

Minutes of the Sixth Senate Meeting  
Held Friday, January 14, 2011  
ITEC Lecture Theatre, Robertson Library, 3:00 p.m.

Present: G. Bradshaw, D. Buck, B. Campbell, L. Chilton, D. Coll, K. Critchley, D. Dahn, S. Dawson, B. Deziel, R. Domike, G. Doran, I. Dowbiggin, L. Edwards, T. Goddard, K. Gottschall-Pass, F. Gray, K. Kielly, N. Kujundzic, R. Kurial, C. Lacroix, M. Leggott, R. Livingstone, B. MacLaine, W. MacLauchlan, K. Murnaghan, M. Murray, F. Papps, J. Randall, M. Shaver, D. Sims, H. Stryhn, M. Sweeney-Nixon, S. Thomas, B. Wagner

Regrets: B. Davetian, R. MacDonald, D. Reynolds, D. Seeler

Absent: B. Banks, W. Bradley, P. Callbeck, M. Doyle, A. López, J. MacAulay, R. Saada, K. Schultz

The Chair called the meeting to order.

**1. Approval of Agenda**

**Moved** (L. Edwards/M. Murray): to approve the agenda.

**Carried**

**2. Approval of Minutes of December 3, 2010**

**Moved** (K. Murnaghan/L. Edwards): to approve the minutes of December 3, 2010.

**3. Business Arising from the Minutes of December 3, 2010**

Further to the recent events recorded in the media on the issue of the Homburg group and UPEI, the Chair noted that discussions will carry on in the new year with Dean MacDonald representing the University. If there is any further attention required of the Senate, the Chair will provide updates as appropriate.

**4. President's Report**

- 2011 New Year's Levee hosted by the President, W. MacLauchlan; Chair of Board, F. Hyndman; President, Alumni Association, P. Morrison; and President designate, Dr. Alaa Abd-El-Aziz welcomed over 500 alumni and friends. It was the second time it was held on campus. We have successfully laid the ground for a new tradition.
- Tamara Leary, Director of Student Services has resigned and Laura Lee Noonan has been appointed interim director. Tamara is completing her PhD and is moving into the teaching phase of her career. We wish her well.
- Today is the final day for candidates for the Decanal searches and the short list will soon be ready. Dr. Jim Randall is Chair of the Committees.
- Call for nominations for Professor Emeritus for Convocation 2011. The deadline is February 1, 2011.
- Diversity week is being held January 17. There are numerous activities planned.
- International Development week is being held the second week of February with a luncheon planned for Friday, February 11. The keynote speaker for the luncheon is the Hon Romeo Dallaire.
- Career Fair will be held on February 2, 2011 from 10:00 - 2:00 in the W. A. Murphy Student Centre
- Students in the specialization in International Education program are planning a fundraiser on January 28 at 7:00 in the APM Centre in Cornwall. The funds raised will support student travel in 2011 to complete practice-teaching placements in schools in more than 25 countries.
- Three fourth year Veterinary Medicine students along with Dr. John VanLeeuwen will spend three weeks in Kenya working with veterinarians, animal health technicians and smallholder dairy farmers to improve the health and productivity of dairy cattle

- Staff Achievement Awards were presented at the campus Christmas Social on December 16. Three UPEI staff were recognized for these awards. Jay MacPhail received the Staff Achievement Award for career contributions; and Treena Smith and Karen Dempsey were co-recipients of the first Creative Initiative Award. Congratulations.
- Dr. Vera Dewar and the late Eileen (McMillan) Fulford have donated over \$700,000 towards the construction of the new building which will house Nursing and Family and Nutritional Sciences, including the new Kinesiology program.
- Congratulations to Dr. Michael van den Heuvel on the renewal of his Tier 2 Canada Research Chair in Watershed Ecological Integrity.
- Search is underway for a Fair Treatment Advocate and Leadership Development Officer
- There will be a book launch and celebration of publications and new creative works over the past year for the Faculty of Arts on Friday, January 28, from 4:00 - 6:00 in the Faculty Lounge.
- The Board of Governors and Senate Liaison Committee will be meeting soon to further promote communications and Board-Senate interactions.

## **5. Senate Reports**

### **Academic Review and Planning Committee**

#### **Third Curriculum Report**

##### **Faculty of Veterinary Medicine**

**Moved** (J. Randall/B. Deziel): to approve the following new courses:

VCA 844 - Clinics in Diagnostic Imaging I  
 VCA 845 - Clinics in Diagnostic Imaging II  
 VCA 846 - Alternative Imaging - Techniques and Applications  
 VCA 852 - Clinics in Advanced Diagnostic Imaging I  
 VCA 853 - Clinics in Advanced Diagnostic Imaging II

**Carried.**

**Moved** (T. Goddard/S. Thomas): to approve the following new courses:

ED 631 - Leadership in Postcolonial Education  
 ED 632 - Leadership in Languages and Literacy

**Carried.**

##### **Faculty of Science**

##### **Department of Computer Science and Information Technology**

**Moved** ( C. Lacroix/M. Sweeney-Nixon): to approve the following new courses:

CSC 185 - Co-op Work Term I  
 CSC 285 - Co-op Work Term II  
 CSC 385 - Co-op Work Term III  
 CSC-485 - Co-op Work Term IV  
 CSC-486 - Co-op Work Term V

**Carried.**

**Moved** ( C. Lacroix/D. Dahn): to approve the following new courses

CSC 395 - Special Topics in Computer Science  
 CSC 222 - Physics of Gaming

**Carried.**

**Moved** ( C. Lacroix/M. Sweeney-Nixon): to approve the following changes to the Computer Science major:

The program requires a total of 120 semester hours of course credit. A total of 48 semester hours of Computer Science is required: ~~39~~ **42** semester hours of core courses, plus ~~9~~ **6** semester hours of electives above the 100 level. The core consists of Computer Science 151-152, 241, 252, 261, 282, 332, 342, 352, 361, 371, 421, 481, and 482. All core courses have three semester hours of credit. The required Mathematics courses are: Mathematics 151-152, 221, 242, 261.

**Carried.**

**Moved** ( C. Lacroix/T. Goddard): to approve the following changes to the Video Game Programming:

### **Video Game Programming**

To achieve a specialization in Video Game Programming, the student must complete the following courses in addition to the normal requirements for a major in computer science: IT 132, CS 212, CS 222, CS 311, CS 312, CS 435 and CS 436. ~~Physics of Gaming, and the Mathematics course Applied Geometry.~~ In addition, students must take CS 483 instead of CS 482.

**Carried.**

**Moved** ( C. Lacroix/R. Livingstone): to approve the following calendar course descriptions, prerequisites and/or contact hour changes:

### **151 INTRODUCTION TO COMPUTER SCIENCE I**

This course is the first of a two-course sequence designed to introduce ~~Computer Science fundamentals to students who intend to continue with further studies in the discipline.~~ the fundamentals of Computer Science and prepare students for further studies in this or related fields. The major emphasis is on modelling and programming fundamentals using Emphasis is on problem solving and software development in a high level object-oriented language such as Java.

Topics include ~~the programming process, class design, object behaviour, control structures, primitive data types, input/output, graphical user interfaces, collection classes, elementary searching, and sorting.~~ computer fundamentals; the programming process; language syntax and semantics; simple data types, classes, methods, expressions, control structures, input/output, arrays, and graphical user interfaces.

PREREQUISITE: Grade XII academic Mathematics.

Three lecture hours and 1.5 hour of laboratory session a week.

NOTE: CS 151 and Engineering 132 cannot be double credited

### **152 INTRODUCTION TO COMPUTER SCIENCE II**

This course continues the development of object-oriented programming topics introduced in CS 151. ~~It is intended for students who plan to continue with further Computer Science courses.~~ Topics include elementary searching and sorting, inheritance, polymorphism, recursion, exception handling, graphical user interfaces, introduction to data structures (lists, stacks, queues, trees, graphs), threads, network programming.

PREREQUISITE: CS 151 with a minimum grade of 60%

Three lecture hours and 1.5 hour of laboratory session a week.

### **212 NON-TRADITIONAL PLATFORM COMPUTING**

This course introduces the student to programming in non-traditional environments, including ~~video game consoles, cell smart~~ **smart** phones and other mobile platforms. The course will present a ~~thorough~~ study of the architectures, operating systems and native languages of ~~the~~ these devices.

PREREQUISITE: CS 261 and CS 252

Three lecture hours per week.

### **241 DIGITAL SYSTEMS**

This course provides an introduction to digital systems, beginning with elementary components such as logic gates,

~~from which are constructed components such as adders and comparators, and progressing to more complex systems such as programmable logic devices, memory and processor units. Students acquire skills in the design and analysis of combinational and sequential digital systems, CAD design and simulation tools for complex systems, and construction of digital systems based upon a modular methodology. Familiarity with TTL gates, the MAX-Plus design platform and hands-on work with Programmable Logic Devices will be the focal points in the laboratory.~~

~~PREREQUISITE: CS 151 or Engineering 132, and six semester hours of Mathematics; CS 152 or Engineering 132, three semester hours of Mathematics, or permission of the instructor (based on completion of CSC 151 with first class standing)~~

~~Three lecture hours and a three hour laboratory session a week.~~

### **282 INTRODUCTION TO SYSTEM PROGRAMMING**

~~This course introduces the student to development tools, system programming, elementary networking in the UNIX environment, and C/C++ in the Unix/Linux environment, including C programming from the perspective of a second language. Topics include development tools, shell programming, debugging, editing, file and directory management, C and C++ programming and programming tools, the X-window system, inter-process communication and basic TCP/IP networking. common utility programs, processes and file/directory management. This course provides the fundamental tools necessary for software development in the advanced Computer Science courses.~~

~~PREREQUISITE: CS 152 or permission of the instructor (based on completion of CSC 151 with first class standing)~~

~~Three lecture hours a week~~

### **312 TOPICS IN NON-TRADITIONAL PLATFORM COMPUTING**

~~This is a project-driven course that will concentrate-concentrates on various emerging non-traditional platform technologies. Project Technologies will vary from year to year, as selected by the department.~~

~~PREREQUISITE: CS 212 or permission of the instructor~~

~~Three lecture hours a week~~

### **342 COMPUTER COMMUNICATIONS**

~~This course introduces the basic principles of data communication: media, analog and digital transmission, encoding, timing, multiplexing, error detection, data link control, network topologies, switching and routing techniques, protocols, architectures, and standards. modern computer communication: protocols, architectures and standards. Topics include layered architectures, data transmission, error and flow control, medium access, routing, congestion control and common internet application protocols.~~

~~PREREQUISITE: CS 252 and CS282~~

~~Three lecture hours a week.~~

### **352 OPERATING SYSTEMS**

~~This course introduces the student to the major concepts of modern operating systems. Topics covered include: process management, memory management, file systems, design methodologies, architectural support, security and design and implement some components of a simple operating system: device management and security.~~

~~PREREQUISITE: CS 252, CS 261 and CS 282~~

~~Three lecture hours a week.~~

### **362 OBJECT-ORIENTED DESIGN**

~~This course examines the principles of object-oriented design and their implications for software design, through the use of object-oriented languages such as C++ and Java., and others like C#, Delphi, Smalltalk, Eiffel. Topics include unified modeling language, encapsulation, inheritance, polymorphism, software reuse, object interactions, and principles of design patterns.~~

~~PREREQUISITE: CS 261~~

~~Three lecture hours a week.~~

### **371 DATABASE SYSTEMS**

This course introduces the fundamental concepts necessary for the design, use and implementation of database systems. Topics discussed include: logical and physical organization of data, database models, data independence, design theory, data definition and manipulation languages, constraints, views, and embedding database languages in general programming languages.

PREREQUISITE: CS 261

Three lecture hours a week.

### **411 ARTIFICIAL INTELLIGENCE AND AUTOMATED REASONING**

This course introduces general problem-solving methods associated with automated reasoning and simulated intelligence. Topics include problem abstraction, state space heuristic search theory, pathfinding, flocking behaviour, knowledge representation, propositional logic, ~~the programming language Prolog~~, reasoning with uncertainty, machine learning and connectionism.

PREREQUISITE: CS 261

Three lecture hours a week.

### **421 PROFESSIONAL PRACTICE**

This course ~~prepares students for a career as a computing professional~~: prepares students to think critically about essential and potentially controversial issues in information technology. Topics discussed include ethics; security; privacy and civil liberties; risk and liability; intellectual property; and certification standards. Professional and academic writing and presentation skills are also addressed.

PREREQUISITE: Global Issues 151 or English 101; and 3rd year standing in either the Computer Science program or Business Administration program pursuing a Minor in Business Information Technology ~~minor in IT and Global Issues 151~~.

Three hours a week.

### **481 SOFTWARE SYSTEMS DEVELOPMENT**

This course emphasizes the theory, methods and tools employed in developing medium to large-scale software which is usable, efficient, maintainable and dependable. Project management is a major focus. Topics include traditional and agile process models, project costing, scheduling, team organization and management, project life-cycle models, requirements modelling/specification, user interface design, software design, software verification and testing, ~~CASE tools, maintenance, configuration~~, and re-engineering.

PREREQUISITE: 4th year standing in Computer Science.

Three lecture hours a week.

### **482 SOFTWARE SYSTEMS DEVELOPMENT PROJECT**

In this course students propose, complete and present a significant group software project ~~either individually or as part of a group. In doing so the student is expected to applying using~~ the system development skills learned in CS 481. The course applies object-oriented design principles through the use of UML. Students are encouraged to select (with the consent of the instructor) a project with a real-world client. ~~It is recommended that students work in teams and that teams have a project selected before the commencement of this course.~~

PREREQUISITE: CS 481 (May be taken concurrently in exceptional circumstances)

Three semester hours: One and a half lecture hours a week plus project time

**Carried.**

**Moved** ( C. Lacroix/K. Gottschall-Pass): to approve the course number and description change for the following course:

(Formerly 271) 371 APPLIED DATABASES

This course is an introduction to relational database concepts and design for non-computer science majors. Topics include the logical and physical organization of data, database models, design theory, data definition and manipulation languages, constraints, views, ~~the database development life cycle, data modelling, database design, the Structured Query Language (SQL), database administration, database security,~~ data warehousing and data mining.

PREREQUISITES: IT 121 or CS 151 or permission of instructor.

NOTE: Credit will not be allowed for both IT 371 ~~271~~ and CS 371. Computer science majors will not receive credit for IT 371 ~~271~~.

Three hours a week

**Carried.**

**Moved** ( C. Lacroix/M. Sweeney-Nixon): to approve the following new courses:

Computer Science 471 - Advanced Database Systems

Information Technology 261 - Representation and Storage of Information

Information Technology 342 - Networks and Distributed Systems

Information Technology 382 - Systems Analysis and Design

**Carried.**

**Department of Family & Nutritional Sciences**

**Moved** ( C. Lacroix/K. Gottschall-Pass): to approve the following new courses:

FN 440 - Senior Undergraduate Research Project

FSC 440 - Senior Undergraduate Research Project

**Carried**

**Moved** ( C. Lacroix/K. Gottschall-Pass): to approve the change in prerequisite for FSC 411 - Field Placement I **from** FSc/FN 331, FSc 381, 382 and fourth year standing in Family Science or Child and Family Studies **to** Fsc 381, 382 and fourth year standing in Family Science or Child and Family Studies

**Carried.**

**Moved** ( T. Goddard/M. Sweeney-Nixon): to approve the calendar entry for Bachelor of Wildlife Conservation

**Bachelor of Wildlife Conservation**

This program combines the practical, theoretical, and analytical strengths of courses provided by the Wildlife Conservation Technology diploma program at Holland College, and by the University of Prince Edward Island, for students interested in obtaining rigorous training in wildlife conservation. Students are provided with foundational science courses (e.g., General Chemistry) as well as senior analytical courses in the environmental sciences at the university level (e.g., Biodiversity and Conservation Biology, Marine Biology) to complement the strong field training acquired during the college diploma program. Increased knowledge of the scientific and social issues involved in conservation management, combined with additional training in analytical skills, will provide graduating students with the tools necessary to better address the complexity of problems in this increasingly important field.

The occupational content is introduced at Holland College in the Wildlife Conservation Technology diploma program, normally during the first two years, and fulfills the major part of the practical requirements of the degree program. If students have achieved a minimum 70% average at Holland College, they are eligible to apply to UPEI for formal entry into the Bachelor of Wildlife Conservation degree program. Once accepted to UPEI, students will undertake a rigorous program of 20 courses, 15 of which will be required. The recommended sequence of courses for students who have been accepted into the program is:

Year 3:

Semester 1

Bio 131: Introduction to Cell and Molecular Biology

\*Bio 361: Fish Ecology or Bio 462: Watershed Ecology

ES 201: Introduction to Environmental Studies  
Chem 111: General Chemistry I  
Math 112: Calculus for the Managerial, Social, and Life Sciences

Semester 2

Bio 206: Microbial Diversity  
ES 202: Sustainability and Sustainable Development  
\*Bio 413: Conservation Genetics or Bio 415 Wildlife Health  
Chem 112: General Chemistry II  
\*\*Elective (Group 1)

Year 4:

Semester 1

Bio 391: Marine Biology  
\*Bio 361: Fish Ecology or Bio 462: Watershed Ecology  
Chem 202: Environmental Chemistry  
\*\*Elective (Group 1)  
\*\*Elective (Group 2)

Semester 2

Bio 331: Research Methods and Communications in Biology  
Bio 454: Biodiversity and Conservation Biology  
\*Bio 413: Conservation Genetics or Bio 415: Wildlife Health  
\*\*Elective (Group 1)  
\*\*Elective (Group 2)

\* indicates that one or both courses are offered in alternate years.

\*\* indicates that students can select electives from groups listed below:

Group 1 Electives:

Bio 312 - History of Biology  
Bio 324 - Comparative Vertebrate Anatomy  
Bio 326 - General Physiology  
Bio 335 - Animal Behaviour  
Bio 351 - Biology of Insects  
Bio 366 - Plant-animal Interactions  
Bio 371 - Mammalogy  
Bio 375 - Microbial Diseases and Pathogenesis  
Bio 382 - Evolutionary Biology  
Bio 385 - Environmental Toxicology  
Bio 441 - Directed Studies in Biology  
ES 301 - Integrating Environmental Theory and Practice  
ES 311 - Understanding Climate Change  
Math 222 - Introductory Statistics II

Group 2 Electives:

Can Stud 201 - The Atlantic Region  
Can Stud 202 - The Atlantic Region (Continued)  
Econ 111 - Introduction to Economics  
Phil 101 - Introduction to Philosophy  
Phil 102 - Introduction to Ethics & Social Philosophy  
Phil 105 - Technology, Values, & Science  
Phil 111 - Critical Thinking  
Pol Stud 101 - Introductory Politics I  
Pol Stud 102 - Introductory Politics II  
Psych 101 - Introduction to Psychology: Part I  
Psych 102 - Introduction to Psychology: Part II  
Soc 101 - Introduction to Sociology I

Soc 102 - Introduction to Sociology II

Phil 203 - Environmental Philosophy

**Carried.**

#### **Department of Chemistry**

**Moved** (B. Wagner/M. Shaver): to approve the change of prerequisite for Chemistry 441- Physical Organic Chemistry **from** Chemistry 242 **to** Chemistry 342.

#### **Faculty of Arts**

#### **Department of Music**

**Moved** ( R. Kurial/ I. Dowbiggin) to approve the change to the credit hours for Music 116 - Keyboard Harmony **from** “2 hour credit over two semesters” **to** “ 2 hour credit over one semester” (1<sup>st</sup> semester of second year) and to change the credit hours for Music 216 - Keyboard Harmony **from** “2 hour credit over two semesters” **to** “ 2 hour credit over one semester” (2<sup>nd</sup> semester of second year)

**Carried.**

#### **Department of Religious Studies:**

**Moved** ( R. Kurial/I. Dowbiggin: to approve the title change of Religious Studies 302 - New Religious Movements **to** Cults, Sects, and New Religions

#### **6. Budget Preview Report**

2011-12 Budget Development

G. Bradshaw gave an overview of the budget development challenges for 2011-12 fiscal year and he noted that the budget is being formulated on a status quo basis given the financial position of the Province and the uncertainty of government funding. Mr. Hooper then gave a presentation on the revenue and expense assumptions used in the budget development process. He noted particular challenges this year associated with the mandatory retirement issue, and the pension plan deficit. These factors, in addition to the anticipated Provincial funding and tuition revenues, provided the backdrop for the preliminary estimates on the University's Main Campus budget position. A copy of the presentation will be posted to the VRE.

#### **7. Update on Honorary Degree Committee**

The Chair indicated that the latest nomination for an honorary degree for Convocation 2011 has accepted; all four honorary degree recipients have now confirmed.

#### **8. Other Business**

None

#### **9. Adjournment**

The meeting adjourned at 4:30 p.m.

Respectfully submitted

Kathleen Kielly, Registrar  
Secretary to Senate