SFU GRADUATE AND POSTDOCTORAL STUDIES

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MEMORANDUM

ATTENTION Senate

DATE May 20, 2021

FROM Jeff Derksen,
Chair of Senate Graduate Studies Committee (SGSC)

RE: New Course Proposals

For information:
Acting under delegated authority at its meeting of May 4, 2021, SGSC approved the following new course, effective **Spring 2022:**

Faculty of Environment
Department of Geography

1) New course: GEOG 658 Advanced Ecohydrology
2) New course: GEOG 665 Relational Geographies of Conquest and Liberation

Senators wishing to consult a more detailed report of curriculum revisions may do so on the Senate Docushare repository at https://docushare.sfu.ca/dsweb/View/Collection-12682

SFU

DONGYA YANG, PH.D., ASSOCIATE DEAN, RESEARCH AND GRADUATE STUDIES
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MEMO

To: Dr. Jeff Derksen, Dean of Graduate Studies / Chair of SGSC
From: Dr. Dongya Yang, Associate Dean / Chair, Faculty of Environment Graduate Studies Committee
Subject: New course proposals GEOG 658 and GEOG 665
Date: April 20, 2021
CC: Dr. Suzana Dragicevic, Geography Graduate Program Chair

The Faculty of Environment Graduate Studies Committee has approved the requests from the Department of Geography to create two new graduate courses GEOG 658 and GEOG 665, and to make calendar changes (for both MA and MSc, to reflect the creation of these two new courses).

The package includes:

1. Memo from Geography
2. New course proposal form GEOG 658,
   2a with the course outline
3. New course proposal form GEOG 665,
   3a with the course outline
4. Suggested calendar change to MA program
5. Suggested calendar change to MSc program

Should you have any questions please feel free to contact me.

Dongya Yang, Ph.D.
Associate Dean, Research and Graduate Studies
Professor of Bioarchaeology

SFU FACULTY OF ENVIRONMENT | DEPARTMENT OF GEOGRAPHY

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MEMORANDUM

RE: Department of Geography Graduate Calendar changes

Included in package:

New Graduate Course: GEOG 658
New Graduate Course: GEOG 665
Course Outlines for both New Graduate Course Proposals
Calendar Changes to the MA and MSc programs

New Graduate Courses have been created to offer more elective courses to Geography Graduate students.

All course changes will take effect in Spring 2022, and have been approved by the Geography Department.

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Dr. Suzana Dragicevic
Geography Graduate Program Chair

SFU GRADUATE AND POSTDOCTORAL STUDIES

New Graduate Course Proposal

Course Subject (eg. PSYC)	Number (eg. 810)	Units (eg. 4)
GEOG	658	4

Course title (max. 100 characters)

Advanced Ecohydrology

Short title (for enrollment/transcript - max. 30 characters) Advanced Ecohydrology

Course description for SFU Calendar (course descriptions should be brief and should never begin with phrases such as "This course will..." or "The purpose of this course is..." If the grading basis is satisfactory/unsatisfactory include this in the description)

Interdisciplinary exploration of the interactions between plants and hydrologic processes, with an emphasis on primary literature. Topics covered include evapotranspiration, subsurface water storage in time and space, plant water relations, isotopes in water, biogeographical patterns, modeling, field methods, and the role of ecohydrology in Earth's climate system. Mandatory field trip.

Rationale for introduction of this course

Adding graduate-level option to a recently developed and offered undergrad course (GEOG 418)

Term of initial offering (eg. Fall 2019)	
Spring 2022	2 hrs/13 wks (LEC), 2 hrs/13 wks (SEM), 10 hrs (FLD)
Frequency of offerings/year: 1	Estimated enrollment per offering: 3

Equivalent courses (courses that replicates the content of this course to such an extent that students should not receive credit for both courses)

Yes. Two way equivalency with GEOG 418

Prerequisite and/or Corequisite: Enrolled in a graduate program.

Criminal record check required? ☐ Yes if yes is selected, add this as prerequisite

Additional course fees? ☑ Yes ☐ No

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

Course Components * ☑ Lecture ☑ Seminar ☐ Lab ☐ Independent ☐ Capstone ☑ FLD

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

Repeat for credit?	Total repeats allowed?	Repeat within a term?
☐ Yes ☑ No	0	☐ Yes ☑ No

Required course?	Final exam required?	Capstone course?
☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No

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

GEOG 418

* See important definitions on the curriculum website.

RESOURCES

If additional resources are required to offer this course, provide information on the source(s) of those additional resources.

Faculty member(s) who will normally teach this course
W. J. Hahn
Additional faculty members, space, and/or specialized equipment required in order to offer this course
Field trip gear will be sourced from the Department of Geography and Hahm research labs.

CONTACT PERSON

Academic Unit / Program	Name (typically, Graduate Program Chair)	Email
Geography	Erin Rodgers or Erin Huddleston	geoggrad@sfu.ca

ACADEMIC UNIT APPROVAL

A course outline must be included.

Non-departmentalized faculties need not sign

Graduate Program Committee Suzana Dragicevic	Signature S Dragicevic A.	Date 20-04-2021
Department Chair Geoff Mann	Signature	Date 20 April 2021

FACULTY APPROVAL

The course form and outline must be sent by FGSC to the chairs of each FGSC (fgsc-list@sfu.ca) to check for an overlap in content

Overlap check done? [X] YES

This approval indicates that all the necessary course content and overlap concerns have been resolved. The Faculty/Academic Unit commits to providing the necessary resources.

Faculty Graduate Studies Committee	Signature	Date
Dongya Yang	Dongya Yang	April 20 2021

A library review will be conducted. If additional funds are necessary, DGS will contact the academic unit prior to SGSC.

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee	Signature	Date
Jeff Derksen		May 13, 2021

ADMINISTRATIVE SECTION (for DGS office only)

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

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

Ecohydrology - SFU GEOG 658 (4 credits)

Description:

Interdisciplinary exploration of the interactions between plants and hydrologic processes, with an emphasis on primary literature. Topics covered include evapotranspiration, subsurface water storage in time and space, plant water relations, isotopes in water, biogeographical patterns, modeling, field methods, and the role of ecohydrology in Earth's climate system.

Course-Level Educational Goals:

At the completion of this course students will:

- be able to explain and apply Earth-systems concepts in hydrology
- be able to use the systems approach to identify linkages between Earth's surface systems
- have practiced field-based acquisition of Earth-systems data
- understand the role of the scientific method in Earth-systems research
- be able to find, read and accurately summarize Earth-systems research
- practice diverse modes of communication, demonstrating awareness of audience

Prerequisites:

Enrolled in a graduate program.

Teaching staff:

Instructor: **W. Jesse Hahm** (whahm@sfu.ca)

Format:

One two-hour lecture period and one two- hour seminar session per week.

Seminars will consist of student-led, instructor-moderated discussions of primary research articles each week. Some background readings may also be assigned. The course will also cover the process of science communication, including a study of the elements and format of peer-reviewed journal articles and presentation skills.

There will be no lab (seminar) the first week of class.

Canvas will be used to communicate course updates and content.

A mandatory overnight field trip will offer students a hands-on opportunity to learn ecohydrology field methods in a typical coastal BC setting (the Malcolm Knapp Experimental Forest).

This course is combined with an undergraduate course (GEOG 418 - Ecohydrology). In addition to the existing undergraduate level course requirements, the graduate-level option will additionally require the presentation of field methods during the field trip and leading the class in the use of those field methods, which will be achieved via additional background reading and pre-field trip meetings with the instructor.

Ecohydrology - SFU GEOG 658 (4 credits)

Evaluation:

- weekly research article summaries:
  40% of course grade
- Field trip methods presentation 10% of course grade
- primary paper seminar discussion leads (in small groups; prepare presentations of primary figures and necessary background material, lead discussion):
  20% of course grade
- 1 term paper
  30% of course grade

Ecohydrology - SFU GEOG 658 (4 credits)

Calendar:

Date	Lecture topic
Week 1	Introduction to course and ecohydrology; reading scientific papers
Week 2	Global picture: hydrologic cycle and the Budyko curve
Week 3	Water potential and the 'subsurface-plant-atmosphere continuum'
Week 4	Plant transpiration and sapflow
Week 5	Stable isotopes as tracers of ecohydrologic processes
	Break
Week 6	The critical zone perspective
Week 7	Climate feedbacks and precipitation recycling
Week 8	Ecohydrologic models
Week 9	Fog and interception
Week 10	Drought and forest mortality
Week 11	Plant use of groundwater: "well wiggles"
Week 12	Wetlands
Week 13	Plant water uptake and streamflow: Paired catchment experiments

Scheduled topics are subject to change based on class interest

Ecohydrology - SFU GEOG 658 (4 credits)

Texts:

The course content will be based on peer-reviewed primary research articles assigned by the instructor from the literature. Students are encouraged to use all resources available (including the internet), and must also obtain the following text, which will guide our reading and description of the primary content:

Writing Science by Joshua Schimel
Publisher: Oxford University Press
Print ISBN: 9780199760237, 0199760233
eText ISBN: 9780199399123, 0199399123
$20/180 days on Vitalsource

Primary literature research articles:

Zhang, L., Dawes, W. R., & Walker, G. R. (2001). Response of mean annual evapotranspiration to vegetation changes at catchment scale. Water Resources Research, 37(3), 701-708.
Scholander, P. F., Bradstreet, E. D., Hemmingsen, E. A., & Hammel, H. T. (1965). Sap pressure in vascular plants: negative hydrostatic pressure can be measured in plants. Science, 148(3668), 339-346.
Granier, A. (1987). Evaluation of transpiration in a Douglas-fir stand by means of sap flow measurements. Tree physiology, 3(4), 309-320.
West, A. G., Hultine, K. R., Burtch, K. G., & Ehleringer, J. R. (2007). Seasonal variations in moisture use in a piñon–juniper woodland. Oecologia, 153(4), 787-798.
Rempe, D. M., & Dietrich, W. E. (2018). Direct observations of rock moisture, a hidden component of the hydrologic cycle. Proceedings of the National Academy of Sciences, 115(11), 2664-2669.
Stickler, C. M., Coe, M. T., Costa, M. H., Nepstad, D. C., McGrath, D. G., Dias, L. C., ... & Soares-Filho, B. S. (2013). Dependence of hydropower energy generation on forests in the Amazon Basin at local and regional scales. Proceedings of the National Academy of Sciences, 110(23), 9601-9606.
Porporato, A., Daly, E., & Rodriguez-Iturbe, I. (2004). Soil water balance and ecosystem response to climate change. The American Naturalist, 164(5), 625-632.
Dawson, T. E. (1998). Fog in the California redwood forest: ecosystem inputs and use by plants. Oecologia, 117(4), 476-485.
McDowell, N., Pockman, W. T., Allen, C. D., Breshears, D. D., Cobb, N., Kolb, T., ... & Yepez, E. A. (2008). Mechanisms of plant survival and mortality during drought: why do some plants survive while others succumb to drought?. New Phytologist, 178(4), 719-739.
Loheide, S. P., Butler Jr, J. J., & Gorelick, S. M. (2005). Estimation of groundwater consumption by phreatophytes using diurnal water table fluctuations: A saturated-unsaturated flow assessment. Water Resources Research, 41(7).

SFU GRADUATE AND POSTDOCTORAL STUDIES

New Graduate Course Proposal

Course Subject (eg. PSYC) GEOG	Number (eg. 810) 665	Units (eg. 4) 4

Course title (max. 100 characters)

Relational Geographies of Conquest and Liberation

Short title (for enrollment/transcript - max. 30 characters) **Geog of Conquest & Liberation**

Course description for SFU Calendar (course descriptions should be brief and should never begin with phrases such as "This course will..." or "The purpose of this course is..." If the grading basis is satisfactory/unsatisfactory include this in the description)

An exploration of theories and geographies of conquest and liberation to analyze present-day struggles for abolition and decolonization. We will weave epistemologies from across the globe to understand how different struggles for liberation are spatially connected amid colonialism, racial capitalism and empire.

Rationale for introduction of this course

This course offers a theoretical breadth not yet explored in existing 600-level courses, in its focus on Black & Indigenous thinkers and experiences across the globe.

Term of initial offering (eg. Fall 2019) Spring 2022	Course delivery (eg. 3 hrs/week for 13 weeks) 3 hrs/week for 13 weeks
Frequency of offerings/year 1 /year	Estimated enrollment per offering 15

Equivalent courses (courses that replicates the content of this course to such an extent that students should not receive credit for both courses)

None

Prerequisite and/or Corequisite None

Criminal record check required? ☐ Yes if yes is selected, add this as prerequisite

Additional course fees? ☐ Yes ☑ No

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

Course Components * ☐ Lecture ☑ Seminar ☐ Lab ☐ Independent ☐ Capstone ☐ _____

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

Repeat for credit? ☐ Yes ☑ No

Total repeats allowed? 0

Repeat within a term? ☐ Yes ☑ No

Required course? ☑ Yes ☐ No

Final exam required? ☐ Yes ☑ No

Capstone course? ☐ Yes ☑ No

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

* See important definitions on the curriculum website.

RESOURCES

If additional resources are required to offer this course, provide information on the source(s) of those additional resources.

Faculty member(s) who will normally teach this course
Magie Ramirez & May Farrales
Additional faculty members, space, and/or specialized equipment required in order to offer this course

CONTACT PERSON

Academic Unit / Program	Name (typically, Graduate Program Chair)	Email
Geography	Erin Rodgers or Erin Huddleston	geog_grad@sfu.ca

ACADEMIC UNIT APPROVAL

A course outline must be included.

Non-departmentalized faculties need not sign

Graduate Program Committee Suzana Dragicevic	Signature	Date 20-04-2021
Department Chair Geoff Mann	Signature	Date 20 April 2021

FACULTY APPROVAL

The course form and outline must be sent by FGSC to the chairs of each FGSC (fgsc-list@sfu.ca) to check for an overlap in content

Overlap check done? [x] YES

This approval indicates that all the necessary course content and overlap concerns have been resolved. The Faculty/Academic Unit commits to providing the necessary resources.

Faculty Graduate Studies Committee Dongya Yang	Signature	Date April 20 2021

A library review will be conducted. If additional funds are necessary, DGS will contact the academic unit prior to SGSC.

SENATE GRADUATE STUDIES COMMITTEE APPROVAL

Senate Graduate Studies Committee Jeff Derksen	Signature	Date May 13, 2021

ADMINISTRATIVE SECTION (for DGS office only)

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

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

GEOG 665: Relational Geographies of Conquest and Liberation

Course Description

In the past decade, global struggles for abolition, decolonization and liberation have gained significant momentum. In this course, we will turn to essential texts of conquest and liberation to make sense of our global interrelations under empire and how these conditions shape the terrain for present liberatory struggles.

While many of the thinkers we will be engaging are not traditionally considered to reside within the canon of Geography, following the theorizing of Katherine McKittrick we will consider how decolonial theorists articulate and theorize space and liberation amid the conditions of empire. We will delve into the genealogies of Black and Indigenous Studies in particular, reading their work thoroughly to unpack their theoretical contributions. Threading these genealogies of decolonial thought into relation with one another, we will consider how empire and conquest have fomented spatial relations across the globe and produced the conditions for mass economic and racialized dispossession. We will unpack how such spatial relations are produced across different scales -- from societal to the intimate, emphasizing feminist and queer theorizations of liberation in particular. It is from these genealogies that we will ultimately consider the multiple crises we are collectively living, and the emergent possibilities of abolitionist and decolonial movements.

Educational Goals

In taking this course, students will:

- Develop critical analytics of how empire and colonialism conjoin struggles for liberation across geographies
- Analyze how conquest has fueled the development of racial capitalism and how these histories continue to produce inequalities across space
- Understand the gendered and sexual dimensions of empire and colonialism and the heteropatriarchal production of inequalities across space
- Investigate the congruencies and impasses between abolitionist and decolonial movements and theories
- Employ abolitionist and decolonial lenses to interrogate existing structural conditions and relationships across the globe
- Acquire a language to interpret liberatory theories and struggles on the ground
- Gain a sense of how to conduct research guided by abolitionist and decolonial frameworks

Course Schedule*

Week 1. Indigenous Place + Orientations
Salia Joseph – EMMA Talks. (2017, October 19). EMMA Talks. http://emmatalks.org/video/salia-joseph/
Daigle, M. (2019). The spectacle of reconciliation: On (the) unsettling responsibilities to Indigenous peoples in the academy.

Week 2. Critical Indigenous Thought + Turtle Island
Whetung, M. (2019). *(En)gendering Shoreline Law: Nishnaabeg Relational Politics Along the Trent Severn Waterwa*y.
Simpson, A. (2014) *Mohawk Interruptus*
Million, D. (2014) *There is a River in Me: Theory from Life*

Week 3. Critiques of Colonialism + Empire and the Production of Indigeneity and Race
Byrd, J. (2011) *Transit of Empire*
Lowe, L. (2015). *The Intimacies of Four Continents*.
Pierre, J. (2012) The Predicament of Blackness.

Week 4. Racial Capitalism + The Afterlives of Slavery
Robinson, C. (1982) *Black Marxism*
Hartman, S. (2001) *Lose Your Mother*
Sharpe, C. *(2015) In the Wake*

Week 5. The Black Geographic
Wynter, S. (2003) *Unsettling the Coloniality of Being/Power/Truth /Freedom: Towards the Human, After Man, Its Overrepresentation— An Argument*
McKittrick, K. (2006) Demonic Grounds
Woods, C. (1998) Development Arrested: The Blues and Plantation Power in the Mississippi Delta

Week 6. Colonial Abjection
Fanon, F. (1967) Black Skin, White Masks
Coulthard, G (2014) *Red Skin, White Masks*

Week 7. Theories of Conquest + Terrains of Liberation
Alexander, M. J. (2005) *Pedagogies of Crossing: Meditations on Feminism, Sexual Politics, Memory, and the Sacred*
King, T. (2019) *The Black Shoals*

Week 8. Dispossessions, Non-Beings + Making Liveable Worlds
Snorton, C.R. (2017) *Black on Both Sides: A Racial History of Trans Identity*
Belcourt, Billy Ray *(2020) A History of My Brief Body*
Simpson, L.B. (2017) *As We Have Always Done*

Week 9. Senses of Beings + The Futurities of Freedom
Manalansan, M. F. (2018). Messing up sex: The promises and possibilities of queer of color critique. Sexualities, 21(8), 1287–1290. https://doi.org/10.1177/1363460718794646
Muñoz, J (2021) *Sense of Brown*
Keeling, K. (2019). *Queer Times, Black Futures. New York University Press.*

Week 10. Troubling the Borderlands
Anzaldúa, G. (1989) Borderlands/La Frontera
Saldaña-Portillo, M. J. (2016) *Indian Given: Racial Geographies across Mexico and the U.S.*
Figueroa, Y. (2020) Decolonizing Diaspora

Week 11. Resisting Colonial Conditions and its Afterlives
Kanuanui, J.K. (2018) *Paradoxes of Hawaiian Sovereignty: Land, Sex, and the Colonial Politics of State Nationalism*
Cusquianqui, S. (2020) Ch'ixinakax Utxiwa: On Decolonising Practices and Discourses
Santos, Craig Perez, *Selected Poems*
Rodriguez, D. (2010). Suspended Apocalypse: White Supremacy, Genocide, and the Filipino Condition

Week 12. Abolitionist Futures
Walia, H. (2021) *Border and Rule: Global Migration, Capitalism, and the Rise of Racist Nationalism*
Gilmore, R. W. (2021) Change Everything

Week 13. Interrelation (the poetic and the erotic)
Glissant, E. (1990) Poetics of Relation
McKittrick, K. (2021) *Dear Science*
Simpson, L (2020) *Noopiming: The Cure for White Ladies*
King, T (2019) *The Black Shoals* (reprise)

**Selected chapters from the aforementioned texts to be determined at a later date.*

Course Evaluation and Assignments

Collaborative Creations	15%	
Written Reflections		30%
Reading Presentation		15%
Final Project		40%