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MEMORANDUM

ATTENTION	Senate	DATE	February 7, 2020
FROM	Wade Parkhouse, Chair Senate Committee on Undergraduate Studies	PAGES	1/2
RE:	Course Changes (SCUS 20-08)		

For information:

Acting under delegated authority at its meeting of February 6, 2020 SCUS approved the following curriculum revisions effective Fall 2020.

a. Faculty of Arts and Social Sciences (SCUS 19-57)1. Department of English

- (i) B-Hum designation for ENGL 272 (Summer 2020)

b. Faculty of Applied Sciences1. School of Mechatronic Systems Engineering (MSE)

- (i) Prerequisite change for MSE 380 and 421

c. Beedie School of Business

- (i) Prerequisite change for BUS 489
- (ii) Units change for BUS 490, 491 and 495
- (iii) Description and prerequisite change for BUS 336

d. Faculty of Environment1. School of Resource and Environmental Management

- (i) Course number and equivalent statement change for ENV 320W
- (ii) Course number and equivalent statement change for ENV 452
- (iii) Title, description and prerequisite changes for REM 311
- (iv) Title and description changes for REM 356 and 356W
- (v) Prerequisite change for REM 412 and 423

2. Department of Geography

- (i) Prerequisite change for GEOG 313
- (ii) Title change for GEOG 215

e. Faculty of Science (SCUS 19-54)

1. Department of Physics

- (i) Q designation for PHYS 416 (Summer 2020)

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>.



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MEMORANDUM

ATTENTION Catherine Murray, Associate Dean FASS **DATE** Feb 3, 2020

FROM Kelli Whittle, Director
University Curriculum & Institutional Liaison **PAGES** 1

RE: ENGL 272 B approval

The University Curriculum Office has approved **B-Hum** designation for the following course in Creative Reading, to be offered in Summer 2020 (1204):

ENGL 272-3 Creative Reading

Please forward this memo with the new course proposal material to the Faculty UCC, SCUS and Senate for final approvals.

cc: David Coley, UCG Chair, Department of English

COURSE SUBJECT	MSE	NUMBER	380	TITLE	Systems Modeling and Simulation
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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: MSE 221 (or ENSC 281 or SEE 221), MSE 222 (or ENSC 282), MSE 251 (or ENSC 226, or SEE 231), MSE 280 (or ENSC 380 or SEE 341). Students with credit for ENSC 381 may not take MSE 380 for further credits.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2020

RATIONALE (must be included)

The instructor of the course suggests that MSE 280 is a more appropriate prerequisite for MSE 380 than the existing MSE 251.

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: MSE 222 (or ENSC 282), MSE 380 ~~MSE 280 (or ENSC 380)~~ and a minimum of 80 credits. Students with credit for ENSC 436 may not take MSE 421 for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

RATIONALE (must be included)

The instructor of MSE 421 suggests that MSE 380 is a more appropriate prerequisite to existing course MSE 280.



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).

Businesses are realigning and in some cases, reinventing their organizations toward more sustainable business models. Management systems and initiatives will be examined that enable organizations to reduce their firms' negative environmental and social impacts while, in many cases, increasing profits and competitive advantage. Prerequisite: BUS 360W and BUS 381 or BUS 374; 60 units. Students who have taken BUS 457 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)

The structure of the Sustainable Business Joint Major program poses some challenges for students because they are given the option of completing either BUS 374 or BUS 381, but then are required to take BUS 489 which requires BUS 374 specifically as a prerequisite. The difficulty here is that students who opt to take BUS 381 find that they do not have the prerequisite when it comes time to take BUS 489. This change will make BUS 489 more accessible to students in the Sustainable Business Joint Major, and also any other Business Major, Honours or Joint Major students who are completing an HR concentration. The BUS 489 instructors and Area Coordinator have confirmed that students who take BUS 381 as a prerequisite will be equally prepared for the course as those who take BUS 374.



COURSE SUBJECT	BUS	NUMBER	490	TITLE	Selected Topics in Business Administration
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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).

BUS 490 - Selected Topics in Business Administration (~~3~~) (1)

The subject matter will vary from term to term depending upon the interests of faculty and students. Prerequisite: Will vary according to topic. BUS 360W; 60 units.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2020

RATIONALE (must be included)

Currently, Beedie's 400-level Special Topics in Business Administration courses can only be offered for either 3 credits (BUS 490, 491, 492, 493, 494, and 495) or 5 credits (BUS 496). This limits the development of possible Special Topics, as courses that are not designed to be offered for 3 or 5 credits cannot be assigned one of the existing course numbers. By updating the units for BUS 490, Beedie will have an available option for courses that are designed to be offered for one credit.



COURSE SUBJECT	BUS	NUMBER	491	TITLE	Selected Topics in Business Administration
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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).

BUS 491 - Selected Topics in Business Administration (~~3~~) (2)

The subject matter will vary from term to term depending upon the interests of faculty and students. Prerequisite: Will vary according to topic. BUS 360W; 60 units.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2020

RATIONALE (must be included)

Currently, Beedie's 400-level Special Topics in Business Administration courses can only be offered for either 3 credits (BUS 490, 491, 492, 493, 494, and 495) or 5 credits (BUS 496). This limits the development of possible Special Topics, as courses that are not designed to be offered for 3 or 5 credits cannot be assigned one of the existing course numbers. By updating the units for BUS 491, Beedie will have an available option for courses that are designed to be offered for two credits.



COURSE SUBJECT	BUS	NUMBER	495	TITLE	Selected Topics in Business Administration
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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).

Selected Topics in Business Administration BUS 495 ~~(3)~~ (4)

The subject matter will vary from term to term depending upon the interests of faculty and students. Prerequisite: as stated by the faculty at the time of offering and BUS 360W; 60 units.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2020

RATIONALE (must be included)

Currently, Beedie's 400-level Special Topics in Business Administration courses can only be offered for either 3 credits (BUS 490, 491, 492, 493, 494, and 495) or 5 credits (BUS 496). This limits the development of possible Special Topics, as courses that are not designed to be offered for 3 or 5 credits cannot be assigned one of the existing course numbers. Changing BUS 495 from 3 units to 4 units would give the Beedie Undergraduate Program the flexibility to offer 4-unit special topics courses.

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 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).

This course is an extension of ~~BUEC~~ 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 157; ~~BUEC~~ BUS 232 or STAT 270; 45 units. Quantitative.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

RATIONALE (must be included)

Beginning in the Fall 2019 term, BUEC 232 Data and Decisions I (4) was renamed as BUS 232 Data and Decisions I (4). The description for BUS 336 still references BUEC 232 and should be updated to reflect that this course is now offered as BUS 232.



COURSE SUBJECT NUMBER TITLE

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

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

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~~ENV~~ REM 320W – Ethics and Environment (3)

Prerequisite: Students must have earned at least 45 units. Students who have taken PHIL 333-3 or ENV 399-3 "Special Topics in Environmental Ethics" prior to or in 2011 and students with credit in ENV 320W or PHIL 328-3 may not enroll in this course for further credit. Philosophy Majors and Minors may not take this course for credit towards their major or minor degree. Writing.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

RATIONALE (must be included)

This course is currently managed in the FENV Dean's Office but there are no longer sufficient resources to manage it in terms of advising, scheduling, and the hiring of instructors or TAs. This course, which has a healthy student demand, aligns very well with REM's Major and it will receive all the necessary resources once it is formally housed in this unit.

COURSE SUBJECT NUMBER TITLE

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

Course number	<input checked="" 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).

~~ENV~~ REM 452 – Environmental Education (8)

Prerequisite: 90 units. Students may be required to complete a Criminal Record Check. Students with credit for EDUC 452 or ENV 452 may not take this course for further credit. Quantitative/Breadth-Science.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

REM has recently been developing off-campus learning opportunities for its Major/Honours students, including summer study in Haida Gwaii and at the Bamfield Marine Station. The ENV/EDUC 452 course offers opportunities and synergies by working directly with the Faculty of Education to develop this course further. For example, EDUC has offered the course not only in Haida Gwaii but also in Indonesia and in downtown Vancouver. So far, the ENV crosslist has never been opened to registration so the crosslist has been on paper only. This has occurred in part because there are not sufficient resources in the FENV Dean's Office to manage the ENV version of the course. Thus, by converting from ENV to a REM course code the responsibility for developing opportunities with EDUC would fall to REM and would fit nicely with REM's ongoing off-campus initiatives, as noted above. In particular, faculty on REM have already established collaborative relationships with the course instructor in EDUC via the Sustainable Development Program housed in REM.



COURSE SUBJECT	REM	NUMBER	311	TITLE	Applied Ecology and Sustainable Environments
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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 checked="" type="checkbox"/>	Description	<input checked="" type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

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REM 311 – Applied Ecology and Sustainable Environments (3)

~~Students will learn to apply the ecological concepts introduced in prereq courses to applied ecological problems at the population, community, and ecosystem levels of organization. Emphasis will be placed on processes which drive ecological dynamics, on recognizing those processes and dynamics in applied contexts, and on interpreting ecological data.~~

Builds on foundational ecological concepts to study the ecological processes that govern the dynamics of populations. Students will use quantitative models to examine the role of data, variability, uncertainty, and assumptions in science and decision making. Students will learn how to improve the sustainable use of natural capital by applying scientific data, ecological theory, ecological models, critical thinking, and Adaptive Management to societal decisions. Prerequisite: REM 100 or EVSC 100; BISC 204 or GEOG 215 or REM 211; STAT 201 or 203 or 205 or GEOG 251 or equivalent. Recommended: REM 225. Quantitative.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2020

RATIONALE (must be included)

The title change is intended to simplify and highlight the role of this course as a central core offering within the REM Major and in other programs (e.g. EVSC Major). Prerequisites are being revised to take advantage of two new REM courses that will better prepare students for this course.

COURSE SUBJECT	REM	NUMBER	356	TITLE	Institutional Arrangements for Sustainable Environmental Management
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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 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).

REM 356 – ~~Institution Arrangements for Sustainable Environmental Management~~
Environmental Policy (3)

This course ~~p~~Provides an overview of ~~some basic legislation, agencies, and policies which currently are in use to regulate policy and governance approaches used to manage~~ the natural environment at the international, national, provincial, regional, and local levels. ~~Its purpose is to p~~resents a basic set of evaluative questions ~~which that~~ can be used to ~~address-determine~~ the effectiveness and efficiency of different approaches to regulate and manage the environment. ~~the environmental regulatory and management systems currently in use.~~ Prerequisite: REM 100. Students with credit for REM 356W may not take this course for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2020

RATIONALE (must be included)

This is an older course and its title and description no longer present an up to date view of the course content. Furthermore, the course has been re-positioned as one of the three core upper division courses in our major and, as such, it requires a name change and some redesign to match the intent of the core courses in our program (e.g. linked to the tenets of sustainability)



COURSE SUBJECT	REM	NUMBER	356W	TITLE	Institutional Arrangements for Sustainable Environmental Management
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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 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).

REM 356W - ~~Institution Arrangements for Sustainable Environmental Management~~ Environmental Policy (3)

~~This course p~~Provides an overview of some basic legislation, agencies, and policies which currently are in use to regulate policy and governance approaches used to manage the natural environment at the international, national, provincial, regional, and local levels. ~~Its purpose is to p~~Presents a basic set of evaluative questions which that can be used to address-determine the effectiveness and efficiency of different approaches to regulate and manage the environment. ~~the environmental regulatory and management systems currently in use.~~ Prerequisite: REM 100. Students with credit for REM 356 may not take this course for further credit. Writing.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2020

RATIONALE (must be included)

This is an older course and its title and description no longer present an up to date view of the course content. Furthermore, the course has been re-positioned as one of the three core upper division courses in our major and, as such, it requires a name change and some redesign to match the intent of the core courses in our program (e.g. linked to the tenets of sustainability)



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).

REM 412 – Environmental Modeling (4)

Students receive hands-on experience in the construction and analysis of computer simulation models of environmental and ecological systems and problems. Prerequisite: REM 100 or EVSC 100; BISC 204 or GEOG 215 or REM 211; STAT 201 or 203 or 205 or GEOG 251 or equivalent; and 60 units. Recommended: REM 225. Quantitative.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2020

RATIONALE (must be included)

Change reflects addition of REM 211 as an alternative ecology prerequisite and addition of new REM 225 as an entry level quantitative course to better prepare upper division students in REM.



COURSE SUBJECT	REM	NUMBER	423	TITLE	Research Methods in Fisheries Assessment
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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).

REM 423 – Research Methods in Fisheries Assessment (4)

Introduction to quantitative methods for providing scientific advice on the status, productivity and effects of fishing of fish stocks. Includes development and application fish population dynamics models, data analysis, and the quantification of uncertainty. Focus will be primarily on biological aspects of fisheries assessment while illustrating how these interface with economic, social and institutional concerns of management agencies. Prerequisite: BISC 204 or GEOG 215 or REM 211; REM 225; STAT 201 or 203 or 205 or GEOG 251 or equivalent; MATH 151 or 154 or 157 or equivalent; and 60 units; or permission of instructor.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2020

RATIONALE (must be included)

Prerequisites are being revised to take advantage of two new REM courses that will better prepare students for this course.



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: GEOG 213, or both EASC 209W and EASC 304.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

RATIONALE (must be included)

While student success is enhanced with the GEOG 213 prerequisite, several EASC students have taken GEOG 313 in the past 5 years with a prerequisite waiver when they have already taken EASC 209W and 304. These students have met reasonable success in GEOG 313, so I wish to regularize and clarify this pathway for students.



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).

~~Biogeography~~ The Biosphere

EFFECTIVE TERM AND YEAR FOR CHANGES

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

RATIONALE (must be included)

The change in course title better reflects the course content

(Calendar Description: An introduction to the planetary biosphere, its living organisms, and their interactions with each other and the Earth system. Prerequisite: GEOG 111.)



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MEMORANDUM

ATTENTION David Hik, Associate Dean Science **DATE** Feb 3, 2020

FROM Kelli Whittle, Director
University Curriculum & Institutional Liaison **PAGES** 1

RE: PHYS 416 Q approval

The University Curriculum Office has approved **Q** designation for the following Physics course, to be offered in Summer 2020 (1204):

PHYS 416-3 Introduction to Quantum Information Science

Please forward this memo with the new course proposal material to the Faculty UCC, SCUS and Senate for final approvals.

cc: Barbara Frisken, UCG Chair, Department of Physics