SFU GRADUATE STUDIES AND POSTDOCTORAL FELLOWS

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MEMORANDUM

ATTENTION	Senate	DATE	November 17, 2016
FROM	Wade Parkhouse, Chair of Senate Graduate Studies Committee (SGSC)	No.	GS2016.38
RE:	Beedie School of Business		

For information:

Acting under delegated authority at its meeting of November 7, 2016, SGSC approved the following curriculum changes, **effective Fall 2017**:

Beedie School of Business

a) New course: BUS 698 Orientation Retreat * BUS 698 has been changed to BUS 699 SN
b) New course: BUS 877 Mathematics for Computational Finance] effective Summer 2017
c) New course: BUS 878 Statistics for Financial Economics
d) Program change: Executive Master of Business Administration
e) Program change: Master of Science in Finance

SFU BEEDIE SCHOOL OF BUSINESS

Segal Graduate School | Office of the Associate Dean, 500 Granville Street, Vancouver, BC V6C 1W6 | TEL 778.782.9255, FAX 778.782.5122 | busadmin@sfu.ca

Memo to SGSC

To: **Senate Graduate Studies Committee**
From: **Ian McCarthy, Associate Dean, Graduate Programs**
Re: **Curriculum revisions to Executive MBA and MSc Finance**
Date: **October 20, 2016**

The following curriculum revisions have been approved by the Beedie School of Business and are forwarded to the Senate Graduate Studies Committee for approval. These curriculum items should be effective for Summer 2017.

Please include them on the next SGSC agenda.

- **New Course: BUS 698, 877, 878**
- **Program changes: Executive MBA, MSc Finance**
- **MSc Finance calendar entry have been reformatted according to the new standardized format being implemented with the degree audit project and some clean-up issues were also addressed**

Thank you for your attention herein. Should you have any questions or concerns, please do not hesitate to contact me.

Dr. Ian P. McCarthy
Professor in Technology & Operations Management
Associate Dean, Graduate Programs, Beedie School of Business

SIMON FRASER UNIVERSITY
GRADUATE STUDIES & POSTDOCTORAL FELLOWS

New Graduate Course Proposal

Please save the form before filling it out to ensure that the information will be saved properly.

Course Subject (eg. PSYC)	Number (eg. 810)	Units (eg. 4)
BUS	698	0.

Course title (max 100 characters including spaces and punctuation)
Orientation Retreat

Short title (for enrollment/transcript - max 30 characters)
Orientation Retreat

Course description for SFU Calendar *
An intensive 3-day program of experiential activities to develop knowledge, skills, and strategies for success in a team-based learning environment. This course is graded on the satisfactory/unsatisfactory basis.

Rationale for introduction of this course
The program is a part-time MBA for Executives. It is an intense program from the start, which entails we have to prepare the individuals, the team and the cohort well in advance to set the expectations of the program. More importantly, we need to also set an atmosphere of trust between team members and members of the cohort. One of the most essential elements to create a learning environment that will lead to behavioral change is the EMBA Orientation Retreat. Not taking part in it is detrimental for the participant, his/her team and the cohort. We therefore propose to make this a mandatory component of the Program.

Effective term and year	Course delivery (eg 3 hrs/week for 13 weeks)
Fall 2017	3 days
Frequency of offerings/year: 1	Estimated enrollment/offering: 45

Equivalent courses (These are previously approved courses that replicate the content of this course to such an extent that students should not receive credit for both courses.)
None

Prerequisite and/or Corequisite **
Admission to the EMBA program

Criminal record check required? ☐ Yes ☑ No If yes, then add this requirement as a prerequisite.

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

Course Components ☐ Lecture ☐ Seminar ☐ Lab ☐ Research ☐ Practicum ☐ Online ☑ intensive retreat

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

Capstone course? ☐ Yes ☑ No

Repeat for credit? *** ☐ Yes ☑ No

Total completions allowed? _____

Repeat within a term? ☐ Yes ☑ No

Required course? ☑ Yes ☐ No

Final exam required? ☐ Yes ☑ No

Additional course fees? ☐ Yes ☑ No

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

* 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.
** If a course is only available to students in a particular program, that should be stated in the prerequisite.
*** This mainly applies to a Special Topics or Directed Readings course.

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

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Beedie Graduate Programs	Maria Szymczak	busgrcrd@sfu.ca

DEPARTMENTAL APPROVAL

REMINDER: New courses must be identified on a cover memo and confirmed as approved when submitted to FGSC/SGSC. Remember to also include the course outline.

Non-departmentalized faculties need not sign

Department Graduate Program Committee Ian McCarthy	Signature I.F. McCarthy	Date October 17, 2016
Department Chair Ian McCarthy for Jan Simon	Signature I.F. McCarthy	Date October 17, 2016

LIBRARY REVIEW

Library review done? ☑ YES

Course form, outline, and reading list must be sent by FGSC to lib-courseassessment@sfu.ca for a review of library resources.

OVERLAP CHECK

Overlap check done? ☑ YES ☐ N/A

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. An overlap check is not required for some courses (ie. Special Topics, Capstone, etc.)

FACULTY APPROVAL

This 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 Studies Committee (FGSC) Ian McCarthy	Signature I.F. McCarthy	Date October 17, 2016

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC) Wade Parkhouse	Signature	Date NOV 17 2016

ADMINISTRATIVE SECTION (for DGS office only)

Course Attribute: _____
Course Attribute Value: _____
Instruction Mode: _____
Attendance Type: _____

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

BEEDIE SCHOOL OF BUSINESS
SIMON FRASER UNIVERSITY

EMBA Program

BUS 698: Orientation Retreat

Instructor: Dr. Carolyn Egri
Email: egri@sfu.ca

Semester: Fall 2017

COURSE DESCRIPTION

The EMBA orientation retreat is an intensive 3-day program for students to learn about each other in the cohort and to develop strategies for success in the Executive MBA program. Through experiential learning and team building activities, students develop understanding and skills for contributing effectively in team-based learning environments. A panel of current/former EMBA students will share their insights for program success and how to balance one's work/school/personal life portfolio during the EMBA program. Students will also learn about EMBA academic expectations as well as administrative resource support.

OBJECTIVES

- Learn about other EMBA cohort members and create the foundation for effective team-based learning.
- Develop increased understanding of how personal styles contribute to individual and team-based performance throughout the EMBA experience.
- Develop individual and team strategies for EMBA program success.
- Learn about EMBA academic expectations and administrative resources.

BOOK AND MATERIALS

Materials provided during sessions.

LEARNING AND ASSESSMENT

Assessment

Course assessment is satisfactory/unsatisfactory based on full participation in orientation activities.

Course Structure

The course is presented over three days. The sessions feature highly interactive individual and team experiential activities, case analyses, student presentations, and information sessions.

The course will take place at an off-campus location.

Copyright

About the course instructor

See https://beedie.sfu.ca/profiles/CarolynEgri

SIMON FRASER UNIVERSITY
GRADUATE STUDIES & POSTDOCTORAL FELLOWS

New Graduate Course Proposal

Please save the form before filling it out to ensure that the information will be saved properly.

Course Subject (eg. PSYC)	Number (eg. 810)	Units (eg. 4)
BUS	877	3

Course title (max 100 characters including spaces and punctuation)
Mathematics for Computational Finance

Short title (for enrollment/transcript - max 30 characters)
Math for Cmpt Finance

Course description for SFU Calendar *
Provides students with a review of the fundamentals of the mathematics that they will be expected to know to be successful in the broader M.Sc. in Finance program. Many of the examples and exercises used will be motivating using common problems encountered in portfolio construction and analysis, econometrics, and option pricing. This course is graded on the satisfactory/unsatisfactory basis and may be waived by successfully passing a challenge exam prior to the start of the program.

Rationale for introduction of this course
To turn the optional preparatory courses into required courses. Mandatory courses will ensure all students have the same basic understanding of these topics; our instructors expect our students enter the classroom with this knowledge when their course is taken.

Effective term and year: Summer 2017	Course delivery (eg 3 hrs/week for 13 weeks): 3 hrs/week for 13 weeks
Frequency of offerings/year: 1	Estimated enrollment/offering: 45

Equivalent courses (These are previously approved courses that replicate 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 ☑ No If yes, then add this requirement as a prerequisite.

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

Course Components ☑ Lecture ☐ Seminar ☐ Lab ☐ Research ☐ Practicum ☐ Online ☐ _____

Grading Basis ☐ Letter grades ☑ Satisfactory/Unsatisfactory ☐ In Progress/Complete		Capstone course? ☐ Yes ☑ No
Repeat for credit? *** ☐ Yes ☑ No	Total completions allowed? _____	Repeat within a term? ☐ Yes ☑ No
Required course? ☑ Yes ☐ No	Final exam required? ☐ Yes ☑ No	Additional course fees? ☐ Yes ☑ No

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

* 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.
** If a course is only available to students in a particular program, that should be stated in the prerequisite.
*** This mainly applies to a Special Topics or Directed Readings course.

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

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Beedie Graduate Programs	Sharan Minhas	busarcrd@sfu.ca

DEPARTMENTAL APPROVAL

REMINDER: New courses must be identified on a cover memo and confirmed as approved when submitted to FGSC/SGSC. Remember to also include the course outline.

Non-departmentalized faculties need not sign

Department Graduate Program Committee Ian McCarthy	Signature	Date September 15, 2016
Department Chair Ian McCarthy for Jan Simon	Signature	Date September 15, 2016

LIBRARY REVIEW

Library review done? ☑ YES

Course form, outline, and reading list must be sent by FGSC to lib-courseassessment@sfu.ca for a review of library resources.

OVERLAP CHECK

Overlap check done? ☑ YES ☐ N/A

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. An overlap check is not required for some courses (ie. Special Topics, Capstone, etc.)

FACULTY APPROVAL

This 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 Studies Committee (FGSC) Ian McCarthy	Signature	Date September 20 2016

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC) Wade Parkhouse	Signature	Date NOV 17 2016

ADMINISTRATIVE SECTION (for DGS office only)

Course Attribute: _____
Course Attribute Value: _____
Instruction Mode: _____
Attendance Type: _____

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

BEEDIE SCHOOL OF BUSINESS
SIMON FRASER UNIVERSITY

M.Sc. Finance Program

BUS 877: Mathematics for Computational Finance

Instructor: Dr. Phil Goddard
Email: goddard@sfu.ca

Semester: Fall 2017
LMS: canvas.sfu.ca

COURSE DESCRIPTION

The field of computational finance is highly mathematical. Hence practitioners must have a strong understanding of topics from linear algebra and calculus including vector and matrix mathematics, continuous and discrete functions, differentiation and integration of functions of one or more variables, and optimization.

This course is designed to provide students with a review of the fundamentals of the mathematics that they will be expected to know to be successful in the broader M.Sc. in Finance program. Many of the examples and exercises used will be motivated using common problems encountered in portfolio construction and analysis, econometrics, and option pricing.

OBJECTIVES

To provide a review of linear algebra, continuous and discrete functions, and optimization, through discussing the following topics,

- Linear algebra, vectors and matrices
- Functions of one variable
- Differentiation and integration
- Functions of several variables
- Exponential, logarithmic and trigonometric functions
- Difference equations and discrete sequences
- Zeroes of Polynomials
- Taylors series expansion
- Unconstrained Optimization
- Constrained Optimization

BOOK AND MATERIALS

The material covered is taken from texts that are freely available for download as eResources from the SFU library.

Chapters 5 and 6 of the following book should be read prior to the course commencing:

Foundations of Mathematics and Computational Economics, K. Dadkhah, Springer, ISBN: 978-3-642-13748-8.

Other relevant books used during the course, and available as eResources, are:

Calculus with Applications, P.D. Lax and M.S. Terrell, Springer, ISBN: 978-1-4614-7946-8.
Elementary Analysis, P.D. Lax and M.S. Terrell, Springer, ISBN: 978-1-4614-6271-2.
A Concise Introduction to Linear Algebra, G. Schay, Springer, ISBN: 978-0-8176-8325-2.
Applied Linear Algebra and Matrix Analysis, T.S. Shores, Springer, ISBN: 978-0-387-48947-6.

Additional printed resources relevant to the course are:

Essential Mathematics for Economic Analysis, K. Sydsater, and P. Hammond, Prentice Hall, 2002.
Mathematics for Economics, M. Hoy, MIT Press, 2001.
Foundations of Mathematical Economics, M. Carter, MIT Press, 2001.
Economic Methods, J. Dinardo, et.al, McGraw Hill, 1996 (Appendix B only).

LEARNING AND ASSESSMENT

Assessment

This course is based on the satisfactory/unsatisfactory component.

Course Structure

The course is presented over 10 half day sessions, with each session comprising a combination of lecture material, simple examples, and short exercises. The sessions are hands-on and highly interactive, with attendees encouraged to participate in discussions and present their results to the exercises.

The course will take place in the SFU Computer Laboratory with MATLAB being the primary computation environment.

Copyright

About the course instructor

See www.goddardconsulting.ca/about.html

SIMON FRASER UNIVERSITY
GRADUATE STUDIES & POSTDOCTORAL FELLOWS

New Graduate Course Proposal

Please save the form before filling it out to ensure that the information will be saved properly.

Course Subject (eg. PSYC)	Number (eg. 810)	Units (eg. 4)
BUS	878	3

Course title (max 100 characters including spaces and punctuation)
Statistics for Financial Economics

Short title (for enrollment/transcript - max 30 characters)
Stats for Financial Econ

Course description for SFU Calendar *
Provide students with a review of the fundamentals of random variables and statistics that they will be expected to know to be successful in the broader M.Sc. in Finance program. Covering topics such as regression, estimation, simulation and hypothesis testing, the course examples and exercises provide a foundation on which to build a greater understanding of economic analysis and forecasting. This course is graded on the satisfactory/unsatisfactory basis and may be waived by successfully passing a challenge exam prior to the start of the program.

Rationale for introduction of this course
To turn the optional preparatory courses into required courses. Mandatory courses will ensure all students have the same basic understanding of these topics; our instructors expect our students enter the classroom with this knowledge when their course is taken.

Effective term and year	Course delivery (eg 3 hrs/week for 13 weeks)
Summer 2017	3 hrs/week for 13 weeks
Frequency of offerings/year	**Estimated enrollment/offering**
1	45

Equivalent courses (These are previously approved courses that replicate 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 ☑ No If yes, then add this requirement as a prerequisite.

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

Course Components ☑ Lecture ☐ Seminar ☐ Lab ☐ Research ☐ Practicum ☐ Online ☐ _____

Grading Basis ☐ Letter grades ☑ Satisfactory/Unsatisfactory ☐ In Progress/Complete		Capstone course? ☐ Yes ☑ No
Repeat for credit? *** ☐ Yes ☑ No	Total completions allowed? _____	Repeat within a term? ☐ Yes ☑ No
Required course? ☑ Yes ☐ No	Final exam required? ☐ Yes ☑ No	Additional course fees? ☐ Yes ☑ No

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

* 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.
** If a course is only available to students in a particular program, that should be stated in the prerequisite.
*** This mainly applies to a Special Topics or Directed Readings course.

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

CONTACT PERSON

Department / School / Program	Contact name	Contact email
BUS	Sharan Girn	busarcrd@sfu.ca

DEPARTMENTAL APPROVAL

REMINDER: New courses must be identified on a cover memo and confirmed as approved when submitted to FGSC/SGSC. Remember to also include the course outline.

Non-departmentalized faculties need not sign

Department Graduate Program Committee Ian McCarthy	Signature I.F. Willis	Date September 14 2016
Department Chair Ian McCarthy for Jan Simon	Signature I.F. Willis	Date September 14 2016

LIBRARY REVIEW

Library review done? ☑ YES

Course form, outline, and reading list must be sent by FGSC to lib-courseassessment@sfu.ca for a review of library resources.

OVERLAP CHECK

Overlap check done? ☑ YES ☐ N/A

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. An overlap check is not required for some courses (ie. Special Topics, Capstone, etc.)

FACULTY APPROVAL

This 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 Studies Committee (FGSC)	Signature	Date
Ian McCarthy	I.F. Willis	September 20 2016

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
		NOV 17 2016

ADMINISTRATIVE SECTION (for DGS office only)

Course Attribute: _____
Course Attribute Value: _____
Instruction Mode: _____
Attendance Type: _____

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

BEEDIE SCHOOL OF BUSINESS
SIMON FRASER UNIVERSITY

M.Sc. Finance Program

BUS 878: Statistics for Financial Economics

Instructor: Dr. Phil Goddard
Email: goddard@sfu.ca

Semester: Fall 2017
LMS: canvas.sfu.ca

COURSE DESCRIPTION

Practitioners within the field of econometrics, and more generally computational finance, must have a strong foundation in statistics and statistical analysis.

This course is designed to provide students with a review of the fundamentals of random variables and statistics that they will be expected to know to be successful in the broader M.Sc. in Finance program.

The core focus is on general statistics topics such as the properties of various discrete and continuous distributions, descriptive statistics and conditional probabilities. These concepts are motivated in the framework of computational finance by looking at examples from a range of applications including regression, estimation, simulation and hypothesis testing.

OBJECTIVES

To provide a review of the fundamentals of statistical analysis for econometrics through discussing the following topics,

- Random variables and probability distributions
- Discrete and continuous distributions
- Expectation, variance, covariance and correlation
- Visualization
- Conditional probabilities and independence
- Central limit theorem and Law of Large Numbers

Examples and exercises will focus on motivating the above topics by discussing their application to common econometrics tasks such as,

- Linear regression
- Hypothesis testing and ANOVA
- Time Series Analysis
- Bootstrapping and Simulation

BOOK AND MATERIALS

The material covered is taken from texts that are freely available for download as eResources from the SFU library.

Chapters 1 and 2 of the following book should be read prior to the course commencing:

A Modern Introduction to Probability and Statistics, F.M. Dekking, et.al, Springer, ISBN: 978-1-84628-168-6.

Material will also be drawn from the following book, which is also available as an eResource:

Mathematical Statistics for Economics and Business, R.C. Mittelhammer, Springer, ISBN: 978-1-4614-5022-1.

Additional printed resources relevant to the course are:

Economic Models and Econometric Forecasts, R. Pindyck, and D. Rubinfeld, McGraw-Hill, 2002.
Mathematics for Economics, M. Hoy, MIT Press, 2001.
Economic Analysis, W. Greene, Prentice Hall, 2012.

LEARNING AND ASSESSMENT

Assessment

This course is based on the satisfactory/unsatisfactory component.

Course Structure

The course is presented over 10 half day sessions, with each session comprising a combination of lecture material, simple examples, and short exercises. The sessions are hands-on and highly interactive, with attendees encouraged to participate in discussions and present their results to the exercises.

The course will take place in the SFU Computer Laboratory with MATLAB being the primary computation environment.

Copyright

About the course instructor

See www.goddardconsulting.ca/about.html

Calendar Entry Change for SFU's Beedie School of Business' Executive MBA Program

Summary of change: *The Executive MBA Orientation Retreat has been a component of the program for a number of years. We currently request all students in the program to attend the retreat but lack the ability to enforce this request. We propose to make the Orientation Retreat a course and required component of the program.* *As the Executive MBA program fees are charged by semester (not by credit), there will be no increase to the cost of the program as a result of creating this course.*
Rationale for change: *The program is a part-time MBA for Executives. It is an intense program from the start, which entails we have to prepare the individuals, the team and the cohort well in advance to set the expectations of the program. More importantly, we need to also set an atmosphere of trust between team members and members of the cohort. One of the most essential elements to create a learning environment that will lead to behavioral change is the Orientation Retreat. Not taking part in it is detrimental for the participant, his/her team and the cohort. We therefore propose to make this a mandatory component of the Program.*
Effective term and year: *Summer 2017*
Will this change impact current students? If yes, what is the plan for current students? *No*

FROM	TO
Program Requirements To qualify for the Executive Master of Business Administration Degree, students must maintain a minimum average grade of B (3.0 GPA) and complete a minimum of 52 units from the following list or other courses graduate business courses approved by the program. In their final semester, students have the option of completing an Applied Project or the Comprehensive Exam plus two additional courses.	Program Requirements To qualify for the Executive Master of Business Administration Degree, students must maintain a minimum average grade of B (3.0 GPA) and complete a minimum of 52 units from the following list or other courses graduate business courses approved by the program. In their final semester, students have the option of completing an Applied Project or the Comprehensive Exam plus two additional courses.

BUS 602 - International Management (4)	**BUS 698 – Orientation Retreat (0)***
BUS 603 - Structure and Change in Organizations (4)	BUS 602 - International Management (4)
BUS 606 - Finance (4)	BUS 603 - Structure and Change in Organizations (4)
BUS 607 - Strategy (4)	BUS 606 - Finance (4)
BUS 610 - Directed Studies in Business Administration (2)	BUS 607 - Strategy (4)
BUS 611 - Directed Studies in Business Administration (4)	BUS 610 - Directed Studies in Business Administration (2)
BUS 612 - Directed Studies in Business Administration (4)	BUS 611 - Directed Studies in Business Administration (4)
BUS 615 - Marketing Management (4)	BUS 612 - Directed Studies in Business Administration (4)
BUS 621 - Information Technology and Organizational Transformation (4)	BUS 615 - Marketing Management (4)
BUS 632 - Operations Management (2)	BUS 621 - Information Technology and Organizational Transformation (4)
BUS 635 - Operational Finance (2)	BUS 632 - Operations Management (2)
BUS 636 - Corporate Finance (2)	BUS 635 - Operational Finance (2)
BUS 637 - Marketing Management (2)	BUS 636 - Corporate Finance (2)
BUS 638 - Marketing Strategy (2)	BUS 637 - Marketing Management (2)
BUS 639 - Financial Statement Analysis (2)	BUS 638 - Marketing Strategy (2)
BUS 640 - Managerial Accounting (2)	BUS 639 - Financial Statement Analysis (2)
BUS 641 - Cross Cultural Management (2)	BUS 640 - Managerial Accounting (2)
BUS 642 - International Business (2)	BUS 641 - Cross Cultural Management (2)
BUS 643 - Entrepreneurship (2)	BUS 642 - International Business (2)
BUS 644 - Entrepreneurial Finance (2)	BUS 643 - Entrepreneurship (2)
BUS 645 - Capstone Simulation (2)	BUS 644 - Entrepreneurial Finance (2)
BUS 646 - Managing Innovation (2)	BUS 645 - Capstone Simulation (2)
BUS 650 - Business Ethics (2)	BUS 646 - Managing Innovation (2)
BUS 651 - Managerial Economics (4)	BUS 650 - Business Ethics (2)
BUS 652 - Special Topics in Business Administration (3)	BUS 651 - Managerial Economics (4)
BUS 653 - Special Topics in Business Administration (2)	BUS 652 - Special Topics in Business Administration (3)
BUS 654 - Special Topics in Business Administration (2)	BUS 653 - Special Topics in Business Administration (2)
BUS 655 - Special Topics in Business Administration (2)	BUS 654 - Special Topics in Business Administration (2)

BUS 660 - Special Topics in Business Administration (4) BUS 661 - Special Topics in Business Administration (4) BUS 662 - Negotiations (2) BUS 663 - Special Topics in Business Administration (4) BUS 664 - New Ventures (4) BUS 670 - Accounting for Decision Making (4) BUS 681 - Leadership and Teamwork (4) BUS 689 - Special Topics in Business Administration (3) BUS 691 - Business, Community and Government (4) BUS 696 - Applied Project (6) The program may substitute, at the discretion of the academic chair, equivalent courses from another Simon Fraser University graduate program for the 600 division courses listed above. [...]	BUS 655 - Special Topics in Business Administration (2) BUS 660 - Special Topics in Business Administration (4) BUS 661 - Special Topics in Business Administration (4) BUS 662 - Negotiations (2) BUS 663 - Special Topics in Business Administration (4) BUS 664 - New Ventures (4) BUS 670 - Accounting for Decision Making (4) BUS 681 - Leadership and Teamwork (4) BUS 689 - Special Topics in Business Administration (3) BUS 691 - Business, Community and Government (4) BUS 696 - Applied Project (6) BUS 698 – Orientation Retreat (0.5)* ***BUS 698 is a prerequisite for all courses in this program** The program may substitute, at the discretion of the academic chair, equivalent courses from another Simon Fraser University graduate program for the 600 division courses listed above. [...]
Executive Master of Business Administration in Aboriginal Business and Leadership The Aboriginal business and leadership cohort of the EMBA provides the EMBA cohort experience for Aboriginal community leaders, those working in Aboriginal businesses or economic development corporations, or working in organizations with significant involvement with Aboriginal communities. Course delivery will be customized to accommodate the more diverse regional nature of the participants. PROGRAM REQUIREMENTS To qualify for the Executive Master of Business Administration in Aboriginal Business and Leadership degree, students	Executive Master of Business Administration in Aboriginal Business and Leadership The Aboriginal business and leadership cohort of the EMBA provides the EMBA cohort experience for Aboriginal community leaders, those working in Aboriginal businesses or economic development corporations, or working in organizations with significant involvement with Aboriginal communities. Course delivery will be customized to

must maintain a minimum average grade of B (3.0 GPA) and complete a minimum of 52 units from the courses listed above. [...]	accommodate the more diverse regional nature of the participants. PROGRAM REQUIREMENTS To qualify for the Executive Master of Business Administration in Aboriginal Business and Leadership degree, students must maintain a minimum average grade of B (3.0 GPA) and complete a minimum of 52 units from the courses listed above. **BUS 698 is not a prerequisite course in the Aboriginal Business and Leadership cohort.** [...]

Program Requirement Change for Master of Science in Finance (MSc Fin)

Summary of change:

1. To provide students in the MSc Finance program with two new for credit courses:
   i. BUS 877 (3) *Mathematics for Computational Finance*.
   ii. BUS 878 (3) Statistics for Financial Economics

   At the approval of the Director, students with an undergraduate degree in mathematics, engineering, physics, computer science or other mathematical discipline with a CGPA of 3.0 or higher will receive advance credit. Students also have the option to challenge the courses by writing and passing a challenge exam; the challenge exam will be offered in August, prior to the new cohort starting the program.

2. Update entire MSc Finance calendar entry to reflect the recommended language per the Degree Audit: the calendar entries have been reformatted according to the new standardized format being implemented with the degree audit project and some clean-up issues were also addressed.

Rationale for change:

- The program currently offers optional preparatory courses in Statistics for Financial Economics and Mathematics for Computational Finance. Students currently have the option to take these two courses at the end of August as a way to prepare them quantitatively for the start of the program in September. We propose to makes these courses required credit courses within the duration of the program.

- After reviewing feedback from students, instructors recognized that students are entering the program with more diverse backgrounds and therefore, the bottom performing students are not adequately prepared for the quantitative nature of the program. The optionality of taking these courses in August means students in September start at different levels of understanding basic math and statistics for finance. The program needs to better prepare them in this regard. Mandatory courses will ensure all students have the same basic understanding of these topics, and help prepare students that may struggle through the program.

- For students who do not pass the Challenge Exam, these two courses will increase tuition of the 2017/2018 MSc Finance program by:
  - $3922.80 for domestic students (6 credits x $653.80, assumes the 2% tuition increase in 17/18).
  - $4903.50 for international students (6 credits x $817.25, assumes the 2% tuition increase in 17/18)

  We feel this increase in tuition is justified as a student who lacks the mathematical background to successfully pass the Challenge Exam needs the support to be prepared for the quantitative nature of the program: these courses will provide that support. It is important to note that only students who do not pass the Challenge Exam will incur the increase in tuition.

- The following chart identifies the tuition fees of similar programs across Canada for students entering September 2017. While the proposed courses would increase the cost of the MSc Finance by over 11%, the program will remain among one of the most affordable in the country (for both domestic and international students).

Program	Duration	Tuition Domestic/Intl (2016 intake)	Tuition Domestic/Intl (2017 intake)	% increase Domestic (from 2016 tuition)	% increase Intl (from 2016 tuition)	Reference
Master of Finance (Schulich)	12 months	$34,500/$43,400	$57,000/$73,000	65.22%	68.20%	http://schulich.yorku.ca/admissions/tuition-fees-costs/
Master of Finance (DeGroote)	12 or 16 months	$37,800/$37,800	$41,673/$41,673	10.25%	10.25%	http://mfin.degroote.mcmaster.ca/fees-and-funding/
Master of Finance (Rotman)	20 months	$90,000/$107,000	$93,290/$110,170	3.66%	2.96%	file:///C:/Users/busarcrd/Downloads/Mfin_Brochure2016.pdf
Master of Finance (Smith)	12 months	$39,000/$64,000	$40,845/$65,035	4.73%	1.62%	https://smith.queensu.grad_studies/mfin/admissions_and_fees/fees.php
Master of Finance (Lazaridis)	20 months	$24,000/$37,000	$25,039/$39,909	4.33%	7.86%	https://www.wlu.ca/graduate-and-postdoctoral-studies/tuition-and-fees.html
Master of Finance (Sobey)	12 months	$34,000/$37,500	$36,070/$41,850	6.09%	11.60%	http://www.smu.ca/academics/sobey/mfin-tuition-and-fees.html
Master of Science in Finance (Beedie)	16 months	$28,868/$36,199	$33,461/ $41,827	11.03%	11.70%	http://beedie.sfu.ca/MSc-Finance/

- Similar programs across Canada that institute a mandatory preparatory course(s) for their programs are:

1. **Master of Finance – Schulich School of Business – York University**
   MFIN 5100 3.00 CAPITAL MARKETS (The Master of Finance program spans three terms and begins each August with Capital Markets (MFIN 5100 3.00). This three-week intensive fundamental course sets the stage for the upcoming terms and core courses; This course provides an in-depth analysis of the foundations of the capital markets, financial securities, empirical work, and practice. This first finance course in the Master in Finance programme provides the basic economic intuition and fundamental derivations of financial models and valuation framework, as well as the essential practical side of the concepts and financial models. Prerequisites: A working knowledge of calculus and basic econometrics (OLS regressions) will be necessary.)

2. **Master of Finance – Rotman School of Management – University of Toronto**
   RSM 4310 Foundations of Finance (This course is the foundation for the future specialized MFin finance courses. It introduces the field of finance, provides an overview of its components, examines connections between different areas of finance, and most importantly it provides the analytical, conceptual, and empirical foundations of modern business finance. In addition to the fundamental introduction, the course will develop the tools and skills students need for their future finance classes. These include: (i) advanced time-value of money computations; (ii) valuation

methodologies for projects, firms, and financial securities; (iii) risk-return theory and portfolio theory; and (iv) foundations for corporate financing decisions.)
Effective term and year: Summer 2017
Will this change impact current students? If yes, what is the plan for current students? No. This impact will only affect student incoming for the 2017/18 Academic years and after.

Please note:

To view the Summer 2016 Academic Calendar go to http://www.sfu.ca/students/calendar/2016/summer.html

Finance

MASTER OF SCIENCE

The Master of Science in Finance program at the Segal Graduate School equips students with the tools needed to manage investments and risk in a rapidly changing world. Designed to meet the increasing global demand for skilled risk management and investment management professionals, the program provides a unique blend of rigorous training and real-world experience. Visiting finance professionals contribute an invaluable practical component to the program. Students also have an unparalleled opportunity to gain hands-on experience by managing an investment portfolio with a market value in excess of $10 million.

Applicants should also refer to the program website www.beedie.sfu.ca/MSc-Finance.

Admission Requirements

Admission is based on the following:

Students can apply online at Simon Fraser University's online Graduate Studies application for admission, found at http://www.sfu.ca/dean-radstudies/prosp_students/application_process/

MSc in Finance program application essay, found at www.beedie.sfu.ca/MSc-Finance.

Official undergraduate transcripts mailed directly from the granting institution. An undergraduate degree in business, commerce, economics, mathematics, physics or other suitable quantitatively oriented programs is required. Candidates holding a professional designation such as a PRM or FRM and evidence of strong mathematics competency would also be ideal candidates. Students with a strong mathematical aptitude who have completed the graduate diploma in business administration offered by the University would be qualified for admission consideration

A resume

Three confidential letters of reference mailed directly from the referees, preferably from supervisors or former professors

Graduate management admission test (GMAT) results

Applicants whose primary language is not English, or whose previous education was conducted in another language, must submit evidence of satisfactory completion of a standardized English test that is acceptable to the University (see 1.3.12 English Language Competency.)

Interview (shortlisted candidates only)

Application

Students can apply online at Simon Fraser University's online graduate studies application for admission, found at http://www.sfu.ca/dean-gradstudies/prosp-students/application_process.

Program Requirements

A minimum 3.0 grade point average (B grade) is required and completion of a minimum of 45 units from the following course list including BUS 870.

BUS 801 - Financial Modeling Tools (3)
BUS 802 - Financial Economics I (3)
BUS 803 - Financial Econometrics (3)
BUS 805 - Financial Economics II (3)
BUS 809 - Equity Security Analysis and Portfolio Management I (3)
BUS 810 - Fixed Income Security Analysis and Portfolio Management (3)
BUS 814 - Derivative Securities I (3)
BUS 816 - Strategic Asset Allocation (3) *
BUS 818 - Derivative Securities II (3)
BUS 823 - Equity Security Analysis and Portfolio Management II (3) *
BUS 824 - Law and Regulation of Financial Institutions (3)
BUS 825 - Financial Statement Analysis (3)
BUS 826 - Portfolio Theory and Asset Pricing (3) *
BUS 857 - Numerical Methods (3)
BUS 864 - Credit Risk Management (3) **
BUS 865 - Market Risk Management (3) **
BUS 866 - Enterprise Risk Management (3) **
BUS 867 - Accounting for Financial Instruments (3)
BUS 870 - Final Project for Financial Risk Management Students (3)
BUS 875 - International Accounting (4)
BUS 880 - Student Investment Advisory Service Internship (0) ***

Other graduate courses may be substituted for the courses listed above at the discretion of the academic director.

* students in the investment management stream complete BUS 826, 816 and 823

** students in the risk management stream complete BUS 864, 865, and 866

*** Students must be enrolled in BUS 880 no later than the second term of enrolment and throughout the program in order to successfully complete the course.

Graduate Diploma in Financial Engineering

The Graduate Diploma in Financial Engineering is designed for students in the MSc in Finance program who are seeking to deepen their theoretical understanding of relevant statistical and mathematical concepts.

Academic Requirements within the Graduate General Regulations

All graduate students must satisfy the academic requirements that are specified in the graduate general regulations, as well as the specific requirements for the program in which they are enrolled, as listed above.

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REVISED
CALENDAR ENTRY

Finance

MASTER OF SCIENCE

Description of Program

The master of science in finance program at the Segal Graduate School equips students with the tools needed to manage investments and risk in a rapidly changing world. Designed to meet the increasing global demand for skilled risk management and investment management professionals, the program provides a unique blend of rigorous training and real-world experience. Visiting finance professionals contribute an invaluable practical component to the program. Students also have an unparalleled opportunity to gain hands-on experience by managing an investment portfolio with a market value in excess of $10 million.

Applicants should also refer to the program website www.beedie.sfu.ca/MSc-Finance.

Admission Requirements

Applicants must satisfy the University admission requirements as stated in Graduate General Regulations 1.3 in the SFU Calendar. An undergraduate degree in business, commerce, economics, mathematics, physics, or other suitable quantitatively oriented programs is required. Candidates holding a professional designation such as a PRM or FRM and evidence of strong mathematics competency would also be ideal candidates. Students with a strong mathematical aptitude who have completed the graduate diploma in business administration offered by the University would be qualified for admission consideration

Program Requirements

This program consists of course requirements and a project for a minimum of 51 units. Students choose to complete either the investment management stream or the risk management stream. Other graduate courses may be substituted for the courses listed at the discretion of the academic director.

Students must complete all of
BUS 801 - Financial Modeling Tools (3)
BUS 802 - Financial Economics I (3)
BUS 803 - Financial Econometrics (3)
BUS 805 - Financial Economics II (3)
BUS 809 - Equity Security Analysis and Portfolio Management I (3)
BUS 810 - Fixed Income Security Analysis and Portfolio Management (3)
BUS 814 - Derivative Securities I (3)
BUS 825 - Financial Statement Analysis (3)
BUS 857 - Numerical Methods (3)
BUS 866 - Enterprise Risk Management (3)

BUS 876 - Special Topics (3)
BUS 877 – Mathematics for Computational Finance (3)
BUS 878 – Statistics for Financial Economics (3)

and nine units from the investment management **or** risk management stream

Investment Management stream
BUS 816 - Strategic Asset Allocation (3)
BUS 823 - Equity Security Analysis and Portfolio Management II (3)
BUS 826 - Portfolio Theory and Asset Pricing (3)

Risk Management stream
BUS 864 - Credit Risk Management (3)
BUS 865 - Market Risk Management (3)
BUS 818 - Derivative Securities II (3)

and a project
BUS 870 - Final Project for Financial Risk Management Students (3)

Program Length

Students are expected to complete the program requirements within four terms.

Other Information

Student Investment Advisory Service (SIAS)
Students have the opportunity to acquire real world investment, risk management and compliance experience through an optional course called the Student Investment Advisory Service. Students must be enrolled in BUS 880 no later than the second term of enrolment and throughout the program in order to complete the course.

BUS 880 - Student Investment Advisory Service Internship (0)

Graduate Diploma in Financial Engineering
The graduate diploma in financial engineering is designed for students in the MSc in Finance program who are seeking to deepen their theoretical understanding of relevant statistical and mathematical concepts.

Academic Requirements within the Graduate General Regulations

All graduate students must satisfy the academic requirements that are specified in the Graduate General Regulations, as well as the specific requirements for the program in which they are enrolled.