

Office of Graduate Studies and Postdoctoral Fellows

Maggie Benston Student Services

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MEMORANDUM

ATTENTION

Senate

Wade Parkhouse, Dean of Graduate

DATE

10 June 2014

Studies

RE:

FROM

Faculty of Science

GS2014.19 No.

For information:

Acting under delegated authority at its meeting of June 9, 2014, SGSC approved the following curriculum revisions effective Spring 2015:

Faculty of Science

Earth Sciences

- 1. Program requirement changes to Earth Sciences PhD
- 2. Course changes
 - a. Prerequisite: EASC 607
 - b. Description: EASC 604, EASC 617, EASC 620, EASC 624



MEMO

Faculty of Science

ATTENTION Wade Parkhouse, Dean, Graduate Studies	
FROM Peter Ruben, Associate Dean, Faculty of Science	ce
RE Minor course changes - Earth Science	
рате Мау 13, 2014	
	тіме 9:59 АМ

The graduate program in the Department of Earth Sciences seeks to remove the departmental seminar, EASC 900, as a requirement for their PhD students.

The Department also seeks to make minor course changes, including a change in prerequisite to EASC 607, and changes in the course description for EASC 604, 617, 620, and 624.

The Faculty Graduate Program Committee reviewed and approved the proposed changes. The proposed changes have my approval.

P. Ruben



Department of Earth Sciences

To:

Peter Ruben, Associate Dean / Science

From:

Andrew Calvert

Chair, Earth Sciences Graduate Studies Committee

Re:

Graduate program and course changes

Date:

28th April 2014

I would be grateful if you would consider the following changes to the Earth Sciences Graduate program, which were recently approved by the department.

1) Removal of first departmental seminar (EASC 900) for PhD students

The growth in the number of PhD students in our program has resulted in an excessive number of graduate student seminars. Students will still be required to present the results of their PhD research (EASC 901) to the department. The proposed change in wording to be included in the Calendar description of the PhD program is attached.

EASC 900 PhD Seminar - To be deleted

2) Minor Graduate Course Changes

EASC 604 Deformation Mechanisms and Continental Tectonics – Change to course description

EASC 607 Exploration Seismology - Change to prerequisite

EASC 617 Quaternary Geology - Change to course description

EASC 620 Volcanology - Change to course description

EASC 624 Geology of the Canadian Cordillera - Change to course description

Yours sincerely,

Andrew J. Calvert

FROM TO

Program Requirements

Course Work

Students complete all of

EASC 600 - Introduction to Graduate Studies (0)

EASC 900 - PhD Research Seminar (1)

EASC 901 - PhD Research Seminar (1)

EASC 998 - PhD Thesis (6)

In addition, those who entered the program with a BSc degree only are required to complete an additional 15 units in graduate courses, whereas for those who entered with a master's degree, an additional six units of graduate courses are required. With the graduate chair's approval, students may substitute related graduate courses from other departments/programs including physical geography, chemistry, physics, biological sciences, and the resource and environmental management. No more than six units from 700 division EASC courses will be permitted.

With advance approval, students may complete up to one half of the above course requirements at another university. Additional course work may be assigned by the supervisory committee, based on the results of the oral candidacy examination.

Program Requirements

Course Work

Students complete all of

EASC 600 - Introduction to Graduate Studies (0)

EASC 901 - PhD Research Seminar (1)

EASC 998 - PhD Thesis (6)

In addition, those who entered the program with a BSc degree only are required to complete an additional 15 units in graduate courses, whereas for those who entered with a master's degree, an additional six units of graduate courses are required. With the graduate chair's approval, students may substitute related graduate courses from other departments/programs including physical geography, chemistry, physics, biological sciences, and the resource and environmental management. No more than six units from 700 division EASC courses will be permitted.

With advance approval, students may complete up to one half of the above course requirements at another university. Additional course work may be assigned by the supervisory committee, based on the results of the oral candidacy examination.

Research Seminars

In addition to normal course work, students will also present two research seminars by completing

EASC 900 - PhD Research Seminar (1)
EASC 901 - PhD Research Seminar (1)

At least one research seminar should be based on completed, or nearly completed, thesis work. One seminar may address any earth sciences topic approved by the supervisory committee.

Students are expected to attend all the research seminars in the department.

Research Seminars

In addition to normal course work, <u>PhD students</u> must give one research seminar, which should be based on completed, or nearly completed, thesis work:

EASC 901 - PhD Research Seminar (1)

Students are expected to attend all the research seminars in the department.



DEPARTMENT							
Department / School / Program Earth Sciences	Contact name Dan Gibson	Contact email hdgibson@sfu.ca					
Please revise the following elements of th			•				
CURRENT COURSE Please complete only the fields to be of	hanged.		EVISED (COURSE the fields to be change	ed.		
Program (eg. LBST) Number (eg. 81 EASC 604	O) Units (eg. 4)	Program (eg. LBST)	Number (eg. 810)	Units (eg. 4)		
Course title (max 80 characters) Deformation Mechanisms and Cor	tinental Tectonics	Course tit	Course title (max 80 characters)				
Short title (appears on transcripts, max 2		Short title	(appears on t	ranscripts, max 25 chara	acters)		
Course description for SFU Calendar This course will focus on increasing the level of un mechanisms by which rocks deform and the effect variables (effective pressure, temperature, strain retc.) on these deformation mechanisms. Lectures applied to ductile deformation, grain-scale to crust and models of exhumation of metamorphic rocks. effects such as lithosphere rheology, climate and evill also be discussed.	his course w mechanisms (effective pre these deform ductile defort of exhumatio lithosphere ri	Course description for SFU Calendar see attached his course will focus on increasing the level of understanding of the mechanisms by which rocks deform and the effect of environmental variables (effective pressure, temperature, strain rate, chemical environment, etc.) on these deformation mechanisms. Lectures will cover flow concepts applied to ductile deformation, grain-scale to crustal-scale strain partitioning, and models of exhumation of metamorphic rocks. The link between far-field effects such as lithosphere rheology, climate and erosion, and orogenic style will also be discussed. There will also be a 2-day field trip associated with this class.					
Available course components Lecture Claboratory Practicum Online				nents Lecture Sticum Online D			
Practicum work done in this class will inv vulnerable adults (If the "Yes" box is check instructors will require criminal record ch	vulnerable instructor	Practicum work done in this class will involve children or vulnerable adults (If the "Yes" box is checked, all students and instructors will require criminal record checks) Yes No					
☐ Yes ☐ No Grading basis ☐ Graded ☐ Satisfacto ☐ In Progress / Complete ☐ ☐		Grading ba	asis 🗆 Grad	led □ Satisfactory / Un te □	satisfactory		
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This is combined with an undergrad cours Course number and units: Additional course requirements for graduate		Course nu	mber and uni	n undergrad course. ts: rements for graduate stu			
APPROVALS Faculty graduate studies committee name	Signature	Does	D	13 May 19	4		
Senate graduate studies committee name	Signature		D	ate			



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Department / School / Progr EASC		Contact name A.J.Calvert	Contact email acalvert@sfu.ca					
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Course description for SFU Calendar see attached				Course description f	or SFU Calendar □se	e attach	ed	
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Available course components Laboratory Practicum		□ Seminar □			nponents		nar	
Practicum work done in this class will involve children or vulnerable adults (If the "Yes" box is checked, all students and instructors will require criminal record checks)				Practicum work done in this class will involve children or vulnerable adults (If the "Yes" box is checked, all students and instructors will require criminal record checks)				
☐ Yes ☐ No				☐ Yes ☐ No				
Grading basis Graded Satisfactory / Unsatisfactory In Progress / Complete				Grading basis □G □ In Progress / Com	raded Satisfactory ,	/ Unsatis	factory	
Prerequisites (if any) EASC 417 or equi	ivalent			Prerequisites (if any) Permission of				
This is combined with an und	lergrad course.	☐ Yes ☐ No		This is combined wit	h an undergrad course.	☐ Yes	□No	
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Additional course requiremen	nts for graduate	students		Additional course red	quirements for graduate	students	5	
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DEPARTMENT							
Department / School / Program Earth Sciences	Contact name Contact email Brent Ward bcward@sf			Contact email bcward@sfu.ca			
Please revise the following elements of the Catalogue number Units Title							
CURRENT COURSE Please complete only the fields to be cha	nged.		REVISEI Please complete on	D COURSE nly the fields to be chang	ed.		
Program (eg. LBST) Number (eg. 810) EASC 617	Units (eg. 4) 3		Program (eg. LBST)	Number (eg. 810)	Units (eg. 4)		
Course title (max 80 characters)			Course title (max 80	characters)	•		
Quaternary Geology							
Short title (appears on transcripts, max 25 c	haracters)		Short title (appears o	on transcripts, max 25 char	acters)		
Course description for SFU Calendar	e attached		Course description for	or SFU Calendar 🔲 see a	ttached		
Environments of glacial and prog Quaternary stratigraphy and datir with emphasis on the Cordillera.			Quaternary stra with emphasis of	of glacial and proglace stigraphy and dating on the Cordillera. Th Il 1-day trips and at I	methods e course		
Available course components	☐ Seminar ☐			nponents	Seminar		
Practicum work done in this class will involve children or vulnerable adults (If the "Yes" box is checked, all students and instructors will require criminal record checks) Practicum work done in this class will involve children or vulnerable adults (If the "Yes" box is checked, all student instructors will require criminal record checks)					nildren or Il students and		
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Course number and units:			Course number and units:				
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APPROVALS Faculty graduate studies committee name	Signature		2	Date (۴		
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Senate graduate studies committee name	Signature			Date			



DEPARTME	ENT								
Department / School / P Earth Sciences	rogram	Contact name Glyn Williams-Jor			es	Contact email glynwj@sfu.ca			
Please revise the followi ☐ Catalogue number									
CURRENT Please complete only to		anged.			REVISE Please complete or		OURSE ne fields to be change	ed.	
Program (eg. LBST) EASC	Number (eg. 810) 620	1	Units (eg. 4) 3		Program (eg. LBST)		Number (eg. 810)	Units (eg. 4)	
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Volcanology	/								
Short title (appears on tr	anscripts, max 25 c	characte	ers)		Short title (appears	on tra	enscripts, max 25 chara	acters)	
Course description for SI				1	Marian are so as 7 as as		U Calendar □ see at		
Physical, chemical and tectonic aspects of volcanology examined with emphasis on processes of magma generation and evolution, styles of eruption, environments of deposition, and interpretation of volcanic facies.				Physical, chemical and tectonic aspects of volcanology examined with emphasis on processes of magma generation and evolution, styles of eruption, environments of deposition, and interpretation of volcanic facies.					
1					Includes two to thre	e we	ekend field trips.		
Available course compon	ents Lecture cum Online				Available course con			Seminar	
Practicum work done in this class will involve children or vulnerable adults (If the "Yes" box is checked, all students and instructors will require criminal record checks)				Practicum work done in this class will involve children or vulnerable adults (If the "Yes" box is checked, all students and instructors will require criminal record checks)					
☐ Yes ☐ No					☐Yes ☐ No				
Grading basis ☑ Graded ☐ Satisfactory / Unsatisfactory ☐ In Progress / Complete ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐					Grading basis □ Graded □ Satisfactory / Unsatisfactory □ In Progress / Complete □ □ □				
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This is combined with an undergrad course. ☑ Yes ☐ No					This is combined with an undergrad course.				
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Additional course require	ments for graduate	e studer	ts		Additional course re	quire	ments for graduate stu	dents	
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Senate graduate studies co	mmittee name	Sinna	ture			Date	0		



DEPARTMENT				9		
Department / School / Program Earth Sciences	Contact name Dan Gibson Contact email hdgibson@sfu.ca					
Please revise the following elements of the Catalogue number Units Title						
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Geology of the Canadia	n Cordillera					
Short title (appears on transcripts, max 25	characters)	Short titl	le (appears on t	ranscripts, max 25 charac	ters)	
Course description for SFU Calendar	see attached	Course o	lescription for S	FU Calendar 🔲 see atta	ached	
The stratigraphy, structure and historic Canadian Cordillera, examined from a perspective. Models of development of terranes and related entities, and their form the present Cordillera, will be example.	Canadia perspec and rela present	The stratigraphy, structure and historical geology of the Canadian Cordillera, examined from a plate tectonic perspective. Models of development of the various terranes and related entities, and their amalgamation to form the present Cordillera, will be examined in detail. There will also be a 4-day field trip associated with this class.				
Available course components	Seminar	Available Labor	course compo atory Prac	nents Lecture Se	eminar	
Practicum work done in this class will involve children or vulnerable adults (If the "Yes" box is checked, all students and instructors will require criminal record checks) Practicum work done in this class will involve children or vulnerable adults (If the "Yes" box is checked, all students instructors will require criminal record checks)					dren or students and	
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Faculty graduate studies committee name	Signature	0	Da	ite 14/10	_	
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