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MEMORANDUM

ATTENTION	Senate	DATE	July 10, 2020
FROM	Wade Parkhouse, Chair Senate Committee on Undergraduate Studies	PAGES	1/2
RE:	Course Changes (SCUS 20-53)		

For information:

Acting under delegated authority at its meeting of July 9, 2020 SCUS approved the following curriculum revisions effective Summer 2021.

a. Faculty of Applied Sciences1. School of Engineering Science

- (i) Equivalent statement changes for ENSC 220 and 225
- (ii) Description change for ENSC 254

b. Beedie School of Business

- (i) Prerequisite change for BUS 336

c. Faculty of Environment1. Department of Archaeology

- (i) Title change for ARCH 226
- (ii) Unit change for ARCH 273, 348, 349, 377, 385, 388 and 390
- (iii) Prerequisite change for ARCH 285, 431, 433, 434, 435, 479, 480 and 485
- (iv) Course number and equivalent statement change for ARCH 372
- (v) Description change for ARCH 373
- (vi) Units and description change for ARCH 442
- (vii) Title, units and description change for ARCH 452

2. Department of Geography (SCUS 20-46i)

- (i) B-Sci designation for GEOG 118

d. Faculty of Arts and Social Sciences

1. Semester in Dialogue

(i) Equivalent statement changes for DIAL 390W, 391W and 392W

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>.



COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input type="checkbox"/>	Prerequisite	<input type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input type="checkbox"/>	Equivalent Statement	<input checked="" type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using ~~strike through~~, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Students with credit for MSE 250 or SEE 230 cannot take this course for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

SEE 230 is a new course equivalent to ENSC 220 that needs to be included.



COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input type="checkbox"/>	Prerequisite	<input type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input type="checkbox"/>	Equivalent Statement	<input checked="" type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using ~~strike through~~, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Students taking or with credit for ENSC 226 or MSE 251 or SEE231 may not take ENSC 225 for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Summer 2021

RATIONALE (must be included)

SEE 231 is a new course equivalent to ENSC 225 that needs to be included.

COURSE SUBJECT	ENSC	NUMBER	254	TITLE	Introduction to Computer Organization ENSC 254 (4)
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TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input type="checkbox"/>	Prerequisite	<input type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input checked="" type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using ~~strike through~~, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Introduction to Computer Organization ENSC 254 (4)

Fundamentals of microprocessor architecture and operation; this includes instruction formats, assembly language programming (procedures and parameter passing, interrupts, etc), and memory and ~~1/0~~ I/O port interfaces. Prerequisite: (ENSC 251 & ENSC 252) or (CMPT 150 & CMPT 225 & enrolled as a Computing Science Major). ENSC 254 is a required course for all Engineering Science Majors and Honours students (no course substitutions are permitted). Students with credit for, or who are concurrently enrolled in ENSC/CMPT 250 or ENSC 329/MSE 350 cannot take this course for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Summer 2021

RATIONALE (must be included)

Typo correction. Change "1/0" (number "1" / number "0") to "I/O" (letter "I" / letter "O")

COURSE SUBJECT	BUS	NUMBER	336	TITLE	BUS 336 - Data and Decisions II (4)
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TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input type="checkbox"/>	Prerequisite	<input checked="" type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using ~~strike through~~, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

This course is an extension of BUS 232. It develops and applies the quantitative models that are most directly relevant to business decisions. Beginning with material on multiple regression and forecasting modeling, the course moves on to decision analysis, business simulation, quality control, and an introduction to optimization. Prerequisite: MATH 150, MATH 151, MATH 154, or MATH 157; BUS 232, ECON 233, or STAT 270; 45 units. Quantitative.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Summer 2021

RATIONALE (must be included)

BUS 232 and ECON 233 are now equivalent courses (voted through at the November 2019 UCC meeting), and this update indicates that students can now use ECON 233 as a prerequisite for BUS 336.



COURSE SUBJECT ARCH NUMBER 226 TITLE The Prehistory of Religion: Shamans, Sorcerers and Saints

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

- Course number [] Units [] Prerequisite [] Title [X] Description [] Equivalent Statement []

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under Information about specific course components if changing equivalent statement(s).

ARCH 226 - The Prehistory of Religion: Shamans, Sorcerers Sacrifice and Saints Psychedelics

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Summer 2021

RATIONALE (must be included)

Changing the course title to better reflect the content.

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input checked="" type="checkbox"/>	Prerequisite	<input type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using ~~strike through~~, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

ARCH 273 - Archaeology of the New World (43)

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

Changing the number of units from 4 to 3 puts this course in line with other second-year courses that are not W or Q and that lack a laboratory component.

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number Units Prerequisite
 Title Description Equivalent Statement

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

ARCH 348 - Archaeological Conservation (~~5~~4)

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

Changing the number of units from 5 to 4 puts this course in line with other third-year laboratory courses in the department.

COURSE SUBJECT	ARCH	NUMBER	349	TITLE	Management of Archaeological Collections
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TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input checked="" type="checkbox"/>	Prerequisite	<input type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

ARCH 349 - Management of Archaeological Collections (~~5~~4)

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Summer 2021

RATIONALE (must be included)

Changing the number of units from 5 to 4 puts this course in line with other third-year laboratory courses in the department.

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input checked="" type="checkbox"/>	Prerequisite	<input type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using ~~strike through~~, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

ARCH 377 - Historical Archaeology (~~5~~4)

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

Changing the number of units from 5 to 4 puts this course in line with other third-year laboratory courses in the department.

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number Units Prerequisite
 Title Description Equivalent Statement

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

ARCH 385 - Paleoanthropology (~~5~~4)

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

Changing the number of units from 5 to 4 puts this course in line with other third-year laboratory courses in the department.

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input checked="" type="checkbox"/>	Prerequisite	<input type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using ~~strike through~~, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

ARCH 388 - Geoarchaeology (~~5~~4)

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

Changing the number of units from 5 to 4 puts this course in line with other third-year laboratory courses in the department.

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number Units Prerequisite
 Title Description Equivalent Statement

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

ARCH 390 - Archaeobotany (~~5~~4)

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

Changing the number of units from 5 to 4 puts this course in line with other third-year laboratory courses in the department.

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number Units Prerequisite
 Title Description Equivalent Statement

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Prerequisite: ~~One of ARCH 100, ARCH 201, BISC 101, CHEM 111, CHEM 121, EVSC 100, GEOG 111, PHYS 101 or PHYS 120~~ 12 credit hours.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

Changing the course prerequisites opens the course to a broader number of students without significantly impacting students' ability to successfully complete the course.



COURSE SUBJECT	ARCH	NUMBER	431	TITLE	Historical Ecology & Coastal Archaeology
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TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input type="checkbox"/>	Prerequisite	<input checked="" type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Prerequisite: ARCH 372 ~~or~~ 282

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Summer 2021

RATIONALE (must be included)

Amending prerequisite to match the change of course number from ARCH 372 to ARCH 282

COURSE SUBJECT **NUMBER** **TITLE**

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input type="checkbox"/>	Prerequisite	<input checked="" type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Prerequisite: ARCH 372 ~~or~~ 282 and permission of the Department. Normally taken concurrently with ARCH 434 and 435.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Summer 2021

RATIONALE (must be included)

Amending prerequisite to match the change of course number from ARCH 372 to ARCH 282

COURSE SUBJECT ARCH NUMBER 434 TITLE Archaeological Field Methods

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number Units Prerequisite
Title Description Equivalent Statement

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Prerequisite: ARCH 372 ~~or 282~~ and permission of the Department. Normally taken concurrently with ARCH 433 and 435.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Summer 2021

RATIONALE (must be included)

Amending prerequisite to match the change of course number from ARCH 372 to ARCH 282

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input type="checkbox"/>	Prerequisite	<input checked="" type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Prerequisite: ARCH 372 ~~or 282~~ and permission of the Department. Normally taken concurrently with ARCH 433 and 434.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

Amending prerequisite to match the change of course number from ARCH 372 to ARCH 282

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number Units Prerequisite
Title Description Equivalent Statement

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Prerequisite: 45 credit hours, including ARCH 372 ~~or 282~~, and permission of the department.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

Amending prerequisite to match the change of course number from ARCH 372 to ARCH 282



COURSE SUBJECT	ARCH	NUMBER	480	TITLE	Directed Laboratory/ Library/Field Research
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TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input type="checkbox"/>	Prerequisite	<input checked="" type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Prerequisite: 45 credit hours, including ARCH 372 ~~or~~ 282, and permission of the department.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Summer 2021

RATIONALE (must be included)

Amending prerequisite to match the change of course number from ARCH 372 to ARCH 282

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number Units Prerequisite
Title Description Equivalent Statement

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Prerequisite: ARCH 372 ~~or~~ 282.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

Amending prerequisite to match the change of course number from ARCH 372 to ARCH 282

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number Units Prerequisite
 Title Description Equivalent Statement

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Title: ARCH ~~372~~ 282

Equivalent Statement: Students who have completed ARCH 372 cannot take ARCH 282 for additional credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

This course provides a general introduction to laboratory analysis in archaeology and as such makes more sense as a second-year course to prepare students for our more specific and intensive third- and fourth-year laboratory course offerings.

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number Units Prerequisite
 Title Description Equivalent Statement

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

ARCH 373 - Human Osteology (5)

A detailed and lab-intensive study of human ~~skeleton~~ skeletal remains with emphasis on lab and field techniques and dental variation. Designed for students to learn how to identify all the bones in the human skeleton, both whole and fragmentary. Focuses on archaeological and forensic field and lab applications for the study of the human skeleton.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input checked="" type="checkbox"/>	Prerequisite	<input type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input checked="" type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

ARCH 442 - Forensic Anthropology (~~5~~4)

~~Current techniques in identification of recent human skeletal remains.~~ Focuses on the role of the forensic anthropologist in medico-legal death investigations, such as the recovery, identification and determination of cause of death of human remains found in a variety of settings. The lab component provides an overview of anthropological methods of examination of human skeletal remains, such as the estimation of sex and age, and trauma analysis.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

Changing the number of units from 5 to 4 puts this course in line with most other fourth-year laboratory courses in the department.

The description is being updated to match the course content.

COURSE SUBJECT	ARCH	NUMBER	452	TITLE	Introduction to Paleopathology
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TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input checked="" type="checkbox"/>	Prerequisite	<input type="checkbox"/>
Title	<input checked="" type="checkbox"/>	Description	<input checked="" type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

ARCH 452 - ~~Introduction to Paleopathology~~ Ancient Health and Disease (54)

Introduces the study of ancient and historic diseases in humans and animals as expressed in bones, teeth, mummified remains, art, and historical documents. Provides ~~an essential a~~ a foundation for differential diagnosis in skeletal biology and forensic osteology the interpretation of pathological conditions in the human skeleton and the impact of social change on human health and well-being over time.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Summer 2021

RATIONALE (must be included)

Changing the number of units from 5 to 4 puts this course in line with most other fourth-year laboratory courses in the department.

The title and description are being updated to match the course content

COURSE SUBJECT NUMBER **COURSE TITLE LONG** — for Calendar/schedule, no more than 100 characters including spaces and punctuation**COURSE TITLE SHORT** — for enrollment/transcript, no more than 30 characters including spaces and punctuation**CAMPUS** where course will be normally taught: Burnaby Surrey Vancouver Great Northern Way Off campus**COURSE DESCRIPTION** — 50 words max. Attach a course outline. Don't include WQB or prerequisites info in this description box.**REPEAT FOR CREDIT** YES NO Total completions allowed Within a term? YES NO**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 the email that serves as proof of assessment. For more information, please visit www.lib.sfu.ca/about/overview/collections/course-assessments.

RATIONALE FOR INTRODUCTION OF THIS COURSE

Water lies at the intersection of many of the world's largest scientific, societal, and environmental challenges. This is no less true within British Columbia, where the study and prudent management of streams, forests, fisheries, glaciers, and groundwater is central to the wellbeing of humans, the environment, and the regional economy. This course, intended for majors from all faculties across SFU's campuses, will introduce students (with or without a university-level background in the physical sciences) to the fundamentals of hydrology via a series of topical vignettes that intertwine instruction of scientific processes with pressing societal issues, e.g. dams, droughts, and forest mortality.

The boarder intention is for GEOG 118 to be integrated into the Global Environmental Systems major and Climate Change and Society minor (in preparation).

SCHEDULING AND ENROLLMENT INFORMATION

Effective term and year (e.g. FALL 2016)

Fall 2021

Term in which course will typically be offered

Spring

Summer

Fall

Other (describe)

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

Required

Elective

What is the probable enrollment when offered? Estimate:

200

UNITS

Indicate number of units:

3

Indicate no. of contact hours:

3

Lecture

Seminar

Tutorial

Lab

Other; explain below

OTHER**FACULTY**

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

W. Jesse Hahm, Tracy Brennand

WQB DESIGNATION

(attach approval from Curriculum Office)

B-Science certification request is attached

PREREQUISITE AND / OR COREQUISITE

none

EQUIVALENT COURSES [For more information on equivalency, see Equivalency Statements under [Information about Specific Course components.](#)]

1. SEQUENTIAL COURSE [is not hard coded in the student information management system (SIMS).]

Students who have taken (*place relevant course(s) in the blank below (ex: STAT 100)*) **first** may not then take this course for further credit.

2. ONE-WAY EQUIVALENCY [is not hard coded in SIMS.]

(*Place relevant course(s) in the blank below (ex: STAT 100)*) will be accepted in lieu of this course.

3. TWO-WAY EQUIVALENCY [is hard coded and enforced by SIMS.]

Students with credit for (*place relevant course(s) in the blank below (ex: STAT 100)*) may not take this course for further credit.

Does the partner academic unit agree that this is a two-way equivalency? YES NO

Please also have the partner academic unit submit a course change form to update the course equivalency for their course(s).

4. SPECIAL TOPICS PRECLUSION STATEMENT [is not hard coded in SIMS.]

FEES

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

COURSE – LEVEL EDUCATIONAL GOALS (OPTIONAL)

At the end 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
- be able to think critically about the science behind disruptions to Earth systems.
- be able to use Earth-systems knowledge to inform evidence-based thinking about environmental issues.
- be able to identify pathways towards change-making and demonstrate global citizenship
- have a foundational understanding of the diverse relationships between society and space.
- be able to define and explain how physical and environmental processes are related to society and space.

RESOURCES

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

OTHER IMPLICATIONS

Final exam required YES NO

Criminal Record Check required YES NO

OVERLAP CHECK

Checking for overlap is the responsibility of the Associate Dean.

Each new course proposal must have confirmation of an overlap check completed prior to submission to the Faculty Curriculum Committee.

Name of Originator

Jesse Hahm

B-COURSE CERTIFICATION REQUEST

Thank you for your interest in planning and offering a Designated Breadth (B) course. Designated Breadth courses will help meet Simon Fraser University’s commitment to the education of undergraduate students as defined by the new curriculum. This form is intended to:

- determine whether proposed or existing courses meet the B criteria;
- estimate the number of B seats available to students;
- assist faculty to think through the elements of a B course

This form is divided into TWO sections:

Section I requests instructor, program and course information;

Section II requests detailed course content information.

Please contact Susan Rhodes at slrhodes@sfu.ca or Local 3312 if you have any questions about completing this form. Completed forms can be sent either electronically to the email address above or through campus mail to Susan Rhodes, Curriculum Office, VP Academic.

Course Title: The Water Planet

Course # (if known): GEOG 118

Is the course (double-click the applicable box, select “checked” from the Default Value and click “OK”):

- a new course?
- a modification of an existing course to broaden its focus to meet the B criteria?
- a course that has previously been piloted as a B course?
- an existing course that fulfills the B criteria for certification?

To be considered, this form must be approved by the Chair/Director of your program and by the Associate Dean of your Faculty. Please have them sign off as noted below, or send an email confirmation to slrhodes@sfu.ca

Chair/Director: _____ Date approved: _____

Associate Dean: _____ Date approved: _____

Section I

INSTRUCTOR/PROGRAM INFORMATION

Name of Instructor(s): W. Jesse Hahm (course developer); Tracy Brennand; Jeremy Venditti

Department: Geography

E-mail: whahm@sfu.ca Telephone: 778-782-2234

If not the instructor named above, who will develop or revise the course? _____

If the course has multiple instructors, how will the department ensure that the varying course content will routinely meet the B criteria?

All course material (lecture notes and slides, assignments, and in-class activities) will be shared among instructors, and variations on the course will still maintain the same course-level educational goals (listed below).

COURSE ENROLMENT AND OFFERING INFORMATION

If this is a new or modified course:

- when will it first be offered? Fall 2021
- how often will it be offered? Once per year
- what is the expected enrolment per offering? 200

If this is an existing course:

- how often is it offered? _____
- what is the current average enrolment per offering? _____
- what is the expected enrolment increase, if relevant, with B designation? _____

Section II

THE B CRITERIA

Designated Breadth (DB) courses expose students to new theoretical perspectives, forms of thought and modes of enquiry. To qualify as a DB course, a course should be intellectually accessible to “non-majors”; that is, students’ ability to master the course content should not depend on bringing to it the kind of specialized knowledge typically possessed by students majoring in a discipline. Although most DB courses will be introductory in nature, upper-division courses may qualify as DB courses if they do not require students to have specialized knowledge or specific prerequisites.

In addition, a DB course should substantially fulfill AT LEAST ONE of the following three conditions:

1. It explicitly addresses how and why a discipline (or disciplines) defines, acquires and organizes knowledge in particular ways; it identifies important questions and problems in the discipline (or disciplines) and describes procedures used to generate valid answers to the questions or workable solutions to the problems.
2. It is designed to give students a broad understanding of the historical development and/or the contemporary dynamics of the physical, natural, social and/or cultural environments.
3. It provides a survey of a substantial body of the knowledge, theories and/or controversies that are deemed to be central to a discipline (or disciplines).

Please give a one-paragraph description of the content of the course, and provide a syllabus (if available).

An overview of the processes that control water supply to natural ecosystems and human civilization. Hydrologic cycle, floods, droughts, groundwater. Patterns of water use, threats to water quality, effects of global climate change on future water supplies. Water issues facing British Columbia.

Syllabus information:

Class meets: Three hours of lecture weekly

- | | |
|----------|---|
| Website | Visit the course website on Canvas for course reading material and related links. The site will also post course announcements, lecture summaries, and a copy of this outline. Reading material is provided in “modules” for each lecture. |
| Lecture | Attendance is expected; in-lecture exercises will account for 10% of the grade. |
| Homework | Four homework exercises, each worth 10% of course grade (total 40%). Note that homework is a large fraction of the course grade. |
| Readings | Readings will be assigned for each lecture topic (see last page). Readings are included to add explanation and application of concepts introduced in the lectures. |
| Exams | In-class midterm exam, and standard final exam (on all materials) – The midterm exam is worth 20% of the course grade and the final exam is worth 30% (total 50%). Exams will consist of short-essay questions and multiple-choice questions. |

Tentative schedule:

Lec #	Date	Lecture Topic	Assignments
01		Introduction to the water planet	
02		Water, giver of life	
<i>Oceans</i>			
03		Where water comes from: the global water cycle	#1 out
04		Introduction to the Oceans	
05		Management and mismanagement of the world's fisheries	
06		Waves, tides and tsunamis	
<i>Runoff and Erosion</i>			
07		Does cloud seeding really work? (<i>in class demonstration</i>)	#1 due, #2 out
08		Fires, floods, grass and goats: managing erosion and landslide hazards in British Columbia	
09		Rainfall, runoff, and landslide hazards in BC	
10		Spotted owls and gold mining: impact of resource use on river ecosystems	
<i>River Systems</i>			
11		Anatomy of rivers	
12		Does deforestation in the Himalaya cause flooding in Bangladesh?	#2 due
NA		<i>Break</i>	
NA		<i>Break</i>	
NA		<i>Midterm exam</i>	
13		River restoration	
<i>Groundwater and Water Quality</i>			
14		The Critical Zone	
15		What is in the water you drink?	
16		Mineral water: health food, fad, or fraud? (<i>in class demonstration</i>)	
17		Deeper wells & saltier waters: groundwater depletion (<i>in class demo</i>)	#3 out
18		The invisible menace: groundwater contamination by toxic pollution	
<i>Managing Water Resources</i>			
19		The future of British Columbia's water	#3 due #4 out
20		Droughts: a prehistoric perspective	
21		Droughts: the future	
22		The global greenhouse: Welcome to the Anthropocene	
23		Damming the rivers of the world	#4 due
24		Contaminants in British Columbia bays and streams	
25		Course Review	
NA		Final Exam	

By definition, Designated Breadth courses address general issues and introductory content (i.e. non-specialist). Therefore, it will be rare for a Breadth course to have multiple or upper-level prerequisites. **Please list prerequisites, if the course has any.**

- No prerequisites

All Designated Breadth courses are assigned to one (or more) of the Breadth areas: Humanities, Science and/or Social Science. Please identify the area(s) that seems most appropriate to the content of your course and answer the following questions, clarifying how the B criteria pertain to each of these areas. (For example, a course in Psychology could be designated as B-Soc or B-Sci, or both, depending on its approach to the subject matter.)

Which Breadth requirement(s) is the course designed to satisfy? B-Hum B-Sci B-Soc

1. Explain how this course explicitly addresses how and why a Humanities/Science/Social Science discipline (or disciplines) defines, acquires and organizes knowledge in particular ways; it identifies important questions and problems in the Humanities/Science/Social Science and describes the procedures used to generate valid answers to the questions or workable solutions to the problems.

The course will address the organization of knowledge, identification of important questions and problems and procedures to generate valid answers via implementation of the course level educational goals for the students, which are to:

- 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
- be able to think critically about the science behind disruptions to Earth systems.
- be able to use Earth-systems knowledge to inform evidence-based thinking about environmental issues.
- be able to identify pathways towards change-making and demonstrate global citizenship
- have a foundational understanding of the diverse relationships between society and space.
- be able to define and explain how physical and environmental processes are related to society and space.

2. Explain how this course introduces important concepts for understanding the historical development and/or contemporary dynamics of:

- our Western and/or non-Western heritage of thought and culture (Humanities);
- the physical, natural, and/or technological environments we inhabit (Science);
- the social environments we inhabit (Social Science).

Water lies at the intersection of many of the world's largest scientific and environmental challenges. This is no less true within British Columbia, where the study and prudent management of streams, forests, fisheries, glaciers, and groundwater is central to the wellbeing of humans, the environment, and the regional economy. The course will provide an introduction to important historical and contemporary dynamics to the physical environment, focusing on water, via in-class lectures, assignments, and a list of topical readings.

3. Explain how this course provides a survey of a substantial body of the knowledge, theories and/or controversies that are deemed central to a Humanities/Science/Social Science discipline or disciplines.

The course provides an overview of fundamental concepts within the scientific discipline of hydrology. It does so via a combination of basic scientific principles, hydrologic theory and practice, organized around a series of lecture ‘vignettes’ about topical and pressing hydrologic issues facing humanity today.

4. Describe any other ways in which this course meets the goals and criteria of a Designated Humanities/Science/Social Science Breadth course.



COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

- Course number
- Units
- Prerequisite
- Title
- Description
- Equivalent Statement

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using ~~strike through~~, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Students with credit for DIAL 393 may not take this course for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Summer 2021



RATIONALE (must be included)



COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input type="checkbox"/>	Prerequisite	<input type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input type="checkbox"/>	Equivalent Statement	<input checked="" type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using ~~strike through~~, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Students with credit for DIAL 394 may not take this course for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)



COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number	<input type="checkbox"/>	Units	<input type="checkbox"/>	Prerequisite	<input type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input type="checkbox"/>	Equivalent Statement	<input checked="" type="checkbox"/>

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using ~~strike through~~, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Students with credit for DIAL 395 may not take this course for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)