SFU GRADUATE STUDIES AND POSTDOCTORAL FELLOWS

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MEMORANDUM

ATTENTION	Senate	DATE	February 14, 2017
FROM	Wade Parkhouse, Chair of Senate Graduate Studies Committee (SGSC)	PAGE	1/1
RE:	New Course Proposals		

For information:
Acting under delegated authority at its meetings of January 9 and February 6, 2017 SGSC approved the following curriculum revisions effective **Fall 2017** (except where noted):

New Course Proposals for:

Faculty of Education

- EDUC 760 Academic and Social behavior Assessment in Education
- EDUC 882 MA Extended Essays
- EDUC 885 MEd Extended Essays
- EDUC 886 MA Thesis
- EDUC 901B Seminar in the History of Educational Theory B
- EDUC 902B Interdisciplinary Seminar in Contemporary Educational Theory B
- EDUC 984 Qualifying Exam

Faculty of Health Sciences

- HSCI 841 Qualitative Research and Analytical Methods
- HSCI 842 Indigenous Health in Canada

Faculty of Science

Department of Chemistry

- CHEM 849 Special Topics in Materials Chemistry
- CHEM 862 Molecular Spectroscopy

Department of Earth Sciences

- EASC 630 Groundwater Contamination and Transport (**effective Spring 2018**)
- EASC 635 Water, Environment and Climate Change (**effective Spring 2018**)
- EASC 810 MSc Thesis Proposal
- EASC 910 PhD Candidacy Examination

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)
EDUC	760	3

Course title (max 100 characters including spaces and punctuation)
Academic and Social Behaviour Assessment in Education

Short title (for enrollment/transcript - max 30 characters)
Academic SocBehav Assess

Course description for SFU Calendar *

Students will learn to administer, interpret and evaluate norm-referenced measures of academic performance and behavior (Level B) and curriculum based measures of learning in school-aged children and adolescents.

Rationale for introduction of this course

This course will fill a gap in programming. There is a need for generalist and resource teachers to administer, interpret and evaluate Level B assessments.

Effective term and year	Course delivery (eg 3 hrs/week for 13 weeks)
Fall 2017	3 hrs/week for 13 weeks
Frequency of offerings/year	**Estimated enrollment/offering**
1	10-12

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.)
EDUC 862-3, Individual Assessment in Counselling

Prerequisite and/or Corequisite **

EDUC 805 or EDUC 842. Students must successfully complete a Criminal Record Check.

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? 1	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
Maureen Hoskyn
Additional faculty members, space, and/or specialized equipment required in order to offer this course

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Educational Psychology	Elina Birmingham	ebirming@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	Signature	Date
Department Chair	**Signature**	**Date**

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
Dr. Shawn Bullock		Dec 13, 2016

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse		FEB 14 2017

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: _____

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www.sfu.ca/education.gs.html

Detailed Course Outline

Course Title: EDUC 760-3
Academic and Social Behaviour Assessment in Education

Instructor(s): Maureen Hoskyn

Calendar Description: Students will learn to administer, interpret and evaluate norm-referenced measures of academic performance and behavior (Level B) and curriculum based measures of learning in school-aged children and adolescents.

Course Details: This practice-based course prepares students to administer and interpret norm-referenced measures of academic performance and behavior (Level B), and curriculum based measures of learning growth in school-aged children and adolescents.

Students will

a) follow ethical procedures as they conduct academic/behavioral assessments.
b) apply psychometric and edumetric principles to critique the adequacy of achievement and behavior measures.
c) develop competencies in the administration and interpretation of a norm-referenced standardized measure of achievement and behavior (Level B).
d) Review and critique the adequacy of curriculum based measures to assess growth in reading, mathematics and writing.

Foundations of Assessment
Terminology
Goals of Academic Assessment
Assessment Dimensions and Categories
Ethical guidelines: Informed consent
Educational qualifications to administer level A, B, and C tests

Psychometric Principles
Scales of measurement
Descriptive statistics
Correlation and regression
Statistical significance
Norm-referenced measurement
Derived scores
Reliability
Validity
Standardization data

Conducting a standardized assessment
Standardized procedures
Computer based scoring
Interpretation of norm-referenced scores
Group tests
Assessment of multilingual populations

Functional Behavior Assessment
Using behavior rating scales in FBA

Curriculum based assessment
Principles of CBM
The use of technology and CBM (EasyCBM)
Use of CBM with multilingual populations

Assessment of word analysis and recognition skills and intervention
Word recognition
Pseudoword reading
Word reading fluency
Passage reading fluency

Assessment of reading comprehension and intervention
A simple view of reading comprehension
Strategy instruction
Use of graphic organizers

Assessment of writing and intervention
Transcription
Planning
Editing
Reviewing

Assessment of mathematics and intervention
Calculation
Mathematics fluency
Word problem solving

Behavior rating scales and intervention
Social skills rating scale
BRIEF
BASC

Grading:

Activity	% of total mark
Exam	30%
Scored protocols	10%
Reflection of video-taped assessments	30%
Assessment report	10%
Term paper	20%

Required Texts:	Little, L. & Akin-Little, A. (2014) (Eds.). Academic Assessment and Intervention. New York: Taylor and Francis. 978-0-415-53919-7 978-0-415-53921-0 987-0-203-10845-1
Recommended Texts:	None.
Materials/Supplies:	None
Supplemental Fees:	None.
Prerequisite/Core Requisite:	EDUC 805 or EDUC 842. Students must successfully complete a Criminal Record Check.

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)
EDUC	882	6

Course title (max 100 characters including spaces and punctuation)
MA Extended Essays

Short title (for enrollment/transcript - max 30 characters)
MA Extended Essays

Course description for SFU Calendar *

Students enrolled in this option will develop two extended essays based on their course assignments and submit them for oral examination as specified in Graduate General Regulations. These essays may make significant use of non-written media. Graded on satisfactory/unsatisfactory basis.

Rationale for introduction of this course
This course is designed to bridge the gap between the thesis option (that may go far beyond the content of coursework) and the coursework based option (that is confined to the coursework content) of completing the degree. The Extended Essays option take the middle ground, and we expect our students to find this option to be of great interest and use to them.

Effective term and year: Fall 2017	Course delivery (eg 3 hrs/week for 13 weeks)
Frequency of offerings/year: every term	Estimated enrollment/offering: 12-15

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 **

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? 2	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
Supervisor of the student enrolled in MA program will oversee the student's progress.
Additional faculty members, space, and/or specialized equipment required in order to offer this course
None.

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Education	Dr. Shawn Bullock	sbullock@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	Signature	Date
Department Chair	Signature	Date

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
Dr. Shawn Bullock	13/12/16	S Bullock

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse	W Parkhouse	FEB 14 2017

ADMINISTRATIVE SECTION (for GGS office only)

Course Attribute: GCAP

Course Attribute Value: Extended Essays

Instruction Mode:

Attendance Type:

If different from regular units:

Academic Progress Units:

Financial Aid Progress Units:

Detailed Course Outline

Course Title: EDUC 882-6, MA Extended Essays

Instructor(s):

Calendar Description: Students enrolled in this option will develop two extended essays on their course assignments and submit them for oral examination as specified in Graduate General Regulations. These essays may make significant use of non-written media. Graded on satisfactory/unsatisfactory basis.

Course Details: This course allows master's students an opportunity to do more research and extend the work they did in their seminars.

Students normally enroll in EDUC 882, MA Extended Essays in the term of or following completion of course work requirements.

A student must pass both extended essays to receive a satisfactory grade. A student who fails one or both essays has the option to re-do the failed essay or essays in the following term or as soon as practicable. A student who fails one or both essays on the retry will be required to withdraw.

Grading: Satisfactory/unsatisfactory.

Required Texts: None.

Recommended Texts: None.

Materials/Supplies: None

Supplemental Fees: None.

Prerequisite/Core Requisite: None.

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) EDUC	Number (eg. 810) 885	Units (eg. 4) 6

Course title (max 100 characters including spaces and punctuation)
MEd Extended Essays

Short title (for enrollment/transcript - max 30 characters)
MEd Extended Essays

Course description for SFU Calendar *

Students will develop two extended essays based on seminal topics presented in required courses, and prepare an oral presentation of their essays to the supervisor and at least one other faculty member. Graded on satisfactory/unsatisfactory basis.

Rationale for introduction of this course

This course replaces the comprehensive examination capstone course and will require students to solidify their knowledge on seminal topics in Educational Psychology.

Effective term and year Fall 2017	Course delivery (eg 3 hrs/week for 13 weeks)
Frequency of offerings/year 1	Estimated enrollment/offering 12-15

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 **
none

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? 2	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
Birmingham, Frie, Hoskyn, Kanevsky, LeMare, MacDonald, Nesbit, Neufeld, Sugarman, Winne
Additional faculty members, space, and/or specialized equipment required in order to offer this course

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Educational Psychology	Elina Birmingham	ebirming@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	Signature	Date
Department Chair	**Signature**	**Date**

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
Dr. Shawn Bullock		13/12/16

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse		FEB 14 2017

ADMINISTRATIVE SECTION (for DGS office only)

Course Attribute: GCAP

Course Attribute Value: Extended Essay

Instruction Mode: _____

Attendance Type: _____

If different from regular units:

Academic Progress Units: _____

Financial Aid Progress Units: _____

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www/sfu.ca/education/gs.html

Detailed Course Outline

Course Title: EDUC 885-6, MEd Extended Essays

Instructor(s):

Calendar Description: Students will develop two extended essays based on seminal topics presented in required courses, and prepare an oral presentation of their essays to the supervisor and at least one other faculty member. Graded on satisfactory/unsatisfactory basis.

Course Details: Students normally enroll in EDUC 885-6, MEd Extended Essays in the term of or following completion of course work requirements.

A student must pass both extended essays to receive a satisfactory grade. A student who fails one or both essays has the option to re-do the failed essay or essays in the following term or as soon as practicable. A student who fails one or both essays on the retry will be required to withdraw.

Grading: Satisfactory/unsatisfactory.

Required Texts: None.

Recommended Texts: None.

Materials/Supplies: None

Supplemental Fees: None.

Prerequisite/Core Requisite: None.

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)
EDUC	886	15

Course title (max 100 characters including spaces and punctuation)
MA Thesis

Short title (for enrollment/transcript - max 30 characters)
MA Thesis

Course description for SFU Calendar *

The thesis is a research investigation designed to generate and/or critically examine new knowledge in the theory and/or practice of education. The thesis should normally be completed and approved in three terms. Students must also orally defend a written thesis proposal to their supervisory committee members prior to completing and defending the thesis.

Rationale for introduction of this course

This course will enable the Faculty to track students in the Educational Psychology Master of Arts program; formalizes the thesis proposal process.

Effective term and year: Fall 2017	Course delivery (eg 3 hrs/week for 13 weeks)
Frequency of offerings/year: every term	Estimated enrollment/offering: 12-15

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 **
none

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? 25	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
Birmingham, Frie,Hoskyn, Kanevsky, LeMare, MacDonald, Neufeld, Sugarman, Winne
Additional faculty members, space, and/or specialized equipment required in order to offer this course

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Educational Psychology	Elina Birmingham	ebirming@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	Signature	Date
Department Chair	Signature	Date

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
Dr. Shawn Bullock	SBullock	13/12/16

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse	WParkhouse	FEB 14 2017

ADMINISTRATIVE SECTION (for GGS office only)

Course Attribute: GCAP

Course Attribute Value: Thesis

Instruction Mode:

Attendance Type:

If different from regular units:

Academic Progress Units:

Financial Aid Progress Units:

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www/sfu.ca/education/gs.html

Detailed Course Outline

Course Title: EDUC 886-15, MA Thesis

Instructor(s):

Calendar Description: The thesis is a research investigation designed to generate and/or critically examine new knowledge in the theory and/or practice of education. The thesis should normally be completed and approved in three terms. Students must also orally defend a written thesis proposal to their supervisory committee members prior to completing and defending the thesis.

Course Details: Thesis is prepared and examined per Graduate General Regulations.

Grading: In progress/Complete.

Required Texts: None.

Recommended Texts: None.

Materials/Supplies: None

Supplemental Fees: None.

Prerequisite/Core Requisite: None.

SFU SIMON FRASER UNIVERSITY
GRADUATE STUDIES & POSTDOCTORAL FELLOWS

New Graduate Course Proposal

Attach a separate document if more space is required.

Course Subject (eg. PSYC) EDUC	Number (eg. 810) 901B	Units (eg. 4) 3

Course title (max 100 characters including spaces and punctuation)
Seminar in the History of Educational Theory B

Short title (for enrollment/transcript - max 30 characters)
Hist of Educ. Theory B

Course description for SFU Calendar *
A further consideration of concepts explored in the EDUC 901"A" course, with a view to providing students with opportunities to apply these ideas within their own educational settings.

Rationale for introduction of this course
Splitting EDUC 901 into EDUC 901A and EDUC 901B more accurately reflects course content and delivery of course content.

Term of initial offering Fall 2017	Course delivery (eg 3 hrs/week for 13 weeks) 3 hrs/week for 13 weeks
Frequency of offerings/year once per year	Estimated enrollment/offering 8-10

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 **
Corequisite 901A

Educational Goals (optional)

Criminal record check required? ☒ Yes ***	Additional course fees? ☐ Yes ☑ No

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 or Unsatisfactory ☐ In Progress/Complete

Repeat for credit? **** ☐ Yes ☑ No	Total repeats allowed? _____	Capstone course? ☐ Yes ☑ No
Required course? ☑ Yes ☐ No	Final exam required? ☐ Yes ☑ No	Repeat within a term? ☐ 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.
*** If yes, then add this requirement as a prerequisite.
**** This 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
Dr. H. Bai, Dr. S. Bullock, Dr. M Fettes, Dr. A. Chinnery, and Dr. S. Smith
Additional faculty members, space, and/or specialized equipment required in order to offer this course

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Education	Dr. S. Bullock	sbullock@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	Signature	Date
Department Chair	Signature	Date

LIBRARY REVIEW

Library review done? ☑ YES

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OVERLAP CHECK

Overlap check done? ☑ YES

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.

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
Dr. Shawn Bullock	S Bullock	JAN 18 2017

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse		FEB 14 2017

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: _____

Detailed Course Outline

Course Title: EDUC 901B-3
Seminar in the History of Educational Theory B

Instructor(s): Dr. S. Bullock

Calendar Description: A further consideration of concepts explored in the EDUC 901 "A" course, with a view to providing students with opportunities to apply these ideas within their own educational settings.

Course Details: This doctoral seminar is conceived of as a sustained inquiry into ideas, notions, theories, and practices that have animated the history of education. For us as current and future educational leaders in various locations of teaching, coaching, guiding, mentoring, administering, this is a critical undertaking. A particular focus of our sustained inquiry and reflection is the question of human nature and identity/image. Different images of humanity, as portrayed in different times and places, call for different theories of what to teach (curriculum) and how to teach (pedagogy). By the same token, whenever society experiences a need to change the image of humanity—a deeply and urgently felt need today—education becomes the site of dialogue and experiment in aims of education, meaning and purpose, nature of knowledge, worldviews, and moral values. Throughout the course, students will be encouraged to deepen their knowledge of what they expect to be the focus of their doctoral work while simultaneously considering the ways in which this focus interacts with the ideas, notions, theories, and practices that we explore throughout the course.

Grading:

1) Commonplace Book (Details will be discussed in class)	60%
2) Major Paper (Details will be discussed in class)	40%

Required Texts: Required readings will be made available electronically through SFU Canvas.

Recommended Texts: Additional recommended readings will be made available through SFU Canvas

Materials/Supplies: None

Supplemental Fees: None

Prerequisite/Corequisite: EDUC 901A

SIMON FRASER UNIVERSITY
GRADUATE STUDIES & POSTDOCTORAL FELLOWS

New Graduate Course Proposal

Attach a separate document if more space is required.

Course Subject (eg. PSYC) EDUC	Number (eg. 810) 902B	Units (eg. 4) 3

Course title (max 100 characters including spaces and punctuation)
Interdisciplinary Seminar in Contemporary Educational Theory B

Short title (for enrollment/transcript - max 30 characters)
Contemp.Educ.Theory B

Course description for SFU Calendar *
A further consideration of concepts explored in the EDUC 902 "A" course, with a view to providing students with opportunities to apply these ideas within their own educational settings.

Rationale for introduction of this course
Splitting EDUC 902 into EDUC 902A and EDUC 902B more accurately reflects course content and delivery of course content.

Term of initial offering Fall 2017	Course delivery (eg 3 hrs/week for 13 weeks) 3 hrs/week for 13 weeks
Frequency of offerings/year once per year	Estimated enrollment/offering 8-10

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 **
Corequisite 902A

Educational Goals (optional)

Criminal record check required? ☑ Yes ***	Additional course fees? ☐ Yes ☑ No	
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 or Unsatisfactory ☐ In Progress/Complete		
Repeat for credit? **** ☐ Yes ☑ No	Total repeats allowed? _____	Capstone course? ☐ Yes ☑ No
Required course? ☑ Yes ☐ No	Final exam required? ☐ Yes ☑ No	Repeat within a term? ☐ 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.
*** If yes, then add this requirement as a prerequisite.
**** This 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
Dr. H. Bai, Dr. S. Bullock, Dr. M Fettes, Dr. A. Chinnery, and Dr. S. Smith
Additional faculty members, space, and/or specialized equipment required in order to offer this course

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Education	Dr S Bullock	sbullock@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	Signature	Date
Department Chair	Signature	Date

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

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.

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
Dr. Shawn Bullock	SBullock	JAN 18 2017

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse	WParkhouse	FEB 14 2017

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: _____

Detailed Course Outline

Course Title: EDUC 902B-3
Interdisciplinary Seminar in Contemporary Educational Theory B

Instructor(s): Dr. A. Chinnery

Calendar Description: A further consideration of concepts explored in the EDUC 902 "A" course, with a view to providing students with opportunities to apply these ideas within their own educational settings.

Course Details:

In this seminar we will continue to explore the contested terrain of contemporary educational theory, considering the perspectives of philosophers of education, curriculum theorists, and social and political theorists, in response to some perennial educational questions including:

What does it mean to say someone is educated?
What are the respective roles of the emotions and reason in education?
What role should education and schooling play in the development of moral identity and citizenship?
What are the roles and responsibilities of public schools with regard to questions of equity and social justice?
Is open democratic dialogue possible in schools today?
What impact have various social movements had on education?
What impact has postmodern scholarship had on education?
What connection ought there to be between educational theory, policy, and practice?

Grading:

Student directed Inquiry assignments x 3	30%
Final Paper (4000-5000) words	50%
Mini-conference presentation	20%

Required Texts:

Students do not need to purchase any books for this course. All required readings are available online through the SFU Library.

Introduction: 50 years of educational theory: An overview
Rorty, A. (1997). The ethics of reading: A traveler's guide. *Educational Theory 47*(1): 85-89.
Pryor, J. Guidelines on reading philosophy. Available at http://www.jimpryor.net/teaching/guidelines/reading.html

Reason and the educated person
Roland Martin, J. (1981). The ideal of the educated person. *Educational Theory 31*(2), 97-109. Robertson, E. The value of reason: Why not a sardine can opener? *Philosophy of Education Yearbook 1999*. *plus responses to Robertson by Audrey Thompson and James McClellan in the same issue of the *PES Yearbook*. Please note: To access Robertson, Thompson, and other papers in the *PES Yearbook* from

1996 onward, go to http://www.philosophyofeducation.org, click on Yearbook, Link to Yearbook, and use the search function.

Ethics and education

Warnick, B.R. (2007). *Ethics and education* forty years later. *Educational Theory 57*(1):53-73.

Verducci, S. (2000). A conceptual history of empathy and a question it raises for moral education. *Educational Theory 50*(1): 63-80.

Noddings, N. (2013). *Starting at home: Caring and social policy*. Berkeley: University of California Press. Ch. 1 (pp. 11-31) and Ch. 10 (pp. 207-223)—or other chapters/articles from Noddings' work on the ethic of care.

Emotions in education

Boler, M. (1997). Disciplined emotions: Philosophies of educated feelings. *Educational Theory 47*(2): 203-227.

Zembylas, M. (2006). Witnessing in the classroom: The ethics and politics of affect. *Educational Theory 56*(3): 305-324.

Todd, S. (2001). When is guilt more than just a petty face? Moving from liberal guilt toward reparation and responsibility in education. *PES Yearbook 2000.*

Social location and identity politics

Boyd, D. The place of locating oneself(ves)/myself(ves) in doing philosophy of education. *PES Yearbook 1997.* *plus response to Boyd by Barbara Houston in the same issue of the *PES Yearbook*.

Benhabib, S. From identity politics to social feminism: A plea for the nineties. *PES Yearbook 1994.* *plus responses to Benhabib by Nicholas Burbules and Barbara Houston in the same issue of the *PES Yearbook*.

Gender and education

Thompson, A. (1997). Surrogate family values: The refeminization of teaching. *Educational Theory 47*(2): 315-339.

Todd, S. (2011). The "veiling" question: On the demand for visibility in communicative encounters in education. *PES Yearbook 2010.*

Ellsworth, E. (1989). Why doesn't this feel empowering? Working through the repressive myths of critical pedagogy. *Harvard Educational Review 59*(3): 297-324.

Race and education

Thompson, A. (2003). Tiffany, friend of people of color: White investments in anti-racism. *International Journal of Qualitative Studies in Education 16*(1): 7-29.

Yancy, G. How can you teach me if you don't know me? Embedded racism and white opacity. *PES Yearbook 2012.*

St. Denis, V. (2007). Aboriginal education and anti-racist education: Building alliances across cultural and racial identity. *Canadian Journal of Education 30*(4): 1068-1092.

Power and normalization in schooling

Foucault, M. (1995). The means of correct training. In *Discipline and punish: The birth of the prison* (pp. 170-194).

McDermott, R. & Varenne, H. Culture *as* disability. *Anthropology & Education Quarterly 26*(3): 324-348.

Democratic dialogue in public schools

Hand, M. (2008). What should we teach as controversial? A defense of the epistemic criterion. *Educational Theory 58*(2): 213-228.

Callan, E. (1995). Virtue, dialogue, and the common school. *American Journal of Education 104*(1): 1-33.

The postmodern condition and education

Peters, M. (1995). Education and the postmodern condition: Revisiting Jean-François Lyotard. *Journal of Philosophy of Education 29*(3): 387-400.

Usher, R., & Edwards, R. (1994). Introduction; and Postmodernism, postmodernity and the postmodern moment. In *Postmodernism and education* (pp. 1-32). New York: Routledge. Full text available online through the SFU Library.

Ruitenberg, C. W. (2012). Epistemology as trope: Uses and effects of claims about "ways of knowing." In C.W. Ruitenberg & D.C. Phillips, eds., *Education, culture and epistemological diversity: Mapping a disputed terrain* (pp. 101-119). New York: Springer. Full text available through the SFU Library.

Recommended Texts: Additional recommended readings will be made available through SFU Canvas

Materials/Supplies: None

Supplemental Fees: None

Prerequisite/Corequisite: EDUC 901A

SIMON FRASER UNIVERSITY
GRADUATE STUDIES & POSTDOCTORAL FELLOWS

New Graduate Course Proposal

Attach a separate document if more space is required.

Course Subject (eg. PSYC) EDUC	Number (eg. 810) 984	Units (eg. 4) 3

Course title (max 100 characters including spaces and punctuation)
Qualifying Examination

Short title (for enrollment/transcript - max 30 characters)
Qualifying Exam

Course description for SFU Calendar *
The Qualifying Examination will follow completion of degree course work. An open oral qualifying examination given by the supervisory committee. The examination consists of a defence of the proposed thesis topic by the student and their responses to supervisory committee questions about related proposed research topics. The examination follows submission of a written PhD research proposal. Graded on a Satisfactory/Unsatisfactory basis. Students who fail will either successfully complete a second examination within six months or withdraw from the program.

Rationale for introduction of this course
Allows for tracking of completion of a degree milestone; clarifies that this program no longer wishes to use the language of "comprehensive examination", instead preferring "qualifying examination".

Term of initial offering Fall 2017	Course delivery (eg 3 hrs/week for 13 weeks) 3 hrs/term
Frequency of offerings/year 3	Estimated enrollment/offering ~ 5 per term

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.)
N/A

Prerequisite and/or Corequisite **
None

Educational Goals (optional)

Criminal record check required? ☒ No ☐ Yes ***	Additional course fees? ☐ Yes ☑ No

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

Course Components ☐ Lecture ☐ Seminar ☐ Lab ☐ Research ☐ Practicum ☐ Online ☑ Written and oral examination

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

Repeat for credit? **** ☑ Yes ☐ No	Total repeats allowed? 2	Capstone course? ☐ Yes ☑ No
Required course? ☑ Yes ☐ No	Final exam required? ☐ Yes ☑ No	Repeat within a term? ☐ 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.
*** If yes, then add this requirement as a prerequisite.
**** This 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
Faculty members supervising doctoral students.
Additional faculty members, space, and/or specialized equipment required in order to offer this course
N/A

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Education	Dr. Shawn Bullock	sbullock@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	Signature	Date
Department Chair	Signature	Date

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

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.

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
Dr. Shawn Bullock	S Bullock	13/12/16

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse	W Parkhouse	FEB 14 2017

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: _____

Detailed Course Outline

Course Title: EDUC 984-3, Qualifying Examination

Calendar Description The Qualifying Examination will follow completion of degree course work. An open oral qualifying examination given by the supervisory committee. The examination consists of a defence of the proposed thesis topic by the student and their responses to supervisory committee questions about related proposed research topics. The examination follows submission of a written PhD research proposal. Graded on a Satisfactory/Unsatisfactory basis. Students who fail will either successfully complete a second examination within six months or withdraw from the program.

Course Details: The purpose of the qualifying examination is to ensure that students are prepared to complete a course of research that will culminate in the defence of an original dissertation. To qualify, the student will submit a concise written research proposal and defend it orally to their supervisory committee following successful completion of coursework. The proposal defence will be judged according to the feasibility and academic merits of the proposed research, sufficient breadth and understanding of material in the student's major area of research, and a good preparation to perform the research.

The oral qualifying examination will be scheduled approximately three weeks following a written submission of a proposal by the student to the supervisory committee. Expectations of the particular composition of the proposal will be negotiated by the student with the qualifying examination committee. Students can expect to situate their work within appropriate literature(s) and to provide a theoretical and/or methodological rationale for how they plan to conduct their dissertation work.

At the conclusion of the oral presentation, the student will be asked to leave the room for deliberation. Examining committee members will decide if the student has met the requirements of the qualifying examination and assign a grade of Satisfactory or Unsatisfactory. If the student's work is unsatisfactory, they have the opportunity to make revisions and to retake the examination within six months.

Grading: Satisfactory/Unsatisfactory.

Required Texts: None.

Recommended Texts: None.

Materials/Supplies: None

Supplemental Fees: None.

Prerequisite/Core Requisite: None.

SIMON FRASER UNIVERSITY
GRADUATE STUDIES & POSTDOCTORAL FELLOWS

New Graduate Course Proposal

Attach a separate document if more space is required.

Course Subject (eg. PSYC) HSCI	Number (eg. 810) 841	Units (eg. 4) 3

Course title (max 100 characters including spaces and punctuation)
Qualitative Research and Analytical Methods

Short title (for enrollment/transcript - max 30 characters)
Qual Res & Analytical Methods

Course description for SFU Calendar *
See attached

Rationale for introduction of this course
The course has been offered as a special topics course three times and has regularly demonstrated student interest in the subject matter by good enrollment number in every offering.

Term of initial offering Fall 2017	Course delivery (eg 3 hrs/week for 13 weeks) 3 hours a week for 13 weeks
Frequency of offerings/year 1/year	Estimated enrollment/offering 8-15 students

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 graduate program, or permission of the instructor.

Educational Goals (optional)

Criminal record check required? ☐ Yes ***	Additional course fees? ☐ Yes ☑ No

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 or Unsatisfactory ☐ In Progress/Complete

Repeat for credit? **** ☐ Yes ☑ No	Total repeats allowed? _____	Capstone course? ☐ Yes ☑ No
Required course? ☐ Yes ☑ No	Final exam required? ☑ Yes ☐ No	Repeat within a term? ☐ 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.
*** *If yes, then add this requirement as a prerequisite.*
**** This 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
William Small
Additional faculty members, space, and/or specialized equipment required in order to offer this course

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Faculty of Health Sciences	Amisha Choksey	achoksey@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	Signature	Date
Department Chair	Signature	Date

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

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.

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
Timothy Beischlag		December 7, 2016

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse		FEB 14 2017

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: _____

Course description: HSCI 841

Qualitative research represents an important approach within the health sciences and makes unique contributions to the understanding of health experiences and outcomes, as well as the impacts of public health programs and interventions. This course will provide students with a strong foundation regarding qualitative methods through a comprehensive overview of diverse types of qualitative research and key approaches to analyzing qualitative data. The theoretical and philosophical foundations underlying qualitative approaches will be covered, as will key methods including ethnography/participant-observation, qualitative interviews, and focus group discussions. Qualitative research designs, research ethics, and institutional ethics review will be discussed. Instruction regarding the use of qualitative data analysis software will be provided. The course will also highlight the potential of qualitative methods to contribute to interdisciplinary or mixed-methods research focused on health experiences and outcomes. Applied learning opportunities will be emphasised to help prepare students to conduct future qualitative health research.

Course Overview

HSCI 841 Qualitative Research and Analytical Methods

Prerequisites: Graduate student status in FHS or the permission of the instructor.

Time and Location: Fridays 10:30–1:20 in BLU 9920

Office: Room BLU 9704
Email: wsmall@sfu.ca
Office Hours: By arrangement

Course description: Qualitative research represents an important approach within the health sciences and makes unique contributions to the understanding of health experiences and outcomes, as well as the impacts of public health programs and interventions. This course will provide students with a strong foundation regarding qualitative methods through a comprehensive overview of diverse types of qualitative research and key approaches to analyzing qualitative data. The theoretical and philosophical foundations underlying qualitative approaches will be covered, as will key methods including ethnography/participant-observation, qualitative interviews, and focus group discussions. Qualitative research designs, research ethics, and institutional ethics review will be discussed. Instruction regarding the use of qualitative data analysis software (NVIVO) will be provided. The course will also highlight the potential of qualitative methods to contribute to interdisciplinary or mixed-methods research focused on health experiences and outcomes. Applied learning opportunities will be emphasised to help prepare students to conduct future qualitative health research.

Course goals and learning objectives:
The goal of this course is to provide students with the knowledge and skills needed to conceptualize and conduct a rigorous qualitative research project focused on health. By the end of the course, students will be able to:

- describe the theoretical foundations of qualitative research
- describe the fundamentals of varying qualitative methods, including their strengths and limitations
- define and discuss the importance of qualitative research for the health sciences
- conduct a literature review to inform the design of a qualitative research project
- demonstrate familiarity with key approaches to analysing qualitative data
- effectively utilize qualitative analysis software (NVIVO)
- write a clear and well-conceptualised qualitative research proposal
- develop an application seeking institutional ethical approval for a qualitative research project

Competencies (MPH) being supported by this course
Primary: Methods of Population and Public Health Assessment, Diagnosis, and Analysis (CC3)
Reinforcing: Policy and Program Planning, Implementation, and Evaluation (CC8)
Core Concepts in Population and Public Health (CC9)

Course readings and materials: Readings will be available through CANVAS or the library (key books have been put on reserve).

Many of the course readings will be drawn from the following volumes:

- Qualitative Research Practice: A guide for social science students and researchers. Edited by Jane Ritchie and Jane Lewis. SAGE Publications: London. 2003.
- M Hammersley & P Atkinson. Ethnography: Principles in Practice (3rd Edition). Routledge: New York. 2007. **[On reserve in library- Full Text Available Online]**
- The SAGE Handbook of Qualitative Research. Edited by Norman K Denzin & Yvonna Lincoln. SAGE: Los Angeles. 2011. **[On reserve in library]**
- The SAGE Handbook of Qualitative Methods in Health Research. Edited by Ivy Bourgeault, Robert Dingwall, & Ray De Vries. SAGE: Los Angeles. 2010. **[On reserve in library- Full Text Available Online]**

Teaching format: One 3-hour session each week in a seminar format, including presentations by the instructor and guest speakers on specific topics, methodological issues, and research projects. Required readings will be critically assessed through facilitated group discussions. Some of these group discussions will be student-led, and each student will be responsible for being the primary discussant for at least 2 readings over the course of the semester.

Course Requirements: You will be required to complete the following in this course to succeed:

1. Read all of the *Required Readings* assigned for each week prior to class.
2. Attend class and participate in the group discussions.
3. Complete all assignments according to instructions provided and submit them on time

Course Grading:

Attendance and participation (10 marks, 10%)
Presentation of course readings as primary discussant (20 marks, 20%)
Literature review (20 marks, 20%)
Tri-Council Policy Statement 'Course on Research Ethics (CORE)' Tutorial (5 marks, 5%)
Institutional ethics application (15 marks, 15%)
Qualitative research proposal (30 marks, 30%)

Grading Policy: In this course the following key and definitions for converting your numerical grade to a letter grade will be used:

Letter Grade	% Range	SFU Grade Point	Definition
A+	93-100	4.33	Excellent performance
A	85-92.9	4.00	
A-	80-84.9	3.67	Very good performance
B+	77-79.9	3.33	Good performance
B	73-76.9	3.00	Satisfactory performance

B-	70-72.9	2.67	
C+	67-69.9	2.33	Marginal performance
C	63-66.9	2.00	
F	0-62.9	0.00	Unsatisfactory performance (fail)

Course Topics

HSCI 841: Qualitative Research and Analytical Methods

Please note: This schedule and reading list is subject to change and may be modified as the semester progresses. Please check the Canvas container regularly to stay up to date with modifications to the course schedule. Thank you.

Week 1 (Sept 9): Course Introduction and Overview

- Course overview
- Introductory Presentation- My experiences conducting qualitative health research (Will Small)
- Review of syllabus

NO READINGS

Week 2 (Sept 16): Qualitative research methods and their contribution to the health sciences

This session will focus on the philosophical and theoretical foundations of qualitative research methods, how they have been applied to study health, and their unique contribution to the understanding of health experiences and outcomes.

Required readings:

- Dawn Snape and Liz Spencer . The Foundations of Qualitative Research. Chapter 1 in 'Qualitative Research Practice'.
- Hammersley and Atkinson. What is ethnography? Chapter 1 in 'Ethnography: Principles in Practice'.
- Janice M Morse. What is Qualitative Health Research. Chapter 24 in the SAGE Handbook of Qualitative Research.
- Moore, D. (2005). Key moments in the ethnography of drug-related harm: Reality checks for policy makers? *In* Stockwell, T.R., Gruenewald, P., Toumbourou, J. and Loxley, W. *Preventing Harmful Substance Use: The Evidence Base for Policy and Practice.* John Wiley and Sons, Chichester. 433-442.

Week 3 (Sept 23): Research Problems and Research Design

This session will focus on the conceptualization of research problems, as well as an overview of research design issues.

Required readings:

- Jane Lewis. Design Issues. Chapter 3 in Qualitative Research Practice.
- Research Design: problems, cases and samples. Chapter 2 in 'Ethnography: Principles in Practice'.
- Sharan Merriam. Assessing and Evaluating Qualitative Research. Chapter 2 in Qualitative Research: A Guide to Design and Implementation.

Presentation on Literature Reviews (Will Small)

Week 4 (Sept 30): Ethnography

This session will focus on the use of ethnographic methods and their application to study health-related issues and problems.

- Access. Chapter 3 in 'Ethnography: Principles in Practice'.
- Field Relations. Chapter 4 in 'Ethnography: Principles in Practice'.
- Davina Allen. Fieldwork and Participant Observation. From the SAGE Handbook of Qualitative Methods in Health Research.

Presentation on Ethnographic Research Methods (Will Small)

I will present the methods and findings of an ethnographic study of an intense policing initiative focused on the street-based drug scene in Vancouver's Downtown Eastside.

Recommended Reading (not required): Small et al. Impacts of intensified police activity on injection drug users: evidence from an ethnographic investigation. International Journal of Drug Policy, 2006; 17: 85-95.

Week 5 (Oct 7): Ethnographic methods and observational research

This session will continue our examination of ethnographic methods, with focus on the practical aspects of conducting observational research focused on health.

- Madden, Raymond. Description: Writing 'Down' Fieldnotes. Chapter 6 in Madden, R. *Being ethnographic: a guide to the theory and practice of ethnography.* London: Sage, pp. 117-135. 2010.
- Exploratory or open-ended observation. Chapter 5 in Schensul, Jean J., LeCompte, Margaret D. (Eds.). (1999). *The Ethnographers Toolkit.* California: Altamira Press.
- Fast D, Kerr T, Wood E, Small W. The multiple truths about crystal meth among youth entrenched in an urban drug scene: A longitudinal ethnographic investigation. Social Science & Medicine, 2014; 110(1): 41-48.

Guest lecture: Dr Danya Fast will provide a presentation regarding methods her longitudinal ethnographic research with youth involved in Vancouver's street based drug scene.

Week 6: (Oct 14): Qualitative Interviews

This session will focus on methodological and practical issues related to the use of qualitative interviews to generate data and insight relevant to health focused research problems. **The literature review assignment is due this week.**

- Sue Arthur and James Nazroo. Designing Fieldwork Strategies and Materials. Chapter 5 in Qualitative Research Practice (page 109).
- Robin Legard, Jill Keegan, and Kit Ward. In-depth Interviews. Chapter 6 in Qualitative Research Practice (page 138).
- Oral accounts and the role of interviewing. Chapter 5 in 'Ethnography: Principles in Practice'.

Presentation: Qualitative interview techniques and practical issues (Will Small)

Week 7 (Oct 21): Research ethics and institutional ethical review for qualitative health research

This session will focus on research ethics and institutional ethical review processes in relation to qualitative methods. The particular challenges that qualitative projects may need to navigate during institutional review will also be discussed. **Students should complete the online Tri-Council Policy Statement tutorial prior to this class session.**

- Laura Stark and Adam Hedgecoe. A Practical Guide to Research Ethics. In The SAGE Handbook of Qualitative Methods in Health Research.
- Qualitative Research. Chapter 10 of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (2nd Edition).
- Small W, Maher L, Kerr T. Institutional ethical review and ethnographic research involving injection drug users: A case study. Social Science & Medicine, 2014; 104(1): 157-62. PMID: 24581074

Week 8 (Oct 28): Focus group methods and participatory approaches

This session will cover the use of focus group methods and community-based or participatory approaches to research.

- Helen Finch and Jane Lewis. Focus Groups. Chapter 7 in Qualitative Research Practice (page 170)
- Potvin, Bisset & Walz. Participatory Action Research: Theoretical perspectives on the challenges of researching action. Chapter 22 in the SAGE Handbook of Qualitative Methods in Health Research.

Guest lecture: Dr Ryan McNeil will provide a presentation regarding his community-based research involving collaborations with a drug-user organizations in the Downtown Eastside.

Week 9 (Nov 4): Qualitative Data Analysis

This session will provide an overview of principles and practices of qualitative data analysis, and illustrate how qualitative data is typically analysed.

- Liz Spencer, Jane Ritchie and William O'Connor. Analysis: Practices, Principles and Processes. Chapter 8 in Qualitative Research Practice (page 199).
- The process of analysis. Chapter 8 in Hammersley & Atkinson 'Principles in practice'.
- Ryan, G. & H.R. Bernard. 2000. Data management and analysis methods, In *Handbook of Qualitative Research, 2nd Ed.* Edited by N. D. a. Y. Lincoln, pp. 769-802. Thousand Oaks: Sage Publications.

In-Class NVIVO tutorial: How to use NVIVO to manage and analyse qualitative data.

Week 10 (Nov 11): Remembrance Day- NO CLASS SESSION

Week 11 (Nov 18): Interdisciplinary and mixed-methods research

This session will focus on mixed methods and interdisciplinary research involving qualitative approaches.

- Charles Teddlie and Abbas Tashakkori. Mixed Methods Research: Contemporary Issues in an Emerging Field. Chapter 16 in The SAGE Handbook of Qualitative Research.
- Lopez AM, Bourgois P, Wenger LD, Lorvick J, Martinez AN, Kral A. Interdisciplinary mixed methods research with structurally vulnerable populations: Case studies of injection drug users in San Francisco. International Journal of Drug Policy. 2013, 24: 101-109.

Guest lecture: Dr Lindsey Richardson will present on her mixed-methods research examining employment and drug use trajectories among people who inject drugs in Vancouver's Downtown Eastside.

Week 12 (Nov 25): Data Analysis, Interpretation and Research Reports

This session will provide instruction regarding the analysis of qualitative data and the presentation of qualitative analysis in a research report. We will also discuss the movement towards standardized reporting guidelines for qualitative research. **The ethics application assignment is due this week.**

- Jane Lewis and Jane Ritchie. Generalising from Qualitative Research. Chapter 10 in Qualitative Research Practice. (page 263).
- Clarissa White, Kandy Woodfield and Jane Ritchie. Reporting and Presenting Qualitative Data. Chapter 11 in Qualitative Research Practice (page 287).
- Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care. 2007 Dec;19(6):349-57. PMID: 17872937
- Neale J, Miller P, West R. Reporting quantitative information in qualitative research: guidance for authors and reviewers. Addiction. 2014 Feb;109(2):175-6. PMID: 24422609

Week 13 (Dec 2): Qualitative research and public health: - anthropology, epidemiology, and ethno-epidemiology [Course conclusion]

This session will focus on the relationship between ethnography and epidemiology, and the emergence of ethno-epidemiological approaches to researching health issues.

- Trostle J, Sommerfeld J. (1996). Medical Anthropology and Epidemiology. Annual Review of Anthropology, 25:253-274.
- Bourgois, P. (2002). Anthropology and epidemiology on drugs: the challenges of cross-methodological and theoretical dialogue. *International Journal of Drug Policy*, 13: 259-269.
- Small W, Milloy MJ, McNeil R, Maher L, Kerr T. Plasma HIV-1 RNA viral load rebound among people who inject drugs receiving antiretroviral therapy (ART) in a Canadian setting: an ethno-epidemiological study. AIDS Research & Therapy, 2016. Jul 25;13:26. PMID:27462360 [Discussant: Will Small]

SIMON FRASER UNIVERSITY
GRADUATE STUDIES & POSTDOCTORAL FELLOWS

New Graduate Course Proposal

Attach a separate document if more space is required.

Course Subject (eg. PSYC) HSCI	Number (eg. 810) 842	Units (eg. 4) 3

Course title (max 100 characters including spaces and punctuation)
Indigenous Health in Canada

Short title (for enrollment/transcript - max 30 characters)
Indig. Health in Canada

Course description for SFU Calendar *
The Indigenous peoples of Canada – the First Nations, Métis and Inuit peoples – have rich and diverse histories. However, common to most is that health and wellness are understood differently through an Indigenous worldview, with a more wholistic understanding which includes the inter-generational effects of colonization. This course will first consider different definitions of health and illness. It will then explore the health conditions of the Indigenous peoples of Canada, including a comparative examination of social and historical factors that contribute to poor health conditions, as well as Indigenous initiatives to restore wellness to their Nations.

Rationale for introduction of this course
The course has been offered as a special topics course three times and has regularly demonstrated student interest in the subject matter by good enrollment number in every offering.

Term of initial offering Fall 2017	Course delivery (eg 3 hrs/week for 13 weeks) 3 hours a week for 13 weeks
Frequency of offerings/year 1/year	Estimated enrollment/offering 8-15 students

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 graduate program, or permission of the instructor.

Educational Goals (optional)
The primary goal of this course is to prepare students to more fully understand and critically consider the health and wellness, as well as their drivers, of the First Nation, Métis and Inuit peoples in Canada. Strategies for research, policy and program collaboration, as well as knowledge translation for other contexts, will also be explored.

Criminal record check required? ☐ Yes ***	Additional course fees? ☐ Yes ☑ No

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 or Unsatisfactory ☐ In Progress/Complete

Repeat for credit? **** ☐ Yes ☑ No	Total repeats allowed? 0	Capstone course? ☐ Yes ☑ No
Required course? ☐ Yes ☑ No	Final exam required? ☑ Yes ☐ No	Repeat within a term? ☐ 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: HSCI 473, see outline for additional grad requirements

* 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.
*** *If yes, then add this requirement as a prerequisite.*
**** This 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
Malcolm King,
Additional faculty members, space, and/or specialized equipment required in order to offer this course

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Faculty of Health Sciences	Amisha Choksey	achoksey@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	Signature	Date
Department Chair	Signature	Date

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

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.

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
Timothy Beischlag		December 7, 2016

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse		FEB 14 2017

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: _____

Course Overview

HSCI 473/842: Indigenous Health in Canada

Pre-requisites:
- Completion of HSCI 305 (min. C-) and completion of 90 units towards a Bachelor's degree or registration in a FHS graduate program.

Time and location:
- Fridays @ 09:30-12:30, BLU 9011

Instructors' contact information:

- Malcolm King, PhD, Professor: malcolm_king@sfu.ca
- Office hours: by appointment (please email Malcolm to schedule)

Outline:
The Indigenous peoples of Canada – the First Nations, Métis and Inuit peoples – have rich and diverse histories. However, common to most is that health and wellness are understood differently through an Indigenous worldview, with a more wholistic understanding which includes the inter-generational effects of colonization. This course will first consider different definitions of health and illness. It will then explore the health conditions of the Indigenous peoples of Canada, including a comparative examination of social and historical factors that contribute to poor health conditions, as well as Indigenous initiatives to restore wellness to their Nations.

Overall goal:
The primary goal of this course is to prepare students to more fully understand and critically consider the health and wellness, as well as their drivers, of the First Nation, Métis and Inuit peoples in Canada. Strategies for research, policy and program collaboration, and knowledge translation for other contexts, will also be explored.

Learning objectives and competencies:
By the end of this course, students will be able to:
- Describe the histories of Indigenous peoples in Canada, especially British Columbia, and in particular the impact of the histories on the health of Canada's Indigenous peoples.
- Examine the health determinants of Indigenous peoples in Canada.
- Explore the impact of different worldviews and how different knowledge systems can help in understanding the health of Indigenous peoples and serve as a means of supporting Indigenous wellbeing. Also appreciate that non-Indigenous people do, and can, benefit from Indigenous ways of knowing.
- Demonstrate the complexities inherent in the health of Indigenous peoples through an in-depth examination of a selected topic relevant to Canadian Indigenous health.
- Compare and contrast the approaches to Indigenous health promotion, and in particular strategies that address health inequities to achieve wellness, strength and resilience among Indigenous peoples.

- Understanding that relationship-building based on respectful engagement and reciprocal understanding is critical to formulating solutions to the health issues facing Indigenous communities.
- Reflect through critical analysis one's own perspective in order to approach future roles with mindfulness to Indigenous peoples and their wellbeing.

MPH Competencies supported by this course:

- Primary:
  - CC9 – *Core Concepts in Population and Public Health*
  - CC11 – *Gender, Culture, and Social Location*
- Reinforcing:
  - CC3 – *Methods of Population and Public Health Assessment, Diagnosis, and Analysis*
  - CC5 – *Social Sciences*
  - CC6 – *Partnerships, Professionalism, Collaboration and Advocacy*
  - CC8 – *Policy and Program Planning, Implementation, and Evaluation*
  - CC12 – *Health Systems*

Course structure:

- The course will include both graduate (MPH, MSc, PhD) and senior undergraduate students in the Faculty of Health Sciences.
- The course will be divided into three components:
  - A series of guest lectures by Indigenous health experts from community and academia. Typically, at least one hour of many classes will involve the guest speakers, combining presentations and class discussion.
  - Lectures from one or both of the course instructors.
  - Significant student participation in the course, including discussion circles most classes involving lecture materials as well as required readings. Group presentations on Indigenous health issues will occur later in the course.
- The course schedule will be somewhat fluid and subject to change, based on guest lecturer availability.

Required texts:

From academic and other sources. Will be available online through SFU Library or posted to the course CANVAS container.

Marking Scheme:

- Early Reflection 5%
- Mid-term 15%
- Paper outline 5%
- Group presentation outline 5%
- Group presentation
  - Presentation 20%
    (Presentation and one-page summary to be submitted)
  - Participation in other group presentations 5%
- Major paper 20%
- Late reflection) 5%
- Mid-term 20%

Additional Assessment Criteria for Graduate Students:

- There are higher expectations of Graduate students in the course in terms of length of paper or presentation, and complexity. Gradaute students are required to present their final work (major paper, and group presentation) in a more rigorous manner which demonstrates an in-depth study of the field of Indigenous Health.

Attendance:

- Students are expected to prepare for, attend and actively participate each class. Students unable to attend a class should email the instructor advising of their absence and the reason. However, a roster will not be maintained for lecture attendance.

Grading policy:
In this course, the following key and definitions for converting your numerical grade to a letter grade will be used:

Letter Grade	% Range	SFU Grade Point	Definition
A+	93-100	4.33	Excellent performance
A	85-92.9	4.00	
A-	80-84.9	3.67	Very good performance
B+	77-79.9	3.33	Good performance
B	73-76.9	3.00	Satisfactory performance
B-	70-72.9	2.67	
C+	67-69.9	2.33	Marginal performance
C	63-66.9	2.00	
F	0-62.9	0.00	Unsatisfactory performance (fail)

Technologies

- Canvas will support this course for information and knowledge exchange. Please see http://www.sfu.ca/canvas.html.
- For help with using Canvas go to http://www.sfu.ca/canvas/student-support.html.
- Course content, announcements and updates (e.g., lecture notes, online readings, assignment details/instructions, links to online readings) will be posted on Canvas. ***Please check the course website regularly/frequently***.
- Canvas is also a great place for discussions/comments:
    - Post questions and discussion on lectures, readings, assignments, etc.
    - Students are *highly encouraged* to engage in discussions with one another and to answer each other' questions.

Course Readings:

King M, Smith A, Gracey M. Indigenous perspectives on health: The underlying causes of the health gap. The Lancet 2009; 374: 76–85.

Loppie Reading C, Wien F. Health inequalities and social determinants of Aboriginal peoples' health. National Coordinating Centre for Aboriginal Health, 2009.

Thomas King. The Inconvenient Indian: A Curious Account of Native People in North America Anchor Canada, 2012.

National Centre for Truth and Reconciliation, 2015. Calls to Action: http://nctr.ca/assets/reports/Calls_to_Action_English2.pdf

First Nations Health Authority (British Columbia). First Nations perspective on wellness. FNHA, 2014. http://www.fnha.ca/wellness/wellness-and-the-first-nations-health-authority/first-nations-perspective-on-wellness

Kirmayer L, Simpson C, Cargo M. Healing traditions: Culture, community and mental health promotion with Canadian Aboriginal peoples. Australasian Psychiatry 2003; 11: S15-S23.

Durie M. Understanding health and illness: Research at the interface between science and indigenous knowledge. Intl J Epidemiol 2004; 33: 1138–1143.

Dion Stout M. Ascribed health and wellness to achieved health and wellness: Shifting the paradigm. CJNR 2012: 44(2): 11–14.

King M. Contextualization of socio-culturally meaningful data (letter to editor). Can J Public Health 2015; 106: e457.

Anderson I, and others. Indigenous and tribal peoples' health (The Lancet Lowitja Institute Global Collaboration): A population study. The Lancet, published online April 20, 2016 http://dx.doi.org/10.1016/S0140-6736(16)00345-7

Core lecture topics:

- Chronic diseases
- Infectious diseases
- Mental health and addictions
- Health services
- Global Indigenous health

Other topics:

- Self-determinism
- Racism / cultural safety
- Gender
- Art / arts-based approaches / film
- Land-based approaches
- Criminal justice
- Children in care
- Climate change / environmental

Course Topics

HSCI 473 /842: Indigenous Health in Canada

January 9 – Class 1

- Elder
- Course overview
- Intro to Indigenous people / Indigenous health
- Readings:

  King M, Smith A, Gracey M. Indigenous perspectives on health: The underlying causes of the health gap. The Lancet 2009; 374: 76–85.

  Loppie Reading C, Wien F. Health inequalities and social determinants of Aboriginal peoples' health. National Coordinating Centre for Aboriginal Health, 2009.

January 16 – Class 2

- Intro to Indigenous people / Indigenous health (cont.)
- Historical and current perspectives
- Readings:

  Thomas King. The Inconvenient Indian: A Curious Account of Native People in North America Anchor Canada, 2012.

  National Centre for Truth and Reconciliation, 2015. Calls to Action: http://nctr.ca/assets/reports/Calls_to_Action_English2.pdf

January 23 – Class 3

- Historical and current perspectives – local context
- Lecture 1 – Indigenous wellness
- Readings:

  First Nations Health Authority (British Columbia). First Nations perspective on wellness. FNHA, 2014. http://www.fnha.ca/wellness/wellness-and-the-first-nations-health-authority/first-nations-perspective-on-wellness

  Dion Stout M. Ascribed health and wellness to achieved health and wellness: Shifting the paradigm. CJNR 2012: 44(2): 11–14.

January 30 – Class 4

- Sign-up for group projects
- Lecture 2 – Mental health and addictions
- Lecture 3 – Indigenous knowledges
- Readings:

  Kirmayer L, Simpson C, Cargo M. Healing traditions: Culture, community and mental health promotion with Canadian Aboriginal peoples. Australasian Psychiatry 2003; 11: S15-S23.

  Durie M. Understanding health and illness: Research at the interface between science and indigenous knowledge. Intl J Epidemiol 2004; 33: 1138–1143.

February 6 – Class 5

- Lecture 4 – Chronic diseases

- Lecture 5 – Indigenous health data
- Readings:
  Reading J. The Crisis of Chronic Disease among Aboriginal Peoples: A Challenge for Public Health, Population Health and Social Policy. University of Victoria, 2009.
  King M. Contextualization of socio-culturally meaningful data (letter to editor). Can J Public Health 2015; 106: e457.

February 13 – Study break

February 20 – Class 6
- 1st midterm
- Lecture 6 – guest tba

February 27 – Class 7
- Paper overview due
- Lecture 7 – guest tba
- Lecture 8 – guest tba

March 6 – Class 8
- Student presentations

March 13 – Class 9
- Student presentations

March 20 – Class 10
- Student presentations

March 27 – Class 11
- Paper due
- Lecture 9 – Global Indigenous health
- Course summary / debrief
- Reading:
  Anderson I, and others. Indigenous and tribal peoples' health (The Lancet Lowitja Institute Global Collaboration): A population study. The Lancet, published online April 20, 2016 http://dx.doi.org/10.1016/S0140-6736(16)00345-7
-

April 3 – Class 12
- 2nd midterm

Guest lectures on specific topics such as tuberculosis, diabetes, health services, racism, etc. to be arranged. Guest lecturers will provide additional readings as appropriate.

SFU 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)
CHEM	849	3

Course title (max 100 characters including spaces and punctuation)
Special Topics in Materials Chemistry

Short title (for enrollment/transcript - max 30 characters)
Topics in Materials Chemistry

Course description for SFU Calendar *
Selected topics in materials chemistry will be covered, which may vary from year to year and may include (but are not limited to): materials with tunable optoelectronic properties, trace element analysis of materials using non-destructive techniques, and materials with applications in producing and utilizing chemical energy.

Rationale for introduction of this course
Materials chemistry is an important discipline within modern chemistry, and, as such, it is important that graduate students gain exposure to new trends and topics in this area. While materials chemistry is a rapidly expanding field that constitutes a major research focus within the Department of Chemistry, only a narrow selection of topics within this discipline are introduced in existing courses at Simon Fraser University. This team-taught Special Topics course will allow us to provide wide coverage of the diverse range of techniques, discoveries and applications within materials chemistry. Each semester, three distinct topics will be covered by different faculty. No topics will be repeated in consecutive offerings of the course, maximizing the opportunities for students to obtain a broad coverage of the field.

Effective term and year	Course delivery (eg 3 hrs/week for 13 weeks)
Fall 2017	3 hrs/week lecture and 1 hr/week tutorial for 13 weeks
Frequency of offerings/year: 1	Estimated enrollment/offering: 20

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 **

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 ☑ tutorial

Grading Basis ☑ Letter grades ☐ Satisfactory/Unsatisfactory ☐ In Progress/Complete		Capstone course? ☐ Yes ☑ No
Repeat for credit? *** ☑ Yes ☐ No	Total completions allowed? 2	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:
CHEM 449;

* 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
N. Branda, L. Kaake, V. Williams, M. Eikerling, G. Leach, K. Starosta, B. Gates, S. Holdcroft, Z.G. Ye, H. Yu
Additional faculty members, space, and/or specialized equipment required in order to offer this course
Lecture space to accommodate the needs of this multimedia course

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Chemistry	Byron Gates	bgates@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 KRZYSZTOF STARDSTA	Signature	Date Nov 14, 2016
Department Chair STEVEN HOLDCROFT	Signature	Date Nov 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
Peter Ruben	Peter Ruben Digitally signed by Peter Ruben DN: cn=Peter Ruben, o, ou, email=pruben@sfu.ca, c=CA Date: 2017.02.14 14:40:27 -08'00'	14 February 2017

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse		FEB 14 2017

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: _____

Simon Fraser University
Science

CHEM 849 - 3

Topics in Materials Chemistry
D01.00
Semester 2017-3

Instructors: **Drs. Byron Gates, Loren Kaake, and Krzysztof Starosta**
Course Coordinator: Dr. Gates, Office: C9026, Email: bgates@sfu.ca

Description/topics: Introduction to advanced concepts in materials chemistry with applications in health, energy and the environment. Topics will span many areas of materials research including cutting edge challenges being addressed by the field, emerging techniques, and specialized areas of materials chemistry research.

3 lecture hours/week; 1 tutorial hour/week

Lecture Topics:

- Synthesis and characterization of nanostructures and nanostructured materials with applications in health, energy, and the environment
- Examples will include materials for fuel cells, water electrolyzers, industrial catalysis, batteries, and drug delivery
- Organic materials for optoelectronics, investigating the electronic structure and optical properties of these materials
- Introduction to optoelectronic devices with performance correlated to spectroscopic observables and electrical properties including elementary band theory, excitons and polarons, and charge transfer and transport.
- Trace element analysis of materials using neutron activation and high-resolution gamma-ray spectroscopy
- Reaction kinetics and numerical analysis of data will also taught in association with these analyses

Grading: 15% Assigned Problems and Quizzes; 25% 1st Interim Exam; 25% 2nd Interim Exam; 35% Final Exam

Required reading: Selections of reading will be provided through Canvas throughout the course.

Recommended texts: None

Materials/supplies: None

Prerequisite/corequisite: **Prerequisite:** B.Sc. in Chemistry or permission of the Department.

Notes: None

Simon Fraser University
Science

CHEM 449 - 3

Topics in Materials Chemistry
D01.00
Semester 2017-3

Instructors:	**Drs. Byron Gates, Loren Kaake, and Krzysztof Starosta** Course Coordinator: Dr. Gates, Office: C9026, Email: bgates@sfu.ca
Description/topics:	Introduction to fundamental and advanced concepts in materials chemistry with applications in health, energy and the environment. Topics will span many areas of materials research including cutting edge challenges being addressed by the field, emerging techniques, and specialized areas of materials chemistry research. 3 lecture hours/week; 1 tutorial hour/week **Lecture Topics:** • Synthesis and characterization of nanostructures and nanostructured materials with applications in health, energy, and the environment • Examples will include materials for fuel cells, water electrolyzers, industrial catalysis, batteries, and drug delivery • Organic materials for optoelectronics, investigating the electronic structure and optical properties of these materials • Introduction to optoelectronic devices with performance correlated to spectroscopic observables and electrical properties including elementary band theory, excitons and polarons, and charge transfer and transport. • Trace element analysis of materials using neutron activation and high-resolution gamma-ray spectroscopy • Reaction kinetics and numerical analysis of data will also taught in association with these analyses
Grading:	15% Assigned Problems and Quizzes; 25% 1st Interim Exam; 25% 2nd Interim Exam; 35% Final Exam
Required reading:	Selections of reading will be provided through Canvas throughout the course.
Recommended texts:	None
Materials/supplies:	None
Prerequisite/corequisite:	**Prerequisite:** CHEM 283, CHEM 215, CHEM 260, and 12 units of 300 level chemistry or permission of the department. A grade of C- or better is required for all prerequisite courses.
Notes:	None

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)
CHEM	862	3

Course title (max 100 characters including spaces and punctuation)
Molecular Spectroscopy

Short title (for enrollment/transcript - max 30 characters)
Molecular Spectroscopy

Course description for SFU Calendar *
Quantum mechanical treatment of atomic and molecular energy levels. In-depth treatment of electronic, vibrational, and rotational spectroscopy including group theory treatment of selection rules that determine observed spectral lines.

Rationale for introduction of this course
The course already offered as an undergraduate course (CHEM 462). The material is also appropriate for a graduate course with the inclusion of additional course work.

Effective term and year	Course delivery (eg 3 hrs/week for 13 weeks)
fall 2017	3 hrs/week for 13 weeks
Frequency of offerings/year	**Estimated enrollment/offering**
1 time per year	10-20

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 **
Enrollment in Chemistry graduate 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 ☐ _____

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:
Undergraduate course is 462. Additional requirements: report and presentation discussing relevant examples from the research literature

* 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
Loren Kaake, Gary Leach
Additional faculty members, space, and/or specialized equipment required in order to offer this course
none

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Chemistry	Loren Kaake	lkaake@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	Signature	Date
KRZYSZTOF STAROSTA	K Sta	Nov 18, 2016
Department Chair	**Signature**	**Date**
STEVEN HOLDCROFT	S. Holdcroft	Nov 21, 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
Peter Ruben	Peter Ruben Digitally signed by Peter Ruben DN: cn=Peter Ruben, o, ou, email=pruben@sfu.ca, c=CA Date: 2017.02.14 14:40:55 -08'00'	14 February 2017

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse	W Parkhouse	FEB 14 2017

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: _____

Simon Fraser University
Science

CHEM 862

Molecular Spectroscopy

Instructor:	Dr. Loren Kaake
Description:	Energy levels of atoms and molecules and the spectroscopic techniques used to investigate them. Specific topics include: Light and spectroscopic measurements, Postulates and formalism of quantum mechanics, Exactly solvable quantum mechanical models important in spectroscopy, Time dependent perturbation theory and the process of light absorption, Vibrational spectroscopy, Rotational spectroscopy, Atomic Spectroscopy, Chemical bonding, Electronic absorption and photoluminescence, Raman effect 3 lecture hours/week; 1 tutorial hour/week; 0 lab hours
Grading:	20% Assignments 30% Midterm exam 30% Final exam 20% Report and presentation applying course concepts to current literature
Required text:	None
Recommended texts:	Atkins, P.; Friedman, R.A. *Molecular Quantum Mechanics* McQuarrie, D. A. *Quantum Chemistry* Shankar, R. *Principles of Quantum Mechanics* Levine, I.N. *Quantum Chemistry*
Prerequisites:	Admission to graduate program Familiarity with quantum mechanics at undergraduate level

SPRING 2016 - CHEM 462 D100

MOLECULAR SPECTROSCOPY (3)

Class Number: 1741 Delivery Method: In Person

COURSE TIMES + LOCATION:

Tu, Th 12:30 PM – 2:20 PM
AQ 5008, Burnaby

EXAM TIMES + LOCATION:

Apr 22, 2016
8:30 AM – 11:30 AM
AQ 5016, Burnaby

INSTRUCTOR:

Loren Kaake
lkaake@sfu.ca

PREREQUISITES:

CHEM 260 or PHYS 385.

Description

CALENDAR DESCRIPTION:

Atomic spectra. Electronic, vibrational and rotational spectra of diatomic and polyatomic molecules. The Raman effect. Nuclear and electron spin resonance. Symmetry classification of molecules and their energy levels. Quantitative.

COURSE DETAILS:

3 lecture hours/week; 1 tutorial hour/week

Quantum mechanical basis of Spectroscopy Angular momentum and Term Symbols. Atomic spectra. Spin Resonance spectroscopy, Electronic, vibrational and rotational spectra of diatomic and polyatomic molecules. The Raman effect. Group Theory and Symmetry classification of molecules. Modern topics in spectroscopy.

Topics:

Energy levels of atoms and molecules.
Electronic, vibrational and rotational spectra of molecules.

A detailed course outline will be provided at the beginning of semester.

Grading

Assignments	20%
Two Midterm Exams	40%
Final Exam	40%

Materials

RECOMMENDED READING:

Donald A. McQuarrie. **Quantum Chemistry.** 2nd Edition. 2007. Publisher: University Science Books.

Peter W. Atkins & Ronald S. Friedman. **Molecular Quantum Mechanics**. 5th Edition. 2010. Publisher: Oxford University Press.

Jeanne L. McHale. **Molecular Spectroscopy**. 1998. Publisher: Prentice Hall.

DEPARTMENT UNDERGRADUATE NOTES:

A grade of C- or better is required for all prerequisite courses.

REGISTRAR NOTES:

SFU's Academic Integrity web site http://students.sfu.ca/academicintegrity.html is filled with information on what is meant by academic dishonesty, where you can find resources to help with your studies and the consequences of cheating. Check out the site for more information and videos that help explain the issues in plain English.

Each student is responsible for his or her conduct as it affects the University community. Academic dishonesty, in whatever form, is ultimately destructive of the values of the University. Furthermore, it is unfair and discouraging to the majority of students who pursue their studies honestly. Scholarly integrity is required of all members of the University. http://www.sfu.ca/policies/gazette/student/s10-01.html

ACADEMIC INTEGRITY: YOUR WORK, YOUR SUCCESS

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)
EASC	630	3

Course title (max 100 characters including spaces and punctuation)
Groundwater Contamination and Transport

Short title (for enrollment/transcript - max 30 characters)
Groundwater Contam. and Trans.

Course description for SFU Calendar *
An introduction to contaminant hydrogeology and mass transport processes in groundwater regimes. Topics include: natural groundwater quality; sources of contamination, for example, from mine waste, agriculture, saltwater intrusion, and industrial activities; and the processes and principles governing mass transport, including advection, dispersion and diffusion. The course also explores methodologies for site investigation as well as various remediation methods.

Rationale for introduction of this course
Groundwater contamination and transport has been taught regularly at an undergraduate level for close to 20 years, with graduate students regularly participating in the course as "Special Topics". Introducing a regular graduate-level course in this subject area, including more advanced learning outcomes, will provide a more suitable option for interested graduate students than enrolling in the undergraduate version of the course.

Effective term and year	Course delivery (eg 3 hrs/week for 13 weeks)
Spring 2018	2 hrs lecture, 3 hours lab
Frequency of offerings/year	**Estimated enrollment/offering**
once every 2 years	4-5

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.)
EASC 410

Prerequisite and/or Corequisite **
Permission of instructor. Undergraduate physical hydrogeology and aqueous geochemistry courses required.

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? 1

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:
EASC 410 - Graduate students do not complete the undergraduate term project; instead, they complete a more advanced term project using state-of-the-art software where they develop a numerical flow and transport model for a contaminated site and write a consulting style report

* 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
Diana Allen
Additional faculty members, space, and/or specialized equipment required in order to offer this course
Dirk Kirste could also teach this course; however, it will normally only be taught by Dr. Allen as part of her regular teaching load.

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Earth Sciences	Diana Allen	dallen@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 Gwenn Flowers	Signature	Date 21 Sept 2016
Department Chair Brent Ward	Signature Dr. Brent Ward, P.Geo. Digitally signed by Dr. Brent Ward, P.Geo. DN: cn=Dr. Brent Ward, P.Geo., o=SFU, ou=EArth Sciences, email=bcward@sfu.ca, c=US Date: 2016.09.21 21:38:19 -08'00'	Date 21 Sept 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
Peter Ruben	Peter C Ruben Digitally signed by Peter C Ruben DN: cn=Peter C Ruben, o=Simon Fraser University, ou=Faculty of Science, email=pruben@sfu.ca, c=CA Date: 2016.09.28 14:17:07 -07'00'	28 September 2016

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse		FEB 14 2017

ADMINISTRATIVE SECTION (for DGS office only)

Course Attribute: _____ **If different from regular units:**

Course Attribute Value: _____ **Academic Progress Units:** _____

Instruction Mode: _____ **Financial Aid Progress Units:** _____

Attendance Type: _____

Simon Fraser University
Earth Sciences

D.M. Allen

EASC 630
GROUNDWATER CONTAMINATION AND TRANSPORT
Course Outline

General:
Groundwater contamination can be a significant environmental problem leading to degradation of the quality of fresh water both in the subsurface and where groundwater discharges to surface water bodies. This course introduces the basic principles of contaminant hydrogeology (inorganic and organic contaminants, chemical processes, mass transport processes) and contaminant transport modeling. Analytical solutions for mass transport and numerical solutions (e.g., MT3D) are covered. The course culminates in the development of a numerical transport model and appropriate model documentation to investigate the transport of a contaminant at a well-known contaminated site. The course also explores methodologies for site investigation as well as various remediation methods that have been developed to clean up groundwater.

Prerequisites: Permission of Instructor. Requires undergraduate courses in aqueous geochemistry (EASC 315 equivalent), physical hydrogeology (EASC 304), and groundwater flow modeling (EASC 613).

Course Topics:
1. Overview of Groundwater Contamination - types of contaminants, lab analysis, sources
2. Inorganic Chemicals in Groundwater – chemical processes in the unsaturated and saturated zones, mixing, zonation, inorganic contaminants
3. Organic Compounds in Groundwater - naming organics, properties of organics, chemical partitioning. Mass Transport in Saturated Media (concepts and equations for mass transport, analytical solutions, field measurements, scale dependence, plumes.
4. Transformation, Retardation and Attenuation
5. Monitoring and Sampling – Site characterization
6. Flow and Mass Transport in the Vadose Zone
7. Multiphase Flow
8. Remediation Methods (overview)

Learning Outcomes:
Knowledge Development – students integrate their knowledge of types of contaminants (inorganic, organic, radionuclide), sources of contamination, and the physical and chemical processes that control the fate and transport (mobility) of contaminants (liquids – dissolved and free phase, gases) to predict the presence of contaminants in groundwater systems. How will they move? Will they degrade? How can they be cleaned up? Transport of non-aqueous phase liquids /gases in the groundwater context is analogous to transport of oil and gas in petroleum reservoirs.

Analytical Skill Development: students learn analytical methods (computational and lab experiments) for quantifying fate and transport of a variety of contaminants within a groundwater system.

Computing Skills: Students further develop skills in spreadsheets (calculation, graphing), numerical modeling using specialized software (introductory level).

Writing Skill Development: Students write a proposal in response to a call for proposals for a particular contaminated site.

Oral Presentation Skill Development: Students present their proposal orally.

Course Organization:
1 two-hour lecture and 1 three-hour laboratory. The assignments are based on the theory part of the course, and these will be distributed during lab time. A term project consists of the development of a solute transport model implemented in MT3DS (Visual MODFLOW interface).

Textbook:
Fetter, C.W., 1999. Contaminant Hydrogeology, 2nd Edition, Waveland Press, 500 pp.

Selected Readings: *CCME Contaminated Sites Report. Specific readings on contaminant transport modeling.*

Course Grading:

1. Assignments	20%
2. Mid-Term Exam	10%
3. Mock Trial Participation	5%
4. Term Project	50%
5. Final Exam	15%

Simon Fraser University
Earth Sciences

D.M. Allen
Spring 2017

EASC 410
GROUNDWATER CONTAMINATION AND TRANSPORT

Course Outline

General:
Groundwater contamination can be a significant environmental problem leading to degradation of the quality of fresh water both in the subsurface and where groundwater discharges to surface water bodies. This course introduces the basic principles of contaminant hydrogeology by discussing the geochemical properties of inorganic and organic contaminants and the processes and principles governing mass transport, including advection, dispersion and diffusion. The course also explores methodologies for site investigation as well as various remediation methods that have been developed to clean up groundwater.

Prerequisites: EASC 315 (requires EASC 304).

Course Topics:
1. Overview of Groundwater Contamination
2. Mass Transport in Saturated Media - concepts and equations for mass transport, analytical solutions, field measurements, scale dependence, plumes.
3. Inorganic Chemicals in Groundwater – chemical processes in the unsaturated and saturated zones, mixing & zonation, inorganic contaminants
4. Organic Compounds in Groundwater - naming and properties of organics
5. Transformation, Retardation and Attenuation – processes, chemical partitioning
6. Monitoring and Sampling – site characterization
7. Flow and Mass Transport in the Vadose Zone
8. Multiphase Flow
9. Remediation Methods (overview)

Learning Outcomes:

Knowledge Development – students integrate their knowledge of types of contaminants (inorganic, organic, radionuclide), sources of contamination, and the physical and chemical processes that control the fate and transport (mobility) of contaminants (liquids – dissolved and free phase, gases) to predict the presence of contaminants in groundwater systems. How will they move? Will they degrade? How can they be cleaned up? Transport of non-aqueous phase liquids /gases in the groundwater context is analogous to transport of oil and gas in petroleum reservoirs.

Analytical Skill Development: students learn analytical methods (computational and lab experiments) for quantifying fate and transport of a variety of contaminants within a groundwater system.

Computing Skills: Students further develop skills in spreadsheets (calculation, graphing), numerical modeling using specialized software (introductory level).

Writing Skill Development: Students write a proposal in response to a call for proposals for a particular contaminated site.

Oral Presentation Skill Development: Students present their proposal orally.

Course Organization:
One 2-hour lecture and one 3-hour laboratory weekly. The weekly assignments and the term project are based on the theory part of the course, and these will be distributed during lab time.

Textbook:
Fetter, C.W., 1999. Contaminant Hydrogeology, 2nd Edition, Waveland Press, 500 pp.

Selected Readings

Course Grading:

1. Assignments	25%
2. Midterm Exam	15%
3. Mock Trial Participation	5%
4. Term Project and Presentation	20%
5. Final Exam	35%

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)
EASC	635	3

Course title (max 100 characters including spaces and punctuation)
Water, Environment and Climate Change

Short title (for enrollment/transcript - max 30 characters)
Water, Env. and Climate Change

Course description for SFU Calendar *
Applies and integrates concepts from hydrological science to assess the various impacts to water cycles over a range of scales, considering both climate and other environmental stressors. Secondary impacts of climate change on water resources (including water for humans and aquatic ecosystems) are explored, focusing on current issues to generate ideas for potential mitigative and adaptive solutions.

Rationale for introduction of this course
This course is taught regularly at an undergraduate level, with graduate students participating in the course as "Special Topics". Introducing a regular graduate-level course in this subject area, including more advanced learning outcomes, will provide a more suitable option for interested graduate students than enrolling in the undergraduate version of the course.

Effective term and year	Course delivery (eg 3 hrs/week for 13 weeks)
Spring 2018	2 hrs lecture, 3 hours lab
Frequency of offerings/year	**Estimated enrollment/offering**
once every 2 years	4-5

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.)
EASC 405

Prerequisite and/or Corequisite **
Permission of instructor. Undergraduate physical hydrogeology and aqueous geochemistry courses required.

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? 1 | 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:
EASC 405- Graduate students prepare and deliver a lecture. They also write up assignments in full report format, rather than simply as "question and answer" format.

* 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
Diana Allen
Additional faculty members, space, and/or specialized equipment required in order to offer this course
Dirk Kirste could also teach this course; however, it will normally only be taught by Dr. Allen as part of her regular teaching load.

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Earth Sciences	Diana Allen	dallen@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 Gwenn Flowers	Signature	Date 21 Sept 2016
Department Chair Brent Ward	Signature Dr. Brent Ward, P.Geo. Digitally signed by Dr. Brent Ward, P.Geo. DN: cn=Dr. Brent Ward, P.Geo., o=SFU, ou=EArth Sciences, email=bcward@sfu.ca, c=US Date: 2016.09.21 22:06:40 -08'00'	Date 21 Sept 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
Peter Ruben	Peter C Ruben Digitally signed by Peter C Ruben DN: cn=Peter C Ruben, on Simon Fraser University, ou=Faculty of Science, email=pruben@sfu.ca, c=CA Date: 2016.09.28 14:17:54 -07'00'	28 September 2016

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse		FEB 14 2017

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: _____

Simon Fraser University
Earth Sciences

D. M. Allen
Spring 2018

EASC 635
WATER, ENVIRONMENT, AND CLIMATE CHANGE
Course Outline

General:
Changes to the water cycle resulting from changes in climate and changes to the broader environment directly impact people and ecosystems. Our understanding of hydrologic system response to climate fluctuations continues to rapidly evolve, building on a substantial and productive research history. Fundamentally, questions remain about changes to water budget components, including precipitation, evapotranspiration, streamflow, and groundwater recharge due to uncertainties in the physical processes themselves and the climate change predictions. Similarly, the suitability of historical records for forecasting is sometimes compromised by persistent natural variations and human driven changes (e.g., urbanization). Managing water resources requires the ability to provide reliable predictions of the response of the water cycle to changing environmental conditions at a range of scales. How will the hydrologic system and associated subsystems respond to, and evolve under, natural and human induced changes in climate and the environment?

In this course, students integrate their knowledge of the hydrological sciences (climate, hydrology, and hydrogeology, water chemistry) to understand the various linkages between the sub-disciplines, exploring the water cycle and its relevance to water resources. We will first review climate science from the perspective of climate variability and climate change (causes, past evidence, approaches for making predictions about the future). We will then focus on the various impacts to water cycles over a range of scales, considering both climate and other environmental stressors. The secondary impacts of climate and broader environmental change on the environment (including impacts to humans and aquatic ecosystems) will be explored in the second part of the course by focusing on current issues in different regions around the globe to generate ideas for potential adaptive solutions.

Prerequisites: Permission of Instructor. Requires an undergraduate equivalent of EASC 315 (includes EASC 304) or EASC 304 and GEOG 311.

Course Topics:
- Climate Variability and Change: Understanding the past and making predictions into the future.
- Impacts to Water Cycles: From the catchment scale to global scale (e.g., shifting hydrologic regimes, salinization, and desertification).
- Secondary Impacts: Water sustainability; drinking water quality; food security; energy security.
- Adaptive Solutions: Conjunctive use of surface water and groundwater; watershed management.

Learning Outcomes:
Knowledge Development – Normally, undergraduate courses are taught in a bit of a silo manner. In this course, students integrate their knowledge of the hydrological sciences (climate, hydrology, and hydrogeology, water chemistry) to understand the various linkages between the sub-

disciplines, exploring the water cycle and its relevance to water resources. How might changes in climate affect the hydrologic cycle? What might the impacts be to water resources (both quantity and quality)? What are the secondary impacts to food and energy security, aquatic ecosystems?

Critical Thinking: Given this knowledge, how can it be applied to address current issues related to climate change adaptation and mitigation? What can we learn from past impacts of climate change? What local/regional factors might influence decision making?

Oral Communication Skill Development: Debate, formal presentations, informal discussion are all means of communication. Within a group setting, facilitated break-out discussions are often used to collect ideas and build consensus. These various forms of oral communication will be used in this course to expose students to different ways that scientists communicate.

Writing Skill Development: Assignments and the term project will be largely writing intensive. Written forms of communication will include, for example, a letter to the editor of a newspaper, a public interest article, a scientific report to a government agency responsible for water management.

Course Organization:
This course will comprise one 2-hour lecture and one 3-hour lab each week. The labs will encompass a range of activities (lecture based assignments, writing assignments, group activities, discussions). The format for group activities will include roundtable style, breakout groups, etc. so as to expose students to different forms of group dialogue. The course will culminate in a written term project whereby students will select a region and undertake a climate change impacts/adaptation/mitigation assessment. Oral presentations will be given on the term project.

Graduate students taking this course for graduate credit will be responsible for developing and delivering one half-hour lecture (assigned), as well as playing a more active role in the group activities. In addition, all weekly assignments must be completed in full report format, as opposed to the undergraduates who may write up their weekly assignments in a simpler format.

Textbook: Nigel Arnell. 2002. Hydrology and Global Environmental Change. Prentice Hall, 368 pp.

Selected Readings: Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report (available free online); Climate Overview 2007: Hydro-Climatology and Future Climate Impacts in British Columbia" by Rodenhuis et al. (2009); various journal publications (available through SFU library).

Course Grading:

1. Data / Modeling Assignments (5)	35%
2. Writing Assignments (3)	25%
3. Lecture Preparation & Delivery	10%
3. Participation (group activities and discussions)	5%
5. Term Paper (20%) and Presentation (5%)	25%

SPRING 2016 - EASC 405 D100

WATER, ENVIRONMENT, AND CLIMATE CHANGE (3)

Class Number: 1748 Delivery Method: In Person

COURSE TIMES + LOCATION:

Tu 10:30 AM – 12:20 PM
AQ 5039, Burnaby

INSTRUCTOR:

Diana Allen
dallen@sfu.ca
778-782-3967
Office: TASC 1 Room 7239

PREREQUISITES:

EASC 304, EASC 315W or EASC 412, and GEOG 311.

Description

CALENDAR DESCRIPTION:

Applies and integrates concepts from hydrological science to assess the various impacts to water cycles over a range of scales, considering both climate and other environmental stressors. Secondary impacts of climate change on water resources (including water for humans and aquatic ecosystems) are explored, focusing on current issues to generate ideas for potential mitigative and adaptive solutions.

COURSE DETAILS:

Changes to the water cycle resulting from changes in climate and changes to the broader environment directly impact people and ecosystems. Our understanding of hydrologic system response to climate fluctuations continues to rapidly evolve, building on a substantial and productive research history. Fundamentally, questions remain about changes to water budget components, including precipitation, evapotranspiration, streamflow, and groundwater recharge due to uncertainties in the physical processes themselves and the climate change predictions. Similarly, the suitability of historical records for forecasting is sometimes compromised by persistent natural variations and human driven changes (e.g., urbanization). Managing water resources requires the ability to provide reliable predictions of the response of the water cycle to changing environmental conditions at a range of scales. How will the hydrologic system and associated subsystems respond to, and evolve under, natural and human induced changes in climate and the environment?

In this course, students integrate knowledge of the hydrological sciences (climate, hydrology, hydrogeology, water chemistry) to understand the various linkages within the water cycle and its relevance to water resources. We first review climate science from the perspective of climate variability and climate change (causes, past evidence, approaches for making predictions about the future). We will then focus on the various impacts to water cycles over a range of scales, considering both climate and other environmental stressors. The secondary impacts of climate and broader environmental change on the environment (including impacts to humans and aquatic ecosystems) are explored in the second part of the course by focusing on current issues in different regions around the globe to generate ideas for potential adaptive solutions.

Course Topics:

Climate Variability and Change: Understanding the past and making predictions into the future.

Impacts to Water Cycles: From the catchment scale to global scale (e.g., shifting hydrologic regimes, salinization, desertification).

Secondary Impacts to Humans and Aquatic Ecosystems: Water sustainability; drinking water quality; food security; energy security; ecohydrology.

Adaptive Solutions: Conjunctive use of surface water and groundwater; watershed management.

Course Organization:

This course will comprise one 2-hour lecture and one 3-hour lab each week. The labs will encompass a range of activities (lecture based assignments, writing assignments, group activities, discussions). The format for group activities will include roundtable style, breakout groups, etc. so as to expose students to different forms of group dialogue. The course will culminate in a written term project whereby students will select a region and undertake a climate change impacts/adaptation/mitigation assessment. Oral presentations will be given on the term project.

Grading

Data / Modeling Assignments (5)	25%
Writing Assignments (3)	35%
Participation (group activities and discussions)	10%
Term Paper (20%) and Presentation (10%)	30%

Materials

REQUIRED READING:

Nigel Arnell. 2002. Hydrology and Global Environmental Change. Prentice Hall, 368 pp.
ISBN: 978-0-582-36984-9

RECOMMENDED READING:

SELECTED READINGS:

EXCERPTS FROM THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC) 4TH AND 5TH ASSESSMENT REPORTS (AVAILABLE FREE ONLINE); CLIMATE OVERVIEW 2007: HYDRO-CLIMATOLOGY AND FUTURE CLIMATE IMPACTS IN BRITISH COLUMBIA" BY RODENHUIS ET AL. (2009); VARIOUS JOURNAL PUBLICATIONS (AVAILABLE THROUGH SFU LIBRARY).

REGISTRAR NOTES:

SFU's Academic Integrity web site http://students.sfu.ca/academicintegrity.html is filled with information on what is meant by academic dishonesty, where you can find resources to help with your studies and the consequences of cheating. Check out the site for more information and videos that help explain the issues in plain English.

Each student is responsible for his or her conduct as it affects the University community. Academic dishonesty, in whatever form, is ultimately destructive of the values of the University. Furthermore, it is unfair and discouraging to the majority of students who pursue their studies honestly. Scholarly integrity is required of all members of the University. http://www.sfu.ca/policies/gazette/student/s10-01.html

ACADEMIC INTEGRITY: YOUR WORK, YOUR SUCCESS

SFU 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)
EASC	810	0

Course title (max 100 characters including spaces and punctuation)
MSc Thesis Proposal

Short title (for enrollment/transcript - max 30 characters)
MSc Thesis Proposal

Course description for SFU Calendar *
Candidates must make an oral presentation of the written research proposal to an open audience including the supervisory committee, followed by a closed discussion between the student and committee. This allows the committee to assess the suitability of the project and the ability of the student to undertake the proposed research. The proposal presentation usually takes place prior to the end of the second term of enrolment.

Rationale for introduction of this course
To encode the MSc thesis proposal presentation (formally referred to as the MSc colloquium) as a required course to help track a student's progress in the program and to record these milestones on the student's transcript.

Effective term and year	Course delivery (eg 3 hrs/week for 13 weeks)
Fall 2017	
Frequency of offerings/year	**Estimated enrollment/offering**
every semester	3-8

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 **
Enrolment in MSc 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 ☑ Proposal/presen

Grading Basis			Capstone course?	
☐ Letter grades	☑ Satisfactory/Unsatisfactory	☐ In Progress/Complete	☐ Yes	☑ No
Repeat for credit? * **		**Total completions allowed?**	**Repeat within a term?**	
☐ Yes	☑ No	N/A	☐ Yes	☑ No
Required course?		**Final exam required?**	**Additional course fees?**	
☑ Yes	☐ No	☐ Yes ☑ No	☐ 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
All faculty
Additional faculty members, space, and/or specialized equipment required in order to offer this course

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Earth Sciences	Tarja Vaisanen	tvaisane@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 Gwenn Flowers	Signature	Date 24 Dec 2016
Department Chair Brent Ward	Signature Dr. Brent Ward, P.Geo.	Date 3 Nov 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
Peter Ruben	Peter Ruben	14 February 2017

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
Wade Parkhouse		FEB 14 2017

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: _____

EASC *810*: MSc Thesis Proposal

PURPOSE: The presentation of the MSc thesis proposal provides a structured opportunity for the student and Supervisory Committee to discuss and agree upon the proposed research, ideally in advance of significant research progress. It serves as an opportunity for the committee to assess the suitability of the project and the preparation of the student to undertake the proposed research. It also serves a training role in requiring the student to articulate, both orally and in writing, the scientific objectives of the research and a plan for meeting them.

PROCEDURE:

The M.Sc. candidate is required to submit to the Supervisory Committee a written thesis proposal, which should include:

- background, scientific context and motivation for the proposed research
- specific research objectives
- research methodology
- results of any preliminary work
- expected outcomes and significance of the proposed research
- proposed research timetable and, if appropriate, an estimated budget

The thesis proposal will be presented in an oral colloquium, chaired by the Senior Supervisor, by the end of the second semester. The colloquium begins with a 20-minute open oral presentation by the candidate that should include an outline of the research objectives and how these objectives will be met. Following a brief period where questions from the audience are entertained, the candidate and Supervisory Committee will have a closed meeting to discuss the proposal, including the scientific objectives, the proposed research methodology and the ability of the student to carry out the proposed research. The colloquium will usually serve as the first Supervisory Committee meeting for MSc students.

ASSESSMENT: The outcome of EASC 800 is assessed as satisfactory/unsatisfactory, as agreed upon by the Supervisory Committee. The committee must approve the written thesis proposal, either as presented at the colloquium, or upon revision after the colloquium.

TIMING: The thesis proposal presentation should take place prior to the end of the second semester of enrolment.

LOGISTICS:

1. ***Student and Supervisor:*** Agree upon a date. Confirm availability of Supervisory Committee members.

2. ***Student and/or Supervisor:*** Request a room booking through the Graduate Secretary.

3. ***Student:*** Provide the Supervisory Committee with a copy of the thesis proposal two weeks prior to the colloquium date. Notify the Graduate Secretary of the title of the thesis proposal.

4. ***Graduate Secretary:*** When the date, time and room booking have been confirmed, send an email including the student name, thesis proposal title, colloquium date, time and location, and names of committee members to:

    easc-grads (EASC graduate students)
    easc-info (EASC undergraduates & other interested parties)
    earth-science (EASC faculty & staff)

5. ***Student:*** At least three days before the presentation, deliver a copy of the thesis proposal to the Graduate Secretary for display in the EASC General Office.

6. ***Graduate Secretary:*** Upon delivery of the thesis proposal at least three days prior to the presentation:

    i) Create a poster for front door
    ii) Send a reminder email to:

        easc-grads (EASC graduate students)
        easc-info (EASC undergraduates & other interested parties)
        earth-science (EASC faculty & staff)

7. ***Supervisor***: Once the Supervisory Committee has approved the thesis proposal, either at or after the colloquium, sign the Acceptance of Thesis Proposal Form and attach the **finalized** copy of the thesis proposal. The finalized copy should reflect any revisions that were suggested as a result of the thesis proposal presentation, and represents an agreement between the student and Supervisory Committee as to the intended objectives, scope, methodology, expected outcomes and timeline of the proposed research. The proposal may be updated, if necessary, by mutual agreement through committee meetings and progress reports.

8. ***Graduate Secretary:*** Retain the hard copy of the thesis proposal displayed in the EASC General Office as a resource for other students. Place a copy of the thesis proposal and the original Acceptance of Thesis Proposal Form in the student's departmental file. If the outcome of the colloquium is satisfactory, ensure that the student receives credit for completion of EASC 800.

SFU 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)	EASC	Number (eg. 810)	910	Units (eg. 4)	0

Course title (max 100 characters including spaces and punctuation)
PhD Candidacy Examination

Short title (for enrollment/transcript - max 30 characters)
PhD Candidacy Examination

Course description for SFU Calendar *
Candidates must pass an oral examination to demonstrate their ability to carry out the proposed thesis research. The examination comprises an oral presentation of the proposed research to an open audience, followed by a closed oral examination by the examining committee. The examination is usually taken prior to the end of the fourth term of enrolment, or within one term after transferring from the MSc program. It may not be taken more than twice.

Rationale for introduction of this course
To encode the PhD candidacy as a course in order to help with tracking a student's progress in the program and to record these milestones on the student's transcript.

Effective term and year	Fall 2017	Course delivery (eg 3 hrs/week for 13 weeks)	
Frequency of offerings/year	every semester	Estimated enrollment/offering	1-4

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 **
Enrolment in PhD 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 ☑ Exam

Grading Basis ☐ Letter grades ☑ Satisfactory/Unsatisfactory ☐ In Progress/Complete	Capstone course? ☐ Yes ☑ No

Repeat for credit? *** ☐ Yes ☑ No	Total completions allowed? 2	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
All faculty
Additional faculty members, space, and/or specialized equipment required in order to offer this course

CONTACT PERSON

Department / School / Program	Contact name	Contact email
Earth Sciences	Tarja Vaisanen	tvaisane@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 Gwenn Flowers	Signature	Date 24 Oct 2016
Department Chair Brent Ward	Signature Dr. Brent Ward, P.Geo. Digitally signed by Dr. Brent Ward, P.Geo. DN: cn=Dr. Brent Ward, P.Geo., o=SFU, ou=EArth Sciences, email=bewards@sfu.ca, c=CA Date: 2016.11.03 10:45:41 -08'00'	Date 3 Nov 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
Peter Ruben	Peter Ruben Digitally signed by Peter Ruben DN: cn=Peter Ruben, o, ou, email=pruben@sfu.ca, c=CA Date: 2017.02.14 14:42:27 -08'00'	14 February 2017

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee (SGSC)	Signature	Date
~~Wade Parkhouse~~		FEB 14 2017

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: _____

EASC 9/0 PhD CANDIDACY EXAMINATION

PURPOSE: Candidates must pass an oral examination intended to assess their potential to carry out the proposed thesis research, as demonstrated by sufficient command of the studied discipline(s) and an ability to explain and defend a written thesis proposal.

PROCEDURE: The student and supervisor will agree upon three (one major, two minor) subject areas of focus for examination, several months before the examination date. The student will submit a written thesis proposal to the Examining Committee prior to the examination (see "Logistics"). The Examining Committee includes the Supervisory Committee plus one External Examiner, who may be another departmental faculty member not on the Supervisory Committee. The strict arm's-length requirements for External Examiners on the PhD defense do not apply to the candidacy examination.

The examination itself comprises an oral presentation by the candidate to an open audience, followed by a closed oral examination by the Examining Committee. The examination is chaired by an EASC faculty member who is not a member of the Examining Committee. This will normally be the EASC Graduate Program Chair or a designate. The Chair will not ask questions or vote on the outcome of the examination.

The candidate will give a 20 minute oral presentation of the thesis proposal, followed by a brief period during which questions from the audience may be entertained. The formal oral examination that follows is closed, with only the candidate, the Examining Committee and the Chair present. The Chair should remind the committee of the three subject areas of focus that have been agreed upon in advance.

During the closed portion of the examination, the candidate must demonstrate an understanding of the three subject areas of focus that is at least equivalent to the fourth-year undergraduate level. The candidate must also demonstrate an ability to carry out independent doctoral-level research. The Examining Committee must assess both the background and potential of the candidate. The supervisor is responsible for ensuring that the Examining Committee, including the External Examiner, is prepared to contribute to questioning and evaluation of these areas. The length of time for questioning by the committee is not defined, but will normally be 1.5 to 2.5 hours.

The outcome of the examination is summarized in a formatted report to be completed by the supervisor, in consultation with the Examining Committee (see below). This report identifies any areas of weakness in the candidate's preparation and may prescribe remedial action, especially in the case of an unsatisfactory outcome.

ASSESSMENT: The exam is graded satisfactory/unsatisfactory by majority vote (greater than 50%) of the Examining Committee. Students with an unsatisfactory outcome must pass a second examination within six months. A second unsatisfactory outcome will result in withdrawal from the program.

TIMING: Students should complete the examination prior to the end of the fourth term of enrolment, or in the first term after transferring from the MSc program. The objective of this timing is to complete the examination prior to undertaking any significant thesis research.

LOGISTICS:

1. ***Student and Supervisory Committee*:** Agree upon the three (one major, two minor) subject areas of focus for examination several months before the examination date.
2. ***Supervisor*:** Identify an External Examiner for the candidacy exam.
3. ***Student and Supervisor:*** Agree upon a date and time in consultation with the Examining Committee members. Inform the External Examiner of the three subject areas of focus.
4. ***Supervisor:*** Request an Examination Chair through the Graduate Committee.
5. ***Student and/or Supervisor:*** Request a room booking through the Graduate Secretary.
6. ***Student***: At least two weeks prior to the examination date:
   - Fill out Part I of the *Doctoral Candidacy Examination Form* and obtain supervisor signature, deliver to Graduate Secretary and circulate to Examining Committee
   - Provide the Examining Committee with a copy of the thesis proposal
   - Provide the Graduate Secretary with a hard copy of the thesis proposal for display in the EASC General Office

7. ***Graduate Secretary:*** When the date, time and room booking have been confirmed, and Part 1 of the *Doctoral Candidacy Examination Form* has been received, send an email including the student name, thesis proposal title, three subject areas of focus, examination date, time and location, and names of Examining Committee members and Chair to:
   easc-grads (EASC graduate students)
   easc-info (EASC undergraduates & other interested parties)
   earth-science (EASC faculty & staff)
   External Examiner if external to EASC

8. ***Graduate Secretary:*** At least one week prior to the examination:
   - Create a poster for front door
   - Send a reminder email to:
     easc-grads (EASC graduate students)
     easc-info (EASC undergraduates & other interested parties)
     earth-science (EASC faculty & staff)

9. ***Supervisor***: After the examination, fill out Part II of the *Doctoral Candidacy Examination Form,* including the outcome (satisfactory/unsatisfactory), a summary of the examination including any areas of identified weakness and any

recommendations for remedial action. Circulate the form for input, and then for signatures or approval by email. Deliver the signed/approved form to the Graduate Secretary with a copy to the student.

10. ***Graduate Secretary:*** Retain the hard copy of the thesis proposal displayed in the EASC General Office as a resource for other students. Place a copy of the Thesis Proposal and the completed *Doctoral Candidacy Examination Form* (Parts I and II) in the student's departmental file. If the outcome of the examination is *satisfactory*, ensure that student receives credit for completion of EASC 900.