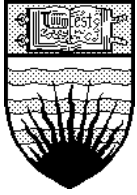


THE UNIVERSITY OF BRITISH COLUMBIA



April 29, 2008

CURRICULUM COMMITTEE
Vancouver Senate
2016 - 1874 East Mall
Vancouver, B.C. Canada V6T 1Z1

To: Senate

From: Senate Curriculum Committee

Re: May Curriculum Proposals

The Senate Curriculum Committee has reviewed the material forwarded to it by the faculties, and encloses those proposals it deems as ready for approval. As such, the following is recommended to Senate:

Motion: *“That the new and changed courses and programs brought forward by the Faculties of Arts, Forestry, Graduate Studies (Applied Science, Arts, Education, Land and Food Systems and Science) and Science be approved.”*

Respectfully submitted,

Peter Marshall, Chair
Senate Curriculum Committee

THE UNIVERSITY OF BRITISH COLUMBIA



Enrolment Services
Senate and Curriculum Services
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29 April 2008

To: Vancouver Senate

From: Senate Curriculum Committee

Re: **FACULTY OF ARTS CURRICULUM REPORT**

Attached please find the submitted Category 1 curriculum proposal from the Faculty of Arts for your consideration.

Course Number	Course Title	Action
ANTH 428 (3)	Medicine, Society, And Culture	new course
ANTH 429 (3)	Global Health In Cross-Cultural Contexts	new course
CRWR 403 (3/6) D	Writing For Children I	change credit value and title
CRWR 404 (3/6) D	Writing For Radio I	change credit value and title
CRWR 414 (3/6) D	Writing For Television I	new course
CRWR 415 (3/6) D	Workshop In Literary Translation I	change credit value, title, and prerequisite
CRWR 424 (3/6) D	Writing For Radio II	new course
CRWR 433 (3/6) D	Writing For Children II	new course
CRWR 434 (3/6) D	Writing For Television II	new course
CRWR 435 (3/6) D	Workshop In Literary Translation II	new course
FNLG 101 (3-12) D	Introduction to a First Nations Salish Language: I	new course number to replace existing course
FNLG 102 (3-12) D	Introduction to a First Nations Salish Language: II	new course number to replace existing course
FNLG 111 (3-12) D	Introduction to a First Nations Algonquian Language: I	new course number to replace existing course
FNLG 112 (3-12) D	Introduction to a First Nations Algonquian Language: II	new course number to replace existing course
FNLG 121 (3-12) D	Introduction to a First Nations Dene (Athapaskan) Language: I	new course number to replace existing course
FNLG 122 (3-12) D	Introduction to a First Nations Dene (Athapaskan) Language: II	new course number to replace existing course
FNLG 131 (3-12) D	Introduction to a First Nations Tsimshianic Language: I	new course number to replace existing course

Course Number	Course Title	Action
FNLG 132 (3-12) D	Introduction to a First Nations Tsimshianic Language: II	new course number to replace existing course
FNLG 141(3-12) D	Introduction to a First Nations Wakashan Language: I	new course number to replace existing course
FNLG 142 (3-12) D	Introduction to a First Nations Wakashan Language: II	new course number to replace existing course
FNLG 151 (3)	Introduction to A First Nations Language: Haida I	new course
FNLG 152 (3)	Introduction to A First Nations Language: Haida II	new course
FNLG 161 (3)	Introduction to A First Nations Language: Ktunaxa (Kootenay) I	new course
FNLG 162 (3)	Introduction to A First Nations Language: Ktunaxa (Kootenay) II	new course
FNLG 191 (3/12) D	Introduction to A First Nations Language: I	new course
FNLG 192 (3/12) D	Introduction to A First Nations Language: II	new course

**UBC Curriculum Proposal Form
Change to Course or Program**

<p>Faculty: Arts Department: Anthropology Faculty Approval Date: Feb 7, 2008</p> <p>Effective Session <u>2008</u> Term <u>1</u> Year <u>2008</u> for Change</p>	<p>Date: October 10, 2007 Contact Person: Charles Menzies Phone: 604-822-2240 Email: cmenzies@interchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>ANTH 428 (3) MEDICINE, SOCIETY, AND CULTURE A medical anthropological perspective on medical science, technology, translational research, and clinical practice, in laboratory, clinic, family, social, and cultural contexts. Topics include explanatory models of health, acute and chronic illness, disability; social and cultural dimensions genetics; clinical interaction.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=ANTH</p> <p>Present Calendar Entry: n/a</p> <p>Type of Action: New Course</p> <p>Rationale: For the last 10 years the content of the proposed course have been offered regularly as Anth 427 Topics in Medical Anthropology. The addition of a medical anthropologist with different specialties makes it advisable to clearly identify the distinct content of the courses. Students who have taken ANTH 427 will be permitted to take ANTH 428. All of our upper level courses have ANTH 100 as a common prerequisite and this is listed in the calendar.</p>
<p>Proposed Calendar Entry:</p> <p>ANTH 429 (3) GLOBAL HEALTH IN CROSS-CULTURAL CONTEXTS Includes examination of the social and cultural dimensions of specific life-threatening emerging and re-emerging infectious diseases, the political economy of health, cultural interpretations of illness and healing, medical pluralism, therapy management, and the cultural construction of efficacy.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=ANTH</p> <p>Present Calendar Entry: n/a</p> <p>Type of Action: New Course</p> <p>Rationale: For the last 10 years the content of the proposed course have been offered regularly as Anth 427 Topics in Medical Anthropology. The addition of a medical anthropologist with different specialties makes it advisable to clearly identify the distinct content of the courses. Students who have taken ANTH 427 will be permitted to take ANTH 429. All of our upper level courses have ANTH 100 as a common prerequisite and this is listed in the calendar.</p>

Category: (1)

Faculty: Arts Department: Creative Writing Program Faculty Approval Date: Effective Session <u>Winter</u> , Term <u>1</u> , Year <u>2008</u> for Change	Date: November 30, 2007 Contact Person: Linda Svendsen Phone: 2-3058 Email: svensend@interchange.ubc.ca
Proposed Calendar Entry: CRWR 403 (3/6) D WRITING FOR CHILDREN I Techniques of writing for children in various genres.	URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR Present Calendar Entry: CRWR 403 (6) WRITING OF CHILDREN'S LITERATURE Techniques of writing for children in various genres. Limitations as to the children's age group and genres to be set by the instructor. Instruction given through workshop and individual tuition. Type of Action: Change credit weight to be able to offer the course as either 3 or 6 credits. Edit title. Rationale: The UBC Creative Writing Program is unique amongst its peers in its emphasis upon educating writers in multiple genres, and students are attracted to this approach. Forming three credit versions of several courses in different genres allow the students flexibility to increase their breadth of exposure and expand their knowledge base. The possibility of six credit workshops allows students to increase their depth of understanding and their skill by repeating the course one time. When the course is repeated the student will develop their skills further because the second time the course is offered it will require new student-generated content and novel interactions with the instructor and the new students. The title change is to better reflect the scope of work covered in this course.

<p>Proposed Calendar Entry:</p> <p>CRWR 404 (3/6) D WRITING FOR RADIO I</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: CRWR 404 (6) WRITING OF DRAMA AND FEATURES FOR RADIO</p> <p>Type of Action: Change credit weight to be able to offer the course as either 3 or 6 credits. Edit title.</p> <p>Rationale: The UBC Creative Writing Program is unique amongst its peers in its emphasis upon educating writers in multiple genres, and students are attracted to this approach. Forming three credit versions of several courses in different genres allow the students flexibility to increase their breadth of exposure and expand their knowledge base. The possibility of six credit workshops allows students to increase their depth of understanding and their skill by repeating the course one time. When the course is repeated the student will develop their skills further because the second time the course is offered it will require new student-generated content and novel interactions with the instructor and the new students.</p> <p>The title change is to better reflect the scope of work covered in this course.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 414 (3/6) D WRITING FOR TELEVISION I</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: None.</p> <p>Type of Action: New Course.</p> <p>Rationale: Previously, students had the option of learning to write scripts for television by enrolling in CRWR 406 “Writing for Screen.” Due to the popularity of the subject, we think it would be appropriate to create a new course number dedicated to writing for television. No new resources will be required.</p> <p>The UBC Creative Writing Program is unique amongst its peers in its emphasis upon educating writers in multiple genres, and</p>

	<p>students are attracted to this approach. Forming three credit versions of several courses in different genres allow the students flexibility to increase their breadth of exposure and expand their knowledge base. The possibility of six credit workshops allows students to increase their depth of understanding and their skill by repeating the course one time. When the course is repeated the student will develop their skills further because the second time the course is offered it will require new student-generated content and novel interactions with the instructor and the new students.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 415 (3/6) D WORKSHOP IN LITERARY TRANSLATION I</p> <p>Where a language department is regularly consulted on a project, the language adviser may assign marks equal to three credits of the course.</p> <p><i>Prerequisite: Proficiency in a language other than English.</i></p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry:</p> <p>CRWR 415 (6) THEORY AND PRACTICE OF TRANSLATION</p> <p>Where a language department is regularly consulted on a project, the language adviser may assign marks equal to three credits of the course.</p> <p><i>Prerequisite: Evidence of promise as a translator and proficiency in at least one language other than English.</i></p> <p>Type of Action: Change credit weight to be able to offer the course as either 3 or 6 credits. Edit title. Edit prerequisite wording.</p> <p>Rationale: The UBC Creative Writing Program is unique amongst its peers in its emphasis upon educating writers in multiple genres, and students are attracted to this approach. Forming three credit versions of several courses in different genres allow the students flexibility to increase their breadth of exposure and expand their knowledge base. The possibility of six credit workshops allows students to increase their depth of understanding and their skill by repeating the course one time. When the course is repeated the student will develop their skills further because the second time the course is offered it will require new student-generated content and novel interactions with the instructor and the new students.</p> <p>The edited wording of the “Prerequisite” more</p>

	<p>accurately reflects that students only need one language other than English to participate in the course. Language proficiency is based on students' placement in a degree program requiring language proficiency (i.e. doing a BA in Asian or Hispanic Studies), by their statement that they are native-speakers of a second language, or as indicated by a sample translation manuscript.</p> <p>The title change is to better reflect the type of work studied and the format of the course.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 424 (3/6) D WRITING FOR RADIO II</p> <p><i>Prerequisite:</i> six credits of CRWR 404.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: None.</p> <p>Type of Action: New course.</p> <p>Rationale: Representatives from the Faculty of Graduate Studies' New Programs and Curriculum Committee and the Faculty of Arts Curriculum Committee recommended the creation of this new number as a Level II to CRWR 404 (3/6) D "Writing for Radio I" to allow students to take up to 12 credits of workshop course work in the genre of writing for radio.</p> <p>The Level II workshop course will be the ongoing version of the Level I workshop course, and will signify progression in the genre through advancement in the craft of writing and in editing skills. Students will be required to produce new, original material in each course.</p> <p>The total of 12 credits was already approved by the Faculty of Arts Curriculum Committee, the libraries (curriculum consults), and the Dean of Arts (budgetary approval). No new resources will be required.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 433 (3/6) D WRITING FOR CHILDREN II</p> <p><i>Prerequisite:</i> six credits of CRWR 403.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: None.</p> <p>Type of Action: New course.</p>

	<p>Rationale: Representatives from the Faculty of Graduate Studies' New Programs and Curriculum Committee and the Faculty of Arts Curriculum Committee recommended the creation of this new number as a Level II to CRWR 403 (3/6) D "Writing for Children I" to allow students to take up to 12 credits of workshop course work in the genre of writing for children.</p> <p>The Level II workshop course will be the ongoing version of the Level I workshop course, and will signify progression in the genre through advancement in the craft of writing and in editing skills. Students will be required to produce new, original material in each course.</p> <p>The total of 12 credits was already approved by the Faculty of Arts Curriculum Committee, the libraries (curriculum consults), and the Dean of Arts (budgetary approval). No new resources will be required.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 434 (3/6) D WRITING FOR TELEVISION II</p> <p><i>Prerequisite:</i> six credits of CRWR 414.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: None.</p> <p>Type of Action: New Course.</p> <p>Rationale: Representatives from the Faculty of Graduate Studies' New Programs and Curriculum Committee and the Faculty of Arts Curriculum Committee recommended the creation of this new number as a Level II to CRWR 414 (3/6) D "Writing for Television I" to allow students to take up to 12 credits of workshop course work in the genre of writing for television.</p> <p>The Level II workshop course will be the ongoing version of the Level I workshop course, and will signify progression in the genre through advancement in the craft of writing and in editing skills. Students will be required to produce new, original material in each course.</p> <p>The total of 12 credits was already approved by the Faculty of Arts Curriculum Committee, the</p>

	libraries (curriculum consults), and the Dean of Arts (budgetary approval). No new resources will be required.
<p>Proposed Calendar Entry:</p> <p>CRWR 435 (3/6) D WORKSHOP IN LITERARY TRANSLATION II</p> <p><i>Prerequisite:</i> six credits of CRWR 415.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: None.</p> <p>Type of Action: New Course</p> <p>Rationale: Representatives from the Faculty of Graduate Studies' New Programs and Curriculum Committee and the Faculty of Arts Curriculum Committee recommended the creation of this new number as a Level II to CRWR 415 (3/6) D "Workshop in Literary Translation I" to allow students to take up to 12 credits of workshop course work in the genre of literary translation.</p> <p>The Level II workshop course will be the ongoing version of the Level I workshop course, and will signify progression in the genre through advancement in the craft of writing and in editing skills. Students will be required to produce new, original material in each course.</p> <p>The total of 12 credits was already approved by the Faculty of Arts Curriculum Committee, the libraries (curriculum consults), and the Dean of Arts (budgetary approval). No new resources will be required.</p>

Category: (1)

Faculty: Arts Department: First Nations Languages Faculty Approval Date: Feb 7, 2008 Effective Session _2008W___ Term _I___ Year ___ for Change	Date: 28 March 2008 Contact Person: Dr. Patricia A. Shaw Phone: 604-822-2512 Email: shawpa@interchange.ubc.ca
Proposed Calendar Entry: FNLG 101 (3-12) Introduction to a First Nations Salish Language: I Emphasis on accurate pronunciation, conversation, basic grammatical structures and listening and literacy skills, and the study of oral traditions in their cultural context. No prior knowledge of this language is assumed.	URL: http://www.students.ubc.ca/calendar/courses.cfm?code=FNLG Present Calendar Entry: N/A (but cf. FNLG 100) Type of Action: Create new course number to replace existing course. Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). This change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students. The credit designation 3-12 will permit students to take up to 4 languages from the same family. Note: there is no change in course content, simply a division of what has regularly been offered.
Proposed Calendar Entry: FNLG 102 (3-12) Introduction to a First Nations Salish Language: II Emphasis on accurate pronunciation, conversation, basic grammatical structures and listening and literacy skills, and the study of oral traditions in their cultural context. Prerequisite: FNLG 101 in the same language.	URL: http://www.students.ubc.ca/calendar/courses.cfm?code=FNLG Present Calendar Entry: N/A (but cf. FNLG 100) Type of Action: Create new course number to replace existing course. Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different

	<p>languages from 3 different families are being taught under the same course number (FNLG 100). This change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students. The credit designation 3-12 will permit students to take up to 4 languages from the same family.</p> <p>Note: there is no change in course content, simply a division of what has regularly been offered.</p>
<p>Proposed Calendar Entry: FNLG 111 (3-12) Introduction to a First Nations Algonquian Language: I Emphasis on accurate pronunciation, conversation, basic grammatical structures and listening and literacy skills, and the study of oral traditions in their cultural context. No prior knowledge of the language is assumed. Not offered every year.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cf?code=FNLG</p> <p>Present Calendar Entry: N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p> <p>Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). This change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students. The credit designation 3-12 will permit students to take up to 4 languages from the same family.</p> <p>Note: there is no change in course content, simply a division of what has regularly been offered.</p>
<p>Proposed Calendar Entry: FNLG 112 (3-12) Introduction to a First Nations Algonquian Language: II Emphasis on accurate pronunciation, conversation, basic grammatical structures and listening and literacy skills, and the study of oral traditions in their cultural context. Not offered every year. Prerequisite: FNLG 111 in the same language.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cf?code=FNLG</p> <p>Present Calendar Entry: N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p>

	<p>Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). This change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students. The credit designation 3-12 will permit students to take up to 4 languages from the same family. Note: there is no change in course content, simply a division of what has regularly been offered.</p>
<p>Proposed Calendar Entry: FNLG 121 (3-12) Introduction to a First Nations Dene (Athapaskan) Language: I Emphasis on accurate pronunciation, conversation, basic grammatical structures and listening and literacy skills, and the study of oral traditions in their cultural context. No prior knowledge of the language is assumed. Not offered every year.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cf?code=FNLG</p> <p>Present Calendar Entry: N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p> <p>Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). This change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students. The credit designation 3-12 will permit students to take up to 4 languages from the same family. Note: there is no change in course content, simply a division of what has regularly been offered.</p>
<p>Proposed Calendar Entry: FNLG 122 (3-12) Introduction to a First Nations Dene (Athapaskan) Language: II Emphasis on accurate pronunciation, conversation, basic grammatical structures and</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cf?code=FNLG</p> <p>Present Calendar Entry:</p>

<p>listening and literacy skills, and the study of oral traditions in their cultural context. Not offered every year.</p> <p>Prerequisite: FNLG 121 in the same language.</p>	<p>N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p> <p>Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). This change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students. The credit designation 3-12 will permit students to take up to 4 languages from the same family. Note: there is no change in course content, simply a division of what has regularly been offered.</p>
<p>Proposed Calendar Entry: FNLG 131 (3-12) Introduction to a First Nations Tsimshianic Language: I Emphasis on accurate pronunciation, conversation, basic grammatical structures and listening and literacy skills, and the study of oral traditions in their cultural context. No prior knowledge of the language is assumed. Not offered every year.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=FNLG</p> <p>Present Calendar Entry: N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p> <p>Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). This change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students. The credit designation 3-12 will permit students to take up to 4 languages from the same family. Note: there is no change in course content, simply a division of what has regularly been offered.</p>

<p>Proposed Calendar Entry: FNLG 132 (3-12) Introduction to a First Nations Tsimshianic Language: II Emphasis on accurate pronunciation, conversation, basic grammatical structures and listening and literacy skills, and the study of oral traditions in their cultural context. Not offered every year. Prerequisite: FNLG 131 in the same language.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cf?code=FNLG</p> <p>Present Calendar Entry: N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p> <p>Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). This change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students. The credit designation 3-12 will permit students to take up to 4 languages from the same family. Note: there is no change in course content, simply a division of what has regularly been offered.</p>
<p>Proposed Calendar Entry: FNLG 141 (3-12) Introduction to a First Nations Wakashan Language: I Emphasis on accurate pronunciation, conversation, basic grammatical structures and listening and literacy skills, and the study of oral traditions in their cultural context. No prior knowledge of the language is assumed. Not offered every year.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cf?code=FNLG</p> <p>Present Calendar Entry: N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p> <p>Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). This change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students. The credit designation 3-12 will permit students to take up to 4 languages from the same family.</p>

	<p>Note: there is no change in course content, simply a division of what has regularly been offered.</p>
<p>Proposed Calendar Entry: FNLG 142 (3-12) Introduction to a First Nations Wakashan Language: II Emphasis on accurate pronunciation, conversation, basic grammatical structures and listening and literacy skills, and the study of oral traditions in their cultural context. Not offered every year. Prerequisite: FNLG 141 in the same language.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=FNLG</p> <p>Present Calendar Entry: N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p> <p>Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). This change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students. The credit designation 3-12 will permit students to take up to 4 languages from the same family. Note: there is no change in course content, simply a division of what has regularly been offered.</p>
<p>Proposed Calendar Entry: FNLG 151 (3) Introduction to a First Nations Language: Haida I Emphasis on accurate pronunciation, conversation, basic grammatical structures, listening and literacy skills, and the study of oral traditions in their cultural context. No prior knowledge of this language is assumed.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=FNLG</p> <p>Present Calendar Entry: N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p> <p>Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). The proposed change will allow for</p>

	<p>administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students.</p> <p>Note 1: There is no change in course content, simply a division of what has regularly been offered.</p> <p>Note 2: Whereas FNLG 101-142 courses have a 3/12 credit designation to allow students to take up to 4 different languages from within the same family, the FNLG 151, 152, 161, and 162 courses have only a 3 credit designation since each of these languages is an “isolate”, not genetically related (to the best of our current knowledge) to any other languages.</p> <p>Note 3: The course number and title of this proposal replaces one previously submitted under this same number to the Faculty of Arts in Fall 2007; that proposal was subsequently (March 2008) withdrawn, prior to consideration by the Senate Curriculum Committee.</p>
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<p>Proposed Calendar Entry:</p> <p>FNLG 152 (3) Introduction to a First Nations Language: Haida II Emphasis on accurate pronunciation, conversation, basic grammatical structures, listening and literacy skills, and the study of oral traditions in their cultural context. Prerequisite: FNLG 151.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cf?code=FNLG</p> <p>Present Calendar Entry: N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p> <p>Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). The proposed change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students. Note 1: There is no change in course content, simply a division of what has regularly been offered. Note 2: Whereas FNLG 101-142 courses have a 3/12 credit designation to allow students to take up to 4 different languages from within the same family, the FNLG 151, 152, 161, and 162 courses have only a 3 credit designation since each of these languages is an “isolate”, not genetically related (to the best of our current knowledge) to any other languages. Note 3: The course number and title of this proposal replaces one previously submitted under this same number to the Faculty of Arts in Fall 2007; that proposal was subsequently (March 2008) withdrawn, prior to consideration by the Senate Curriculum Committee.</p>
<p>Proposed Calendar Entry:</p> <p>FNLG 161 (3) Introduction to a First Nations Language: Ktunaxa (Kootenay) I Emphasis on accurate pronunciation, conversation, basic grammatical structures, listening and literacy skills, and the study of oral traditions in their cultural context. No prior knowledge of this language is assumed.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cf?code=FNLG</p> <p>Present Calendar Entry: N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p> <p>Rationale:</p>

	<p>Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). The proposed change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students.</p> <p>Note 1: There is no change in course content, simply a division of what has regularly been offered.</p> <p>Note 2: Whereas FNLG 101-142 courses have a 3/12 credit designation to allow students to take up to 4 different languages from within the same family, the FNLG 151, 152, 161, and 162 courses have only a 3 credit designation since each of these languages is an “isolate”, not genetically related (to the best of our current knowledge) to any other languages.</p>
<p>Proposed Calendar Entry:</p> <p>FNLG 162 (3) D Introduction to a First Nations Language: Ktunaxa (Kootenay) II Emphasis on accurate pronunciation, conversation, basic grammatical structures, listening and literacy skills, and the study of oral traditions in their cultural context. Prerequisite: FNLG 161.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cf?code=FNLG</p> <p>Present Calendar Entry: N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p> <p>Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). The proposed change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students.</p> <p>Note 1: There is no change in course content, simply a division of what has regularly been offered.</p> <p>Note 2: Whereas FNLG 101-142 courses have a 3/12 credit designation to allow students to take up to 4 different languages from within the same family, the FNLG 151, 152, 161, and 162 courses have only a 3 credit designation since each of these languages is an “isolate”, not genetically related (to the best of our current</p>

	knowledge) to any other languages.
<p>Proposed Calendar Entry:</p> <p>FNLG 191 (3/12) D Introduction to a First Nations Language: I</p> <p>Emphasis on accurate pronunciation, conversation, basic grammatical structures, listening and literacy skills, and the study of oral traditions in their cultural context. No prior knowledge of this language is assumed.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=FNLG</p> <p>Present Calendar Entry: N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p> <p>Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG 100). The proposed change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students. Whereas the FNLG 101-162 numbers cover First Nations languages indigenous to BC, the FNLG 191-192 designation intends to cover a diversity of other Aboriginal languages represented here due to urban migration.</p> <p>Note 1: There is no change in course content, simply a division of what has regularly been offered.</p> <p>Note 2: The 3/12 credit designation allows students to take up to four 3-credit courses in each of four different languages.</p>
<p>Proposed Calendar Entry:</p> <p>FNLG 192 (3/12) D Introduction to a First Nations Language: II</p> <p>Emphasis on accurate pronunciation, conversation, basic grammatical structures, listening and literacy skills, and the study of oral traditions in their cultural context.</p> <p>Prerequisite: 3 credits of FNLG 191 in the same language.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=FNLG</p> <p>Present Calendar Entry: N/A (but cf. FNLG 100)</p> <p>Type of Action: Create new course number to replace existing course.</p> <p>Rationale: Existing course number does not differentiate between different languages or language families. In Winter 2007-08, 3 different languages from 3 different families are being taught under the same course number (FNLG</p>

	<p>100). The proposed change will allow for administrative transparency and greater flexibility in scheduling and transfer credits for Aboriginal and other students. Whereas the FNLG 101-162 numbers cover First Nations languages indigenous to BC, the FNLG 191-192 designation intends to cover a diversity of other Aboriginal languages represented here due to urban migration.</p> <p>Note 1: There is no change in course content, simply a division of what has regularly been offered.</p> <p>Note 2: The 3/12 credit designation allows students to take up to four 3-credit courses in each of four different languages.</p>
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THE UNIVERSITY OF BRITISH COLUMBIA



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29 April 2008

To: Vancouver Senate

From: Senate Curriculum Committee

Re: **CURRICULUM PROPOSALS FROM THE FACULTY OF FORESTRY**

Attached please find the submitted category 1 undergraduate curriculum proposals from the Faculty of Forestry for your consideration.

Course	Title	Action
CONS 425 (3)	Sustainable Energy: Policy and Governance	new course
CONS 452 (6)	Global Perspectives Capstone	new course

UBC Curriculum Proposal Form
Change to Courses
Category: 1

<p>Faculty: Forestry Department: Forest Resources Management Faculty Approval Date: Effective Session for Change: 2008W, Term 2</p>	<p>Date: March 11, 2008 Contact Person: Peter Marshall /Stephen Mitchell Phone: (604) 822-4918 /2-4591 Email: Peter.Marshall@ubc.ca / stephen.mitchell@ubc.ca</p>
<p>Proposed Calendar Entry: CONS 425 (3) Sustainable Energy: Policy and Governance. Energy as a policy problem; governance framework for energy policy; prominent controversies in Western Canadian energy policy; the politics and policy of energy alternatives. [3-0-0] Prerequisite: 3rd or 4th Year Standing.</p>	<p>URL: Present Calendar Entry: None Type of Action: New course. Rationale: This course will provide students with a substantive understanding of energy policy in the context of policy analysis and Canadian politics. This material will be of potential interest to students in resources management programs (e.g., Global Resource Systems, Natural Resources Conservation) and students interested in policy development (e.g., political science). There is currently no undergraduate course offered at UBC which addresses development of energy policy. Documentation: FRST_2008_1</p>
<p>Proposed Calendar Entry CONS 452 (6) GLOBAL PERSPECTIVES CAPSTONE. Examination of global resources and sustainability via scenario evaluation, modelling and prescription. [3-0-3]. Prerequisite: Fourth year standing in the Global Perspectives major and CONS 340 or GEOG 270.</p>	<p>Type of Action: New course. Rationale: This is the capstone course for the new Global Perspectives major in the Natural Resources Conservation program. The course requires the integration of knowledge and experience gained throughout the new major to examine global resource issues and their sustainability using a scenario evaluation approach. Instruction and assessment will be based on case studies using spatial and non-spatial datasets for a particular region, group projects and guest speakers. Students will consider how human needs, resource production potential and practices, and national and international policies affect the sustainability of resource production, environmental quality and quality of life in a particular region and will recommend actions and policies that improve the situation. Documentation: FRST_2008_2</p>

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29 April 2008

To: Vancouver Senate

From: Senate Curriculum Committee

Re: **GRADUATE PROPOSALS**

Attached please find submitted category 1 graduate curriculum proposals from the Faculties of Applied Science, Arts, Education, Land and Food Systems and Science for your consideration.

Faculty of Applied Science

Course	Title	Action
CIVL 592 (1-6) C	Directed Studies in Civil Engineering	New course
EECE 531 (3)	Nanoscale Modeling and Simulations	New course
EECE 581 (3)	Advanced Microsystems Design	New course
MTRL 571 (3)	Advanced Nanofibre Technology	New course
MTRL 594 (3)	Advanced Composite Materials	New course

Faculty of Arts

Course	Title	Action
CRWR 503 (3/6) D	Advanced Writing For Children I	Variable credit. Edit title
CRWR 504 (3/6) D	Advanced Writing For Radio I	Variable credit. Edit title
CRWR 511 (6)	Advanced Lyric and Libretto Writing	New course
CRWR 514 (3/6) D	Advanced Writing For Television I	New course
CRWR 515 (3/6) D	Advanced Workshop In Literary Translation I	Variable credit. Edit title. Edit prerequisite
CRWR 522 (3/6) D	Teaching Creative Writing	New course
CRWR 523 (3)	Preparation for a Career in Writing	New course
CRWR 524 (3/6) D	Advanced Writing For Radio II	New course
CRWR 533 (3/6) D	Advanced Writing For Children II	New course
CRWR 534 (3/6) D	Advanced Writing For Television II	New course
CRWR 535 (3/6) D	Advanced Workshop In Literary Translation II	New course
CRWR 547 (3-12) C	Directed Reading	Variable credit
ECON 557 (3)	Empirical Topics in International Economics	New course
ECON 562 (3)	Research Design and Policy Evaluation in Economics	New course

Faculty of Education

Course	Title	Action
EPSE 683 (3)	Hierarchical Linear Modeling, Growth and Change	New course

Faculty of Land and Food Systems

Course	Title	Action
FOOD 510 (3)	Advances in Food Science	New course

Faculty of Science

Course	Title	Action
PHYS 520 (1-2) D	Teaching Techniques in Physics and Astronomy	New course

<p>Faculty: Applied Science Department: Civil Engineering Faculty Approval Date: Feb 14, 2008</p> <p>Effective Session <u>Winter</u>, <u>Term 1</u>, <u>Year 2008</u> for Change</p>	<p>Date: Feb 22, 2008 Contact Person: Dr. Susan Nesbit Phone: 2-8703 Email: nesbit@inaterchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>CIVL 592 (1-6) C Directed Studies in Civil Engineering Independent studies not related to thesis work.</p>	<p>URL: n/a</p> <p>Present Calendar Entry: n/a</p> <p>Type of Action: New course.</p> <p>Rationale: Students in civil engineering currently take Civil 598 “Topics in Civil Engineering” for both directed studies work and standard courses that are temporary. A course exclusively for directed studies will eliminate confusion between directed studies credit and special topics credit.</p>
<p>Faculty: Applied Science Department: Electrical and Computer Engineering Faculty Approval Date: Feb 14, 2008</p> <p>Effective Session <u>Winter</u>, <u>Term 1</u>, <u>Year 2008</u> for Change</p>	<p>Date: Feb 22, 2008 Contact Person: Andre Ivanov Phone: 2-6936 Email: ivanov@ece.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>EECE 531 (3) NANOSCALE MODELING AND SIMULATIONS. The many-body problem, molecular dynamics, tight-binding, first-principles (ab-initio) methods, the Hartree-Fock approach, the density functional theory, nanoscale simulation software and applications.</p>	<p>URL: n/a</p> <p>Present Calendar Entry: n/a</p> <p>Type of Action: New Course.</p> <p>Rationale: Students in sciences usually have the opportunity to study the physics of nanosystems through a combination of advanced courses; however we cannot expect engineering students to take an exhaustive list of all the relevant courses offered in Physics or Chemistry for this purpose. The proposed course intends to close the existing gap for electrical and computer engineering students by providing an introduction to the material needed for the theoretical study of nanodevices through a number of the most common theories and approaches. The course is application-</p>

	<p>oriented to suit the needs of engineering students, with assignments and projects on investigating nanodevices using both student-written codes and commercial simulation packages. Although there is no pre-requisite, the course is designed to preserve complementarity with EECE 576 and EECE 577.</p>
<p>Proposed Calendar Entry:</p> <p>EECE 581 (3) – ADVANCED MICROSYSTEMS DESIGN. Project-based modeling techniques applied to microsystems; multi-physics at microscale; physical limitations in MEMS; interface with electronics; behavioural modeling languages for mixed analog-digital system design. Credit will only be given for one of EECE 489 or EECE 581.</p>	<p>URL: n/a</p> <p>Present Calendar Entry: n/a</p> <p>Type of Action: New course</p> <p>Rationale: This new course covers the principles of structured design methods in engineering microscale systems encompassing several domains. It creates a link between different methods of design and analysis of MEMS-based systems (analytical computation, finite element analysis, macromodeling), within a unified framework. This coverage is not presently provided by existing courses in UBC. This course is to be offered jointly with EECE 489 with treatment of additional and more advanced topics achieved through extra readings, project work, and reporting.</p>
<p>Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: Feb 14, 2008</p> <p>Effective Session <u>Winter</u>, <u>Term 1</u>, <u>Year 2008</u> for Change</p>	<p>Date: Feb 22, 2008 Contact Person: Chad Sinclair Phone: 2-3352 Email: chad.sinclair@ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>MTRL 571(3) ADVANCED NANOFIBRE TECHNOLOGY. Processing and properties of nanomaterials in the context of fibrous and composite materials. Credit will only be given for one of MTRL 471, MTRL 571. [3-0-0]</p>	<p>URL: n/a</p> <p>Present Calendar Entry: None.</p> <p>Type of Action: New Course.</p> <p>Rationale: This is the first graduate level course to be offered in the new and important field of nanomaterials by the Department of Materials Engineering. The course draws on the expertise of a new faculty member (Frank Ko) who is an internationally recognized expert in this field.</p>

<p>Proposed Calendar Entry:</p> <p>MTRL 594(3) ADVANCED COMPOSITE MATERIALS. Processing and properties of advanced polymer based composite materials with emphasis on analysis, design, and manufacturing. Credit will only be given for one of MTRL 494, MTRL 594. [3-0-0]</p>	<p>URL: n/a</p> <p>Present Calendar Entry: None.</p> <p>Type of Action: New Course</p> <p>Rationale: There is currently no graduate level course in composite materials. This course will address this important topic.</p>
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<p>Faculty: Arts Department: Creative Writing Program Faculty Approval Date: Effective Session <u>Winter</u>, Term <u>1</u>, Year <u>2008</u> for Change</p>	<p>Date: November 30, 2007 Contact Person: Linda Svendsen Phone: 2-3058 Email: svensend@interchange.ubc.ca</p>
<p>Proposed Calendar Entry: CRWR 503 (3/6) D ADVANCED WRITING FOR CHILDREN I</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: CRWR 503 (6) ADVANCED WRITING OF CHILDREN'S LITERATURE</p> <p>Type of Action: Change credit weight to be able to offer the course as either 3 or 6 credits. Edit title.</p> <p>Rationale: The UBC Creative Writing Program is unique amongst its peers in its emphasis upon educating writers in multiple genres, and students are attracted to this approach. Forming three credit versions of several courses in different genres allow the students flexibility to increase their breadth of exposure and expand their knowledge base. The possibility of six credit workshops allows students to increase their depth of understanding and their skill by repeating the course one time. When the course is repeated the student will develop their skills further because the second time the course is offered it will require new student-generated content and novel interactions with the instructor and the new students.</p> <p>The title change is to better reflect the scope of work covered in this course.</p>
<p>Proposed Calendar Entry: CRWR 504 (3/6) D ADVANCED WRITING FOR RADIO I</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: CRWR 504 (6) ADVANCED WRITING OF DRAMA AND FEATURES FOR RADIO</p> <p>Type of Action: Change credit weight to be able to offer the course as either 3 or 6 credits. Edit title.</p>

	<p>Rationale: The UBC Creative Writing Program is unique amongst its peers in its emphasis upon educating writers in multiple genres, and students are attracted to this approach. Forming three credit versions of several courses in different genres allow the students flexibility to increase their breadth of exposure and expand their knowledge base. The possibility of six credit workshops allows students to increase their depth of understanding and their skill by repeating the course one time. When the course is repeated the student will develop their skills further because the second time the course is offered it will require new student-generated content and novel interactions with the instructor and the new students.</p> <p>The title change is to better reflect the scope of work covered in this course.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 511 (6) Advanced Lyric and Libretto Writing</p>	<p>URL: n/a</p> <p>Present Calendar Entry: None</p> <p>Type of Action: new course</p> <p>Rationale: Creative Writing Assistant Professor Meryn Cadell has been teaching this course since 2003 under a directed studies number. The course introduces the writing of songs and libretti to the UBC curriculum (for the first time at any Canadian university) and has proven successful enough to require its own course number. No new resources are required.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 514 (3/6) D ADVANCED WRITING FOR TELEVISION I</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New Course.</p> <p>Rationale: Previously, students had the option of learning to write scripts for television by enrolling in CRWR 506 “Writing for Screen I.” Due to the popularity of the subject, we think it would be appropriate to create a new course number dedicated to writing for television. No new resources will be required.</p>

	<p>The UBC Creative Writing Program is unique amongst its peers in its emphasis upon educating writers in multiple genres, and students are attracted to this approach. Forming three credit versions of several courses in different genres allow the students flexibility to increase their breadth of exposure and expand their knowledge base. The possibility of six credit workshops allows students to increase their depth of understanding and their skill by repeating the course one time. When the course is repeated the student will develop their skills further because the second time the course is offered it will require new student-generated content and novel interactions with the instructor and the new students.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 515 (3/6) D ADVANCED WORKSHOP IN LITERARY TRANSLATION I</p> <p>Prerequisite: Proficiency in a language other than English.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: CRWR 515 (6) ADVANCED WORKSHOP IN TRANSLATION</p> <p>Where a language department is regularly consulted on a project, the language adviser may assign marks equal to 3 credits of the course work.</p> <p>Type of Action: Change credit weight to be able to offer the course as either 3 or 6 credits. Edit title. Add “Prerequisite” to description.</p> <p>Rationale: The UBC Creative Writing Program is unique amongst its peers in its emphasis upon educating writers in multiple genres, and students are attracted to this approach. Forming three credit versions of several courses in different genres allow the students flexibility to increase their breadth of exposure and expand their knowledge base. The possibility of six credit workshops allows students to increase their depth of understanding and their skill by repeating the course one time. When the course is repeated the student will develop their skills further because the second time the course is offered it will require new student-generated content and novel interactions with the instructor and the new students.</p>

	<p>The “Prerequisite” should be added to the course description, as knowledge of a second language is necessary to succeed in this course. Language proficiency is based on students’ placement in a graduate program requiring language proficiency (i.e. doing MA or PhD in Asian or Hispanic Studies), by their statement that they are native-speakers of a second language, or as indicated by a sample translation manuscript.</p> <p>The title change is to better reflect the type of work studied in this course.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 522 (3/6) D TEACHING CREATIVE WRITING Pass/fail.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course.</p> <p>Rationale: The MFA Creative Writing degree was created to be the terminal degree for both development of a professional writing life as well as for the instruction of writing. Unfortunately, most MFA graduates leave their programs ill-prepared, or not at all, for pedagogy.</p> <p>In the past, UBC MFA students who wished to teach have taken a course in andragogy in the Faculty of Education. While it is a useful course for anyone wishing to work with adults, it is not specific to creative writing instruction, and nor is it for those who wish to teach younger people.</p> <p>This course is already being offered in 2007/2008 as a CRWR 539 Special Projects course and in cooperation with the Learning Exchange, and now requires its own course number. No new resources will be required.</p> <p>As well, we would like the option of offering this course for either 3 or 6 credits. Due to the multi-genre nature of our program, students enter our program with a background in up to nine genres. The ratio of students entering with a specialty or interest in a given genre varies from year to year, and thus demand for a</p>

	<p>given workshop will vary.</p> <p>The increased flexibility that comes with being able to offer applied arts workshop courses as either 3 or 6 credits will allow Creative Writing to accommodate students' needs in the various genres. The Program will be able to continue to offer breadth in multi-genres for students who are focusing upon this multi-pronged approach to their academic pursuits and also to offer depth for students who wish to focus upon only one or two particular genres. The 3 credit versions of the genres allow students to pursue depth, breadth, or a combination of both, which will allow students to expand their knowledge base as well as prepare for their writing careers.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 523 (3) PREPARATION FOR A CAREER IN WRITING Credit will only be given for one of CRWR 423 or CRWR 523.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cf?code=CRWR</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale: This course has been offered to students for the past few years as a CRWR Special Projects course, and has proven successful enough to require its own course number. No new resources are required.</p> <p>This course is designed expressly to meet the needs of graduate students who are contemplating careers as professional writers. The course is intended to provide students with the tools, knowledge, and professional advice necessary to building a career in writing. Topics covered include the writing of effective book proposals and query letters; strategies for approaching publishers, editors, producers and agents; insights on completing grant applications; and guidelines for income tax planning. Also discussed: marketing and self-promotion; working with magazine and book editors; negotiating a book contract; pitching; and making a living when writing income is sparse.</p> <p>Although course content of CRWR 423 and 523 is the same, graduate students will be marked to a higher academic and professional standard</p>

	<p>than undergraduate students. Undergraduate students are assessed on their ability to complete assignments based on their understanding of the course content; graduate students are assessed not only on completion and understanding of the course material, but also on how they apply this material to their specific thesis project. Graduate students are also required to produce more pages for their final portfolio, which should be of high-enough quality to submit to publishers and producers, essentially completing the course prepared with the material to begin their careers as writers.</p> <p>Students who have taken CRWR 423 cannot also receive credit for CRWR 523.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 524 (3/6) D ADVANCED WRITING FOR RADIO II</p> <p><i>Prerequisite:</i> six credits of CRWR 504.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: None.</p> <p>Type of Action: New course.</p> <p>Rationale: Representatives from the Faculty of Graduate Studies' New Programs and Curriculum Committee and the Faculty of Arts Curriculum Committee recommended the creation of this new number as a Level II to CRWR 504 (3/6) D "Advanced Writing for Radio I" to allow students to take up to 12 credits of workshop course work in the genre of writing for radio.</p> <p>The Level II workshop course will be the ongoing version of the Level I workshop course, and will signify progression in the genre through advancement in the craft of writing and in editing skills. Students will be required to produce new, original material in each course.</p> <p>The total of 12 credits was already approved by the Faculty of Arts Curriculum Committee, the libraries (curriculum consults), and the Dean of Arts (budgetary approval). No new resources will be required.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 533 (3/6) D ADVANCED WRITING</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p>

<p>FOR CHILDREN II</p> <p><i>Prerequisite:</i> six credits of CRWR 503.</p>	<p>Present Calendar Entry: None.</p> <p>Type of Action: New course.</p> <p>Rationale: Representatives from the Faculty of Graduate Studies' New Programs and Curriculum Committee and the Faculty of Arts Curriculum Committee recommended the creation of this new number as a Level II to CRWR 503 (3/6) D "Advanced Writing for Children I" to allow students to take up to 12 credits of workshop course work in the genre of writing for children.</p> <p>The Level II workshop course will be the ongoing version of the Level I workshop course, and will signify progression in the genre through advancement in the craft of writing and in editing skills. Students will be required to produce new, original material in each course.</p> <p>The total of 12 credits was already approved by the Faculty of Arts Curriculum Committee, the libraries (curriculum consults), and the Dean of Arts (budgetary approval). No new resources will be required.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 534 (3/6) D ADVANCED WRITING FOR TELEVISION II</p> <p><i>Prerequisite:</i> six credits of CRWR 514.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New Course.</p> <p>Rationale: Representatives from the Faculty of Graduate Studies' New Programs and Curriculum Committee and the Faculty of Arts Curriculum Committee recommended the creation of this new number as a Level II to CRWR 514 (3/6) D "Advanced Writing for Television I" to allow students to take up to 12 credits of workshop course work in the genre of writing for television.</p> <p>The Level II workshop course will be the ongoing version of the Level I workshop course, and will signify progression in the genre through advancement in the craft of writing and in editing skills. Students will be required to produce new, original material in</p>

	<p>each course.</p> <p>The total of 12 credits was already approved by the Faculty of Arts Curriculum Committee, the libraries (curriculum consults), and the Dean of Arts (budgetary approval). No new resources will be required.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 535 (3/6) D ADVANCED WORKSHOP IN LITERARY TRANSLATION II</p> <p><i>Prerequisite:</i> six credits of CRWR 515.</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: None.</p> <p>Type of Action: New Course.</p> <p>Rationale: Representatives from the Faculty of Graduate Studies' New Programs and Curriculum Committee and the Faculty of Arts Curriculum Committee recommended the creation of this new number as a Level II to CRWR 515 (3/6) D "Advanced Workshop in Literary Translation I" to allow students to take up to 12 credits of workshop course work in the genre of literary translation.</p> <p>The Level II workshop course will be the ongoing version of the Level I workshop course, and will signify progression in the genre through advancement in the craft of writing and in editing skills. Students will be required to produce new, original material in each course.</p> <p>The total of 12 credits was already approved by the Faculty of Arts Curriculum Committee, the libraries (curriculum consults), and the Dean of Arts (budgetary approval). No new resources will be required.</p>
<p>Proposed Calendar Entry:</p> <p>CRWR 547 (3-12) C DIRECTED READING</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CRWR</p> <p>Present Calendar Entry: CRWR 547 (6) DIRECTED READING May not be offered every year.</p> <p>Type of Action: Change credit weight to be able to offer the course as either 3 or 6 credits in a given year.</p> <p>Rationale: Due to the multi-genre nature of</p>

	<p>our program, students enter our program with a background in up to nine genres. The ratio of students entering with a specialty or interest in a given genre varies from year to year, and thus demand for a given workshop will vary.</p> <p>The increased flexibility that comes with being able to offer applied arts workshop courses as either 3 or 6 credits will allow Creative Writing to accommodate students' needs in the various genres. The Program will be able to continue to offer breadth in multi-genres for students who are focusing upon this multi-pronged approach to their academic pursuits and also to offer depth for students who wish to focus upon only one or two particular genres. The 3 credit versions of the genres allow students to pursue depth, breadth, or a combination of both, which will allow students to expand their knowledge base as well as prepare for their writing careers.</p> <p>Each CRWR 547 course will be identified by genre (ie. 547<u>B</u> – Poetry; 547<u>C</u> Fiction; 547<u>D</u> – Non-Fiction; etc.), and no student will be permitted to take more than one directed study course (either 3 OR 6 credit) in any given genre. Authorization from an instructor and the graduate advisor to take a directed study course will be required.</p> <p>The number of titles to be studied for a 3-credit course will be 6 titles; the number of titles to be studied for a 6-credit course will be 12 titles.</p>
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<p>Faculty: Arts Department: Economics Faculty Approval Date: February 7, 2008</p> <p>Effective Session: 2008/09 Winter Session, Term 1 Year 2008/09 for Change</p>	<p>Date: 4th December, 2007 Contact Person: Brian Copeland Phone: 2-8215 Email: copeland@econ.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>ECON 557 (3) Empirical Topics in International Economics</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cf?code=ECON</p> <p>Present Calendar Entry: n/a</p> <p>Type of Action: New Course</p>

	<p>Rationale: The field of international economics is rapidly changing thanks to the availability of detailed data sets. It is now possible to see how well theories that have been developed over the years work in real world data. The department has been offering this course for a number of years as a section of the special topics course (ECON 590) and it has been very popular with both MA and PhD students. As the field of international economics keeps getting more and more empirical, it is becoming essential to the training of students to offer this new course as a regular part of our graduate program.</p>
<p>Proposed Calendar Entry:</p> <p>ECON 562 (3) Research Design and Policy Evaluation in Economics</p>	<p>URL: http://www.students.ubc.ca/calendar/courses.cf?code=ECON</p> <p>Present Calendar Entry: n/a</p> <p>Type of Action: New Course</p> <p>Rationale: Economics plays a central role in assessing the potential cost and benefits of the myriad of government programs that characterize developed countries like Canada. In the last ten to twenty years, major developments have been made in developing econometric methods for assessing the quantitative impacts of these programs on a myriad of economic and social variables. Knowing these methods well is now essential for both professional and academic economists. In response to popular demand, the Department has been offering this course as a section of the special topics course (ECON 590) and enrollments have been uniformly high. The time has now come to create this new course and offer it every year as part of our graduate program.</p>

Faculty: Education Department: ECPS Faculty Approval Date: Effective Session _1__ Term _W__ Year_2007__ for Change	Date: Nov 22, 2006 Contact Person: Marshall Arlin, Ph.D. Phone: 2-4506 Email: marshall.arlin@ubc.ca
Proposed Calendar Entry: EPSE 683 (3) HIERARCHICAL LINEAR MODELING, GROWTH AND CHANGE. Prerequisite: All of EPSE 528, EPSE 592, EPSE 596.	URL: http://www.students.ubc.ca/calendar/courses.cf?code=EPSE Present Calendar Entry: EPSE 681 (3-12) TOPICS IN EDUCATIONAL RESEARCH AND MEASUREMENT. Prerequisite: All of EPSE 528, EPSE 592, EPSE 596. Type of Action: New course Rationale: This course is currently taught as EPSE 681B (3) Special Topics: HLM, Growth and Change. This course has been developed within the umbrella of a special topics course over several years. Due to student demand and successful implementation, this course will now have a separate number and title. The course will be taught on alternate years.

Faculty: Land & Food Systems Department: Faculty Approval Date: Effective Session <u>winter</u> Term <u>1</u> Year <u>2008</u> for Change	Date: January 24, 2008 Contact Person: Eunice Li-Chan Phone: 604-822-6182 Email: Eunice.li-chan@ubc.ca
Proposed Calendar Entry: FOOD 510 (3) Advances in Food Science	Present Calendar Entry: N/A Type of Action: New Course Rationale: Food science is a "discipline in which biology, physical sciences, and engineering are used to study the nature of foods, the causes of their deterioration, and the principles underlying food processing" (Institute of Food Technologists, www.ift.org). Students entering the Food Science graduate program may have received their undergraduate degrees in a diverse range of related disciplines such as biochemistry, chemistry, microbiology, engineering, etc. A graduate level course is required that will provide an overview or review of the core principles in food science and that will challenge students to integrate specific disciplinary knowledge to understand key issues related to the science and technology of our food supply. A 'prototype' of this course was offered in term 1 of the 2007 winter session, as "Food 527a – Special Topics in Food Science".

<p>Faculty: Science</p> <p>Department: Physics and Astronomy</p> <p>Faculty Approval Date: March 11, 2008</p> <p>Effective Session <u>W2008</u></p>	<p>Date: March 11, 2008</p> <p>Contact Person: Bill Ramey</p> <p>Phone: 2-3300</p> <p>Email: wramey@interchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>PHYS 520 (1-2) D Teaching Techniques in Physics and Astronomy. Foundations of physics and astronomy education research, lesson plans, development of grading, effective questioning, effective presentations, methods in peer evaluation and peer teaching. [1-0-0]</p>	<p>URL: n/a</p> <p>Present Calendar Entry: None.</p> <p>Action: New course.</p> <p>Rationale: Most graduate students in Physics and Astronomy are involved in teaching while working on their degrees, and will teach later on in their careers as well. Even those that do not follow this career path can improve their communication skills by learning the tools of effective teaching. The goal of this course is to provide students with practical knowledge of current techniques being studied and employed in the teaching of undergraduate university physics and astronomy.</p>

THE UNIVERSITY OF BRITISH COLUMBIA



Enrolment Services
Senate and Curriculum Services
1874 – 2016 East Mall
Vancouver, BC V6T 1Z1
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T: 604-822-0140; F: 604-822-5945

29 April 2008

To: Vancouver Senate

From: Senate Curriculum Committee

Re: **FACULTY OF SCIENCE CURRICULUM REPORT**

Attached please find the submitted Category 1 undergraduate curriculum proposals from the Faculty of Science for your consideration.

Program	Action
B.Sc. Degree Requirements → Dual Degree Program in Science and Education	create B.Sc./B.Ed.(Secondary) Dual Degree Program entry
B.Sc. Mathematics → Dual Degree Program in Mathematics and Education	create B.Sc. in Math/B.Ed.(Secondary) Dual Degree Program entry
B.Sc. Physics → Dual Degree Program in Physics and Education	create B.Sc. in Physics/B.Ed. (Secondary) Dual Degree Program entry
B.Sc Physics → Dual Degree Program in Physics and Education	create B.Sc./B.Ed. program description entry in Physics section

Course	Title	Action
BIOL 423 (3)	Plant Stress Ecophysiology	new course
COGS 303 (3)	Research Methods in Cognitive Systems	new course
MATH 110 (6)	Differential Calculus	new course
MATH 180 (4)	Differential Calculus with Physical Applications	change vector
MATH 184 (4)	Differential Calculus for Social Science and Commerce	change vector
MATH 256 (3)	Differential Equations	change course description and vector
MATH 310 (3)	Abstract Linear Algebra	new course
MATH 412 (3)	Advanced Linear Algebra	change course title, description and prerequisite
PHYS 348 (3)	Frontiers in Physics and Astronomy	change course title, description and vector
STAT 443 (3)	Time Series and Forecasting	new course

Contact: Dr. Bill Ramey
Phone: 822-3300

March 11, 2008
Email: wramey@interchange.ubc.ca

Programs Report

DEAN'S OFFICE

Effective Date for Change: 08W

Proposed Calendar Entry:

Dual Degree Program in Science and Education

This concurrent program offers capable students in eligible programs the opportunity to earn a Bachelor of Science degree (B.Sc., Major) and a Bachelor of Education degree (B.Ed.) in Secondary Education in five years. After completing all the requirements, students are normally eligible for a British Columbia Professional Teaching Certificate.

Application for admission to the program is made through the Science Information & Advising Centre (see www.escience.ubc.ca/academic/advising) in the Fall of second year after gaining admission to the appropriate major program in Science and must receive approval from the Faculties of Science and Education. All students will initially be accepted on a provisional basis and given access to Faculty of Education courses beginning in term two of second year. Admission will be confirmed only after successful completion of year two of the Science major and the in-school practicum in May following second year.

Admission at any time is conditional; maintenance of good academic standing and an average of at least 65% in each session are required throughout the program. In addition, students must participate in volunteer or work experience with youth aged 13-18 to meet the requirements of the Bachelor of Education program. Students must satisfy all of the degree and program requirements for both the major in the Bachelor of Science and the Bachelor of Education Secondary program. Some individual

<http://www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,408#4926>

Present Calendar Entry:

None.

Action: Create new B.Sc./B.Ed. Dual Degree program entry.

Insert the new program after the Dual Degree program in Science and Arts [16770] and before the Dual Degree Program in Science and Music [16716].

Rationale: There is mounting evidence that indicates that pre-service teachers engage with pedagogical and curricular issues in more substantive ways if they are taking courses in their disciplinary specializations alongside courses in education.

The proposal to allow students to pursue the B.Ed. requirements concurrently with their B.Sc. requirements should draw more Science students into education and help alleviate the chronic shortage of secondary school teachers with background in specific Science disciplines. Initially this program will be restricted to students pursuing a major in Math or a major in Physics, but additional disciplines will be considered in the future.

Within the proposed program the students will complete the same requirements for a B.Sc. degree majoring in Math or Physics and a Bachelor of Education degree as students who are pursuing these degrees sequentially. However, with concurrent admission to and completion of both degree programs, students are able to reflect on the selection of electives so as to maximize synergy and relevance to both programs.

<p>courses may be considered to satisfy requirements for both degrees.</p> <p>The Dual Degree program is currently open only to students pursuing a Major in Mathematics or Physics. For detailed descriptions of program requirements consult the Mathematics [LINK to http://www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,429] or Physics [LINK to http://www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,434] program listings.</p> <p>The Dual Degree program is not open to students with a previous degree.</p> <p>Students must communicate with an advisor in the Science advising office and the Teacher Education Office annually after admission to the program to discuss their progress.</p>	
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MATHEMATICS	
<p>Effective Date for Change: 08W Proposed Calendar Entry:</p> <p>Dual Degree Program in Mathematics and Education</p> <p>The dual degree program in Mathematics and Education offers qualified students the opportunity to earn a B.Sc. degree in Mathematics (Major) and a B.Ed. degree in Secondary Education, in five winter sessions with some academic requirements in term 1 of the summer sessions. After completing all the requirements, students are normally eligible for a British Columbia Professional Teaching Certificate. Admission to the dual degree program requires application in the fall of second year and successful completion of a teaching practicum at the end of second year. See p. xxx of the academic calendar for more information on admission and continuation requirements [Link to Dual Degree Program in Science and Education].</p>	<p>http://www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,429</p> <p>Present Calendar Entry: None.</p> <p>Action: Create a new pathway for teacher education by establishing a dual BSc, BEd degree program in Mathematics and Secondary Education in which students will work towards their BSc (Mathematics) and BEd (Secondary) degrees with concurrent learning of scientific and educational principles. The new entry will be inserted into the calendar after the entry for the Combined Major (1429): Computer Science and Mathematics [10509] and before the entry for the Honours Programs [5472].</p> <p>Rationale: There is mounting evidence that indicates that pre-service teachers engage with pedagogical and curricular issues in more substantive ways if they are taking courses in their disciplinary specializations alongside courses in education.</p>

Dual Degree Program: BSc (Math), BEd (Secondary)

Year 1 Winter

ENGL 100-level¹	6
CHEM 111²	0–4
MATH 100 or 102 or 104 (or 120 or 180 or 184)³	3–4
MATH 101 or 103 or 105 (or 121)	3–4
PHYS 100⁴, 101 (107) or 102 (108)	6
CPSC 111/211 or CPSC 111/MATH 210⁵	7–8
Laboratory Requirement⁶	0–2
BIOL, ASTR, EOSC, GEOG, or PSYC^{6,7}	3
Electives^{2,4,8,9,10}	2–5
Total Credits^{1, 10}	30–36

Year 2 Winter

MATH 200 (or 226)	3
MATH 220¹¹	3
MATH 221, 215¹²	6
Arts Electives⁸	6
Electives^{8,9}	12
EDUC 490	1
Total Credits¹	31 (34)

Year 2 Summer

EDUC 315A	0
Total Credits	0

Year 3 Winter

EDUC 316	3
EDUC 314	3
MATH 414	3
MATH courses numbered 300 or above¹⁵	12

The proposed concurrent education program is an appealing new program that will draw more math students into education and help alleviate the chronic shortage of secondary school teachers with a math background.

Within the proposed program the students will complete all the requirements of the current B.Sc. major in Math and the B.Ed in Education but the emphasis and opportunities to fine tune appropriate course selections will be different because the programs will be done concurrently

300 or above ¹⁵	
Elective(s) ^{8,9}	3
Total Credits	32
Fifth Year: Summer Session	
EDUC 480	1
Minimum credits for Dual Degree	171
Second Year	
¹ ENGL 112 is recommended. Qualified students are encouraged to consider ENGL 120 and/or 121. Three credits of first-year English may be deferred until second year to fit in other requirements of the program.	
² This elective requirement applies only to students without credit for Chemistry 12. Reduce the electives by four credits if you need to take this course.	
³ See <u>UBC-SFU-UVIC-UNBC Calculus Examination Certificate</u> .	
⁴ Students without credit for Physics 12 must take PHYS 100 and PHYS 101 (or 107). Also, they must take one of PHYS 102, PHYS 108, PHYS 170, CHEM 113, or CHEM 121 in order to fulfill the Faculty of Science requirement of 6 credits of 100-level physical sciences beyond the level of PHYS 100 or CHEM 111.	
⁵ MATH 210 may not be offered every year.	
⁶ All B.Sc. programs must include two terms of laboratory science. These may be stand-alone labs or parts of lecture-lab courses included in the other requirements listed above. Details are given at <u>Lower-Level Requirements</u> .	
⁷ Students without credit for Biology 11 or 12 must fulfill this requirement with a 100-level BIOL. Only science credit GEOG or PSYC courses may be used.	
⁸ Electives must be chosen to ensure that the program contains at least 48 credits from courses at the 300 level or above. The program must contain at least 72 credits in Science courses that must include at least 30 upper level	

<p>Science credits.</p> <p>⁹ Electives must fulfill the breadth requirement for the Faculty of Science. At least 9 credits must be in Arts courses or in Science courses chosen from outside the field of the major, i.e., outside MATH, STAT, and CPSC. Non-elective credits from First Year, including credits described in footnotes 2, 3 and 7, cannot be used toward this requirement.</p> <p>¹⁰ Students who earn more than 30 credits in first year may reduce the number of unrestricted electives taken in later years.</p> <p>¹¹ Students obtaining 68% or higher in MATH 226 are not required to take MATH 220.</p> <p>¹² MATH 215 may be deferred until third year.</p> <p>¹³ EDUC 315A and 319 are practical.</p> <p>¹⁴ Note that in Year 5, only Term 1 is available for non-Education courses because Term 2 includes Education courses that preclude time for other courses.</p> <p>¹⁵ Must fulfill Education breadth requirements (Math 308, 309, 312, 313, 446 recommended) http://teach.educ.ubc.ca/bachelor/secondary/sa-forms/math-08.pdf</p>	
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PHYSICS AND ASTRONOMY																							
<p>Effective Date for Change: 08W</p> <p>Proposed Calendar Entry:</p> <p>Dual Degree Program: BSc (Physics), BEd (Secondary)</p> <table> <tr> <td>Year 1 Winter</td><td></td></tr> <tr> <td>CHEM 121, 123 (or 111, 113)</td><td>8</td></tr> <tr> <td>ENGL 100-level¹</td><td>6</td></tr> <tr> <td>MATH 100-level²</td><td>6-8</td></tr> <tr> <td>PHYS 101, 102 (107, 108, 109)³</td><td>6-7</td></tr> <tr> <td>Elective^{4,5}</td><td>6</td></tr> <tr> <td>Total Credits</td><td>32-35</td></tr> <tr> <td>Year 2 Winter⁶</td><td></td></tr> <tr> <td>EDUC 490</td><td>1</td></tr> <tr> <td>MATH 200⁷, 215, 221</td><td>9</td></tr> <tr> <td>PHYS 200, 216^{8,9}</td><td>7</td></tr> </table>	Year 1 Winter		CHEM 121, 123 (or 111, 113)	8	ENGL 100-level ¹	6	MATH 100-level ²	6-8	PHYS 101, 102 (107, 108, 109) ³	6-7	Elective ^{4,5}	6	Total Credits	32-35	Year 2 Winter⁶		EDUC 490	1	MATH 200 ⁷ , 215, 221	9	PHYS 200, 216 ^{8,9}	7	<p>http://www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,434</p> <p>Present Calendar Entry: None.</p> <p>Action: Create a new pathway for teacher education by establishing a dual BSc, BEd degree program in Physics and Secondary Education in which students will work towards their BSc (Physics) and BEd (Secondary) degrees with concurrent learning of scientific and educational principles.</p> <p>This new entry will be inserted after Combined Major Computer Science – Physics (1391) [9940] and before the Honours Physics entry (0344) [5882].</p> <p>Rationale: There is mounting evidence that indicates that pre-service teachers engage with pedagogical and curricular issues in more substantive ways if they are taking courses in their disciplinary</p>
Year 1 Winter																							
CHEM 121, 123 (or 111, 113)	8																						
ENGL 100-level ¹	6																						
MATH 100-level ²	6-8																						
PHYS 101, 102 (107, 108, 109) ³	6-7																						
Elective ^{4,5}	6																						
Total Credits	32-35																						
Year 2 Winter⁶																							
EDUC 490	1																						
MATH 200 ⁷ , 215, 221	9																						
PHYS 200, 216 ^{8,9}	7																						

PHYS 209, 210¹⁰	6	<p>specializations alongside courses in education.</p> <p>The proposed concurrent education program is an appealing new program that will draw more physics students into education and help alleviate the chronic shortage of secondary school teachers with a physics background.</p> <p>Within the proposed program the students will complete all the requirements of the current BSc major in Physics and the BEd in Education but the emphasis and opportunities to fine tune appropriate course selections will be different because the programs will be done concurrently.</p>
Electives^{4,5}	9	
Total Credits	32	
Summer		
EDUC 315A¹¹	0	
Total Credits	0	
Year Three Winter¹²		
EDUC 316	3	
EDST 314	3	
MATH 317⁷	3	
PHYS 203¹³, 312⁹	7	
PHYS 309 or 319	3	
PHYS 304¹⁴	3	
Electives^{4,15}	9	
Total Credits	31	
Summer		
EDUC 319⁹	0	
Total Credits	0	
Year 4 Winter¹²		
EDUC 311	4	
PHYS 301 or 354	3	
PHYS or ASTR 300 level or above¹⁶	6	
SCED 316	2	
SCED 317	2	
Elective^{4,15}	12	
Total Credits	29	
Summer		
EDST 425, 426, 427, 428, 429 451, 452 or 454	3	
EDUC 420	2	
LLED 302	4	
Total Credits	9	
Year 5 Winter		
EDUC 315 B	0	
EDUC 329	18	
EPSE 306	2	
EPSE 317, 423	6	
PHYS 348	3	
PHYS 409 or 420	3	
SCED 441 or 442	3	
PHYS or ASTR 300 level or		

above ¹⁶	3	
Total Credits	38	
Summer	1	
EDUC 480	1	
Total Credits	173	
Minimum Credits for Dual Degree		
<p>¹ ENGL 112 is recommended. Qualified students are encouraged to consider ENGL 120 and/or ENGL 121. 3 credits of first-year English may be deferred to second year.</p> <p>² One of MATH 100, 102, 104, 180, 184, or 120 and one of MATH 101, 103, 105, or 121.</p> <p>³ Students without Physics 12 must normally take PHYS 100 prior to PHYS 101 or 107, such students should seek academic advice before registering. Qualified students are encouraged to take PHYS 107/108/109.</p> <p>⁴ The elective credits taken throughout the program must include at least 12 credits in the Faculty of Arts (in addition to the 6 credits of 100-level English) and a further 9 credits of Arts or Science outside the field of the Major (Physics or Mathematics credits are therefore excluded). Students without Biology 11 or 12 must take 3 credits of 100-level BIOL. For students with Biology 11 or 12 at least 3 credits must be a science course, ASTR, BIOL, EOSC or Science credit GEOG or PSYC. Up to 12 elective credits may be taken in any courses in Arts or Science, including the field of the Major. Enough elective credits in Arts or Science numbered 300 or higher must be taken so that the total number of Arts and Science credits at the 300-level or higher in the program is at least 48, with at least 30 of these credits being in Science.</p> <p>⁵ Three credits of 100 level BIOL, and three credits of 100 level ASTR or EOSC are recommended.</p> <p>⁶ Admission to second year major physics requires an overall average of at least 60% in first-year Physics and Mathematics</p>		

<p>courses or permission of the Department Head. Refer to p.xxx [Link to Faculty of Science section of the calendar] for additional admission requirements.</p> <p>⁷ Students with sufficiently high grades in first-year MATH may take MATH 217 and 2 credits of electives instead of MATH 200 and MATH 317. In this case 3 additional upper level Science credits will be required to satisfy Faculty of Science requirements.</p> <p>⁸ Students may opt to take PHYS 200 or PHYS 216 in third-year, in exchange for an additional 3 credits of electives in second-year. Qualified students may replace PHYS 216 with PHYS 206.</p> <p>⁹ Students considering graduate studies in Physics are advised to replace PHYS 216 with PHYS 206, and to replace MATH 200, 317, and PHYS 312 with MATH 217, 300, and 316. Students are also advised to take one of PHYS 401 or 408.</p> <p>¹⁰ PHYS 210 may be replaced by CPSC 111. CPSC 111 is required as a prerequisite for more advanced CPSC courses.</p> <p>¹¹ EDUC 315A, and 319 are one-week and two-week teaching practica, respectively, during the month of May. Successful completion of the professional seminar EDUC 490 and teaching practicum EDUC 315A are required for admission to the BEd program.</p> <p>¹² Consultation with a Physics departmental advisor is recommended before entering third and fourth year.</p> <p>¹³ PHYS 313 or the combination CHEM 201 and CHEM 304 may replace PHYS 203.</p> <p>¹⁴ PHYS 304 may be replaced by PHYS 450.</p> <p>¹⁵ MATH 302, 307, 308, 309, 312, 313 and 342 are recommended mathematics electives for students who are interested in teaching mathematics.</p> <p>¹⁶ Some courses intended for Honours students require approval from appropriate instructor(s).</p>	
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<p>Proposed Calendar Entry:</p> <p>A dual degree program in Physics and Education, that offers qualified students the opportunity to earn a B.Sc. degree in Physics (Major) and a B.Ed. degree in Secondary Education, in five winter sessions with some academic requirements in term 1 of the summer sessions. After completing all the requirements, students are normally eligible for a British Columbia Professional Teaching Certificate. Admission to the dual degree program requires application in the fall of second year and successful completion of a teaching practicum at the end of second year. See p. xxx of the academic calendar for more information on admission and continuation requirements [link to dual degree program in Science and Education.</p>	<p>=12,215,410,434</p> <p>Present Calendar Entry: None.</p> <p>Action: Text to be inserted at the end of the section entitled “PHYSICS” and right before the heading “Courses Primarily for First Year Science Students”.</p> <p>Rationale: Description of new Dual Degree in Physics and Education to be included in the Physics and Astronomy part of the calendar.</p>
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Contact: Dr. Bill Ramey Phone: 822-3300	March 11, 2008 Email: wramey@interchange.ubc.ca
Undergraduate Courses Report	
BIOLOGY	
Effective Date for Change: 08W Proposed Calendar Entry: BIOL 423 (3) Plant Stress Ecophysiology. Molecular mechanisms of plant responses to extreme environments. (Consult Faculty of Science Credit Exclusion List). [link to: http://www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,414 Prerequisite: BIOL 351. BIOL 406 or BIOL 407 are recommended. [3-0-0]	Present Calendar Entry: None. Action: New course. Rationale: Over the past decades, a new discipline has emerged that bridges plant ecology and plant physiology. Ecophysiology studies integrate from the molecular level to the ecosystem level, addressing highly relevant questions of plant performance under extreme environmental conditions. This makes plant ecophysiology a key discipline in the context of climate change research and for sustainability studies. Due to the tremendous relevance of these topics, e.g. for ecosystem conservation and for crop production, student in various programs (Biology, Agronomy, Forestry) are expected to have a keen interest in this discipline. It needs to be represented by a full course at this undergraduate level at UBC. Supporting Documents: SCI-07-2-BIOL 423

COGNITIVE SYSTEMS

<p>Effective Date for Change: 08W Proposed Calendar Entry:</p> <p>COGS 303 (3) Research Methods in Cognitive Systems. Examination and comparison of the research methodologies of different disciplines relevant to Cognitive Systems. Prerequisite: COGS 200. [3-0-0]</p>	<p>Present Calendar Entry:</p> <p>None.</p> <p>Action: New course.</p> <p>Rationale: As research increasingly bridges multiple disciplines, the problem of identifying appropriate methodologies has become acute. In empirical disciplines such as experimental psychology, the methodology defines how data are turned into support for explicit hypotheses through some form of objective testing. In appearance at least, the methodologies of other disciplines, depend on different key factors. For example, linguistic method depends on specific rules for argumentation, hypothesis formation, and validation. Research in computer science, however, depends more on successful model simulation and mathematical proof. This course will allow students learning to conduct interdisciplinary research to navigate the surface similarities and differences between the methodologies in order to attain a clear understanding of the underlying assumptions and theoretical constraints of the different disciplines.</p> <p>Supporting Documents: SCI-07-2-COGS 303</p>
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MATHEMATICS

<p>Effective Date for Change: 08W Proposed Calendar Entry:</p> <p>MATH 110 (6) Differential Calculus. Topics as for MATH 100, but including relevant topics from algebra, geometry, functions, trigonometry, logarithms, and exponentials. (Consult Faculty of Science Credit Exclusion List). [link to: http://www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,414] Prerequisite: Principles of Mathematics 12 or MATH 002. [3-0-1.5]; [3-0-1.5]</p>	<p>Present Calendar Entry:</p> <p>None.</p> <p>Action: New course.</p> <p>Rationale: A large number of students take one of the existing 3- or 4-credit non-honours differential-calculus courses MATH 100, 102, 104, 180, or 184 but have insufficient skills in the named high-school topics (especially algebra) to pass, even if they succeed in learning the topics of calculus. These students would benefit from a treatment of calculus including a review of high-school material, which this course will provide. Currently, the only option available to poorly prepared students is the noncredit course MATH 003.</p> <p>A section of this course would commence in early October, to allow students who initially register in MATH 100, 102, 104, 180, or 184 an opportunity to</p>
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	<p>switch to it, with weekly lecture hours in the fall increased so this late-starting section has the same total number of lecture hours. Assessment testing will be used to direct students into this course.</p> <p>Calculus topics will be covered at the same level as in MATH 100 or 104 and in roughly the same order, with pre-calculus topics interspersed as needed. This course will be credit excluded with MATH 100, 102, 104, 120, 180, and 184 and will be accepted as a prerequisite for follow-up integral-calculus courses.</p> <p>Facilitated weekly problem-solving workshops, which are represented by the final component in the proposed course vector, will be integrated into the course. These sessions will review material introduced in the lectures.</p> <p>This new course is similar to the former MATH 111 but is not identical either in content or prerequisites.</p> <p>Supporting Documents: SCI-07-2-MATH 110</p>
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<p>Effective Date for Change: 08W</p> <p>Proposed Calendar Entry:</p> <p>MATH 180 (4) Differential Calculus with Physical Applications.</p> <p>...</p> <p>[3-0-1.5]</p>	<p>Present Calendar Entry:</p> <p>MATH 180 (4) Differential Calculus with Physical Applications.</p> <p>...</p> <p>4-0-0</p> <p>Action: Change vector from [4-0-0] to [3-0-1.5].</p> <p>Rationale: MATH 180 and 184, which are taken by students with no prior exposure to calculus, have high failure rates. In 2006W and 2007W, an experimental section was run in each of MATH 180 and 184, in which one hour of lecture was replaced by a 1.5-hour problem-solving workshop. Results in 2006W were encouraging, especially for MATH 180 in which students in the experimental section outperformed those in traditional 4-lecture-hour sections on average by 6 points. The proposal aims to formalize an interactive, workshop-based element as a key component of MATH 180.</p> <p>While this active-learning course component is being listed as a “tutorial” in the new course vector it is in fact a structured replacement for one hour of lecture. Attendance/participation will be mandatory, with a grade assigned. Students will be assigned self-discovery activities to work on in small groups, with</p>
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	TAs (2 per 25–30-student workshop) facilitating the active learning and ensuring participation by all students. Based on past experience, substantial new student learning will occur in the workshops.
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<p>Effective Date for Change: 08W</p> <p>Proposed Calendar Entry: MATH 184 (4) Differential Calculus for Social Science and Commerce.</p> <p>...</p> <p>[3-0-1.5]</p>	<p>Present Calendar Entry:</p> <p>MATH 184 (4) Differential Calculus for Social Science and Commerce.</p> <p>...</p> <p>[4-0-0]</p> <p>Action: Change vector.</p> <p>Rationale: MATH 180 and 184, which are taken by students with no prior exposure to calculus, have high failure rates. In 2006W and 2007W, an experimental section was run in each of MATH 180 and 184, in which one hour of lecture was replaced by a 1.5-hour problem-solving workshop. Results in 2006W were encouraging, especially for MATH 180 in which students in the experimental section outperformed those in traditional 4-lecture-hour sections on average by 6 points. The proposal aims to formalize an interactive, workshop-based element as a key component of MATH 184.</p> <p>While this active-learning course component is being listed as a “tutorial” in the new course vector it is in fact a structured replacement for one hour of lecture. Attendance/participation will be mandatory, with a grade assigned. Students will be assigned self-discovery activities to work on in small groups, with TAs (2 per 25–30-student workshop) facilitating the active learning and ensuring participation by all students. Based on past experience, substantial new student learning will occur in the workshops.</p>
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<p>Effective Date for Change: 08W</p> <p>Proposed Calendar Entry: MATH 256 (3) Differential Equations. Linear ordinary differential equations, Laplace transforms, Fourier series and separation of variables for linear partial differential equations. Tutorial session focuses on examples from chemical and biological engineering. (Consult Faculty of Science Credit Exclusion List). [link to: http://www.students.ubc.ca/calendar/index.</p>	<p>Present Calendar Entry: None. MATH 256 (3) Differential Equations. Ordinary and partial differential equations. Particular examples from physics. Laboratories demonstrate graphical and numerical analysis of realistic examples. (Consult the Credit Exclusion List in the Faculty of Science section of the Calendar.) Prerequisite: ... Co-requisite: ... [3-1-1] Action: Update course description and change course</p>
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<p>cfm?tree=12,215,410,414] Prerequisite: ... Co-requisite: ...</p> <p>[3-0-1]</p>	<p>vector.</p> <p>Rationale: In the past four years MATH 256 and MATH 253 have been replaced for mechanical engineering students by MECH 2 and for electrical and computer engineering by MATH 263, 265, 267. The only APSC department still taking MATH 256 is Chemical and Biological Engineering. Changes in the description specify topics that are important for CHBE needs, in particular some coverage of Laplace transforms.</p> <p>At the same time the lab courses have become redundant for CHBE as second-year CHBE students take CHBE 230 which has a significant computational component. Equally the alternate bi-weekly scheduling of the labs made them hard to coordinate with course lecture material.</p> <p>On the other hand, this remains a fast moving course and some additional instruction is needed to help students become familiar with the course material. Facilitated weekly problem-solving tutorials, in which applications from CHBE involving differential equations will be worked through, will be integrated into the course to replace the labs.</p>
<p>Effective Date for Change: 08W Proposed Calendar Entry: MATH 310 (3) Abstract Linear Algebra. Linear spaces, duality, linear mappings, matrices, determinant and trace, spectral theory, Euclidean structure. Prerequisites: One of MATH 152, MATH 221 and one of MATH 220, MATH 226, CPSC 121. (Consult the Faculty of Science Credit Exclusion List). [link to: http://www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,414] [3-0-0]</p>	<p>Present Calendar Entry:</p> <p>None.</p> <p>Action: New course.</p> <p>Rationale: This course is intended to serve as an accessible course for majors students that uses the proof skills learned in MATH 220. (At the same time we are proposing changing MATH 307 to be a more applied course.) There is some overlap with material in MATH 221. However, the treatment is at a higher level and more abstract.</p> <p>Supporting Documents: SCI-07-2-MATH 310</p>
<p>Effective Date for Change: 08W Proposed Calendar Entry: MATH 412 (3) Advanced Linear Algebra. Topics include decompositions of linear operators, multi linear algebra, bilinear forms, metric spaces. Prerequisite: A score of 68% or higher in all of MATH 320, MATH 322. [3-0-0]</p>	<p>Present Calendar Entry:</p> <p>MATH 412 (3) Theory of Modules. Modules and vector spaces, modules over principal ideal domains, canonical forms, duality, representation theory, bilinear forms.</p> <p>Prerequisite: A score of 68% or higher in MATH 322. [3-0-0]</p> <p>Action: Update course title, description, and</p>

	<p>prerequisites.</p> <p>Rationale: The present course has not been offered in many years. The revised course is more relevant and will introduce undergraduate students to Advanced Linear Algebra and to special topics arising from Linear Algebra. The course is intended for honours students already familiar with basic linear algebra and abstract algebra.</p> <p>Currently, few options are available to Math honours students who want to learn and explore advanced topics in algebra after taking Math 322. Designed with these students in mind, this proposal is intended to serve as a comprehensive course in Advanced Linear Algebra for third/fourth year honours students having taken Math 322. The course begins with a discussion on vector spaces, quotients, isomorphism theorems, modules and the structure of linear transformations. Special topics will then be covered in the areas of multilinear algebra, geometry, normed linear spaces and functional analysis. MATH 320 is required for the latter topics.</p>
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PHYSICS AND ASTRONOMY	
<p>Effective Date for Change: 08W</p> <p>Proposed Calendar Entry: PHYS 348 (3) Frontiers in Physics and Astronomy.</p> <p>Current research topics in physics and astronomy are investigated and explored. Technical communication and research skills are studied and developed via oral presentations and written scientific reports on these current research topics.</p> <p>Prerequisite: Third-year standing in a physics honours program or fourth-year standing in a physics or astronomy major program. [3-0-0]</p>	<p>Present Calendar Entry:</p> <p>PHYS 348 (3) Frontiers in Physics. Topics in physics with a choice of independent supervised research projects</p> <p>Prerequisite: Third-year standing in a physics honours program or fourth-year standing in a physics or astronomy major program. [1-0-1]</p> <p>Action: Change course listing and vector and title. Retain course number.</p> <p>Rationale: This course was developed primarily for Majors Physics and Majors Astronomy students, to give them the research, presentation and writing skills that most will need in their scientific careers. Honours students carry out an independent, supervised, original honours research project over 8 months in their final year. The PHYS 348 is a four-month version that has many similar goals, but in place of an original research project students review current research areas in physics or astronomy. This course requires only one faculty member instructor as opposed to the many faculty supervisors for the</p>

	honours research project so it makes it possible for all majors students to take it.
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STATISTICS	
Effective Date for Change: 08W Proposed Calendar Entry: STAT 443 (3) Time Series and Forecasting. Trend and seasonality, autocorrelation, stationarity, stochastic models, exponential smoothing, Holt-Winters methods, Box-Jenkins approach, frequency domain analysis. Prerequisites: One of MATH 302, MATH 318, STAT 302 and one of STAT 200, ECON 325. Co-requisite: STAT 305. [3-0-0]	Present Calendar Entry: None. Action: New course. Rationale: There is a high level of student demand for a course on time series, in part driven by an undergraduate statistics course on time series being acceptable as fulfilling a VEE (Validation by Educational Experience - requirement by the SoA (Society of Actuaries). Furthermore, the subject has an important place in the field of Statistics, having wide applications in business, science and engineering. Supporting Documents: SCI-07-2-STAT 443