additional faculty members required in order to offer this course
0

Additional space required in order to offer this course   ☐ see attached document
0

Additional specialized equipment required in order to offer this course   ☐ see attached document
0

Additional Library resources required (append details)   ☐ Annually $ 0 _____   ☐ One-time $ 0 _____
0

Program (eg. ECON) STAT	Number (eg. 810) 645	Units (eg. 4) 3
Course title (max 80 characters) Applied Multivariate Analysis		

⬛⬛⬛➤ 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
SEE ATTACHED		

Departmental Approval (non-departmentalized faculties need not sign)

Department Graduate Program Committee T Swartz	Signature	Date Mar 9/12
Department Chair R Lockhart	Signature	Date Mar 9/12

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	Signature PETER RUBEN	Date 29 March 2012

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	Signature W. Parkhouse	Date May 22/12

⬛⬛⬛➤ CONTACT

Upon approval of the course, the Dean of Graduate Studies office 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 Statistics & Actuarial Science	Contact name Rick Routledge	Contact email routledg@sfu.ca

STAT 645 3

Applied Multivariate Analysis

Appl. Multivariate Anal.

Course Description:

Introduction to principal components, cluster analysis, and other commonly used
multivariate techniques.

Prerequisites:

STAT 302 or STAT 305 or STAT 650 or permission of instructor. Open only to graduate
students in departments other than Statistics and Actuarial Science.

Additional course requirements for graduate students:

Students in STAT 645 will normally present their research problems involving
categorical data as active case studies for the class. Graduate students will also be
required to submit a project related to their specialty; graduate student projects will be
more extensive than those of students in STAT445.

Justification:

This course, along with STAT 445, is designed to serve a need for basic training in
applied multivariate analysis for advanced undergraduate and graduate students in other
disciplines as well as for undergraduate students majoring in statistics. It is a spin-off of a
major revision to the department's undergraduate programming.

Faculty who can teach the course:

Altman, Bingham, Campbell, Graham, Hu, Insley, Lockhart, Loughin, McNeney,
Routledge, Schwarz, Swartz, Tang, Thompson.

Instructor:

Prerequisite:

STAT 302 or 305 or STAT 650 or permission of instructor. Open only to graduate students in departments other than Statistics & Actuarial Science.

Textbook:

To be identified.

Calendar Description:

Introduction to principal components, ordination, cluster analysis, discriminant analysis and canonical correlation.

Outline:

1. Principal Components: Identification, use in multiple regression, using R to perform the calculations. (~3 weeks)
2. Ordination Techniques: Methodology and survey of common applications, computer calculations. (~2 weeks)
3. Cluster Analysis: Survey of commonly used methods, computer calculations, graphical displays, and interpretation of results. (~3 weeks)
4. Discriminant Analysis: (~2 weeks)
5. Canonical Correlation Analysis: (~2 weeks)
6. Student Presentations of Substantive Applications. (~1 week)

Note: This course is being taught in parallel with STAT 445. Students in STAT 645 will normally present their research problems involving categorical data as active case studies for the class. Graduate students will also be required to submit a project related to their specialty; graduate student projects will be more extensive than those of students in STAT 445.

Grading Scheme (subject to change):

Assignments: 20%
Project: 30%
Midterm: 20%
Final: 30%

Note: Graduate students in STAT 645 will be graded separately from students in STAT 445 using standards appropriate to graduate level course work.

Revised April 26, 2012

SIMON FRASER UNIVERSITY
DEAN OF GRADUATE STUDIES

New Graduate Course Proposal Form

━━▶ PROPOSED COURSE

Program (eg. MAPH) STAT	Number (eg. 810) 675	Units (eg. 4) 3

Course Title (max 80 characters)
Applied Discrete Data Analysis

Short Title (appears on transcripts, max 25 characters)
Appl. Discrete Data Anal.

Course Description for SFU Calendar ☐ see attached document ☑ Learning outcomes identified

Introduction to standard methodology for analyzing categorical data including chi-squared tests for two- and multi-way contingency tables, logistic regression, and loglinear (Poisson) regression.

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)

STAT 302 or STAT 305 or STAT 650 or permission of instructor. Open only to graduate students in departments other than Statist. & Actuarial Sci.

☑ This proposed course is combined with an undergrad course: Course number and units: STAT 475-3

Additional course requirements for graduate students   ☐ See attached document (if this space is insufficient)

Students in STAT 675 will normally present their research problems involving categorical data as active case studies for the class. Graduate students will also be required to submit a project related to their specialty; graduate student projects will be more extensive than those of students in STAT 475.

Campus at which course will be offered (check all that apply) ☑ Burnaby ☐ Vancouver ☐ Surrey ☐ GNW ☐ _____

Estimated enrolment	Date of initial offering	Course delivery (eg. 3 hrs/week for 13 weeks)
10	Spring 2013 (tentative)	3 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)

This course, along with STAT 475, is designed to serve a need for basic training in applied time series analysis for advanced undergraduate and graduate students in other disciplines as well as for undergraduate students majoring in statistics. It is a spin-off of a major revision to the department's under

━━▶ 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
Altman, Bingham, Campbell, Graham, Hu, Insley, Lockhart, Loughin, McNeney, Routledge, Schwarz, Swartz, Tang, Thompson

Number of additional faculty members required in order to offer this course
0

Additional space required in order to offer this course   ☐ see attached document
0

Additional specialized equipment required in order to offer this course   ☐ see attached document
0

Additional Library resources required (append details)   ☐ Annually $ 0 _____   ☐ One-time $ 0 _____
0

Program (eg. ECON) STAT	Number (eg. 810) 675	Units (eg. 4) 3
Course title (max 80 characters) Applied Discrete Data Analysis		

■■■> **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
SEE ATTACHED		

Departmental Approval (non-departmentalized faculties need not sign)

Department Graduate Program Committee T Swartz	Signature	Date Mar 9/12
Department Chair R Lockhart	Signature	Date Mar 9/12

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 PETER KUBAN	Signature	Date 29 March 20

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 W Parkhouse	Signature	Date May 22/12

■■■> **CONTACT**

Upon approval of the course, the Dean of Graduate Studies office 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 Statistics & Actuarial Science	Contact name Rick Routledge	Contact email routledg@sfu.ca

STAT 675 3 Applied Discrete Data Analysis

Appl. Discrete Data Anal.

Course Description:

Introduction to standard methodology for analyzing categorical data including chi-squared tests for two- and multi-way contingency tables, logistic regression, and loglinear (Poisson) regression.

Prerequisites:

STAT 302 or 305 or STAT 650 or permission of instructor. Open only to graduate students in departments other than Statistics and Actuarial Science.

Additional course requirements for graduate students:

Students in STAT 675 will normally present their research problems involving categorical data as active case studies for the class. Graduate students will also be required to submit a project related to their specialty; graduate student projects will be more extensive than those of students in STAT 475.

Justification:

This course, along with STAT 475, is part of a package designed to replace STAT 402 and 602. The revised package targets the primary applications of generalized linear modeling (as opposed to the more general framework), and is more suitable for the intended audience.

Faculty who can teach the course:

Altman, Bingham, Campbell, Graham, Hu, Insley, Lockhart, Loughin, McNeney, Routledge, Schwarz, Swartz, Tang, Thompson

Students requiring accommodations as a result of disability, must contact the Centre for Students with Disabilities 778-782-3112 or csdo@sfu.ca

Instructor:

Prerequisite:

STAT 302 or 305 or STAT 650 or permission of instructor. Open only to graduate students in departments other than Statistics & Actuarial Science. Students with credit for STAT 402 or 602 may not take this course for further credit.

Textbook (Optional):

An Introduction to Categorical Data Analysis, 2nd ed., by: Alan Agresti; publisher: Wiley.

Calendar Description:

Introduction to standard methodology for analyzing categorical data including chi-squared tests for two- and multi-way contingency tables, logistic regression, and log-linear (Poisson) regression.

Outline:

This course introduces students to the most important methods for analyzing categorical data. The focus of the course is twofold: classical methods in categorical data analysis, such as chi-squared tests, and logistic and log-linear (Poisson) regression techniques.

1. Introduction and review
2. Two-way contingency table
3. Three-way contingency table
4. Logistic regression
5. Loglinear regression
6. Case studies
7. Further topics, including goodness-of-fit and model selection, and over-dispersion.

Note: This course is taught in parallel with STAT 475. Students in STAT 675 will normally present their research problems involving categorical data as active case studies for the class. Graduate students will also be required to submit a project related to their specialty; graduate student projects will be more extensive than those of students in STAT 475.

Grading Scheme (subject to change):

Assignments – 20%
Project – 30%
Midterm – 20%
Final – 30%
Note: Graduate students in STAT 675 will be graded separately from students in STAT 475 using standards appropriate to graduate level course work.

Revised April 26, 2012

New Graduate Course Proposal Form

━━▶ PROPOSED COURSE

Program (eg. MAPH) STAT	Number (eg. 810) 685	Units (eg. 4) 3

Course Title (max 80 characters)
Applied Time Series Analysis

Short Title (appears on transcripts, max 25 characters)
Appl. Time Series Anal.

Course Description for SFU Calendar ☐ see attached document ☑ Learning outcomes identified

Introduction to linear time series analysis including moving average, autoregressive and ARIMA models, estimation, data analysis, forecasting errors and confidence intervals, conditional and unconditional models, and seasonal models.

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)

STAT 302 or STAT 305 or STAT 650 or permission of instructor. Open only to graduate students in departments other than Statist. & Actuarial Sci.

☑ This proposed course is combined with an undergrad course: Course number and units: STAT 485-3

Additional course requirements for graduate students ☐ See attached document (if this space is insufficient)

Students in STAT 685 will normally present their research problems involving categorical data as active case studies for the class. Graduate students will also be required to submit a project related to their specialty; graduate student projects will be more extensive than those of students in STAT 485.

Campus at which course will be offered (check all that apply) ☑ Burnaby ☐ Vancouver ☐ Surrey ☐ GNW ☐ _____

Estimated enrolment	Date of initial offering	Course delivery (eg. 3 hrs/week for 13 weeks)
10	Spring 2013 (tentative)	3 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)

This course, along with STAT 485, is designed to serve a need for basic training in applied time series analysis for advanced undergraduate and graduate students in other disciplines as well as for undergraduate students majoring in statistics. It is a spin-off of a major revision to the department's under

━━▶ 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
Altman, Bingham, Campbell, Graham, Hu, Insley, Lockhart, Loughin, McNeney, Parker, Routledge, Schwarz, Swartz, Tang, Thompson

Number of additional faculty members required in order to offer this course
0

Additional space required in order to offer this course ☐ see attached document
0

Additional specialized equipment required in order to offer this course ☐ see attached document
0

Additional Library resources required (append details) ☐ Annually $ 0 _____ ☐ One-time $ 0 _____
0

Program (eg. ECON) STAT	Number (eg. 810) 685	Units (eg. 4) 3
Course title (max 80 characters) Applied Time Series Analysis		

█████▶ 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).

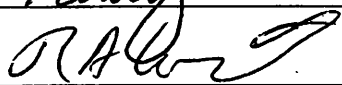The new course proposal must also be sent to the Library for a report on library resources.

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.
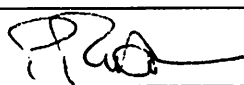
Name of Faculty	Signature of Dean or Designate	Date
SEE ATTACHED		

Departmental Approval (non-departmentalized faculties need not sign)

Department Graduate Program Committee T Swartz	Signature	Date Mar 9/12
Department Chair R Lockhart	Signature	Date Mar 9/12

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 Peter Ruben	Signature	Date 29 March 201

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 W Wardhouse	Signature	Date May 22/12

█████▶ CONTACT

Upon approval of the course, the Dean of Graduate Studies office 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 Statistics & Actuarial Science	Contact name Rick Routledge	Contact email routledg@sfu.ca

STAT 685 -3   Applied Time Series Analysis

Appl. Time Series Anal.

Course Description:

Introduction to linear time series analysis including moving average, autoregressive and ARIMA models, estimation, data analysis, forecasting errors and confidence intervals, conditional and unconditional models, and seasonal models.

Prerequisites:

STAT 302 or STAT 305 or STAT 650 or permission of instructor. Open only to graduate students in departments other than Statistics and Actuarial Science.

Additional course requirements for graduate students:

Students in STAT 685 will present their research problems involving categorical data as active case studies for the class. Graduate students will also be required to submit a project related to their specialty; graduate student projects will be more extensive than those of students in STAT 485

Justification:

This course, along with STAT 485, is designed to serve a need for basic training in applied time series analysis for advanced undergraduate and graduate students in other disciplines as well as for undergraduate students majoring in statistics. It is a spin-off of a major revision to the department's undergraduate programming.

Faculty who can teach the course:

Altman, Bingham, Campbell, Graham, Hu, Insley, Lockhart, Loughin, McNeney, Parker, Routledge, Schwarz, Swartz, Tang, Thompson

Instructor:

Prerequisite:

STAT 302 or 305 or STAT 650 or permission of instructor. Open only to graduate students in departments other than Statistics & Actuarial Science.

Textbook:

Shumway, R.H., and Stoffer, D.S. 2000. *Time Series Analysis and Its Applications*. Springer: New York, NY.

Calendar Description:

Introduction to linear time series analysis including moving average, autoregressive and ARIMA models, estimation, data analysis, forecasting errors and confidence intervals, conditional and unconditional models, and seasonal models.

Outline:

1. Autocorrelation, seasonality, and trends in time series and their impacts on standard statistical inference techniques. (~1 week)
2. Autoregressive models: definition, model formulation, and data analysis (~2 weeks)
3. Moving average models: definition model formulation, and data analysis (~2 weeks)
4. ARIMA models: definition, model formulation, and data analysis (~2 weeks)
5. Introduction to forecasting with linear time series models (~2 weeks)
6. Introduction to nonparametric fitting of trends and cycles to time series data (~2 weeks)
7. Case studies and student presentations (~2 weeks)

Note: This course is taught in parallel with STAT 485. Students in STAT 685 will normally present their research problems involving time series data as active case studies for the class. Graduate students will also be required to submit a project related to their specialty; graduate student projects will be more extensive than those of students in STAT 485.

Grading Scheme (subject to change):

Assignments: 10%
Project: 30%
Midterm: 20%
Final: 40%

Note: Graduate students in STAT 685 will be graded separately from students in STAT 485 using standards appropriate to graduate level course work.

Revised April 26, 2012

Library Course Assessment Memo

February 8, 2012

Dear Rick,

I have finished reviewing the proposals for:

STAT 340 : *Introduction to Statistical Computing and Exploratory Data Analysis*
STAT 445 : *Applied Multivariate Analysis*
STAT 475: *Applied Discrete Data Analysis*
STAT 485 : *Time Series Analysis*
STAT 645 : *Applied Multivariate Analysis*
STAT 675 : *Applied Discrete Data Analysis*
STAT 685 : *Applied Time Series Analysis*

and have determined that no additional library resources will be required to support them. I have added the courses to the appropriate list on the Library Course Assessments page at http://www.lib.sfu.ca/collections/course-assessments , and this will be adequate proof of library sign-off.

Just a note: On the forms for 445,475 & 485 it says that the courses are "included in the list" on the Library Course Assessment page, but in fact they were not, so I added them now. All seven proposals are now ready to go to SCUS. Please let me know if you have any questions.

Cheers,
Ivana

Ivana Niseteo, MA, MLIS
Collections Librarian
Liaison Librarian for Linguistics, French, Humanities, French Cohort in Arts
Bennett Library, Simon Fraser University
Tel: 778.782.6838 | Fax: 778.782.6926 | iniseteo@sfu.ca

Date: Tue, 13 Mar 2012 10:32:02 -0700 (PDT)
From: Paul Budra <budra@sfu.ca>
To: Rosemary Hotell <hotell@sfu.ca>
Subject: Re: STAT 645,675,685
X-Originating-IP: [142.58.146.227]

No overlap with FASS!

Paul Budra
Associate Dean
Faculty of Arts and Social Sciences
Simon Fraser University
778-782-4416; www.sfu.ca/personal/budra

_____

From: "Rosemary Hotell" <hotell@sfu.ca>
To: fgsc-list@sfu.ca
Sent: Tuesday, 13 March, 2012 10:10:39
Subject: STAT 645,675,685

Please check the new courses for overlap. The forms and outlines are
attached.

Rosemary

--

Rosemary Hotell
Dean of Science Office, TASC2 9905
Simon Fraser University
Telephone: 778.782.3772
Fax: 778.782.3424

Robin Insley   Help   Log Out

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Search

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Close   Re: New Time Series Course

1 March, 2012 09:50

From: Robin Insley

To: Marie Rekkas

Thanks Marie.

----- Original Message -----
From: "Marie Rekkas" <mrekkas@sfu.ca>
To: "Robin Insley" <insley@sfu.ca>
Cc: "Marie Rekkas" <mrekkas@sfu.ca>
Sent: Thursday, 1 March, 2012 7:06:15 AM
Subject: Re: New Time Series Course

Hi Robin,

I have reviewed the material as well as consulted with the relevant
person responsible for teaching time series in our department. Ramo
Gencay teaches ECON 484. Some years he teaches ECON 484 as a time series
course and other years as a financial econometrics course. When ECON 484
is taught as a time series course, there is 100% overlap with your new
course proposed in time series.

Marie

Marie Rekkas
Associate Professor and Undergraduate Chair
Department of Economics
Simon Fraser University
8888 University Drive
Burnaby, BC V5A 1S6

tel: 778.782.6793
fax: 778.782.5944
web: www.sfu.ca/~mrekkas

On 29/02/2012 6:31 PM, Robin Insley wrote:
> Hi Marie: I've left some written material with Gwen Wild to forward to you. We, The Statistics and
> Actuarial Science department, are revamping our undergraduate program and part of this involves the
> introduction of a new course in Time Series. For us to proceed we must consult all departments offering
> courses that contain material similar to the material contained in our proposed course. I know that
> Economics does offer a course in Time Series. I would appreciate it if you or someone in the Economics
> department would review the material I sent and get back to me on the overlap of topics and any concerns
> that you may have. Thanks for your help.
>
> Cheers, Robin

Folders

- Inbox (15)
- Sent
- Drafts
- Junk
- Trash (11)

Main Files
- ACMA 210 (1)
- Advising
- Advisor Information
- Awards (9)
- BCCUPM (10)
- Calendar
- Calendar changes (2)
- classists (1)
- computer info
- Dept Meetings (8)
- Distance Education (1)
- Exchanges
- FIC
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- Health Science
- High School Liaison (1
- IMPORTANT
- Info
- International students
- Junk (1)
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- Open House
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- Paul (38)
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- Recruitment (62)
- Robin
- safety
- Seminars
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- Stats 100
- Stats 100 Surrey
- Stats 101
- Stats 201

March 2012

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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

Subject: Re: STAT 645,675,685
From: Marek Hatala <mhatala@sfu.ca>
Date: Tue, 13 Mar 2012 10:22:35 -0700
Cc: Marek Hatala <mhatala@sfu.ca>
To: Rosemary Hotell <hotell@sfu.ca>, Sheilagh MacDonald <sheilagh@sfu.ca>

Hi Rosemary, no overlap with FCAT grad courses.

Marek

Dr. Marek Hatala
:: Associate Professor and Acting Associate Dean for Graduate Studies
:: School of Interactive Arts and Technology, Faculty of Communication,
Art & Technology
:: SIMON FRASER UNIVERSITY, 250-13450 102 Ave., Surrey, BC V3T 0A3,
Canada
:: Email: mhatala@sfu.ca, Web: http://www.sfu.ca/~mhatala/
:: Phone: 1.778.782.7431, Fax: 1.778.782.7478

On 2012-03-13, at 10:10 AM, Rosemary Hotell wrote:

> Please check the new courses for overlap. The forms and outlines are
attached.
>
> Rosemary
>
> --
>
> Rosemary Hotell
> Dean of Science Office, TASC2 9905
> Simon Fraser University
> Telephone: 778.782.3772
> Fax: 778.782.3424
> <Sdean-ptr.s12031214390.pdf>