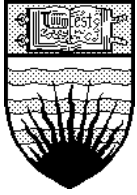


THE UNIVERSITY OF BRITISH COLUMBIA



March 13, 2008

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

To: Senate
From: Senate Curriculum Committee

Re: March Curriculum Proposals

March 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 Faculty of Applied Science be approved.”*

Respectfully submitted,

Peter Marshall, Chair
Senate Curriculum Committee

THE UNIVERSITY OF BRITISH COLUMBIA



13 March 2008

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

To: Vancouver Senate

From: Senate Curriculum Committee

Re: **CURRICULUM PROPOSALS FROM THE FACULTY OF APPLIED SCIENCE,
AND APPLIED SCIENCE (SCHOOL OF ARCHITECTURE AND LANDSCAPE
ARCHITECTURE**

Attached please find the submitted category 1 undergraduate curriculum proposals from the Faculty of Applied Science, and Applied Science (School of Architecture and Landscape Architecture for your consideration.

Faculty of Applied Science:

Program	Action
Bachelor of Applied Science: Degree Requirements, English Requirements, Engineering Communication Competency Test	program change

Course	Title	Action
APSC 263 (3)	Technology And Development	new course
APSC 201 (3)	Technical Communication	change prerequisite
CHBE 482 (3)	Petroleum Refining Process Modeling And Simulation	new course
CHBE 486 (3)	Waste Management For Resource Recovery	new course
MTRL 356 (3)	Environmental Degradation Of Materials	new course
MTRL 442 (3)	Coatings And Surface Modification	new course
MTRL 471 (3)	Nanofibre Technology	new course
MTRL 475 (3)	Microstructure Modelling	new course
MTRL 485 (3)	Failure Of Materials	new course

Faculty of Applied Science (School of Architecture and Landscape Architecture):

Course	Title	Action
ENDS 404 (3)	Environmental Design History	new course

FACULTY OF APPLIED SCIENCE: CATEGORY 1 UNDERGRADUATE ENGINEERING CURRICULUM REPORT
SPRING 2008

Department: Applied Science	Contact Person: Bruce Dunwoody
Faculty Approval Date: February 14, 2008	Phone: 2-6556
	Email: bruce.dunwoody@ubc.ca
APSC Undergraduate Program Change	
Effective Date: September 2008	
Proposed Calendar Entry:	Present Calendar Entry:
<p>DEGREE REQUIREMENTS</p> <p>...</p> <p>English Requirements</p> <p>...Add paragraph just prior to header "Complementary Studies Courses".</p> <p>Engineering Communication Competency Test</p> <p>This test is to be taken at the end of first year by students completing first year at UBC Vancouver, and during the first week of September by students completing first year elsewhere. A passing grade on this test is a prerequisite for APSC 201.</p> <p>Students who do not obtain a passing grade on the test must successfully complete a remedial course such as APSC 098: <i>Introduction to Technical Writing for Engineers</i> or equivalent before retaking the examination. APSC 098 is a comprehensive course in grammar and technical writing offered by the UBC Writing Centre and designed for engineering students. This course will provide a strong practical foundation of language skills, an opportunity for students to practice and receive feedback on their writing, and will increase their overall confidence when they are faced with writing tasks. Students who need extra instruction can obtain one-to-one tutoring through the Writing Centre tutorial clinic.</p>	<p>Action: Add calendar statement.</p> <p>Rationale: Many engineering students have had great difficulty successfully completing APSC 201. It is felt that this communication competency test will effectively identify those students that need to take a remedial communication test prior to attempting APSC 201.</p> <p>Category 1</p>

FACULTY OF APPLIED SCIENCE: CATEGORY 1 UNDERGRADUATE ENGINEERING CURRICULUM REPORT
SPRING 2008

Department: Applied Science	Contact Person: Annette Berndt Phone: 2-1660 Email: annette.berndt@ubc.ca
Faculty Approval Date: February 14, 2008	
APSC Undergraduate New Course	
Effective Date: September 2008	URL: n/a
Proposed Calendar Entry: APSC 263	Present Calendar Entry: n/a
APSC 263 (3) TECHNOLOGY AND DEVELOPMENT. Environmental, economic, political and social aspects of appropriate technologies in the developing world. Appropriate technology and infrastructure, trade and finance, transportation, energy, water access, communication, health and gender. [3-0-0]	Type of Action: New course Rationale: This course material is currently being delivered to engineering students in a Student Directed Seminar (SDS). This course will be a second-year complementary studies elective. APSC 263 will accomplish two goals: (1) it will help to alleviate overloading of APSC 261 and APSC 262, creating space for second-year students in these courses (currently consisting almost entirely of third- and fourth-year students); and (2) it would promote cross-faculty relations and broaden the range of interdisciplinary communication opportunities for Engineering students by accommodating a limited number of students from the Faculty of Arts. Category 1 Document ID#: APSC UG002

Department: Applied Science	Contact Person: Bruce Dunwoody Phone: 2-6556 Email: bruce.dunwoody@ubc.ca
Faculty Approval Date: February 14, 2008	
APSC Undergraduate Course Change	
Effective Date: September 2008	
Proposed Calendar Entry:	Present Calendar Entry:
APSC 201 (3) Technical Communication. Written and oral communication in engineering. Report preparation, business correspondence and oral presentation of technical material. Prerequisite: One of ENGL 110, ENGL 111, ENGL 112, ENGL 120, ENGL 121 and successful completion of Engineering Communication Competency Test. [3-0-0].	APSC 201 (3) Technical Communication Written and oral communication in engineering. Report preparation, business correspondence and oral presentation of technical material. Prerequisite: One of ENGL 110, ENGL 111, ENGL 112, ENGL 120, ENGL 121. [3-0-0] Action: Change prerequisite. Rationale: The Engineering Communication Competency Test is felt to be the best indicator of whether students can successfully complete APSC 201. Category 1

FACULTY OF APPLIED SCIENCE: CATEGORY 1 UNDERGRADUATE ENGINEERING CURRICULUM REPORT
SPRING 2008

Department: Chemical and Biological Engineering	Contact Person: Chad Bennington Phone: 2-8573 Email: cpjb@chml.ubc.ca
Faculty Approval Date: February 14, 2008	
CHBE Undergraduate New Course	
Effective Date: September 2008	URL: n/a
Proposed Calendar Entry:	Present Calendar Entry: None.
CHBE 482 (3) PETROLEUM REFINING PROCESS MODELING AND SIMULATION. Petroleum feed stocks testing methods, pseudocomponents, and property methods. Design and simulation of separation and reaction systems. Steady state and dynamic simulation. Prerequisite: All of CHBE 345, CHBE 376. Co-requisite: CHBE 455. [3-1-0]	Type of Action: New course. Rationale: This is response to student requests, job market demands and CHBE collaboration with Chinese Petroleum Institute. Category 1 Document ID#: CHBE UG001
Effective Date: September 2008	URL: n/a
Proposed Calendar Entry:	Present Calendar Entry: None.
CHBE 486 (3) WASTE MANAGEMENT FOR RESOURCE RECOVERY. Physico-chemical, thermal and biological methods for purification of solid waste and wastewater, and conversion to bioproducts/industrial products, energy and clean water. Prerequisites: All of CHBE 241, CHBE 242, CHBE 373. [2-0-2]	Type of Action: New course. Rationale: We are deleting CHBE 473 and CHBE 490. The proposed new course will contain some material previously presented as part of these courses as well as additional new and relevant material to the issue of environmental sustainability. Category 1 Document ID#: CHBE UG002
Department: Materials Engineering	Contact Person: Chad Sinclair Phone: 2-3352 Email: chad.sinclair@ubc.ca
Faculty Approval Date: February 14, 2008	
MTRL Undergraduate New Course	
Effective Date: September 2008	URL: n/a
Proposed Calendar Entry:	Present Calendar Entry: None
MTRL 356 (3) ENVIRONMENTAL DEGRADATION OF MATERIALS. Fundamental aspects of environmental degradation of metals (corrosion), ceramics and polymers with an emphasis on aqueous environments. [2-0-2]	Type of Action: New Course Rationale: This course replaces and expands upon the content of MTRL 456 which is being deleted from the program. This course will become part of the core Materials Engineering curriculum, a suggestion made during the last CEAB review of the department. Category 1 Document ID#: MTRL UG001

FACULTY OF APPLIED SCIENCE: CATEGORY 1 UNDERGRADUATE ENGINEERING CURRICULUM REPORT
SPRING 2008

Department: Materials Engineering	Contact Person: Chad Sinclair Phone: 2-3352 Email: chad.sinclair@ubc.ca
Faculty Approval Date: February 14, 2008	
MTRL Undergraduate New Course	
Effective Date: September 2008	URL: n/a
Proposed Calendar Entry:	Present Calendar Entry: None.
MTRL 442(3) COATINGS AND SURFACE MODIFICATION. Strategies for ceramic and metallic coatings by melting-solidification, from the vapour state and from solution, and methods of surface modification. Pre-requisites: APSC 278. [3-0-0]	Type of Action: New Course. Rationale: This course replaces the course MTRL 482 Ceramics II, which is being proposed to be deleted from the calendar starting September 2008 (see below). The course content of MTRL 482 had largely shifted to the content of this new course, i.e. away from bulk ceramics processing towards coatings and surface modification. Category 1 Document ID#: MTRL UG002

FACULTY OF APPLIED SCIENCE: CATEGORY 1 UNDERGRADUATE ENGINEERING CURRICULUM REPORT
SPRING 2008

Department: Materials Engineering	Contact Person: Chad Sinclair Phone: 2-3352 Email: chad.sinclair@ubc.ca
Faculty Approval Date: February 14, 2008	
MTRL Undergraduate New Course	
Effective Date: September 2008	URL: n/a
Proposed Calendar Entry:	Present Calendar Entry: None.
MTRL 471(3) NANOFIBRE TECHNOLOGY. Introduction to nanomaterials in the form of fibres and composites, including processing, structure, characterization methods, properties and modeling. Credit will only be given for one of MTRL 471 or MTRL 571 [3-0-0]	Type of Action: New Course. Rationale: This is a new course in an area that is of growing importance within the field of materials engineering and provides a first course into nanomaterials within the Materials Engineering department. This course will be offered by Frank Ko, a new faculty member in the Materials Engineering Department and internationally recognized expert in this field. Category 1 Document ID#: MTRL UG003

Department: Materials Engineering	Contact Person: Chad Sinclair Phone: 2-3352 Email: chad.sinclair@ubc.ca
Faculty Approval Date: February 14, 2008	
MTRL Undergraduate New Course	
Effective Date: September 2008	URL: n/a
Proposed Calendar Entry:	Present Calendar Entry: None.
MTRL 475(3) MICROSTRUCTURE MODELLING. Follows the production of metallurgical products focusing on process design models used to describe solidification, recrystallization and precipitation. Pre-requisites: All of MTRL 365, MTRL 378. [2-0-2]	Type of Action: New Course. Rationale: This course provides a consolidated view of microstructure development, presenting the information in a manner that highlights the similarities in approaches taken to the study of microstructure evolution in the liquid and solid state. This provides an opportunity for students to apply concepts directly applied in previous courses (e.g. MTRL 365 and MTRL 378) to the development of process models that are currently of industrial interest. Category 1 Document ID#: MTRL UG004

FACULTY OF APPLIED SCIENCE: CATEGORY 1 UNDERGRADUATE ENGINEERING CURRICULUM REPORT
SPRING 2008

<p>Effective Date: September 2008</p> <p>Proposed Calendar Entry:</p> <p>MTRL 485(3) FAILURE OF MATERIALS. Failure by excess deformation, fracture, fatigue, and environmental effects. Failure theories and case studies of engineering failures. Pre-requisites: All of MECH 260, MTRL 365. [2-0-2]</p>	<p>URL: n/a</p> <p>Present Calendar Entry: None.</p> <p>Type of Action: New Course</p> <p>Rationale: This is a completely new course which fills a gap in the current curriculum.</p> <p>Category 1 Document ID#: MTRL UG005</p>
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UBC Curriculum Proposal Form Change to Course or Program

Category: (1)

Faculty: Applied Science Department: School of Architecture & Landscape Architecture Faculty Approval Date: Feb 7, 2008 Effective Session _08_W__ Term _1__ Year _08_W_ for Change	Date: 12.02.08 Contact Person: McKay Phone: 2-5001 Email: smckay@interchange.ubc.ca
Proposed Calendar Entry: ENDS 404 (3) ENVIRONMENTAL DESIGN HISTORY. A survey of environmental influences in architecture and landscape architecture design across time, geographies and cultures, from Neolithic settlements to nineteenth century urbanization. Restricted to students in the Environmental Design program.	URL: N/A Present Calendar Entry: N/A Type of Action: New Course Rationale: The proposed course will better fulfill the objectives of the Bachelor of Environmental Design program.