

**PURDUE UNIVERSITY  
GRADUATE SCHOOL**

Minutes of the Graduate Council Meeting  
January 22, 2015  
1:30 p.m.

Fourth Meeting  
Room 218AB  
Stewart Center

PRESENT: Mark J. T. Smith, chair; Council Members, Thomas W. Atkinson, John M. Barron, Bedrich Benes, Barrett S. Caldwell, David S. Cochran, Joy L. Colwell, Lucy M. Flesch, Frederick S. Gimble, Inez Hua, Jessica E. Huber, Christopher F. Kulesza, Eric P. Kvam, Linda J. Mason, Kathryn M. Obenchain, Glenn R. Parker, Phillip E. Pope, John H. Schild, Keith E. Schwingendorf, Carol S. Sternberger, Jon A. Story, J. Jill Suitor, Joseph Thomas III, Candiss B. Vibbert (Provost's Representative), Jane A. Walker, Jeffrey L. Whitten, Yan Ping Xin, Howard N. Zelaznik

APOLOGIES FOR ABSENCE RECEIVED FROM: Subramanian Balachander, Frank J. Blalark, James L. Mullins, Mary A. Sadowski, Wenbin Yu

ABSENCES: Michael A. Jenkins, Mark A. Lipton, Suresh K. Mittal, Bill V. Mullen, Cynthia S. Roberts, David G. Skalnik, Holly Wang

GUESTS: Shawn Donkin, Debbie Fellure, Colleen Gabauer, Laura Holladay, Brittany Wright

I. MINUTES

The minutes of the November 20, 2014, Graduate Council meeting were approved as distributed.

II. DEANS REMARKS AND REPORTS

- a) Dean Mark Smith spoke on the Council of Graduate Schools (CGS) conference the Graduate School attended in Washington, D.C. in December. It is an opportunity to get together with colleagues throughout the nation and the world to talk about issues relevant to Graduate Education.

Dean Smith noted the two major topics discussed:

- (1) Advocacy – One of the major roles that CGS plays is to provide advocacy. They talk to Congress and organize a day for them to go to Capitol Hill to meet with Congress and discuss topics relevant to graduate education.

- (2) Training Grants – Dean Smith also stated there appears to be a movement regarding the usual Research Assistantship (R.A.) funded type positions. Greater consideration is being given to training grants where a block of funds would be given to support students and the educational component associated with it. This would be less control than you would have with an RA noting that the emphasis would be different. The requirements to write this grant are different which would require more information, so we need to be aware of this.

Dean Smith noted there are regional subgroups that perform the same type of functions as CGS. Our region is Midwest Association of Graduate Schools (MAGS) which has annual meetings similar to CGS. The next regional meeting will be held in St. Louis on April 15-17. Anyone interested is welcome to attend.

- b) Dr. Pope reported the Indiana Commission for Higher Education (ICHE) has given approval for a Collaborative Doctor of Nursing Practice Degree Program to be offered by the Schools of Nursing on the West Lafayette, Calumet, and Fort Wayne campuses. The University received an approval notice from the Higher Learning Commission (HLC) on December 18, 2014.
- c) Dr. Pope gave a report on pending graduate program proposals in various stages of review/approval.

### III. PRESENTATION

Dr. Janet Beagle, Director, Office of Graduate Admissions, gave a presentation on *Marketing & Recruitment Communication Update*. Dr. Beagle noted the three key duties of the team:

Dr. Beagle stated that applications are up at West Lafayette for 2015 by about 500 from last year. Admissions are steady, and it is too early to predicate the admissions numbers.

Dr. Beagle noted the new application and Client Relationship Management (CRM) system called Slate. Goals for the new system:

- Increase system speed, performance, and availability
- Improve perceptions by student applicants and external recommendation providers
- Enhance functionality to streamline processes and improve outreach to student
- Improve decision support through more accurate data
- Enable paperless application review, recommendation, and admission

A copy of the full presentation may be found on the Graduate Programs Office website, <https://www.purdue.edu/gradschool/academics/gpo.cfm>

IV. AREA COMMITTEE REPORTS (Area Committee Chairs)

*Graduate Council Document 15A*, Graduate Council Documents Recommended for Approval:

Area Committee A, Behavioral Sciences (Jeffrey Whitten, chair; [jwhitten@purdue.edu](mailto:jwhitten@purdue.edu)):  
*Graduate Council Document 14-3b*, **EDCI 63800 Curriculum and Instruction Doctoral Seminar II** (PWL)

Dr. Jeffrey Whitten presented one course for consideration. The course was approved by the council, upon a motion by Dr. Whitten.

Area Committee C, Engineering, Chemistry, and Physical Sciences (Barrett Caldwell, chair; [bscaldwell@purdue.edu](mailto:bscaldwell@purdue.edu)):

*Graduate Council Document 14-23a*, **AAE 52300, Introduction to Remote Sensing** (PWL)

*Graduate Council Document 14-23b*, **AAE 67500, Advanced Signals and Systems for Satellite Navigation** (PWL)

Dr. Barrett Caldwell presented two courses for consideration. The courses were approved as a block by the council, upon a motion by Dr. Caldwell.

Area Committee E, Life Sciences (Frederick Gimble, chair; [fgimble@purdue.edu](mailto:fgimble@purdue.edu)):

*Graduate Council Document 14-15g*, **BIOL 57310, Stem Cell Biology** (IUPUI)

Dr. Frederick Gimble presented one course for consideration. The course was approved by the council, upon a motion by Dr. Gimble.

V. PURDUE GRADUATE STUDENT GOVERNMENT -- PRESIDENT'S REPORT

Mr. Christopher Kulesza, President of the Purdue Graduate Student Government (PGSG), provided information regarding activities of the PGSG since the last council meeting. The following topics were discussed:

- Board of Trustees Search-Bill
- Healthcare Negotiations
- Sexual Harassment Policies
- Grant Program Disbursement
- Graduate Space Organization
- Free Speech and Senate Bylaw Amendment
- PGSG Formal
- GSAW
- Bowling Night
- Career Fair

Senate Activity

- Election Nominations
- Jury Duty and Asian-American Cultural Center
- Board of Trustees Resolution

VI. OLD BUSINESS

- a) Dr. Mark Smith reported on the results for the eMentoring Program project, which had been presented to the members at the November 20, 2014 Graduate Council meeting:
- 1) The Electrical and Computer Engineering experiment had half of the participants divided. The first half had the Myers Briggs matching of personalities; with the second half randomly assigned. The results indicated there is a difference with the quality of mentoring for students when matched by personalities.
  - 2) The Computer Science experiment has one-on-two mentoring instead of one-on-one mentoring; one mentor with two mentees. There is a cost associated with this, so money can be saved by doubling up mentees. The results indicated a slight preference for a one on one relationship.
  - 3) The Mechanical Engineering experiment gives the mentee a new mentor half-way through the semester. At the end of the semester they look at whether it helps to have the experience of two different mentors in one semester. The results were favorable for the switch; they favored one mentor slightly.

Dean Smith noted that the students rated this program very highly.

- b) After a discussion by the dean and the council members, a motion was made (and seconded) for the Graduate Council to endorse the eMentoring Project as an exceptional program and the university's top choice for submission to the MAGS, Program in Excellence Award. This award is to recognize excellence in program innovation. The deadline for the next award is February 20, 2015. The motion was approved by the council.

VII. NEW BUSINESS

Dr. Pope noted that several departments had submitted their Annual Graduate Certificate Reports. These are posted on the Graduate Council's SharePoint website for review by the members.

## VIII. CLOSING REMARKS AND ADJOURNMENT

Dr. Smith noted that the next council meeting will be on February 19, 2015, at 1:30 p.m. in Stewart Center, room 214CD. The council meeting was adjourned by Dr. Smith at 2:37 p.m.

Mark J. T. Smith, Chair

Tina L. Payne, Secretary

## APPENDIX A

### PENDING DOCUMENTS

(February 19, 2015)

#### **BOLDED ITEMS ARE IN REVIEW WITH AN AREA COMMITTEE**

Area Committee A, Behavioral Sciences (Jeffery L. Whitten, [jwhitten@purdue.edu](mailto:jwhitten@purdue.edu)):

*Graduate Council Document 13-9c*, ECET 55800 Mechatronics System Design, Modeling & Integration, (PUC) Pending; additional information

***Graduate Council Document 13-5a*, EDCI 53800 Human Issues in Instructional Technology (PUC)**

***Graduate Council Document 13-6b*, EDFA 53900 School Administration: The Effective School Executive (PUC)**

***Graduate Council Document 13-6a*, EDFA 61700 Legal Aspects in American Education II (PUC)**

***Graduate Council Document 13-4m*, EDPS 52600 Integrating Students with Special Needs: A Civil Rights Movement (PUC)**

***Graduate Council Document 13-4n*, EDPS 52800 Research in Counseling (PUC)**

***Graduate Council Document 13-4o*, EDPS 54600 Addictions Practicum (PUC)**

***Graduate Council Document 13-16b*, ITS 52000 Web Applications, (PUC); This course was resubmitted with a new supporting document, course description, and course learning outcomes by request of Area Committee Chair on 4/18/2014.**

*Graduate Council Document 13-16d*, ITS 57000 Principles of Computer Networks and Communications (PUC); This course is being resubmitted with a new supporting document and course learning outcomes by request of Area Committee Chair on 4/18/2014.

*Graduate Council Document 13-16c*, ITS 55100 Principles of Information Assurance, (PUC) Pending; additional information

*Graduate Council Document 14-21a*, MET 55000, Mechanical System Design and Integration for Mechatronics (PUC) Pending; additional documents

Area Committee C, Engineering, Chemistry, and Physical Sciences (Barrett S. Caldwell, chair; [bscaldwell@purdue.edu](mailto:bscaldwell@purdue.edu)):

***Graduate Council Document 14-13a*, CE 51600 Advanced Selected Topics in Civil Engineering (PFW)**

***Graduate Council Document 14-13b*, CE 51700 Advanced Water Treatment Processes (PFW)**

***Graduate Council Document 14-13d*, CE 51900 Advanced Soil Mechanics (PFW)**

*Graduate Council Document 13-26a*, CHE 55100 Principles of Pharmaceutical Engineering (PWL) Pending; additional information.

*Graduate Council Document 13-26b*, CHE 55300 Pharmaceutical Process, Development and Design (PWL) Pending; additional information.

***Graduate Council Document 14-17a*, FIS 50800 Forensic Science Laboratory Management (IUPUI)**

***Graduate Council Document 14-14c*, ME 58400 System Identification (PWL)**

*Graduate Council Document 14-25a*, Proposal for an M.S. and Ph.D. in Construction and Engineering Management, from the College of Engineering (PWL)

***Graduate Council Document 14-24a*, Proposal for an M.S. and a Ph.D. degree in Environmental and Ecological Engineering, submitted by the College of Engineering (PWL)**

Area Committee E: Life Sciences (Frederick S. Gimble, chair; [edwardsn@purdue.edu](mailto:edwardsn@purdue.edu)):

*Graduate Council Document 14-15b, BIOL 51601 Food Microbiology (PUC)*

*Graduate Council Document 14-15c, BIOL 51605 Environmental Microbiology (PUC)*

*Graduate Council Document 14-15f, BIOL 54410, Sensory Systems (IUPUI)*

*Graduate Council Document 14-15h, BIOL 57410, Molecular and Cellular Bone Biology (IUPUI)*

*Graduate Council Document 14-15i, BIOL 62500, Immune System Disorders (IUPUI)*

*Graduate Council Document 14-12a, CPB 63000 Advanced Veterinary Avian Pathology (PWL)*

*Graduate Council Document 14-12b, CPB 63100 Avian Immunology (PWL)*

*Graduate Council Document 14-12c, CPB 63200 Avian Medicine (PWL)*

*Graduate Council Document 14-12d, CPB 63300 Preventive Avian Medicine Practice (PWL)*

*Graduate Council Document 13-23a, HSCI 57100 Molecular Imaging (PWL)*

*Graduate Council Document 15-1a, NUR 51600 Clinical Applications in Pharmacology Family Nurse Practitioner (PWL)*

*Graduate Council Document 15-1b, NUR 61500 Primary Care of the Young Family Preceptorship (PWL)*

*Graduate Council Document 15-1c, NUR 62700 Primary Care of the Aging Family Preceptorship (PWL)*

*Graduate Council Document 15-1d, NUR 63100 FNP Preceptorship Clinical Synthesis (PWL)*

*Graduate Council Document 14-26a, Proposal for a Ph.D. in Nursing, from the School of Nursing (PWL)*

*Graduate Council Document 14-28a, Proposal for a Professional M.S. in Biology (PNC)*

Area Committee F, Management Sciences (John Barron, chair; [barron@purdue.edu](mailto:barron@purdue.edu)):

*Graduate Council Document 14-20b, MGMT 59100 Launching Global Leaders (PWL)*

*Graduate Council Document 14-22a, OLS 54700, Conflict Management (PNC) Pending; additional documents from proposer.*

*Graduate Council Document 14-22b, OLS 58900, Leadership Ethics (PNC); Pending; additional documents from proposer.*

*Graduate Council Document 14-22c, OLS 59500, Research Methods for Leadership Studies (PNC); Pending; additional documents from proposer.*

*Graduate Council Document 14-22d, OLS 59700, Conflict Management (PNC); Pending; additional documents from proposer.*

*Graduate Council Document 14-27a, Proposal for an M.S. in Leadership, from the College of Business (PNC)*

### **NEW DOCUMENTS RECEIVED**

(After the January 22, 2015 Graduate Council Meeting)

Area Committee A, Behavioral Sciences (Jeffrey Whitten, chair; [jwhitten@purdue.edu](mailto:jwhitten@purdue.edu)):

*Graduate Council Document 15-2a, EDPS 55600, Introduction to Quantitative Data Analysis Methods in Education I (PWL) Sem 1 and 2 SS. Distance Credit 3. Professor Maeda*

This online course is designed to provide an overview of introductory quantitative data analysis methods in education. The course is specially designed to enhance students' quantitative reasoning

and skills through discussions of issues in educational data and authentic data analysis experiences of a variety of education data. The topics to be covered in this course include data collection and description, sampling distributions, methods of quantitative data analysis often used in education research.

*Graduate Council Document 15-2b, EDPS 55700, Introduction to Quantitative Data Analysis Methods in Education II* (PWL) Sem 1 and 2 SS. Distance Credit 3. Professor Maeda

This online course is the second quantitative data analysis methods sequences within the college of education. This course is specially designed to enhance students' quantitative reasoning and skills through discussions of issues in educational data and authentic data analysis experiences of a variety of education data. The topics to be covered in this course include simple/ multiple linear regression, different types of group comparison methods (including n-way ANOVA, ANCOVA, Repeated-measures ANOVA, and Mixed ANOVA). The course is specifically designed: 1) to understand how the quantitative methods covered in the course can be used appropriately to address proposed research questions in education, and 2) to interpret quantitative results meaningfully for a given context.

Area Committee C, Engineering, Chemistry, and Physical Sciences (Barrett Caldwell, chair; [bscaldwell@purdue.edu](mailto:bscaldwell@purdue.edu)):

*Graduate Council Document 14-29a, EAPS 51800, Soil Biogeochemistry* (PWL) Sem. 2. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: Alternate courses are listed in parentheses. CHEM 11000 and CHEM 11200 (CHEM 11500 and CHEM 11600 or BIOL 11000 and BIOL 11100 or BOT 11000 (BIOL 12100) or MATH 16020 or AGR 25500 or equivalent general soils course: EAPS 10900 or equivalent Earth system science course.

This course will provide an introduction to the physical and microbial processes governing the cycling of photosynthetically-produced organic matter on land and in streams and rivers. Organic geochemical transformations in the soil and litter will be highlighted along with methods of characterization of the organic constituents. Biogeochemical concepts of stabilization and destabilization of soil organic matter and stress response of terrestrial ecosystems will be reinforced through manipulation of actual data sets. Professors Filley and Johnston.

*Graduate Council Document 14-29b, EAPS 52700, Principles of Terrestrial Ecosystem Ecology* (PWL) Sem. 2. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: Prerequisites: BIOL 1100 or BIOL 12100, MA 26200 or MA 26500, and MA 26600, CHM 11500, or consent instructor.

The objective of this course is to build a conceptual model of terrestrial ecosystems and to provide students with the state-of-the-art mechanisms by which terrestrial ecosystems work. Topics include ecosystem concept, Earth's climate system, geology and soils, terrestrial water and energy balance, terrestrial production processes, terrestrial decomposition, terrestrial plant nutrient use and cycling, biogeochemical pathways, and ecosystem temporal and spatial dynamics.

We expect students to have a basic knowledge of Biology, Ecology, Chemistry, and Physics in order to master topics covered in the course. If a student lacks some of this basic knowledge, we will work with you to overcome those deficiencies with some additional reading prior to the lecture needing that material.

The course will be a combination of lecture, problem-solving and discussions based on current papers in the literature. The course will have a mid-term exam. The course will also have you design a project and present it to the class and deliver a final project paper. Professor Zhuang.



*Graduate Council Document 14-29c*, **EAPS 52900, Modeling Ecosystems and Biogeochemical Cycles** (PWL) Sem. 1. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: BIOL 1100 or BIOL 12100 and MA 26200 or MA 26500 and MA 26600, and CS 15800 or CS 15900, or consent of instructor.

Process-based models are powerful tools for studying ecosystem dynamics and geochemical cycles in Earth System Sciences. In this course, we will explore how various components of ecosystems can be modeled following principles of biology, physics, and chemistry. We will also examine techniques for using modeling to study: 1) responses of the structure and functioning of ecosystems to changing climate, atmospheric composition, environmental conditions, and human activities; and 2) exchanges of major greenhouse gases (e.g., CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O) between the atmosphere and the biosphere. During the course, we will go through the whole cycle of system modeling approach including model conceptualization, formulation, parameterization, sensitivity and uncertainty analysis, verification, and application. Professor Zhuang.

Area Committee D, Humanities and Social Sciences (Glenn Parker, chair; [parker6@purdue.edu](mailto:parker6@purdue.edu)):

*Graduate Council Document 14-30a*, **ENGL 60400, Introduction to Inquiry in Second Language Studies** (PWL) Sem. 1. Lecture 1 times per week for 150 minutes. Credit 3.

This course surveys a variety of research methods and approaches to Second Language Studies/ESL and provides opportunities for graduate students to engage in various modes of inquiry. This knowledge and experience is a necessary foundation for further coursework in the field, and so ENGL 60400 should be taken early in the graduate student's program of study. Professor Berns.

Area Committee E, Life Sciences (Frederick Gimble, chair; [fgimble@purdue.edu](mailto:fgimble@purdue.edu)):

*Graduate Council Document 14-15k*, **BIOL 56310, Protein Bioinformatics** (PWL) Sem. 2. Lecture 3 times per week for 50 minutes. Credit 3. Prerequisites: BIOL 23100 or BIOL 27000 and BIOL 24100 or BIOL 28000.

Accumulation of biological data, such as genome sequences, protein structures and sequences, metabolic pathways, opened up a new way of research in biology – bioinformatics. Through the survey of the various active research topics in bioinformatics, in this course we will learn bioinformatics databases, tools, and algorithms behind these tools. Special emphasis is placed on protein sequence and structure analyses. Covered topics will include methods for protein sequence comparison, protein structure comparison, protein structure prediction/modeling, protein docking prediction, protein function prediction, and protein network analysis. Professor Kihara.

*Graduate Council Document 14-15l*, **BIOL 58210, Ecological Statistics** (PWL) Sem. 1. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: STAT 50100 or STAT 50300 or STAT 51100 or STAT 51200.

This course covers topics that are useful for successfully designing and analyzing statistically observational and experimental studies in ecology, animal behavior, evolutionary biology, forestry, wildlife sciences, fisheries, etc. Some topics are: differences between hypotheses and predictions, design of an ecological study, general linear models, assumptions, different types of designs (factorial, nested, repeated measures, blocks, split-plots, etc.). fitting models to data, etc. The course will focus on the conceptual understanding of these topics (e.g., interpreting the results of statistical tests) and practice with statistical programs and real datasets. Professor Fernandez- Juricic.

*Graduate Council Document 14-15j*, **BIOL 58610, Sensory Ecology** (PWL) Sem. 1 and 2.  
Lecture 3 times per week for 50 minutes. Credit 3. Prerequisites: BIOL 28600.

The course covers the adaptive significance of sensory information as it relates to ecological interactions in animals. Topics will include an overview of sensory systems, aspects of predator-prey relationships, sexual selection, communication, perception of environmental cues, and animal movement patterns. Professor Lucas and Professor Fernandez- Juricic.