



OFFICE OF THE ASSOCIATE VICE-PRESIDENT, ACADEMIC AND  
ASSOCIATE PROVOST

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

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**MEMORANDUM**

ATTENTION	Senate	DATE	June 8, 2012
FROM	Bill Krane, Chair	PAGES	1/1
RE:	Senate Committee on Undergraduate Studies Faculty of Environment (SCUS 12-27)		

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**For information:**

Acting under delegated authority at its meeting of June 7, 2012, SCUS approved the following curriculum revisions effective Spring 2013:

1. Department of Archaeology (SCUS 12-27a)
  - (i) Prerequisite change to ARCH 301, 350, 351, 376, 450, 451
  - (ii) Changes to the Archaeology Co-operative Education Program
  - (iii) Changes to the Archaeology Major Program
  - (iv) Changes to the Archaeology Honours Program
  - (v) Changes to the Archaeology Extended Minor Program
  
2. Faculty of Environment (SCUS 12-27b)
  - (i) Changes to the Certificate in Environmental Literacy
  
3. Department of Geography (SCUS 12-27c)
  - (i) New Course Proposals:
    - GEOG 319-4, Landscape Ecology(Fall 2013)
    - GEOG 321-4, Geographies of Global Capitalism
    - GEOG 421-4, Geographical Political Economy(Fall 2013)
    - GEOG 424-4, Cities, Transportation, Infrastructure

Senators wishing to consult a more detailed report of curriculum revisions may do so by going to Docushare: <https://docushare.sfu.ca/dsweb/View/Collection-12682>  
If you are unable to access the information, please call [778-782-3168](tel:778-782-3168) or email [shelley\\_gair@sfu.ca](mailto:shelley_gair@sfu.ca).



## FACULTY OF ENVIRONMENT

MEMO

Dean's Office  
TASC 2, Suite 8900

Tel: 778-782-8787  
Fax: 778-782-8788

www.fenv.sfu.ca

ATTENTION	Bill Krane, Chair, SCUS
FROM	Duncan Knowler, Chair, FENV Curriculum Committee
RE	Faculty of Environment Course and Program Changes
DATE	April 19, 2012

The following were approved by the Faculty of Environment Undergraduate Curriculum Committee at its meeting of April 12, 2012 and are being forwarded to SCUS for approval and recommendation to Senate.

- Department of Archaeology (ARCH)
  - ARCH 301 - Course Change
  - ARCH 350 - Course Change
  - ARCH 351 - Course Change
  - ARCH 376 - Course Change
  - ARCH 450 - Course Change
  - ARCH 451 - Course Change
  - Co-op Calendar and Course Changes
  - Archaeology Major Program Revision
  - Archaeology Honours Program Revision
  - Archaeology Extended Minor Program Revision
- Faculty of Environment (ENV)
  - Certificate in Environmental Literacy - Calendar Changes
- Department of Geography (GEOG)
  - GEOG 319 - New Course Proposal
  - GEOG 321 - New Course Proposal
  - GEOG 421 - New Course Proposal
  - GEOG 424 - New Course Proposal

Please add these items to the agenda for the next SCUS meeting.

Thanks kindly,

Duncan Knowler  
Associate Dean, FENV



DEPARTMENT OF ARCHAEOLOGY  
MEMORANDUM

**To:** Duncan Knowler, Chair, Faculty of Environment Curriculum Committee  
**From:** Bob Muir, Undergraduate Curriculum Committee Chair, Archaeology  
**Re:** Dept. of Archaeology Undergraduate Curriculum Items for Review and Approval  
**Date:** March 28, 2012

At a recent (March 15, 2012) meeting of the Archaeology Department Undergraduate Executive Committee the following Program/Calendar changes were proposed, discussed, and approved.

**Proposed Calendar Changes:**

**1. Archaeology Co-operative Education Program – Calendar and course changes for Archaeology Co-op Program.**

Notes: Paul DeGrace, Co-op Coordinator for the Faculty of Environment, has proposed these calendar and course changes. The intent is to make the listings/requirements consistent with other Faculty of Environment Co-op programs. Most substantively, we are eliminating the specific archaeology course requirements and GPA requirement. Change forms for ARCH 350, 351, 450, and 451 are attached.

**2. Archaeology Major Program – Revision of wording**

Notes: The “Languages Other Than English” recommendation was deemed to be no longer appropriate given that the lack of a second language is not a serious impediment to students pursuing graduate studies in most aspects of archaeology or biological anthropology. This deletion applies to all of the other programs listed below, as well.

Addition of the the phrase “(prerequisite for Arch 376)” is intended to clarify the relevance of the preceding recommended course list (i.e., “Stat 101, 201 or 203”).

**3. Archaeology Honours Program – Revision of wording**

Notes: The introductory statement has been amended to alleviate ambiguities and correct inaccuracies.

Arch 376 is to be deleted from the “Recommended Courses”, as it is a required course for the honours program.

**4. Archaeology Extended Minor Program – Revision of wording**

Notes: The lower division requirements were incomplete as listed, lacking reference to the “any two of” listing.

Also, since major restructuring of our curriculum last year, the comment regarding special topics and/or directed studies courses is no longer valid.

**Proposed Course Changes:**

- 1. ARCH 301-3 Ancient Visual Art**
- 2. ARCH 350-3 Practicum I**
- 3. ARCH 351-3 Practicum II**
- 4. ARCH 376-5 Quantitative Methods in Archaeology**
- 5. ARCH 450-3 Practicum III**
- 6. ARCH 451-3 Practicum IV**

We accordingly submit the revised program for your review and Senate consideration, as needed. Pending approval, changes will be effective spring semester 2013.



EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

Course number  Credit  Title  Description  Prerequisite  Course deletion

Indicate number of hours for: Lecture 3 Semnr \_\_\_\_\_ Tutorial \_\_\_\_\_ Lab \_\_\_\_\_

FROM TO  
Course Number ARCH 301 Course Number \_\_\_\_\_  
Credit Hour 3 Credit Hour \_\_\_\_\_

TITLE

(1) Long title for calendar and schedule, no more than 100 characters including spaces and punctuation.

Ancient Visual Art  
\_\_\_\_\_  
\_\_\_\_\_

(2) Short title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

Ancient Visual Art  
\_\_\_\_\_

DESCRIPTION \_\_\_\_\_ DESCRIPTION \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PREREQUISITE None PREREQUISITE 45 credit hours  
\_\_\_\_\_

RATIONALE

This upper division course currently does not have a prerequisite.

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses?  
If so, this should be **noted in the prerequisite.**

Effective term and year Spring (January) 2013



EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

- Course number, Credit, Title, Description, Prerequisite, Course deletion checkboxes

Indicate number of hours for: Lecture, Semnr, Tutorial, Lab

FROM ARCH 350 TO Course Number Credit Hour 3

TITLE

(1) Long title for calendar and schedule, no more than 100 characters including spaces and punctuation.

Practicum I

(2) Short title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

Practicum I

DESCRIPTION

PREREQUISITE normally 45 units with a CGPA of 3.0 and the following courses are recommended: acceptance in the Environment Co-operative Education Program.

RATIONALE

New language puts the Archaeology co-op language in line with the co-op content for the rest of the Faculty of Environment co-op programs.

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses? If so, this should be noted in the prerequisite.

Effective term and year Spring (January) 2013



SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE CHANGE/DELETION OCTOBER 2007

EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

Course number Credit Title Description Prerequisite Course deletion

Indicate number of hours for: Lecture Seminar Tutorial Lab

FROM TO Course Number ARCH 351 Course Number Credit Hour 3 Credit Hour

TITLE

(1) Long title for calendar and schedule, no more than 100 characters including spaces and punctuation.

Practicum II

(2) Short title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

Practicum II

DESCRIPTION DESCRIPTION

PREREQUISITE normally 45 units with a CGPA of 3.0 and ARCH 350. PREREQUISITE ARCH 350 and readmission to the Environment Co-operative Education Program.

RATIONALE

New language puts the Archaeology co-op language in line with the co-op content for the rest of the Faculty of Environment co-op programs.

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses? If so, this should be noted in the prerequisite.

Effective term and year: Spring (January) 2013



EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

Course number Credit Title Description Prerequisite Course deletion

Indicate number of hours for: Lecture 3 Seminar 2 Tutorial Lab

FROM TO Course Number ARCH 376 Course Number Credit Hour 5 Credit Hour

TITLE

(1) Long title for calendar and schedule, no more than 100 characters including spaces and punctuation.

Quantitative Methods in Archaeology

(2) Short title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

Quantitative Methods

DESCRIPTION DESCRIPTION

PREREQUISITE ARCH 201, and either STAT 203 (formerly 103) or PSYC 210. PREREQUISITE ARCH 201, and any of STAT 101, STAT 201, STAT 203 or PSYC 210.

RATIONALE

To allow students a greater range of choice in course selection. Revised prerequisites are more applicable to the course content (particularly Stat 201), and suitable for students pursuing studies in environmental archaeology or biological anthropology.

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses? If so, this should be noted in the prerequisite.

Effective term and year Spring (January) 2013.





EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

- Course number
- Credit
- Title
- Description
- Prerequisite
- Course deletion

Indicate number of hours for: Lecture \_\_\_\_\_ Seminar \_\_\_\_\_ Tutorial \_\_\_\_\_ Lab \_\_\_\_\_

FROM TO

Course Number ARCH 450 Course Number \_\_\_\_\_

Credit Hour 3 Credit Hour \_\_\_\_\_

TITLE

(1) Long title for calendar and schedule, no more than 100 characters including spaces and punctuation.

Practicum III

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(2) Short title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

Practicum III

\_\_\_\_\_

DESCRIPTION \_\_\_\_\_ DESCRIPTION \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PREREQUISITE normally 45 units with a CGPA of 3.0 and ARCH 351. PREREQUISITE ARCH 351 and readmission to the Environment Co-operative Education Program.

RATIONALE

New language puts the Archaeology co-op language in line with the co-op content for the rest of the Faculty of Environment co-op programs.

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses? If so, this should be **noted in the prerequisite.**

Effective term and year Spring (January) 2013



**EXISTING COURSE, CHANGES RECOMMENDED**

Please check appropriate revision(s):

Course number     Credit     Title     Description     Prerequisite     Course deletion

Indicate number of hours for: Lecture \_\_\_\_\_ Semnr \_\_\_\_\_ Tutorial \_\_\_\_\_ Lab \_\_\_\_\_

**FROM**

Course Number ARCH 451

Credit Hour 3

**TO**

Course Number \_\_\_\_\_

Credit Hour \_\_\_\_\_

**TITLE**

(1) Long title for calendar and schedule, no more than 100 characters including spaces and punctuation.

Practicum IV

(2) Short title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

Practicum IV

DESCRIPTION \_\_\_\_\_

DESCRIPTION \_\_\_\_\_

PREREQUISITE normally 45 units with a CGPA of 3.0 and ARCH 450.

PREREQUISITE ARCH 450 and readmission to the Environment Co-operative Education Program.

**RATIONALE**

New language puts the Archaeology co-op language in line with the co-op content for the rest of the Faculty of Environment co-op programs.

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses?  
If so, this should be **noted in the prerequisite.**

Effective term and year Spring (January) 2013

**DEPARTMENT OF ARCHAEOLOGY  
PROPOSED PROGRAM/PROGRAM-RELATED CALENDAR CHANGES**

The following program/calendar changes are submitted to the chair of the Faculty of Environment Curriculum Committee for consideration, as needed, by the committee at its meeting on April 12, 2012. Rationale for these changes is provided in the preceding memorandum. Here we proceed from the existing program and calendar description to the proposed program and calendar descriptions.

**FROM (Current Program)**

**1. Archaeology Co-operative Education Program**

*Department of Archaeology | Faculty of Environment  
Simon Fraser University Calendar 2012 Summer*

~~This program offers work experience in archaeology and physical anthropology and entails planned terms of study and employment (term practicums) in an area of the student's choice. See Co-operative Education regarding job competition, student employer responsibilities, student fees, pay rates and evaluation. During work terms, co-op students are formally enrolled in a job practicum course and are assessed a fee.~~

**Admission Requirements**

~~To be admitted, an archaeology major must have been declared and the student must have completed at least 45 units, with a minimum cumulative grade point average (CGPA) of 3.0.~~

~~Contact the co-op co-ordinator, undergraduate chair, and/or departmental assistant at least one term before the first work term to participate.~~

~~College transfer students must have at least 15 Simon Fraser University units to be eligible for co-op admission. Transfer students who participated in co-operative education programs elsewhere may be credited with the term(s) already completed pending evaluation and approval of the Simon Fraser University co-op program.~~

**Program Requirements**

~~The following courses (or equivalent as approved by the department co-op education co-ordinator) are recommended.~~

~~Students complete a total of 21-24 units, including both~~

~~— ARCH 131-3 Human Origins~~

~~— ARCH 201-3 Introduction to Archaeology~~

~~and one of~~

~~— ARCH 272-3 Archaeology of the Old World~~

~~— ARCH 273-3 Archaeology of the New World~~

~~and three of~~

~~— ARCH 372-5 Material Culture Analysis~~

~~— ARCH 373-5 Human Osteology~~

~~— ARCH 376-5 Quantitative Methods in Archaeology~~

~~— ARCH 377-5 Historical Archaeology~~

~~— ARCH 386-3 Archaeological Resource Management~~

~~— ARCH 442-5 Forensic Anthropology~~

**Grade Requirement**

~~Program continuance requires a minimum 3.0 CGPA in all courses.~~

## 2. Archaeology Major Program

*Department of Archaeology | Faculty of Environment  
Simon Fraser University Calendar 2012 Summer*

### Course Groupings

Upper division archaeology courses are divided into the following groups.

#### Group I – Core Courses

- ARCH 372 Material Culture Analysis (5)
- ARCH 471 Archaeological Theory (W) (5)

#### Group II – Environmental Archaeology Courses

- ARCH 329 Special Topics in Environmental Archaeology (3)
- ARCH 340 Zooarchaeology (5)
- ARCH 365 Ecological Archaeology (3)
- ARCH 375 From Soup to Nuts: The Archaeology of Food (3)
- ARCH 383 Molecular Bioarchaeology (3)
- ARCH 386 Archaeological Resource Management (3)
- ARCH 390 Archaeobotany (5)
- ARCH 438 Geoarchaeology (5)

#### Group III – Biological Anthropology Courses

- ARCH 322 Special Topics in Biological Anthropology (3)
- ARCH 344 Primate Behaviour (3)
- ARCH 373 Human Osteology (5)
- ARCH 385 Paleoanthropology (5)
- ARCH 432 Advanced Physical Anthropology (5)
- ARCH 442 Forensic Anthropology (5)
- ARCH 452 Introduction to Paleopathology (5)

#### Group IV – Topical Courses

- ARCH 301 Ancient Visual Art (3)
- ARCH 321 Select Regions in World Archaeology I (3)
- ARCH 331 Select Regions in World Archaeology II (3)
- ARCH 332 Special Topics in Archaeology I (3)
- ARCH 333 Special Topics in Archaeology II (3)
- ARCH 335 Special Laboratory Topics in Archaeology (5)
- ARCH 348 Archaeological Conservation (5)
- ARCH 349 Management of Archaeological Collections (5)
- ARCH 376 Quantitative Methods in Archaeology (5)
- ARCH 377 Historical Archaeology (5)
- ARCH 378 Pacific Northwest North America (3)
- ARCH 434 Archaeological Field Methods (3)
- ARCH 485 Lithic Technology (5)

### Program Requirements

Students complete 120 units, as specified below.

#### Lower Division Requirements

Students complete all of

- ARCH 131 Human Origins (3)
- ARCH 201 Introduction to Archaeology (3)
- ARCH 272 Archaeology of the Old World (3)
- ARCH 273 Archaeology of the New World (3)

and two of

- BISC 102 General Biology (4)
- EVSC 100 Introduction to Environmental Science (3)
- FNST 101 The Cultures, Languages and Origins of Canada's First Peoples (3)
- GEOG 111 Earth Systems (3)
- GEOG 255 Geographical Information Science I (3)
- REM 100 Global Change (3)
- SA 101 Introduction to Anthropology (A) (4)

### Upper Division Requirements

Students complete at least 32 upper division archaeology units, which must include  
 both Group I courses (ARCH 372, 471W)  
 at least one Group II course  
 at least one Group III course  
 at least two Group IV courses, of which one must be ARCH 321 or 331 or 378

### Recommended Courses

The following courses are recommended.

- ARCH 376 (required for honours, recommended for majors and those intending to go on to post-graduate work in archaeology)
- BISC 102 (recommended for majors and honors where a focus will be in biological anthropology courses)
- GEOG 111 (recommended for majors and honours where a focus will be in environmental archaeology courses)
- SA 101 (recommended for majors, honours, and those intending to go on to post-graduate work in archaeology)
- STAT 101, 201 or 203

### Writing, Quantitative, and Breadth Requirements

Students admitted to Simon Fraser University beginning in the fall 2006 term must meet writing, quantitative and breadth requirements as part of any degree program they may undertake. See Writing, Quantitative, and Breadth Requirements for university-wide information.

<b>WQB Graduation Requirements</b>		
<b>A grade of C- or better is required to earn W, Q or B credit.</b>		
<b>Requirement</b>	<b>Units</b>	<b>Notes</b>
W - Writing	6	Must include at least one upper division course, taken at Simon Fraser University within the student's major subject
Q - Quantitative	6	Q courses may be lower or upper division
B - Breadth	18	Designated Breadth Must be outside the student's major subject, and may be lower or upper division 6 units Social Sciences: B-Soc 6 units Humanities: B-Hum 6 units Sciences: B-Sci

	6	Additional Breadth	6 units outside the student's major subject (may or may not be B-designated courses, and will likely help fulfil individual degree program requirements) Additional breadth units must be from outside the student's major and may be B-designated (B-Hum, B-Soc, B-Sci courses). Students choosing to complete a joint major, joint honors, double major, two extended minors, an extended minor and a minor, or two minors may satisfy the breadth requirements (designated or not designated) with courses completed in either one or both program areas.
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### Residency Requirements and Transfer Credit

The University's residency requirement stipulates that, in most cases, total transfer and course challenge credit may not exceed 60 units, and may not include more than 15 units as upper division work.

### Elective Courses

In addition to the courses listed above, students should consult an academic advisor to plan the remaining required elective courses.

### ~~Languages Other Than English~~

~~Those contemplating graduate work are advised to acquire a reading knowledge of at least one language other than English.~~

## 3. Archaeology Honours Program

*Department of Archaeology | Faculty of Environment  
Simon Fraser University Calendar 2012 Summer*

~~To remain in the program, students must maintain a minimum 3.0 cumulative grade point average (CGPA) and successfully complete 132 units with 50 of these in upper division archaeology. Honors students must complete all course requirements for the major program, as stipulated below, and also complete three additional specified courses (see below).~~

### Course Groupings

Upper division archaeology courses are divided into the following groups.

#### Group I – Core Courses

- ARCH 372 Material Culture Analysis (5)
- ARCH 471 Archaeological Theory (W) (5)

#### Group II – Environmental Archaeology Courses

- ARCH 329 Special Topics in Environmental Archaeology (3)
- ARCH 340 Zooarchaeology (5)
- ARCH 365 Ecological Archaeology (3)
- ARCH 375 From Soup to Nuts: The Archaeology of Food (3)
- ARCH 383 Molecular Bioarchaeology (3)
- ARCH 386 Archaeological Resource Management (3)
- ARCH 390 Archaeobotany (5)
- ARCH 438 Geoarchaeology (5)

### **Group III – Biological Anthropology Courses**

- ARCH 322 Special Topics in Biological Anthropology (3)
- ARCH 344 Primate Behaviour (3)
- ARCH 373 Human Osteology (5)
- ARCH 385 Paleoanthropology (5)
- ARCH 432 Advanced Physical Anthropology (5)
- ARCH 442 Forensic Anthropology (5)
- ARCH 452 Introduction to Paleopathology (5)

### **Group IV – Topical Courses**

- ARCH 301 Ancient Visual Art (3)
- ARCH 321 Select Regions in World Archaeology I (3)
- ARCH 331 Select Regions in World Archaeology II (3)
- ARCH 332 Special Topics in Archaeology I (3)
- ARCH 333 Special Topics in Archaeology II (3)
- ARCH 335 Special Laboratory Topics in Archaeology (5)
- ARCH 348 Archaeological Conservation (5)
- ARCH 349 Management of Archaeological Collections (5)
- ARCH 376 Quantitative Methods in Archaeology (5)
- ARCH 377 Historical Archaeology (5)
- ARCH 378 Pacific Northwest North America (3)
- ARCH 434 Archaeological Field Methods (3)
- ARCH 485 Lithic Technology (5)

### **Lower Division Requirements**

Students complete all of

- ARCH 131 Human Origins (3)
- ARCH 201 Introduction to Archaeology (3)
- ARCH 272 Archaeology of the Old World (3)
- ARCH 273 Archaeology of the New World (3)

and two of

- BISC 102 General Biology (4)
- EVSC 100 Introduction to Environmental Science (3)
- FNST 101 The Cultures, Languages and Origins of Canada's First Peoples (3)
- GEOG 111 Earth Systems (3)
- GEOG 255 Geographical Information Science I (3)
- REM 100 Global Change (3)
- SA 101 Introduction to Anthropology (A) (4)

### **Upper Division Requirements**

Students complete at least 50 upper division archaeology units, which must include

- both Group I courses (ARCH 372, 471W)
- at least one Group II course
- at least one Group III course
- at least two Group IV courses, of which one must be ARCH 321 or 331 or 378

and all of

- ARCH 376 Quantitative Methods in Archaeology (Q) (5)
- ARCH 498 Honors Reading (5)
- ARCH 499 Honors Thesis (5)

### **Recommended Courses**

The following courses are recommended.

- ~~ARCH 376 (required for honors, recommended for majors and students intending to go on to post-graduate work in archaeology)~~
- BISC 102 (recommended for majors and honors where a focus will be in biological anthropology courses)
- GEOG 111 (recommended for majors and honours where a focus will be in environmental archaeology courses)
- SA 101 (recommended for majors, honours and students intending to go on to post-graduate work in archaeology)
- STAT 101, 201 or 203

### Writing, Quantitative, and Breadth Requirements

Students admitted to Simon Fraser University beginning in the fall 2006 term must meet writing, quantitative and breadth requirements as part of any degree program they may undertake. See Writing, Quantitative, and Breadth Requirements for university-wide information.

<b>WQB Graduation Requirements</b>			
<b>A grade of C- or better is required to earn W, Q or B credit.</b>			
<b>Requirement</b>	<b>Units</b>	<b>Notes</b>	
W - Writing	6	Must include at least one upper division course, taken at Simon Fraser University within the student's major subject	
Q - Quantitative	6	Q courses may be lower or upper division	
B - Breadth	18	Designated Breadth	Must be outside the student's major subject, and may be lower or upper division 6 units Social Sciences: B-Soc 6 units Humanities: B-Hum 6 units Sciences: B-Sci
	6	Additional Breadth	6 units outside the student's major subject (may or may not be B-designated courses, and will likely help fulfil individual degree program requirements) Additional breadth units must be from outside the student's major and may be B-designated (B-Hum, B-Soc, B-Sci courses). Students choosing to complete a joint major, joint honors, double major, two extended minors, an extended minor and a minor, or two minors may satisfy the breadth requirements (designated or not designated) with courses completed in either one or both program areas.

### Residency Requirements and Transfer Credit

The University's residency requirement stipulates that, in most cases, total transfer and course challenge credit may not exceed 60 units, and may not include more than 15 units as upper division work.

### Elective Courses

In addition to the courses listed above, students should consult an academic advisor to plan the remaining required elective courses.

### ~~Languages Other Than English~~

~~Those contemplating graduate work are advised to acquire a reading knowledge of at least one language other than English.~~



## **4. Archaeology Extended Minor Program**

*Department of Archaeology | Faculty of Environment  
Simon Fraser University Calendar 2012 Summer*

This program consists of the lower division requirements for an archaeology major and the upper division requirements for an archaeology minor (see below). Programs must be approved by the department advisor.

### **Program Requirements**

#### **Lower Division Requirements**

Students complete a total of 12 units, including all of

- ARCH 131-3 Human Origins
- ARCH 201-3 Introduction to Archaeology
- ARCH 272-3 Archaeology of the Old World
- ARCH 273-3 Archaeology of the New World

#### **Upper Division Requirements**

Students complete a total of at least 16 units of archaeology, which must include one course from each of groups I, II, III and IV listed below.

#### **Course Groupings**

Upper division archaeology courses are divided into the following groups.

##### **Group I – Core Courses**

- ARCH 372 Material Culture Analysis (5)
- ARCH 471 Archaeological Theory (W) (5)

##### **Group II – Environmental Archaeology Courses**

- ARCH 329 Special Topics in Environmental Archaeology (3)
- ARCH 340 Zooarchaeology (5)
- ARCH 365 Ecological Archaeology (3)
- ARCH 375 From Soup to Nuts: The Archaeology of Food (3)
- ARCH 383 Molecular Bioarchaeology (3)
- ARCH 386 Archaeological Resource Management (3)
- ARCH 390 Archaeobotany (5)
- ARCH 438 Geoarchaeology (5)

##### **Group III – Biological Anthropology Courses**

- ARCH 322 Special Topics in Biological Anthropology (3)
- ARCH 344 Primate Behaviour (3)
- ARCH 373 Human Osteology (5)
- ARCH 385 Paleoanthropology (5)
- ARCH 432 Advanced Physical Anthropology (5)
- ARCH 442 Forensic Anthropology (5)
- ARCH 452 Introduction to Paleopathology (5)

##### **Group IV – Topical Courses**

- ARCH 301 Ancient Visual Art (3)
- ARCH 321 Select Regions in World Archaeology I (3)
- ARCH 331 Select Regions in World Archaeology II (3)
- ARCH 332 Special Topics in Archaeology I (3)
- ARCH 333 Special Topics in Archaeology II (3)

- ARCH 335 Special Laboratory Topics in Archaeology (5)
- ARCH 348 Archaeological Conservation (5)
- ARCH 349 Management of Archaeological Collections (5)
- ARCH 376 Quantitative Methods in Archaeology (5)
- ARCH 377 Historical Archaeology (5)
- ARCH 378 Pacific Northwest North America (3)
- ARCH 434 Archaeological Field Methods (3)
- ARCH 485 Lithic Technology (5)

~~Special topics and/or directed studies courses may substitute for group II, III or IV courses, provided the content suggests a suitable substitution, and written department consent is obtained prior to enrolment.~~

### Writing, Quantitative, and Breadth Requirements

Students admitted to Simon Fraser University beginning in the fall 2006 term must meet writing, quantitative and breadth requirements as part of any degree program they may undertake. See Writing, Quantitative, and Breadth Requirements for university-wide information.

<b>WQB Graduation Requirements</b>			
<b>A grade of C- or better is required to earn W, Q or B credit.</b>			
Requirement	Units	Notes	
W - Writing	6	Must include at least one upper division course, taken at Simon Fraser University within the student's major subject	
Q - Quantitative	6	Q courses may be lower or upper division	
B - Breadth	18	Designated Breadth	Must be outside the student's major subject, and may be lower or upper division 6 units Social Sciences: B-Soc 6 units Humanities: B-Hum 6 units Sciences: B-Sci
	6	Additional Breadth	6 units outside the student's major subject (may or may not be B-designated courses, and will likely help fulfil individual degree program requirements) Additional breadth units must be from outside the student's major and may be B-designated (B-Hum, B-Soc, B-Sci courses). Students choosing to complete a joint major, joint honors, double major, two extended minors, an extended minor and a minor, or two minors may satisfy the breadth requirements (designated or not designated) with courses completed in either one or both program areas.

## **TO (Proposed Program)**

### **1. Archaeology Co-operative Education Program**

*Department of Archaeology | Faculty of Environment  
Simon Fraser University Calendar 2012 Summer*

This program combines relevant work experience with academic studies. Students alternate study terms with study-related employment. The program includes pre-employment orientation and four full-time paid work terms.

To enroll, students should review the program requirements: [www.sfu.ca/coop/env](http://www.sfu.ca/coop/env). Students are encouraged to seek advice from the Co-ordinator of the Environment Co-op Program as early as possible in their university career to facilitate optimal scheduling. For information, contact the Co-ordinator, Environment Co-op Program, c/o Department of Geography, 7130 Robert C. Brown Hall, 778.782.3115 or [degrace@sfu.ca](mailto:degrace@sfu.ca)

### **2. Archaeology Major Program**

*Department of Archaeology | Faculty of Environment  
Simon Fraser University Calendar 2012 Summer*

#### **Course Groupings**

Upper division archaeology courses are divided into the following groups.

#### **Group I – Core Courses**

- ARCH 372 Material Culture Analysis (5)
- ARCH 471 Archaeological Theory (W) (5)

#### **Group II – Environmental Archaeology Courses**

- ARCH 329 Special Topics in Environmental Archaeology (3)
- ARCH 340 Zooarchaeology (5)
- ARCH 365 Ecological Archaeology (3)
- ARCH 375 From Soup to Nuts: The Archaeology of Food (3)
- ARCH 383 Molecular Bioarchaeology (3)
- ARCH 386 Archaeological Resource Management (3)
- ARCH 390 Archaeobotany (5)
- ARCH 438 Geoarchaeology (5)

#### **Group III – Biological Anthropology Courses**

- ARCH 322 Special Topics in Biological Anthropology (3)
- ARCH 344 Primate Behaviour (3)
- ARCH 373 Human Osteology (5)
- ARCH 385 Paleoanthropology (5)
- ARCH 432 Advanced Physical Anthropology (5)
- ARCH 442 Forensic Anthropology (5)
- ARCH 452 Introduction to Paleopathology (5)

#### **Group IV – Topical Courses**

- ARCH 301 Ancient Visual Art (3)
- ARCH 321 Select Regions in World Archaeology I (3)
- ARCH 331 Select Regions in World Archaeology II (3)

- ARCH 332 Special Topics in Archaeology I (3)
- ARCH 333 Special Topics in Archaeology II (3)
- ARCH 335 Special Laboratory Topics in Archaeology (5)
- ARCH 348 Archaeological Conservation (5)
- ARCH 349 Management of Archaeological Collections (5)
- ARCH 376 Quantitative Methods in Archaeology (5)
- ARCH 377 Historical Archaeology (5)
- ARCH 378 Pacific Northwest North America (3)
- ARCH 434 Archaeological Field Methods (3)
- ARCH 485 Lithic Technology (5)

### **Program Requirements**

Students complete 120 units, as specified below.

### **Lower Division Requirements**

Students complete all of

- ARCH 131 Human Origins (3)
- ARCH 201 Introduction to Archaeology (3)
- ARCH 272 Archaeology of the Old World (3)
- ARCH 273 Archaeology of the New World (3)

and two of

- BISC 102 General Biology (4)
- EVSC 100 Introduction to Environmental Science (3)
- FNST 101 The Cultures, Languages and Origins of Canada's First Peoples (3)
- GEOG 111 Earth Systems (3)
- GEOG 255 Geographical Information Science I (3)
- REM 100 Global Change (3)
- SA 101 Introduction to Anthropology (A) (4)

### **Upper Division Requirements**

Students complete at least 32 upper division archaeology units, which must include

- both Group I courses (ARCH 372, 471W)
- at least one Group II course
- at least one Group III course
- at least two Group IV courses, of which one must be ARCH 321 or 331 or 378

### **Recommended Courses**

The following courses are recommended.

- ARCH 376 (required for honours, recommended for majors and those intending to go on to post-graduate work in archaeology)
- BISC 102 (recommended for majors and honors where a focus will be in biological anthropology courses)
- GEOG 111 (recommended for majors and honours where a focus will be in environmental archaeology courses)
- SA 101 (recommended for majors, honours, and those intending to go on to post-graduate work in archaeology)
- STAT 101, 201 or 203 (prerequisite for ARCH 376)

### **Writing, Quantitative, and Breadth Requirements**

Students admitted to Simon Fraser University beginning in the fall 2006 term must meet writing, quantitative and breadth requirements as part of any degree program they may undertake. See Writing, Quantitative, and Breadth Requirements for university-wide information.

<b>WQB Graduation Requirements</b>			
<b>A grade of C- or better is required to earn W, Q or B credit.</b>			
<b>Requirement</b>	<b>Units</b>	<b>Notes</b>	
W - Writing	6	Must include at least one upper division course, taken at Simon Fraser University within the student's major subject	
Q - Quantitative	6	Q courses may be lower or upper division	
B - Breadth	18	Designated Breadth	Must be outside the student's major subject, and may be lower or upper division 6 units Social Sciences: B-Soc 6 units Humanities: B-Hum 6 units Sciences: B-Sci
	6	Additional Breadth	6 units outside the student's major subject (may or may not be B-designated courses, and will likely help fulfil individual degree program requirements) Additional breadth units must be from outside the student's major and may be B-designated (B-Hum, B-Soc, B-Sci courses). Students choosing to complete a joint major, joint honors, double major, two extended minors, an extended minor and a minor, or two minors may satisfy the breadth requirements (designated or not designated) with courses completed in either one or both program areas.

### **Residency Requirements and Transfer Credit**

The University's residency requirement stipulates that, in most cases, total transfer and course challenge credit may not exceed 60 units, and may not include more than 15 units as upper division work.

### **Elective Courses**

In addition to the courses listed above, students should consult an academic advisor to plan the remaining required elective courses.

## **3. Archaeology Honours Program**

*Department of Archaeology | Faculty of Environment*

*Simon Fraser University Calendar 2012 Summer*

### **GRADUATION**

Students must maintain a minimum 3.0 cumulative grade point average (~~GPA~~) and successfully complete 132 units, of which 60 units must be at the upper division level. Honours students must complete all course requirements for the major program as well as ARCH 376, 498, and 499.

### **Course Groupings**

Upper division archaeology courses are divided into the following groups.

#### **Group I – Core Courses**

- ARCH 372 Material Culture Analysis (5)
- ARCH 471 Archaeological Theory (W) (5)

#### **Group II – Environmental Archaeology Courses**

- ARCH 329 Special Topics in Environmental Archaeology (3)
- ARCH 340 Zooarchaeology (5)

- ARCH 365 Ecological Archaeology (3)
- ARCH 375 From Soup to Nuts: The Archaeology of Food (3)
- ARCH 383 Molecular Bioarchaeology (3)
- ARCH 386 Archaeological Resource Management (3)
- ARCH 390 Archaeobotany (5)
- ARCH 438 Geoarchaeology (5)

### **Group III – Biological Anthropology Courses**

- ARCH 322 Special Topics in Biological Anthropology (3)
- ARCH 344 Primate Behaviour (3)
- ARCH 373 Human Osteology (5)
- ARCH 385 Paleoanthropology (5)
- ARCH 432 Advanced Physical Anthropology (5)
- ARCH 442 Forensic Anthropology (5)
- ARCH 452 Introduction to Paleopathology (5)

### **Group IV – Topical Courses**

- ARCH 301 Ancient Visual Art (3)
- ARCH 321 Select Regions in World Archaeology I (3)
- ARCH 331 Select Regions in World Archaeology II (3)
- ARCH 332 Special Topics in Archaeology I (3)
- ARCH 333 Special Topics in Archaeology II (3)
- ARCH 335 Special Laboratory Topics in Archaeology (5)
- ARCH 348 Archaeological Conservation (5)
- ARCH 349 Management of Archaeological Collections (5)
- ARCH 376 Quantitative Methods in Archaeology (5)
- ARCH 377 Historical Archaeology (5)
- ARCH 378 Pacific Northwest North America (3)
- ARCH 434 Archaeological Field Methods (3)
- ARCH 485 Lithic Technology (5)

### **Lower Division Requirements**

Students complete all of

- ARCH 131 Human Origins (3)
- ARCH 201 Introduction to Archaeology (3)
- ARCH 272 Archaeology of the Old World (3)
- ARCH 273 Archaeology of the New World (3)

and two of

- BISC 102 General Biology (4)
- EVSC 100 Introduction to Environmental Science (3)
- FNST 101 The Cultures, Languages and Origins of Canada's First Peoples (3)
- GEOG 111 Earth Systems (3)
- GEOG 255 Geographical Information Science I (3)
- REM 100 Global Change (3)
- SA 101 Introduction to Anthropology (A) (4)

### **Upper Division Requirements**

Students complete at least 50 upper division archaeology units, which must include

- both Group I courses (ARCH 372, 471W)
- at least one Group II course
- at least one Group III course
- at least two Group IV courses, of which one must be ARCH 321 or 331 or 378

and all of

- ARCH 376 Quantitative Methods in Archaeology (5)
- ARCH 498 Honors Reading (5)

## ARCH 499 Honors Thesis (5)

### Recommended Courses

The following courses are recommended.

- BISC 102 (recommended for majors and honours where a focus will be in biological anthropology courses)
- GEOG 111 (recommended for majors and honours where a focus will be in environmental archaeology courses)
- SA 101 (recommended for majors, honours and students intending to go on to post-graduate work in archaeology)
- STAT 101, 201 or 203 (prerequisite for ARCH 376)

### Writing, Quantitative, and Breadth Requirements

Students admitted to Simon Fraser University beginning in the fall 2006 term must meet writing, quantitative and breadth requirements as part of any degree program they may undertake. See Writing, Quantitative, and Breadth Requirements for university-wide information.

WQB Graduation Requirements			
A grade of C- or better is required to earn W, Q or B credit.			
Requirement	Units	Notes	
W - Writing	6	Must include at least one upper division course, taken at Simon Fraser University within the student's major subject	
Q - Quantitative	6	Q courses may be lower or upper division	
B - Breadth	18	Designated Breadth	Must be outside the student's major subject, and may be lower or upper division 6 units Social Sciences: B-Soc 6 units Humanities: B-Hum 6 units Sciences: B-Sci
	6	Additional Breadth	6 units outside the student's major subject (may or may not be B-designated courses, and will likely help fulfil individual degree program requirements) Additional breadth units must be from outside the student's major and may be B-designated (B-Hum, B-Soc, B-Sci courses). Students choosing to complete a joint major, joint honors, double major, two extended minors, an extended minor and a minor, or two minors may satisfy the breadth requirements (designated or not designated) with courses completed in either one or both program areas.

### Residency Requirements and Transfer Credit

The University's residency requirement stipulates that, in most cases, total transfer and course challenge credit may not exceed 60 units, and may not include more than 15 units as upper division work.

### Elective Courses

In addition to the courses listed above, students should consult an academic advisor to plan the remaining required elective courses.

## 4. Archaeology Extended Minor Program

*Department of Archaeology | Faculty of Environment  
Simon Fraser University Calendar 2012 Summer*

This program consists of the lower division requirements for an archaeology major and the upper division requirements for an archaeology minor (see below). Programs must be approved by the department advisor.

### Program Requirements

#### Lower Division Requirements

Students complete a total of 12 units, including all of

- ARCH 131 Human Origins (3)
- ARCH 201 Introduction to Archaeology (3)
- ARCH 272 Archaeology of the Old World (3)
- ARCH 273 Archaeology of the New World (3)

and two of

- EVSC 100 Introduction to Environmental Science (3)
- BISC 102 General Biology (4)
- FNST 101 The Cultures, Languages and Origins of Canada's First Peoples (3)
- GEOG 111 Earth Systems (3)
- GEOG 255 Geographical Information Science I (3)
- REM 100 Global Change (3)
- SA 101 Introduction to Anthropology (A) (4)

#### Upper Division Requirements

Students complete a total of at least 16 units of archaeology, which must include one course from each of groups I, II, III and IV listed below.

#### Course Groupings

Upper division archaeology courses are divided into the following groups.

#### Group I – Core Courses

- ARCH 372 Material Culture Analysis (5)
- ARCH 471 Archaeological Theory (W) (5)

#### Group II – Environmental Archaeology Courses

- ARCH 329 Special Topics in Environmental Archaeology (3)
- ARCH 340 Zooarchaeology (5)
- ARCH 365 Ecological Archaeology (3)
- ARCH 375 From Soup to Nuts: The Archaeology of Food (3)
- ARCH 383 Molecular Bioarchaeology (3)
- ARCH 386 Archaeological Resource Management (3)
- ARCH 390 Archaeobotany (5)
- ARCH 438 Geoarchaeology (5)

#### Group III – Biological Anthropology Courses

- ARCH 322 Special Topics in Biological Anthropology (3)
- ARCH 344 Primate Behaviour (3)
- ARCH 373 Human Osteology (5)
- ARCH 385 Paleoanthropology (5)
- ARCH 432 Advanced Physical Anthropology (5)
- ARCH 442 Forensic Anthropology (5)
- ARCH 452 Introduction to Paleopathology (5)



### Group IV – Topical Courses

- ARCH 301 Ancient Visual Art (3)
- ARCH 321 Select Regions in World Archaeology I (3)
- ARCH 331 Select Regions in World Archaeology II (3)
- ARCH 332 Special Topics in Archaeology I (3)
- ARCH 333 Special Topics in Archaeology II (3)
- ARCH 335 Special Laboratory Topics in Archaeology (5)
- ARCH 348 Archaeological Conservation (5)
- ARCH 349 Management of Archaeological Collections (5)
- ARCH 376 Quantitative Methods in Archaeology (5)
- ARCH 377 Historical Archaeology (5)
- ARCH 378 Pacific Northwest North America (3)
- ARCH 434 Archaeological Field Methods (3)
- ARCH 485 Lithic Technology (5)

### Writing, Quantitative, and Breadth Requirements

Students admitted to Simon Fraser University beginning in the fall 2006 term must meet writing, quantitative and breadth requirements as part of any degree program they may undertake. See Writing, Quantitative, and Breadth Requirements for university-wide information.

<b>WQB Graduation Requirements</b>			
<b>A grade of C- or better is required to earn W, Q or B credit.</b>			
<b>Requirement</b>	<b>Units</b>	<b>Notes</b>	
W - Writing	6	Must include at least one upper division course, taken at Simon Fraser University within the student's major subject	
Q - Quantitative	6	Q courses may be lower or upper division	
B - Breadth	18	Designated Breadth	Must be outside the student's major subject, and may be lower or upper division 6 units Social Sciences: B-Soc 6 units Humanities: B-Hum 6 units Sciences: B-Sci
	6	Additional Breadth	6 units outside the student's major subject (may or may not be B-designated courses, and will likely help fulfil individual degree program requirements) Additional breadth units must be from outside the student's major and may be B-designated (B-Hum, B-Soc, B-Sci courses). Students choosing to complete a joint major, joint honors, double major, two extended minors, an extended minor and a minor, or two minors may satisfy the breadth requirements (designated or not designated) with courses completed in either one or both program areas.



FACULTY OF ENVIRONMENT

FEW12-07

Dan Burns

**Manager Curriculum and Academic Planning**

TASC 2 Building, Room 8900

TEL 778.782.9225

dburns@sfu.ca

8888 University Drive, Burnaby, BC

FAX 778.782.8788

www.fenv.sfu.ca/

Canada V5A 1S6

SCUS 12-27b

April 3, 2012

Duncan Knowler  
Chair, FENV Curriculum Committee  
Faculty of Environment  
Simon Fraser University

Dear Duncan,

Please find enclosed a proposed change to the calendar entry for the Certificate in Environmental Literacy to add the following courses to the groups indicated:

- CMNS 349-4 Environment, Media and Communication (Environmental Management, Group C)
- ENV 319-3 Environmental Law (Environmental Management, Group C)
- ENV 320W-3 Ethics and the Environment (Social and Historical, Group A)

In development on the CEL these new courses were identified as appropriate but were not yet approved by Senate and therefore could not be included in the CEL proposal. Senate has now approved all three courses.

Please include these proposed changes in the agenda for the upcoming Faculty of Environment Curriculum Committee meeting scheduled for April 12, 2012

Thank you,

Dan

**TO:**

## **Certificate in Environmental Literacy**

*Faculty of Environment, Simon Fraser University Calendar 2012 Fall*

The CEL addresses the need for undergraduate students from a broad range of disciplines to have a basic understanding of the complexity and interdisciplinarity of environmental issues. It seeks to introduce students to physical, ecological, and social perspectives on the environment, with emphasis on the functioning of physical and ecological systems and how human activities have affected and are affected by such systems over time. Typically, the CEL will also provide students with knowledge of environmental issues as they pertain to their own field of study.

The CEL will require students to complete a total of 21 units, comprised of 12 lower division units and a minimum of 9 lower and/or upper division units depending upon electives taken. These requirements include three introductory environmental courses (one physical, one ecological and one social science); one course introducing students to the complexity and interdisciplinarity of the environment issues; and a minimum of 9 units of electives chosen from one of the three elective groups.

Earned units may be applied the student's major or minor programs, and to a bachelor's degree. However, units earned in the certificate cannot be applied to another Simon Fraser University certificate or diploma.

Students in the following environmental specialty programs will be ineligible to receive the CEL:

- Environmental Science major (B.Sc.)
- Geography and Economics – environmental specialty major (B.A.)
- Geography - environmental specialty major (B.A.)
- Geography - environmental specialty honours (B.A.)

### **Program Requirements**

Students complete at least 21 units, of which 12 units are required core courses and the remaining nine units are selected from the one of the electives groups.

Students are responsible for meeting the prerequisite requirements for courses used toward the certificate.

### **Core Courses**

Students complete a minimum of 21 units, including all of

- BISC 204-3 Introduction to Ecology *or* GEOG 215-3 Biogeography
- ENV 222-3 Environmental Controversy: : an interdisciplinary study of environmental issues
- GEOG 102-3 World Problems in Geographic Perspective *or* REM 100-3 Global Change
- GEOG 111-3 Earth Systems

## Elective Groups

Students complete a minimum of 9 units from **one** of the groups of electives

### Social and Historical (Group A)

**ARCH 329-3** - Special Topics in Environmental Archaeology  
**ARCH 340-5** Zooarchaeology  
**ARCH 365-3** Ecological Archaeology  
**ARCH 386-3** Archaeological Resource Management  
**ARCH 390-5** Archaeobotany  
**ENV 320W-3 Ethics and the Environment**  
**FNST 212-3** Indigenous Perceptions of Landscape  
**FNST 332-3** Ethnobotany of British Columbia First Nations  
**FNST 403-3** Indigenous Knowledge in the Modern World  
**FNST 433-4** Indigenous Environmental Activism  
**GEOG 322-4** World Resources  
**GEOG 362-4** Geography of Urban Built Environments  
**GEOG 377-4** Environmental History  
**GEOG 385-4** Agriculture and the Environment  
**GEOG 389W-4** Nature and Society  
**HIST 377-4** Environmental History  
**HSCI 216-3** Ecological Determinants of Human Growth, Development and Health  
**HSCI 304-3** Perspectives on Environmental Health  
**HSCI 309-3** Health and the Built Environment  
**HUM 325-4** The Humanities and the Natural World  
**PHIL 328-3** Environmental Ethics  
**SA 326-4** Ecology and Social Thought  
**SA 371-4** The Environment and Society

### Natural Science (Group B)

**BISC 304-3** Animal Ecology  
**BISC 309-3** Conservation Biology  
**BISC 313-3** Environmental Toxicology  
**CHEM 191-3** Living in a Materials World: From the Stone Age to Nanoscience  
**CHEM 192-3** Chemistry in Your Home, Work, and Environment  
**CHEM 317-2** Analytical Environmental Chemistry  
**CHEM 371-3** Chemistry of the Aqueous Environment  
**CHEM 372-3** Chemistry of the Atmospheric Environment  
**EASC 104-3** Geohazards - Earth in Turmoil  
**EASC 107-3** Economic Geological Resources  
**EASC 303W-3** Environmental Geoscience  
**EASC 304-3** Hydrogeology  
**EASC 314-3** Principles of Glaciology  
**EVSC 100-3** Introduction to Environmental Science  
**GEOG 213-3** Introduction to Geomorphology  
**GEOG 214-3** Climate and Environment  
**GEOG 311-4** Hydrology

**GEOG 312-4** Geography of Natural Hazards  
**GEOG 313-4** River Geomorphology  
**GEOG 314-4** Weather and Climate  
**GEOG 315-4** World Ecosystems  
**GEOG 316-4** Global Biogeochemistry and Water Cycles  
**GEOG 318-4** Soils in Our Environment  
**PHYS 346-3** Energy and the Environment

### Environmental Management (Group C)

**BUS 453-3** Sustainable Innovation  
**BUS 489-3** Management Practices for Sustainability  
**CMNS 349-4 Environment, Media and Communication**  
**DEVS 201-3** Introduction to Development and Sustainability  
**DEVS 401-4** Issues Concepts and Cases in Development and Sustainability  
**ECON 260-3** Environmental Economics  
**ECON 362-4** Economics of Natural Resources  
**ECON 460-3** Seminar in Environmental Economics  
**ENV 319-3 Environmental Law**  
**ENV 321-3** Ecological Economics  
**GEOG 322-4** World Resources  
**GEOG 385-4** Agriculture and the Environment  
**POL 452W-4** Energy Policy  
**REM 201-3** Introduction to Sustainable Community Development  
**REM 301-4** Sustainable Community Development Theory and Practice  
**REM 321-3** Ecological Economics  
**REM 356-3** Institutional Arrangements for Sustainable Environmental Management  
**REM 445-3** Environmental Risk Assessment  
**REM 471-3** Forest Ecosystem Management  
**SCD 201-3** Introduction to Sustainable Community Development  
**SCD 301-4** Sustainable Community Development Theory and Practice



FEN 12-08

DEPARTMENT OF GEOGRAPHY

SCUS 12-27c

**MEMORANDUM**

**Department of Geography  
Simon Fraser University**

**STREET ADDRESS  
ROBERT C. BROWN HALL 7123  
BURNABY BC V5A 1S6**

**MAILING ADDRESS  
8888 UNIVERSITY DRIVE  
Burnaby, BC V5A 1S6  
Canada**

**TEL: 778 782 5871  
FAX: 604.291.5841  
EMAIL: WINTON@SFU.CA  
WWW.SFU.CA/GEOGRAPHY**

<b>TO:</b>	Dr. Duncan Knowler Chair FE Curriculum Committee
<b>FROM:</b>	Dr. Ivor Winton, Chair USCC, Geography
<b>SUBJECT:</b>	<b>UNDERGRADUATE CURRICULUM CHANGES Spring 2013 CALENDAR</b>
<b>DATE:</b>	March 28, 2012

Enclosed please find proposed changes for Geography in the Spring 2013 Calendar, approved by our Undergraduate Studies Curriculum Committee and by the Department of Geography on its general departmental meeting of March 15 2012.

Please bring attached proposed calendar changes to the Faculty of Environment Curriculum Committee for approval.

**New Courses:**

- GEOG 319-4 Landscape Ecology
- GEOG 321-4 Geographies of Global Capitalism
- GEOG 421-4 Geographical Political Economy
- GEOG 424-4 Cities, Transportation, Infrastructure

*Ivor Winton*  
*Burnaby*



**COURSE SUBJECT/NUMBER** GEOG 319-4

**COURSE TITLE**

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

Landscape Ecology

AND

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

Landscape Ecology

**CAMPUS** where course will be taught:  Burnaby  Surrey  Vancouver  Great Northern Way  Off campus

**COURSE DESCRIPTION (FOR CALENDAR). 50-60 WORDS MAXIMUM. ATTACH A COURSE OUTLINE TO THIS PROPOSAL.**

Surveys major concepts of landscape ecology, with a focus on disturbance dynamics (fire, insects) in terrestrial ecosystems. Emphasis given to the interaction of ecological process and pattern and to how landscape structure affects the abundance and distribution of organisms.

**LIBRARY RESOURCES**

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

Library report status Pending

**RATIONALE FOR INTRODUCTION OF THIS COURSE**

Course to be part of teaching responsibilities of new faculty member, Meg Krawchuk.

**SCHEDULING AND ENROLLMENT INFORMATION**

Indicate effective **term and year** course would first be offered and planned **frequency** of offering thereafter:

Fall 2013; annually thereafter

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

What is the probable enrollment when offered? Estimate: 36-48

**CREDITS**

Indicate number of credits (units): 4

Indicate number of hours for:  Lecture  Seminar  Tutorial  Lab  Other



**FACULTY** Which of your present CFL faculty have the expertise to offer this course?  
Krawchuk; Lesack

**WQB DESIGNATION**  
(attach approval from Curriculum Office)

**PREREQUISITE**  
Does this course replicate the content of a previously-approved course to such an extent that students should not receive credit for both courses?  
If so, this should be **noted in the prerequisite**.

**GEOG 215 or BISC 204**  
**COREQUISITE**

None  
**STUDENT LEARNING OUTCOMES**

Upon satisfactory completion of the course students will be able to:

Students will be familiar with:

- ~ Fundamental theory of terrestrial landscape ecology, recognizing the role and outcomes of interactions between spatial patterns and ecological processes;
- ~ The role of landscape-level biophysical disturbance processes such as fire and insect outbreaks; and how these affect and are affected by ecosystem structure and function;
- ~ Applications of theory of landscape ecology to pure and applied scientific domains;
- ~ Landscape ecology's role in resource management/conservation science/reclamation/planning;
- ~ Analytic tools relevant to asking spatially explicit questions about ecological process & pattern.

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

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

**OTHER IMPLICATIONS**

Articulation agreement reviewed?  YES  NO  Not applicable

Exam required:  YES  NO

Criminal Record Check required:  YES  NO





APPROVALS

- 1 Departmental approval indicates that the Department or School has approved the content of the course, and has consulted with other Departments/Schools/Faculties regarding proposed course content and overlap issues.

\_\_\_\_\_  
Chair, Department/School Date

\_\_\_\_\_  
Chair, Faculty Curriculum Committee Date

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

*[Signature]* Apr. 23, 2012.  
\_\_\_\_\_  
Dean or designate Date

LIST which other Departments, Schools and Faculties have been consulted regarding the proposed course content, including overlap issues. Attach documentary evidence of responses.

*- All Faculties.*  
~~*[Signature]*~~

Other Faculties approval indicated that the Dean(s) or Designate of other Faculties AFFECTED by the proposed new course support(s) the approval of the new course:

\_\_\_\_\_ Date \_\_\_\_\_  
\_\_\_\_\_ Date \_\_\_\_\_

- 3 SCUS approval indicates that the course has been approved for implementation subject, where appropriate, to financial issues being addressed.

COURSE APPROVED BY SCUS (Chair of SCUS):  
\_\_\_\_\_  
Date \_\_\_\_\_

APPROVAL IS SIGNIFIED BY DATE AND APPROPRIATE SIGNATURE.

## **GEOG 319: Landscape Ecology**

**Instructor:** Meg A. Krawchuk

**Calendar description:** Surveys major concepts of landscape ecology, with a focus on disturbance dynamics (fire, insects) in terrestrial ecosystems. Emphasis given to the interaction of ecological process and pattern and to how landscape structure affects the abundance and distribution of organisms. Prerequisite: GEOG 215 or BISC 204.

**Overview:** Ecology is the scientific study of the interactions between organisms and their environment. Landscape ecology is a sub-discipline of ecology that examines how the structure of landscapes affects processes that determine the abundance and distribution of organisms. It falls in an interesting middle ground between local-scaled population or community ecology and broad-scaled biogeography. In this middle ground exciting ecological processes unfold and many land-use planning decisions are made.

In this course we will examine basic principles of how interactions between spatial pattern and ecological process result in the heterogeneous landscapes we observe in natural and human-dominated systems. As a central theme, we will focus on the impact of landscape-level terrestrial disturbances such as wildfires and insect outbreaks ecosystem structure and function. We will address current research topics in terrestrial landscape ecology as they apply to forestry, agriculture, resource management, and conservation science, and learn to use some of the quantitative techniques valuable in asking landscape questions. Traditional tools of the trade include GIS, simulation modeling, dendroecology, natural history, and remote sensing.

The goals of this course are to examine the framework of theory, research, analytic tools and management that arise from the principles of landscape ecology. The course is intended for mid- and upper-level undergraduates in geography, ecology, environmental sciences, conservation biology, and natural resources.

### **Major topics:**

1. What is landscape ecology?	7. Meta-population dynamics
2. Scale and hierarchy	8. Historical ecology
3. Causes of pattern	9. Disturbance & equilibrium, flux, patch dynamics
4. Quantifying pattern	10. Landscape models
5. GIS and remote sensing	11. Landscapes and conservation science
6. Populations and landscape structure	

**Course format:** 2 hours lecture + 2 hours lab per week.

### **Evaluation:**

- Group lab exercises and presentations (30%)
- Two exams (2 x 25%)
- Participation in class discussions (20%)

### **Texts:**

**Required:** Turner, M. et al. 2001. Landscape ecology in theory and practice: pattern and process. Springer-Verlag. [= LE in table below]

**Recommended:** Wiens, J.A. et al. 2006. Foundation papers in landscape ecology. Columbia Press.

**Lectures and associated readings:**

Week	Topic	Readings	Lab topic
1.	Course introduction; introduction to landscape ecology	LE chapter 1, pp. 1-10; Turner (2005); Fahrig et al (2011)	
2.	Scale and hierarchy	LE chapter 2; Wiens (1989)	Field data
3.	Agents of pattern: physical template & biotic processes	LE chapter 4; Krawchuk & Taylor (2003); Swanson et al (1988)	Species metrics
4.	Agents of pattern: disturbances	LE chapter 7; Turner (2010)	Fire modeling; Burn P3
5.	Landscape metrics	LE chapter 5; McGarigal (2009)	Fragstats
6.	Exam		
7.	Metapopulation dynamics	LE chapter 8; With & King (2001)	Spatial simulations
8.	Paleo-landscapes	Lynch et al (2004); Wallenius (2011)	Dendroecology I
9.	Range of variability concepts	Hunter (1993)	Dendroecology II
10.	Landscape dynamic concepts	LE chapter 9; Romme et al. (1995)	CONSERV I
11.	Landscape disturbance-succession models	LE chapter 3, 6; Scheller & Mladenoff (2007)	CONSERV II
12.	Landscape conservation science	LE chapter 10, 11; Lindenmayer & Hunter (2010)	Presentations
13.	Presentations		

**Associated readings:**

Turner, M. G. 2005. Landscape ecology: what is the state of the science? *Annual Review of Ecology, Evolution and Systematics*.

Fahrig, L., Baudry, J., Brotons, L. et al. 2011. Functional landscape heterogeneity and animal biodiversity in agricultural landscapes. *Ecology Letters* 14:101-112.

Wiens, J.A. 1989. Spatial scaling in ecology. *Functional Ecology* 3:385-397

Krawchuk, M.A. and Taylor, P.D. 2003. Changing importance of habitat structure across multiple spatial scales for three species of insects. *Oikos* 103:153-161.

Swanson, F.J., Kratz, T.K., Caine, N., and Woodmansee, R.G. 1998. Landform effects on ecosystem patterns and processes. *BioScience* 38:92-98.

Turner, M.G. 2010. Disturbance and landscape dynamics in a changing world. *Ecology* 91:2833-2849.

McGarigal, K., Tagil, S., and Cushman, S.A. 2009. Surface metrics: an alternative to patch metrics for the quantification of landscape structure. *Landscape Ecology* 24:433-450

With, K.A., and King, A.W. 2001. Analysis of landscape sources and sinks: the effect of spatial pattern on avian demography. *Biological Conservation* 100:75-88.

Lynch, J.A., Hollis, J.L., and Hu, F.S. 2004. Climatic and landscape controls of the boreal forest fire regime: Holocene records from Alaska. *Journal of Ecology* 92:477-489.

Wallenius, T.H., Pennanen, J., and Burton, P.J. 2011. Long-term decreasing trend in forest fires in northwestern Canada. *Ecosphere* 2:53

Hunter, M.L. 1993. Natural fire regimes as spatial models for managing boreal forests. *Biological Conservation* 65:115-120.

Romme, W.H., Turner, M.G., Wallace, L.L., and Walker, J.S. 1995. Aspen, elk, and fire in northern Yellowstone Park. *Ecology* 76:2097-2106

Scheller, R.M., and Mladenoff, D.J. 2007. An ecological classification of forest landscape simulation models: tools and strategies for understanding broad-scale forested ecosystems. *Landscape Ecology* 22:491-505.

Lindenmayer, D., and Hunter, M. 2010. Some guiding concepts for conservation biology. *Conservation Biology* 24:1459-1468.

***Additional readings from such journals as:*** Landscape Ecology, Ecology, Biogeography, Ecology Letters, Progress in Physical Geography, Journal of Biogeography, International Journal of Wildland Fire, Conservation Biology, Biological Conservation, Nature, Science, and Oikos



**COURSE SUBJECT/NUMBER** GEOG 321-4

**COURSE TITLE**

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

Geographies of Global Capitalism

**AND**

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

Global Capitalism

**CAMPUS** where course will be taught:  Burnaby  Surrey  Vancouver  Great Northern Way  Off campus

**COURSE DESCRIPTION (FOR CALENDAR). 50-60 WORDS MAXIMUM. ATTACH A COURSE OUTLINE TO THIS PROPOSAL.**

Examines the historical development, spatial organization, and social impact of market function, firm structure and operation, economic policy, and regulation and deregulation at various scales from local to global, from a geographical perspective.

**LIBRARY RESOURCES**

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

Library report status Pending

**RATIONALE FOR INTRODUCTION OF THIS COURSE**

This course will build directly on GEOG 221, Economic Geography, and is intended to provide a second step in the department's recalibrated economic geography trajectory.

**SCHEDULING AND ENROLLMENT INFORMATION**

Indicate effective **term and year** course would first be offered and planned **frequency** of offering thereafter:

Spring 2013; annually thereafter

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

What is the probable enrollment when offered? Estimate: 54-72

**CREDITS**

Indicate number of credits (units): 4

Indicate number of hours for:  Lecture  Seminar  Tutorial  Lab  Other



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

Mann; Hayter; Holden; Clapp

**WQB DESIGNATION**

(attach approval from Curriculum Office)

**PREREQUISITE**

Does this course replicate the content of a previously-approved course to such an extent that students should not receive credit for both courses? If so, this should be **noted in the prerequisite**.

GEOG 221. Students who received credit for GEOG 321 (STT), Contemporary Capitalism, in Sprin 

**COREQUISITE**

None

**STUDENT LEARNING OUTCOMES**

Upon satisfactory completion of the course students will be able to:

Students will have a sound understanding of the principal political economic theories of modern capitalist economies as well as a detailed familiarity with the institutional structures of modern industrial economies, the ways in which these function, and their geography, i.e., their differential impact from place to place in Canada and other parts of the world. They will also gain understanding of the basic historical economic geography of North America, from the Depression to the present.

**FEES**

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

**RESOURCES**

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

**OTHER IMPLICATIONS**

Articulation agreement reviewed?  YES  NO  Not applicable

Exam required:  YES  NO

Criminal Record Check required:  YES  NO



APPROVALS

- 1 Departmental approval indicates that the Department or School has approved the content of the course, and has consulted with other Departments/Schools/Faculties regarding proposed course content and overlap issues.

[Signature] \_\_\_\_\_ Date \_\_\_\_\_  
Chair, Department/School

\_\_\_\_\_ Date \_\_\_\_\_  
Chair, Faculty Curriculum Committee

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

[Signature] \_\_\_\_\_ Date Apr 23, 2012.  
Dean or designate

LIST which other Departments, Schools and Faculties have been consulted regarding the proposed course content, including overlap issues. Attach documentary evidence of responses.

- All Faculties.  
- response to FISS attached.

Other Faculties approval indicated that the Dean(s) or Designate of other Faculties AFFECTED by the proposed new course support(s) the approval of the new course:

\_\_\_\_\_ Date \_\_\_\_\_  
\_\_\_\_\_ Date \_\_\_\_\_

- 3 SCUS approval indicates that the course has been approved for implementation subject, where appropriate, to financial issues being addressed.

COURSE APPROVED BY SCUS (Chair of SCUS):

\_\_\_\_\_ Date \_\_\_\_\_

APPROVAL IS SIGNIFIED BY DATE AND APPROPRIATE SIGNATURE.

**GEOGRAPHIES OF GLOBAL CAPITALISM**  
Geography 321

This course examines the geography of capitalism. It focuses on the spatial and social impacts of market function, firm structure and operation, economic policy, and regulation and deregulation at various scales from the local to the global. The course has two emphases: (1) an introduction to the dominant theories through which capitalism has been explained, defended, and criticized; and (2) the effects of capitalist historical development on material spaces and places.

The principal objective is to develop an understanding of how capitalism, as a distinct way in which to organize the political economy of modern life, influences the geography of that modern life. We will consider:

- (a) the spaces it structures (international trading networks, for example) and restructures (suburbanization on formerly agricultural land, for example);
- (b) the effect of dynamics flows of capital, good, and people, on specific places like 'world cities' and 'dying small towns'; and
- (c) the many scales capitalist dynamics help produce, and on which they depend, like the nation-state, the 'global economy', and resource 'peripheries'.

**Prerequisite:** Geography 221, Economic Geography

**Materials**

- (1) G. Ingham, Capitalism. Polity, 2008.
- (2) A. Glyn, Capitalism Unleashed. Oxford, 2006.

**Evaluation**

Short paper	20%
Major paper	40%
Tutorial	20%
Quizzes (2)	10%
In class writing	<u>10%</u>
	100%

**COURSE OUTLINE**

**Introduction**

Introductory lecture & admin/organizational stuff.

**The basic concepts**

Ingham, pp. 1-62 (Intro & chapters 1-3).

**What is money?**

Ingham, pp. 65-91 (chapter 4).



**Why firms?**

Ingham, pp. 92-146 (chapters 5-6).

**Where is finance 'located'?**

Ingham, pp. 147-174 (chapter 7).

**The state: what exactly does it do?**

Ingham, pp. 175-226 (chapter 8 & Conclusion).

**The rise of finance, the fall of industry?**

Glyn, pp. 50-76 (chapter 3).

**Globalization**

Glyn, pp. 1-49 (chapters 1-2).

**'Neoliberalism'**

Glyn, pp. 77-103, 128-155 (chapters 4 & 6).

**Labour**

Glyn, pp. 104-128, 156-183 (chapters 5 & 7)

**The business cycle**

Wade, 'The first-world debt crisis of 2007-2010'.\*

**Final class**

**\*LONG PAPERS DUE AT BEGINNING OF CLASS\***

**On-line Reading (required)**

\* Wade, R. 2008. 'The first-world debt crisis of 2007-2010 in global perspective', Challenge 51(4), 23-54 [via Library's e-journals].

## EXPECTATIONS

1. **Reading** All readings are required. Approximately 50 pages each week; must be read before class.

2. **Writing** Everyone will be writing two papers, one 'short' interview (750-900 words) and one 'longer' research paper (2500 words). Your work will be evaluated on (a) how well the paper is put together (grammatically and structurally); (b) how well-researched it is; and (c) how compelling and clear your account is. Everyone will also be completing shorter written pieces, in class/tutorial or over email.

3. **Talking and Listening** If you are talkative, that is great, we only ask you to be aware if you start to dominate. If you are the "quiet type", you will have to try to overcome it in tutorial. In a tutorial there is no difference between someone who does not do the reading and someone who reads but does not participate.

4. **Quizzes** There are 2 quizzes (5-10 minutes long) during the course of the semester. The quizzes are not scheduled. One will be given before the Olympic break, the other after it. Quizzes are based on the reading for that day, and on the lecture material from the class immediately preceding it (i.e. from the week prior).

**There are no make-up quizzes, no exceptions** (but for documented medical emergencies). If you are not there, that is your call, but there will not be an opportunity to make up the 5% each quiz contributes to your grade.

### **Plagiarism**

Plagiarism of any sort will result in a grade of 0 (zero) on the assignment; further disciplinary action is possible. **It is your responsibility as participants in university life to know what plagiarism is, and never to plagiarize.** If you have any questions, we are happy to help figure out how to credit others' ideas appropriately. If you are unfamiliar with the regulations, the SFU library website does a great job of explaining what plagiarism is, how to make sure you don't do it, and links to SFU policies:

<http://www.lib.sfu.ca/researchhelp/writing/plagiarism.htm>.


**COURSE SUBJECT/NUMBER** GEOG 421-4

**COURSE TITLE**

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

Geographical Political Economy

**AND**

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

Geographical Political Economy

**CAMPUS** where course will be taught:  Burnaby  Surrey  Vancouver  Great Northern Way  Off campus

**COURSE DESCRIPTION (FOR CALENDAR). 50-60 WORDS MAXIMUM. ATTACH A COURSE OUTLINE TO THIS PROPOSAL.**

Examines the historical development of the material spaces and places affected by changing capitalist dynamics and the dominant theories through which they are explained, legitimized, and criticized, from a geographical perspective.

**LIBRARY RESOURCES**

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

 Library report status **Pending**
**RATIONALE FOR INTRODUCTION OF THIS COURSE**

This course builds directly on GEOG 321 [proposed], Geographies of Global Capitalism, and is intended to provide a capstone offering in the department's economic geography trajectory. It will allow students to confront the principal theories and methods involved in the specifically geographic approach to political economy that has developed over the last forty years.

**SCHEDULING AND ENROLLMENT INFORMATION**

 Indicate effective **term and year** course would first be offered and planned **frequency** of offering thereafter:

Fall 2013; biennially thereafter

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

 What is the probable enrollment when offered? Estimate: **15-18**
**CREDITS**

 Indicate number of credits (units): **4**

 Indicate number of hours for:  Lecture  Seminar  Tutorial  Lab  Other



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

Mann; Hayter; Holden; Clapp

**WQB DESIGNATION**

(attach approval from Curriculum Office)

**PREREQUISITE**

Does this course replicate the content of a previously-approved course to such an extent that students should not receive credit for both courses? If so, this should be noted in the prerequisite.

GEOG 321. Students who received credit for GEOG 421 (STT), Advanced Contemporary Capitalis 1

**COREQUISITE**

None

**STUDENT LEARNING OUTCOMES**

Upon satisfactory completion of the course students will be able to:

Upon satisfactory completion of this course, students will have a detailed understanding of the theoretical evolution of modern political economy and its geographic implications (i.e., its spatial and scalar concerns and effects). They will also become familiar with both the mechanisms and the processes of macroeconomic policy making in modern industrial economies, as these operate at both the domestic and international scales.

**FEES**

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

**RESOURCES**

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

**OTHER IMPLICATIONS**

Articulation agreement reviewed?  YES  NO  Not applicable

Exam required:  YES  NO

Criminal Record Check required:  YES  NO



APPROVALS

- 1 Departmental approval indicates that the Department or School has approved the content of the course, and has consulted with other Departments/Schools/Faculties regarding proposed course content and overlap issues.

Chair, Department/School Date

Chair, Faculty Curriculum Committee Date

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

Dean or designate Date Apr. 23, 2012

LIST which other Departments, Schools and Faculties have been consulted regarding the proposed course content, including overlap issues. Attach documentary evidence of responses.

- All Faculties.
- response to FASS attached.

Other Faculties approval indicated that the Dean(s) or Designate of other Faculties AFFECTED by the proposed new course support(s) the approval of the new course:

Date Date

- 3 SCUS approval indicates that the course has been approved for implementation subject, where appropriate, to financial issues being addressed.

COURSE APPROVED BY SCUS (Chair of SCUS):

Date

APPROVAL IS SIGNIFIED BY DATE AND APPROPRIATE SIGNATURE.

**GEOGRAPHICAL POLITICAL ECONOMY**  
Geography 421

Political economy is among the most powerful and most common approaches to both human geography and economic geography specifically. In fact, as the most influential summary of the field of economic geography put it in 2000, 'political economy is how economic geography is now done'. This course offers an advanced consideration of the burgeoning field of geographical political economy, from its origins in the classical political economy of the 18<sup>th</sup> and 19<sup>th</sup> centuries, through to the present. It focuses specifically on the approach to political economy that has developed across the discipline over the last 40 years, emphasizing (a) innovative theoretical work, and (b) empirical studies of the role of the state, firms, and workers. The discussion centres on the construction of both the spaces in which these actors operate, and the opportunities and constraints those spaces (and the connections between) present.

Geog 421 is an advanced seminar. Prerequisite: Geog 321 [proposed].

**Materials**

(1) Course reader; readings listed in outline below.

**Evaluation**

Short paper	20%
Major paper and presentation	50%
Seminar participation	20%
In class writing	<u>10%</u>
	100%

\* \* \*

**COURSE OUTLINE**

**Introduction & admin/organizational.**

**Geographical Political Economy?**

1. \*Sheppard, E. 2011. 'Geographical political economy', Journal of Economic Geography 11: 319-31.
2. Mann, G. 2012. 'Release the hounds! The fascinating case of political economy', in T. J. Barnes, J. Peck and E. Sheppard (eds.) The New Companion to Economic Geography. Oxford: Wiley-Blackwell.

**Origins**

1. Wolf, E. 1982. Europe and the People without History. Berkeley: University of California Press, pp. 265-309.
2. Wood, E. M. 1998. 'The agrarian origins of capitalism', Monthly Review 50(3): <http://www.monthlyreview.org/798wood.htm>

**Classical Liberalism and Classical Political Economy I**

1. Locke, J. Second Treatise on Civil Government. chs. 1-5.
2. Hume, D. Of Commerce. Available at <http://socserv2.socsci.mcmaster.ca/~econ/ugcm/3113/hume/commerce.hme>

**Classical Liberalism and Classical Political Economy II**

1. Smith, A. 2008 [1776]. Excerpts from The Wealth of Nations, in N. H. Barma and S. K. Vogel (eds.) The Political Economy Reader. London: Routledge, pp. 27-40.
2. Marx, K. 1977 [1867] Excerpts from Capital, vol. 1, in R. Tucker (ed.) The Marx-Engels Reader, 2<sup>nd</sup> ed. New York: Norton, pp. 302-336.
3. Schumpeter, Joseph A. 1942. Capitalism, Socialism and Democracy. New York: Harper & Row, pp. 81-6.

**Keynes' General Theory and after**

1. Ingham, G. 2004. The Nature of Money. London: Polity, chs. 1-3.
2. Keynes, J. M. 1965 [1936]. The General Theory of Employment, interest, and money. New York: Harcourt, Brace & World, ch. 16.

**Stability and instability**

1. Polanyi, K. 2008 [1944] Excerpts from The Great Transformation, in N. H. Barma and S. K. Vogel (eds.) The Political Economy Reader. London: Routledge, pp. 121-151.
2. Minsky, H. 1982. Can 'It' Happen Again? Armonk NY: M. E. Sharpe, pp. 90-116.
3. \*Arrighi, G. & Silver, B. 2001. 'Capitalism and world (dis)order', Review of International Studies 27, 257-79.

**'The battle of ideas'**

1. Corbridge, S. 1994. 'Plausible worlds: Friedman, Keynes, and the geography of inflation', in S. Corbridge, S., N. Thrift, and R. Martin (eds.), Money, Power and Space. Oxford: Blackwell, pp. 63-90.
2. \*Krippner, G. 2005. 'The financialization of the American economy', Socio-Economic Review 3, 173-208.
3. \*Dore, R. 2008. 'Financialization of the global economy', Industrial and Corporate Change 17(6), 1097-1112.

**The Geography of market governance**

1. Williamson, O. 1975. Markets and Hierarchies. New York: Free Press, chs. 1 & 2.
2. Cowen, D. 2010. 'A geography of logistics: market authority and the security of supply chains', Annals of the Association of American Geographers 100(3): 1-21.

**The geography of modern macroeconomic policy I: fiscal policy*****First group of PRESENTATIONS***

1. \*Cameron, A. 2006. 'Turning point? The volatile geographies of taxation', Antipode 38(2), 236-58.
2. \*Hamnett, C. 1997. 'A stroke of the Chancellor's pen: the social and regional impact of the Conservatives' higher rate tax cuts', Environment and Planning A 29, 129-47.
3. \*Cameron, A. 2008. 'Crisis? What crisis? Displacing the spatial imaginary of the fiscal state', Geoforum 39(3), 1145-54.

\* indicates articles available via SFU Library's e-journals.

**The geography of modern macroeconomic policy II: monetary policy**  
**Second group of PRESENTATIONS**

1. \*Mann, G. 2010. 'Hobbes' redoubt? Toward a geography of monetary policy', Progress in Human Geography 34(5), 601-25.
2. \*Krippner, G. 2007. 'The making of US monetary policy: central bank transparency and the neoliberal dilemma', Theory and Society 36, 477-513.

**The geography of neoliberalism: the state of the art?**  
**Third group of PRESENTATIONS**

1. \*Peck, Jamie, and Tickell, Adam (2002) 'Neoliberalizing space', Antipode 34(3), 380-404.
2. Harvey, D. 2006. Spaces of Global Capitalism. Verso: 2006, pp. 9-68.

**Final class**

**\*LONG PAPERS DUE AT BEGINNING OF CLASS\***

**\* \* \***



## EXPECTATIONS

1. Reading All readings are required.

2. Writing Everyone will be writing two papers, one 'short' (750-1000 words) and one 'long' (3,000 - 3,500 words). Your work will be evaluated on (a) how well the paper is put together (grammatically and structurally); (b) how well-researched it is; and (c) how compelling and clear your account is. Everyone will also be completing shorter written pieces, in class/tutorial or over email.

3. Talking and Listening If you are talkative, that is great, we only ask you to be aware if you start to dominate. If you are the "quiet type", you will have to try to overcome it; in a seminar there is no difference between someone who does not do the reading and someone who reads but does not participate.

### Plagiarism

Plagiarism of any sort will result in a grade of 0 (zero) on the assignment/exam. Further disciplinary action is possible. It is your responsibility as participants in university life to know what plagiarism is, and never to plagiarize. If unsure, ask how to credit others' ideas appropriately. The SFU library website does a great job of explaining what plagiarism is, how to make sure you don't do it, and links to SFU policies concerning academic dishonesty: <http://www.lib.sfu.ca/researchhelp/writing/plagiarism.htm>.



**COURSE SUBJECT/NUMBER** GEOG 424-4

**COURSE TITLE**

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

Cities, Transport, Infrastructure

**AND**

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

Cities/Transprt/Infrastructure

**CAMPUS** where course will be taught:  Burnaby  Surrey  Vancouver  Great Northern Way  Off campus

**COURSE DESCRIPTION (FOR CALENDAR). 50-60 WORDS MAXIMUM. ATTACH A COURSE OUTLINE TO THIS PROPOSAL.**

An exploration of the relationships between the development of cities, transportation, and infrastructure from an economic geography perspective. Greater Vancouver provides a location to explore, apply, and critique the theoretical perspectives presented in seminar.

**LIBRARY RESOURCES**

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

Library report status **Pending**

**RATIONALE FOR INTRODUCTION OF THIS COURSE**

Course to be part of teaching responsibilities of new faculty member Peter Hall.

**SCHEDULING AND ENROLLMENT INFORMATION**

Indicate effective **term and year** course would first be offered and planned **frequency** of offering thereafter:

**Spring 2013; biennially thereafter**

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

What is the probable enrollment when offered? Estimate: **15-18**

**CREDITS**

Indicate number of credits (units): **4**

Indicate number of hours for:  Lecture  Seminar  Tutorial  Lab  Other



**FACULTY** Which of your present CFL faculty have the expertise to offer this course?  
Hall; Hayter

**WQB DESIGNATION**  
(attach approval from Curriculum Office)

**PREREQUISITE**  
Does this course replicate the content of a previously-approved course to such an extent that students should not receive credit for both courses?  
If so, this should be **noted in the prerequisite**.

One of GEOG 323, 324, 362, or 363  
**COREQUISITE**

None  
**STUDENT LEARNING OUTCOMES**

Upon satisfactory completion of the course students will be able to:  
Upon satisfactory completion of the course students will be able to critically analyze how city-regions and community life are fundamentally shaped by transportation and infrastructure systems. They will have read and discussed classic and contemporary scholarly literature on the relationships between the development of cities, transportation, and infrastructure from an economic geography perspective. Past and current transportation infrastructure developments in the Greater Vancouver will have provided a focus to explore, apply, and critique the theoretical perspectives presented in the course.

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

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

**OTHER IMPLICATIONS**  
Articulation agreement reviewed?  YES  NO  Not applicable  
Exam required:  YES  NO  
Criminal Record Check required:  YES  NO



APPROVALS

- 1 Departmental approval indicates that the Department or School has approved the content of the course, and has consulted with other Departments/Schools/Faculties regarding proposed course content and overlap issues.

\_\_\_\_\_  
 Chair, Department/School *[Signature]* Date \_\_\_\_\_

\_\_\_\_\_  
 Chair, Faculty Curriculum Committee Date \_\_\_\_\_

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

\_\_\_\_\_  
 Dean or designate *[Signature]* Date *Apr 23, 2012.*

LIST which other Departments, Schools and Faculties have been consulted regarding the proposed course content, including overlap issues. Attach documentary evidence of responses.

Other: Faculties approval indicated that the Dean(s) or Designate of other Faculties AFFECTED by the proposed new course support(s) the approval of the new course:

\_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_ Date \_\_\_\_\_

- 3 SCUS approval indicates that the course has been approved for implementation subject, where appropriate, to financial issues being addressed.

COURSE APPROVED BY SCUS (Chair of SCUS):

\_\_\_\_\_ Date \_\_\_\_\_

APPROVAL IS SIGNIFIED BY DATE AND APPROPRIATE SIGNATURE.

## GEOG424 - CITIES, TRANSPORTATION, INFRASTRUCTURE

### Calendar Description

An exploration of the relationships between the development of cities, transportation and infrastructure from an economic geography perspective. Greater Vancouver provides a location to explore, apply and critique the theoretical perspectives presented in seminar.

**Prerequisite:** GEOG 323 or GEOG 324 or GEOG 362 or GEOG 363.

**Mandatory course fees:** \$20

### Course Outline Description

This seminar course explores the relationships between the development of cities, transportation and infrastructure from an economic geography perspective. City-regions and community life are fundamentally shaped by transportation and infrastructure systems. Greater Vancouver, created at the western terminus of the Canadian Pacific Railway, and now the site of significant gateway expansion provides a location to explore, apply and critique the theoretical perspectives presented in the course. The course will include a fieldtrip to locations in the Lower Mainland currently affected by Gateway activities and infrastructure expansion. Topics include trade, networks, flows and mobility, governance, community impacts, land use and economic development. Students are expected to participate actively in class, and to write a paper about some aspect of infrastructure or transportation development in an urban region.

**Course Meetings:** Class meets for 4 hours per week. Topics for each meeting, required reading and due dates for assignments are identified in the schedule below:

Week	Topic	Readings	Due
1	Introduction		
2	Cities, Trade and Development	Cronon, Innis, Vance, Vernon	
3	Cities, Flows and Mobility	Borja&Castells, Graham&Marvin, Herod, Urry	
4	Cities, Infrastructure and Place	Perry, Flyvberg et al, Altshuler&Luberoff	
5	Fieldtrip (Port Kells, SFPR, Tilbury Island, Deltaport, South Shore)		
6	The economics and work of flow	Levinson, Wang et al, Bonacich&Wilson,	Paper empirical report (10%)
7	From Waterfronts to Suburbs and beyond	Dovey, Desfor et al, Hein, Hesse	
8	Governing and planning flow	Brown, Desfor&Laidley Hall et al	
9	Group meetings and interviews		Book review (20%)
10	Which Gateway economy? Whose Gateway economy?	See web sources for weeks 10-12.	Group briefing document (10%)
11	Railways, Waterways, Highways and Land in the Livable Region		Group briefing document (10%)
12	Governing the Gateway: from local to federal and back		Group briefing document (10%)
13	Conclusion		Final paper (30%)

### **Student Evaluation**

Class participation (10%)

Book review and seminar presentation (20%) – each student presents a book, and later submits a written book review. Other students read one or two chapters from the same book.

Gateway perspectives (group work: 3 x 10%) – groups of students prepare and present briefing documents from the perspective of Gateway stakeholders.

Paper – individual paper on the city-shaping role of infrastructure or transportation development.

Paper empirical report (10%)

Final Paper (30%)

### **Readings**

Cronon, William. 1991. *Nature's metropolis: Chicago and the Great West* / New York: W. W. Norton.

Chapter 2: Rails and Water, pp55-93.

Innis, Harold Adams, (1923/1971) *A history of the Canadian Pacific Railway*. Toronto: University of Toronto Press.

Chapter 4: Expansion of the road and development of the freight traffic, pp129-171.

Vance, James E. 1970. *The merchant's world: the geography of wholesaling*. Englewood Cliffs, N.J.: Prentice-Hall.

Chapter 1: Introduction: wholesaling, the pioneer of space, pp1-14.

Vernon, R. 1960. *Metropolis 1985*. New York: Doubleday.

Chapter 4: Labor and Freight, pp38-67.

Borja, J. and Castells, M. 1997. *Local and Global: Management of Cities in the Information Age*. London: Earthscan.

Chapter 2: The Impact of Globalization on the Spatial and Social Structure of Cities, p16-44.

Stephen Graham and Simon Marvin, 2001 *Splintering urbanism: networked infrastructures, technological mobilities and the urban condition* / London ; New York: Routledge.

Chapter 5: The City as a Sociotechnical Process, pp178-216

Herod, A. 2001. *Labor Geographies: Workers and the Landscapes of Capitalism*. New York: Guildford.

Chapter 4: Spatial Sabotage: containerization, union work rules and the geography of waterfront work, pp70-101.

John Urry. 2007. *Mobilities*. Cambridge: Polity.

Chapter 1: Mobilizing Social Life, pp3-16

Chapter 2: Mobile Theories and Methods, pp17-43

David C. Perry (ed). 1995. *Building the public city: the politics, governance, and finance of public infrastructure* / Published Thousand Oaks, CA: Sage Publications.

Chapter 7: Building the City through the Back Door: The Politics of Debt, Law and Public Infrastructure, pp202-236.

Bent Flyvbjerg, Nils Bruzelius, Werner Rothengatter. 2003. *Megaprojects and risk: an anatomy of ambition* / United Kingdom ; New York: Cambridge University Press.

Chapter 1: The megaprojects paradox, pp1-10.

Chapter 2: A calamitous history of cost overruns, pp11-21.

Altshuler, Alan A. and Luberoff, David. 2003. *Mega-projects: the changing politics of urban public investment* / Washington, D.C.: Brookings Institution Press ; Cambridge, Mass.: Lincoln

**Institute of Land Policy.**

Chapter 5: Building new airports and expanding older ones, pp123-175.

Levinson, Marc. 2006. *The box: how the shipping container made the world smaller and the world economy bigger* / Princeton: Princeton University Press.

Chapter 1: The world the box made, pp1-16.

Chapter 14: Just in time, pp264-278.

Wang, J, Olivier, D, Notteboom, T and Slack, B. (eds) 2007. *Ports, Cities, and Global Supply Chains*. Aldershot: Ashgate

Chapter 13: The economic performance of seaport regions, 187-202.

Chapter 15: Which link, in which chain? Inserting Durban into Global Supply chains, pp221-231.

Edna Bonacich and Jake B. Wilson. 2008. *Getting the goods: ports, labor, and the logistics revolution* / Ithaca, N.Y.: Cornell University Press.

Chapter 1: The logistics revolution, pp3-22.

Conclusion: Winners and losers, pp241-252.

Kim Dovey, 2005. *Fluid city: transforming Melbourne's urban waterfront* / New York: Routledge.

Chapter 1: Flows, pp1-25.

Desfor, G, Laidley, J, Schubert, D, and Stevens, Q. (eds) 2010. *Transforming Urban Waterfronts: Fixity and Flow*. Abingdon: Routledge.

Introduction: Fixity and Flow of Urban Waterfront Change. pp 1-13

Chapter 13: Flows of Capital and Fixity of Bricks in the Built Environment of Boston: property-led development in urban planning? pp274-294.

Carola Hein (ed). 2011. *Port cities: dynamic landscapes and global networks* / Abingdon: Routledge.

Chapter 5: Port Cities and the global exchange of planning ideas, pp70-85.

Hesse, Markus. 2008. *The city as a terminal: the urban context of logistics and freight transport* / Aldershot: Ashgate.

Chapter 5: The Northern California Case Study, pp109-143.

Brown, Peter Hendee. 2009. *America's waterfront revival: port authorities and urban redevelopment*. Philadelphia: University of Pennsylvania Press.

Chapter 8: Devolution and the end of autonomy, pp164-192.

Gene Desfor and Jennefer Laidley (ed). 2011. *Reshaping Toronto's waterfront* / Toronto: University of Toronto Press.

Chapter 9: From Harbour Commission to Port Authority: Institutionalizing the Federal Government's Role in Waterfront Development, pp224-244.

Chapter 11: Who's in Charge? Jurisdictional gridlock and the genesis of waterfront Toronto, pp263-286.

Peter Hall, Robert McCalla, Claude Comtois and Brian Slack (eds) 2011 *Integrating Seaports and Trade Corridors*, Aldershot: Ashgate.

Chapter 1: Introduction, pp1-10.

Chapter 10: Coordination in multi-actor logistics operations: challenges at the port interface, pp155-172