

## **Academic Programs Committee of Council**

### **University Course Challenge**

**Scheduled posting: March 16, 2015**

**Contents include:**

**Submissions for approval from the following colleges:**

Agriculture & Bioresources, Arts & Science, Engineering, Graduate Studies & Research, and Kinesiology

**Approval:**      Date of circulation: March 16, 2015

                            Date of effective approval if no challenge received: March 30, 2015

**Next scheduled posting:**

The next scheduled challenge document posting will be on April 16, with a submission deadline of April 14. Urgent items can be posted on request.

## College of Agriculture and Bioresources

### New Course Proposal:

**Title of Course:** Soil Ecology SLSC 344.3

**Instructional Hours:** 39

**Term in which it will be offered:** ( ) T1 ( **X** ) T2 ( ) T1 or T2 ( ) T1 and T2

**Prerequisite(s):** One of FABS 212.3, BMSC 210.3, SLSC 343, SLSC 240.3, or EVSC 220.3, and successful completion of 60 credit units of university courses, or permission of the instructor. Must be enrolled at the undergraduate level.

**Course Description:** SLSC 344.3 Soil Ecology 2(3L)

The course describes the role of soil organisms (bacteria, protists, fungi, nematodes, mites, other invertebrates) in the decomposition of organic matter for plant nutrition, and their response to field management. The above ground management effects on below-ground soil ecology are key to sustainable management. Community structure and ecological functional role of the biology affect ecosystem function and respond to environmental changes.

### Rationale for Introducing This Course:

This course, designed and delivered by a new member of faculty with expertise in this area, will provide an additional term 2 offering needed by students pursuing a degree minor in Soil Science. Other course offerings available in the Department of Soil Science provide more of a focus on basic applied soil microbiology. SLSC 344 will include a broader range of soil organisms, and explore their ecology.

## **University Course Challenge – March 2015**

The curricular revisions listed below were approved through the Arts & Science College Course and Program Challenge and are now submitted to the University Course Challenge for approval.

### **DIVISION OF HUMANITIES AND FINE ARTS**

#### **Arabic**

##### **New Course(s):**

##### **ARBC 114.3 Beginning Arabic I**

1/2 (3L) Arabic is the official language of 27 countries across the Middle East and North Africa (MENA), and the language of the Islamic religion. This course introduces Modern Standard Arabic at the elementary level. It is designed for students with no prior knowledge of Arabic. This course introduces students to the basic structures of Arabic and to use it for simple communication. Students will begin with learning the alphabet and spelling conventions of Arabic. After that, the class will focus on four communication skills: reading, speaking, listening and writing. Through various activities and using audio-visual materials students will gain exposure to the context of native-speaking environments and be familiarized with Arabic culture.

Note: Students who are fluent in Arabic may not take this course for credit.

Rationale: The Religion and Culture program currently offers language instruction in Chinese (CHIN), Japanese (JPNS), Hebrew (HEB), Hindi (HNDI), and Sanskrit (SNSK) to both support and augment classes offered in the academic study of religion. As of T2 2015, the program offers 3 x RLST classes specifically in the area of Islamic Studies: RLST 113.3 Islamic Civilization & Culture; RLST 240.3 Introduction to Islam; RLST 241.3 Islam in the Modern World. The program offers an additional 3 x classes in which Islam receives significant attention from Instructors and by students: RLST 112.3 Western Religions in Society & Culture; RLST 232.3 Women and Religion in Asia; RLST 332.3 Rise of Fundamentalism in South Asia. Offering Arabic language instruction will support and enhance an area of RLST instruction that has experienced significant growth in terms of enrollments in recent years. There has also been significant demand for Arabic expressed from students enrolled in RLST courses. Religion and Culture is, therefore, the only unit on campus with the mandate to offer Arabic language courses.

##### **ARBC 117.3 Beginning Arabic II**

1/2 (3L) Arabic is the official language of 27 countries across the Middle East and North Africa (MENA), and the language of the Islamic religion. This course is the beginner's level of Modern Standard Arabic designed for students with basic knowledge of Arabic. This course is a continuation of Arabic 114.3, and will introduce students to the grammar and vocabulary of Arabic used in situations of everyday life. The class focuses on four communication skills: reading, speaking, listening and writing. Through various activities and using audio-visual materials students will gain exposure to the context of native-speaking environments and be familiarized with Arabic culture.

Note: Students who are fluent in Arabic may not take this course for credit.

Rationale: See above.

#### **History**

##### **New Course**

##### **HIST 276.3 Colonial and Latin America Conquest Resistance Accommodation**

1/2 (3L) This class explores the history of Colonial Latin America, from 1492 to independence in the early 19th century. Themes examined include the apparent contradictions of the combination of incredible violence and a long legalistic peace, of colonialism and continued indigenous culture and authority; of separate republics and intense co-mingling of cultures and peoples, of economic stagnation and intense economic activity, of forced labour and emergent capitalism, death and resurrection, resistance and accommodation.

Prerequisite(s): 3 credit units 100-Level HIST or permission of instructor

Note: Pre-1815; Other Regions

Instructor(s): Jim Handy

Rationale: The Department has eliminated 6 cu. courses except at that 400 level. History 271.6 has been split into two courses, but they leave Colonial Latin America unexamined. This course adds to History options for students, provides increased opportunities in the 'other' geographic category, and provides a course relevant to students specializing in indigenous, First Nations History, colonial history, and environmental history.

## **Jewish & Christian Origins**

### **Minor program revisions**

#### **Minor in Jewish & Christian Origins**

1. Change requirement for 100-level RLST courses to specifically require RLST 112.3
2. Biblical Literature course list: add RLST 300.3
3. Early Judaism and Christianity list: add RLST 113.3 & 227.3; HIST 209.3, 217.3, 221.3, 230.3, 331.3 & 335.3; PHIL 202.3, 208.3 & 209.3; delete CLAS 259.3 & HIST 306.3
4. Near Eastern and Classical Archaeology list: delete ARCH 243.3 & 362.6
5. Create new Languages list which includes 100-level courses in Greek, Hebrew and Latin
6. Revise program requirements to allow students to take a minimum of 3 credit units from the Eastern and Classical Archaeology, or the Languages lists.

## **Jewish & Christian Origins - Minor**

### **Requirements (24 credit units)**

- ~~RLST 111.3~~/[RLST 112.3](#)
- ~~RLST 113.3~~

Students must also choose a minimum of 6 credit units in each of the two areas of Biblical Literature and Early Judaism and Christianity, as well as a minimum of 3 credit units in Near Eastern and Classical Archaeology **and/or Languages**. **At least 6 credit units must be at the 300-level or higher.**

Students may choose up to 6 credit units from approved Saskatoon Theological Union (STU) courses. Please consult the Department of Religion and Culture for eligible courses at these affiliated institutions.

### **Biblical Literature**

- [RLST 219.3](#)
- [RLST 225.3](#)
- [RLST 253.3](#)
- [RLST 254.3](#)
- [RLST 359.3](#)
- [RLST 365.3](#)
- ~~RLST 300.3~~

### **Early Judaism and Christianity **in Context****

- ~~RLST 113.3~~
- ~~RLST 227.3~~
- [RLST 361.3](#)
- [RLST 363.3](#)
- [CLAS 252.3](#)
- ~~CLAS 259.3~~
- ~~HIST 306.3~~
- [HIST 209.3](#)
- [HIST 217.3](#)

- [HIST 221.3](#)
- [HIST 230.3](#)
- [HIST 308.6](#)
- [HIST 331.3](#)
- [HIST 335.3](#)
- [HIST 402.3](#)
- [PHIL 202.3](#)
- [PHIL 208.3](#)
- [PHIL 209.3](#)

### **Near Eastern and Classical Archaeology**

- ~~[ARCH 243.3](#)~~
- [ARCH 244.3](#)
- [ARCH 252.3](#)
- ~~[ARCH 362.6](#)~~

### **Languages**

- [GRK 112.3](#)
- [GRK 113.3](#)
- [HEB 114.3](#)
- [HEB 117.3](#)
- [LATN 112.3](#)
- [LATN 113.3](#)

Rationale: The Jewish and Christian Origins Minor was approved in 2009, and requires updating subsequent to course additions and deletions. The option of taking Language courses instead of/in addition to Archaeology courses is in response to the deletion of ARCH 243 and 362, is appropriate to the scope of the Minor, and gives students more leeway to fulfill the requirements of the Minor. The heading "Early Judaism and Christianity" has been changed to "Early Judaism and Christianity in Context" to recognize the expanded scope of the cognate courses, especially with reference to the Graeco-Roman historical and philosophical milieu.

## **DIVISION OF SCIENCE**

### **New Course(s):**

#### **INTS 102.3 Studying in Science Essential Skills and Strategies**

1/2 (3L-1P) This course provides beginning undergraduate students with a core set of essential skills and academic strategies to bring their personal strengths forward for success in science and related professional programs. Key topics which will be explored through a combination of lecture and experiential learning include the nature of science, methods of discovery and communication in science, methods of teaching and evaluation used in the sciences, writing for the sciences, and forms of reasoning and argumentation (including mathematics) that are foundational to scientific literacy.

Prerequisite: Students must have completed fewer than 60 credit units including not more than 15 credit units from ACB, ASTR, BIOC, BIOL, BMSC, CHEM, CMPT, EP, GEOL, MATH, MCIM, PHPY, PHYS, STAT, TOX, or any GEOG courses that have been identified as "Science Program Type" courses.

Note: INTS 102 will be significantly distinct from INTS 101 'Strategies for Academic Success' with complementarity, but limited overlap, in content.

Instructor(s): Dr. Sandy Bonny

Rationale: First-year university students encounter differences between high school science and the academic environment of post-secondary science including novel grading systems, class sizes, styles of knowledge acquisition, standards of communication, sources of support, and responsibilities related to self-regulated learning.

INTS 100 'Learning to Learn' was designed to facilitate a smooth transition to higher education by establishing core skills, practices, and foundational knowledge of cognition *general to post-secondary education* to support student success and retention in undergraduate programs (VanderStoep & Pintrich, 2008)<sup>1</sup>. It has been successful, and popular, with nontraditional students including mature students, U-Tran and ESL students, and Aboriginal students. *The area where these students are most demographically under-represented, however, is in science and related professional programs* (including nursing, engineering and kinesiology). For the past two years a 'science-focused' cohort of Aboriginal Student Achievement Program students has taken an INTS 100 section (91) where instructor Sandy Bonny has provided in-class examples and assignments emphasizing topics with special relevance to science and related professional programs. This proposal is to create a new course, INTS 102 'Studying in Science' which is distinct from INTS 100 in providing beginning undergraduate students with a core set of essential skills and academic strategies focused on engagement in science. Key topics will include the nature of science, methods of discovery and communication in science, writing for the sciences, common practices in lecture and laboratory based teaching, and forms of reasoning and evaluation (including mathematics) that are foundational to scientific literacy.

<sup>1</sup>VanderStoep & Pintrich (2008) Learning to Learn: The skill and will of college success (2<sup>nd</sup> ed.). Upper Saddle, NJ: Pearson Education.

## **Interactive Systems Design**

### **Minor Program Revisions**

#### **Bachelor of Arts and Science Four-year in Interactive Systems Design**

Create a Professional Internship Option for this program.

The following entry would appear as an additional entry titled "Professional Internship Option" under the Interactive Systems Design program list in the Course and Program Catalogue.

In the Interactive Systems Design Professional Internship Option, students typically complete 16 consecutive months of supervised work experience with a sponsoring employer in addition to the requirements for an Interactive Systems Design program. Normally, the work placement commences after the student has completed three years of a four-year degree program in Interactive Systems Design. The placement lasts from May 1 of one year to August 31 of the next year. Twelve-month internship placements are also allowed. However, only in exceptional circumstances (e.g. for medical reasons) will a shorter duration work period be permitted. Students should note that an internship is NOT a summer work program.

Benefits to Students: For students who go on internship placements, there are several benefits: (1) acquiring practical training and valuable experience in their prospective career area, adding strength to their résumé, and thus improving their job prospects upon graduation; (2) getting the "inside track" on full-time employment opportunities with the same company in which the student interned, through established professional contacts; and (3) earning an income to help finance the final year of their university education.

Only a limited number of internship placements will be available in a given year. Eligibility for an internship placement will be decided by the Internship Coordinator in the Department of Computer Science, while hiring decisions for internship students are made by the employers.

Students are required to apply by December 1 for admission to an internship in May of the following year. If selected for an internship placement, students must complete all degree requirements, and the following courses:

- CMPT 401.0
- CMPT 402.0

- CMPT 403.0
- CMPT 404.0 (only for students pursuing a 16-month internship)

A student must successfully complete all requirements of the internship option in order to receive the Professional Internship designation on the University transcript.

Interested students are encouraged to contact the Internship Coordinator in the Department of Computer Science for further details about internship opportunities.

Rationale: Canadian companies are starting to offer internship positions that require students to not only have a background in Computer Science, but in design and user experience as well. These student positions are in addition to the traditional Computer Science student internships. Students enrolled in the Interactive Systems Design program would satisfy the requirements for these internship opportunities and we anticipate that employers will be interested in hiring our students.

An internship option for Interactive Systems Design students would provide an excellent opportunity for students to obtain relevant experience outside of academia and build their resumes. We have received a keen interest from existing Interactive Systems Design students who are willing to participate in an internship program.

## **DIVISION OF SOCIAL SCIENCES**

### **Political Studies**

#### **Course deletion(s):**

**POLS 248.3 Foundations of American Government**

**POLS 376.3 Issues in Canadian Foreign Policy**

**POLS 424.3 New Public Management in Canada**

**POLS 434.3 Politics and Literature**

**POLS 462.3 Ethical Issues in International Relations**

**POLS 466.3 Ethnic Conflict and Democracy**

Rationale: The Department is streamlining course offerings as a result of 5 faculty retirements in the recent past. With the exception of POLS 434, which is no longer a focal area for the Department, other courses are offered in each of the above areas, and therefore the sub-disciplines will continue to be covered.

### **Psychology**

#### **Adding a Lower-Level of Concentration**

#### **Bachelor of Arts Minor in Psychology**

#### **[Psychology - Minor](#)**

Students, who, in conjunction with an Arts & Science degree in a different subject, take 18 credit units or more of Psychology courses will receive a Minor in Psychology.

The Minor average in Psychology will be calculated using the grades earned in all courses eligible to be included in the Minor program requirements. Students must complete at least two-thirds of the program requirements (rounded to the nearest highest multiple of 3 credit units) using courses offered by the University of Saskatchewan to meet the Residency requirement.

Rationale: Students have often requested that a Minor in Psychology be made available. The Department is now in a position to have capacity to offer this opportunity for students in all Arts & Science programs to choose this area as a complement to their major course of study.

---

### **Items for Information**

The curricular revisions listed below were approved through the Arts & Science College Course and Program Challenge and are now submitted to the University Course Challenge for information.

## **DIVISION OF HUMANITIES AND FINE ARTS**

### **History**

#### **Course Split**

#### **HIST 271.6 Modern Latin America**

Into:

#### **HIST 277.3 Resistance and Dispossession: Latin America in the 19<sup>th</sup> Century**

1/2 (3L) This course explores the history of Latin America from independence in the early 19th century to the end of WWI. It examines various sources of conflict: conflict between states as the borders of Latin American countries were defined; conflict over the nature of citizenship and rights as many countries ended slavery but sought to deny full rights to blacks and most sought to acculturate or eliminate indigenous cultures; and conflict over access to land and labour. The tumultuous 19th century set the stage for on-going struggle in contemporary Latin America.

Prerequisite(s): 3 credit units 100-Level HIST or permission of Department

Note: Post-1815; Other Regions.

#### **HIST 278.3 Latin America in the 20<sup>th</sup> Century: From Revolution to Repression, Neo-Liberalism to Indigenous Resurgence**

1/2 (3L) This course explores the history of Latin America from the 1920s to today. It mixes economic, social, political, intellectual and environmental approaches. Important themes that will be explored include the rise of radical political ideas in the 1920s, revolutionary movements in the 1950s to the 1970s, the spread of a repressive national-security state abetted by US military assistance in the 1960s and 1970s, the dominance of neo-liberal economic models in the wake of the debt crisis in the 1980s, the emergence of vibrant indigenous and popular struggles in opposition in the 1980s and 1990s and the nature of the Latin American social democratic alternatives, as diverse as Brazil under the Workers' Party and the Bolivia under Evo Morales. The course will also explore the influence of the drug trade on Latin American society and politics, and contemporary environmental and social conflicts over mining and other resource extraction.

Prerequisite(s): 3 credit units 100-Level HIST or permission of Department

Note: Post-1815; Other Regions.

Rationale: The Department has eliminated 6 cu. courses except at the 400 level.



---

---

**INTEROFFICE MEMORANDUM**

---

---

**TO:** MS. SEANINE WARRINGTON  
COORDINATOR OF ACADEMIC PROGRAMS & CATALOGUE, SESD

**FROM:** MR. CHRISTOPHER MARTIN  
ACADEMIC PROGRAMS COORDINATOR, COLLEGE OF ENGINEERING

**SUBJECT:** UNIVERSITY COURSE CHALLENGE – MARCH 2015

**DATE:** MARCH 10, 2015

**CC:** DR. BRUCE SPARLING  
INTERIM ASSOCIATE DEAN ACADEMIC, COLLEGE OF ENGINEERING

---

Ms. Seanine Warrington:

On behalf of the College of Engineering, I am writing to inform you that the attached curricular revisions were approved by our college-level Undergraduate Academic Programs Committee and are now submitted to the University Course Challenge for review and approval.

Should any members of the university community have any questions or concerns regarding the proposed changes, please do not hesitate to redirect such inquiries to me directly.

Sincerely,

Christopher Martin, B.B.A.  
Academic Programs Coordinator  
College of Engineering  
Phone: (306) 966-3201

**UNIVERSITY COURSE CHALLENGE – REQUIRED SUBMISSIONS**

**DEPARTMENT OF ELECTRICAL AND COMPUTER**

<b>Type of Change:</b>	<b>Prerequisite Change</b>
Course In Question:	EE 241.3: Introduction to Electrical Power Systems
Original Prerequisites:	MATH 123 and MATH 124 and PHYS 155
Proposed Prerequisites:	MATH 123 and MATH 124 and EE 202
Date of Implementation:	March 2015
Rationale for Change:	The change in prerequisite better prepares students for the course.
<b>Type of Change:</b>	<b>Prerequisite Change</b>
Course In Question:	EE 343.3: Power Electronics
Original Prerequisites:	EE 221
Proposed Prerequisites:	Prerequisite(s): EE 221 Pre/Co-Requisite(s): EE 341
Date of Implementation:	March 2015
Rationale for Change:	The Undergraduate Academic Programs Committee (College of Engineering) approved changing the labelling of EE 443 to EE 343 in July 2014. While the labelling had been successfully changed, the prerequisite requirements did not transpose from the original course label to the new course label.

**UNIVERSITY COURSE CHALLENGE – FOR INFORMATION**

**DEPARTMENT OF MECHANICAL ENGINEERING**

<b>Type of Change:</b>	<b>Course Label Change</b>
Course In Question:	GE 226.3: Mechanics III
Original Course Label:	GE 226.3: Mechanics III
Proposed Course Label:	ME 226.3: Mechanics III
Date of Implementation:	May 2015
Rationale for Change:	<p>Historically, this course was taken by students registered in multiple disciplines. Currently, the course is only taken by Mechanical Engineering students, is delivered by Mechanical Engineering faculty, and resources are allocated from the Mechanical Engineering budget.</p> <p>The course content and description remains unchanged.</p>

## **College of Graduate Studies and Research**

The curricular changes listed below are submitted to the University Course Challenge.

### **University Course Challenge – March 2015**

For approval:

#### **NEW COURSES**

##### **CE 835.3: Road Safety Engineering**

CE 835 Road Safety Engineering course is designed to provide graduate students with a strong theoretical and methodological foundation for road safety analysis. This course will focus on the analysis of road accident data, the evaluation of safety countermeasures, and the roadway design consistency, etc.

Prerequisites: CE 329 Traffic Engineering I (or equivalent), GE 210 Probability and Statistics (or equivalent), or approval from the Instructor

Instructor: Peter Park, PhD

Rationale: To introduce advanced techniques and principles in the area of road safety. An example includes systemic selection of engineering safety countermeasures for rural highways and application of accident reduction factors described in AASHTO's 2010 Highway Safety Manual.

##### **FREN 815.3: Applied Translation Theory**

Translation theory is given a practical application as students select and translate works which notoriously resist translation: theatre, song, poetry and political texts. Each work will be accompanied by a preface detailing the theoretical implications behind the choices made in translation, with the aim being for students to build their own creative translation portfolio.

Prerequisite: Admission to graduate studies in French.

Instructor: Anne-Marie Wheeler, Associate Professor

Rationale: This course is intended for advanced French literature students, or students with a working/reading knowledge of French with the permission of the instructor. Students will develop a foundation in contemporary literary criticism through the identification and discussion of key arguments, and practice in applying theoretical underpinnings to their own close-readings of literary texts and translations.

##### **FREN 814.3: Advanced Topics in Translation Theory**

Translation Studies has emerged as a vital branch of Literary Criticism situated as it is at the intersection of Deconstruction, Post-Colonial and Feminist Theories, among others. Its importance is only gaining momentum with the speed of modern communication and the worldwide translation economy. This class provides the tools for understanding texts on and in translation.

Prerequisite: Admission to graduate studies in French.

Instructor: Anne-Marie Wheeler, Associate Professor

Rationale: Bilingualism places people at a unique advantage to analyze the effects of the current wholesale translation of texts into English, especially since most of the seminal works in translation theory were written by French theorists. Thus, this course increases our department's graduate offerings, while giving our students a chance to contextualize the practical translation lessons acquired in the popular undergraduate-level translation courses.

### **FREN 845.3: Advanced Topics in Québécois Theatre**

The purpose of this course is to present a survey of historical, political and cultural events leading to the creation and development of anti—establishment Quebecois theatre in the period from the late 1940s to the late 1970s. More particularly, students will study the ways in which Quebecois theatre of that period reflected the significant changes that took place (luring Quebec's Quiet Revolution, with a focus on Quebecois identity and nationalist sentiment). They will examine changes in the themes and techniques used in theatre that reflected a collective desire for decolonization during that time. A study of the works of three renowned Quebec playwrights, based on an analytical approach, will be used to illustrate these points.

Prerequisite: Admission to graduate studies in French.

Instructor: Marie-Diane Clarke, Assistant Professor

Rationale: The intention is to provide graduate student of French with a larger array of French-Canadian courses. The Department currently offers courses in the field of Québécois Theatre at the undergraduate but not the graduate level. This course will give students the opportunity to deepen their knowledge of Québécois literature in the area of theatre.

### **ENVS 824.3: River Science**

This course will teach students the fundamentals of biophysical science as applied in riverine settings. It will begin by examining physical and biological processes that naturally occur in rivers, then layer on top of that understanding the influence of climatic variables (ice and evaporation) and human influences (river channel modification and contaminant loading).

Prerequisite: undergraduate degree in natural sciences or engineering, or special permission from the instructors

Instructors: Tim Jardine, PhD, Karl Lindenschmidt, PhD

Rationale: This course provides foundational knowledge of river systems, a key biophysical unit in the landscape and one that is under duress from human influences. It therefore provides specialized training within SENS for students in three existing programs (MSEM, MES, PhD) and will also be an elective offered within the proposed new Master's in Water Security (MWS) degree.

### **ENVS 825.3: Water Resources Management in Cold Regions**

This course exposes students to the management of water resources in cold regions, both through western science and Traditional knowledge. It focuses on the following components of the hydrological cycle: river ice, snow and permafrost. Real examples from consulting services will also be included as in-class activities.

Prerequisite: undergraduate degree

Instructors: Karl Lindenschmidt, PhD

Rationale: Most of Canada is considered to be in a cold region with seasonal cold regions climatic and hydrologic conditions. Hence, it is imperative for students wishing to become water resources managers in Canada to receive training specific to the climatological and hydrological processes of cold regions, which includes Canada's Prairie and sub-arctic region. A human dimension is also included to make students aware of the social milieu in northern communities. This course therefore provides specialized training within SENS for students in the three existing programs (MSEM, MES, PhD) and will also be an elective offered within the proposed new Masters' in Water Security (MWS) degree.

### **ENVS 826.3: Climate Change**

This course will help the student develop a fundamental understanding of the climate system, and the potential environmental and social consequences of climate change. Students will also gain a broad knowledge of climate change, climate change impacts in the water cycle, arctic hydrology and how it is related to sea level rising.

Prerequisite: An undergraduate degree in an environmental discipline or permission of the instructor.

Instructor: Yanping Li, PhD

Rationale: This course is designed for graduate students in SENS and other environmental disciplines (e.g. environmental science, geography, water resources, and environmental studies), especially for students with diverse backgrounds. Knowledge of climate systems and climate change will be needed by these students in their future academic and professional careers. For this course, students will learn how the earth systems interact with each other, how the climate system respond to changes, the history of the Earth's climate and how it can be used to predict the future climate change, how burning fossil fuel will influence the climate, as well as the potential environmental and social consequences of climate change.

### **ENVS 827.3: Breakthroughs in Water Security Research**

Seminar that investigates the latest in water security research nationally and internationally. Developing awareness and understanding for major concepts in water security and helping students understand what constitutes world class research.

Instructor: Jeffrey McDonnell, PhD

Rationale: The purpose of this course is to expose students to the latest research in water security and to connect students to the top research in the field internationally. To aid in students understanding of what constitutes world class research and to further develop awareness and understanding of major concepts in water security. Through this course students will also learn the art of journal article reading, how to critique scientific work and what makes for a good paper.

### **CE 833.3: Water Resources Development**

Water Resources Engineering is a highly interdisciplinary field that links physical sciences, basic sciences, and social sciences together. This course builds on and supplements undergraduate hydrotechnical courses especially Hydrology (CE 319). The course focuses on three major parts of water resources engineering practice: Part I – Watershed Analysis and Simulation; Part II – Water Use and associated Analysis; and Part III – Water Excess management and associate

Analysis. It includes consideration of water resources systems and their management, establishment of the various data needs for water resource systems analysis, the use of economics as a decision-making tool in water resources engineering. While focused on the engineering aspects of water resource management, the student is also exposed to the broader issues which impact the management decisions of the resource (e.g., social, environmental, ethical).

Prerequisite: CE 319

Instructor: Amin Elshorbagy, PhD

Rationale: The graduate program at the Department of Civil & Geological Engineering does not have any course that addresses issues of impact of urbanization on watershed infrastructure, human intervention with the hydrological cycle (e.g., irrigation, hydropower), water resources development, and socio-economic aspects of extreme water-related phenomena (floods and droughts). Such a graduate course does not exist on campus, and thus, it is needed.

### **PUBH 815.3: Water and Health**

This course explores the multi-faceted relationship between water and human health. It explores a broad range of issues and concepts covering material from global, regional and local contexts related to the central role of water in preserving health; the influence of natural, anthropogenic and microbial contamination; costs/benefits to health as determined by water access, supply and treatment; and the social, cultural, regulatory and political dimensions of water.

Prerequisite: Registration with the College of Graduate Studies and Research

Instructor: Lalita Bharadwaj, Associate Professor

Rationale: This course has been recommended as an elective for the proposed 12-month project-based Master of Water Security degree through the School of Environment and Sustainability. This course has been taught concurrently for two terms with positive enrollment. Further, the university offers multiple courses on water and related subjects, but none on the central role that water plays in health. In particular, the course will help students to understand the central role of water in health; to become familiar with the connection between water and health indices; to understand the threats to health associated with water-borne pathogens and chemical contaminants in drinking water supplies; to become familiar with the social, cultural, regulatory and political dimensions of water; and to become familiar with different disciplinary approaches for addressing the linkages between water and health.

For information:

## **COURSE MODIFICATION**

### **JSGS 831.3 — 1/2(3S)**

#### **Public Management Seminar Performance Management**

The course examines the principles underlying the application of selected aspects of public management and examines ways in which governments apply the principles. The course compares approaches of different governments and examines some specific applications and strives to develop in students the competencies required of public servants.

Restriction(s): Admission into the Master of Public Administration (M.P.A.) program, Master of Public Policy (M.P.P.) program, Ph.D. program, or by permission of the instructor.  
Note: This course will be offered at the U of R.



## **College of Kinesiology:**

New Course Proposal:

### **KIN 434.3 Coaching Practicum**

Total Hours: Lecture Seminar Lab Tutorial- 6 Other- 50+

This course provides further application of sport coaching theory to practice. Students will plan, implement and evaluate aspects of coaching pedagogy, sociology, and sport science while coaching their selected sport. This occurs during coaching sessions within a selected coaching environment, throughout a season of practices and games/events.

Prerequisite: **KIN 121, KIN 122, KIN 150**

Rationale for introducing this course.

This course will provide an opportunity for Kinesiology students to gain valuable experience in a sport of their choosing. The experiential learning environment will challenge the student to put theory into practice and at the same time provide leadership development. The proposed course will provide prospective coaches with the experiences to increase their understanding of the role of a coach and further prepare them to be engaged with the community and/or schools through coaching.