

**PURDUE UNIVERSITY
GRADUATE SCHOOL**

Minutes of the Graduate Council Meeting
March 24, 2016
1:30 p.m.

Seventh Meeting
Room 218AB
STEW

PRESENT: Mark J. T. Smith, chair; Council Members, Bedrich Benes, Richard E. Blanton, Barrett S. Caldwell, Natalie J. Carroll, David S. Cochran, Joy L. Colwell, Carlos M. Corvalan, Lucy M. Flesch, Anne L. Fliotsos, C. Kenneth Holford, Michael A. Jenkins, Brian King, David B. Klenosky, Eric P. Kvam, Linda J. Mason, Suresh K. Mittal, James L. Mohler, M. Razi Nalim, William Novshek, Kathryn M. Obenchain, David G. Skalnik, Joseph Thomas III, Vikas Tomar, Candiss B. Vibbert (Provost's Representative), Jane A. Walker, Jeffrey L. Whitten, Jun Xie, Yan Ping Xin, Howard N. Zelaznik, Andrew K. Zeller

APOLOGIES FOR ABSENCE RECEIVED FROM: Thomas W. Atkinson,
James L. Mullins, Jerry P. Ross, Keith E. Schwingendorf, Carol S. Sternberger,
Jon A. Story

ABSENCES: Alejandro Cuza-Blanco, Jonathan M. Harbor, Mark A. Lipton, Chong Xiang

GUESTS: Leslie Ashburn-Nardo, Debra Burns, Shawn Donkin, Debbie Fellure, Lee Gordon,
Suzanne Hambrusch, Cyndi Lynch, Monica Shively, Jane Williams, Tanisha Willoughby

I. MINUTES

The minutes of the February 18, 2016, Graduate Council meeting were approved as presented.

II. DEANS REMARKS AND REPORTS

- a) Dr. Mark Smith complimented the Graduate Council Area Committee Chairs and Area Committees for their fine work in reviewing new course proposals. We are at a record low in processing as the queues are near empty. He stressed how important it is that new course proposals are being processed in a timely manner.
- b) Dr. James Mohler gave a report on pending proposals in various stages of review and approval.

- c) Dr. James Mohler gave a report on pending course proposals in review with the Graduate Council Area Committees, proposals awaiting additional information from proposers, course proposals requested by departments for removal, and new course proposals received since the previous Graduate Council meeting.

III. AREA COMMITTEE REPORTS (Area Committee Chairs)

Graduate Council Document 16-C, Graduate Council Documents Recommended for Approval:

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

Graduate Council Document 16-5a, CDFS 64300, Children in Family Therapy (PUC)

Graduate Council Document 16-5b, CDFS 64400, Trauma and Recovery in Family Therapy (PUC)

Graduate Council Document 15-28a, CGT 57200, Special Topics in Human-Centered Design and Development (PWL)

Graduate Council Document 15-29a, TECH 53300, Design Theory and Technology (PWL)

Graduate Council Document 15-30b, TLI 52000, Foundations of Innovations Studies (PWL)

Graduate Council Document 15-30b, TLI 52600, Digital Innovation & Transformation (PWL)

Graduate Council Document 15-30c, TLI 52700, Behavioral Analytics (PWL)

Graduate Council Document 15-30d, TLI 62500, Research in Open Innovation I (PWL)

Dr. Jeffrey Whitten presented eight courses for consideration. The courses were approved as a block by the council, upon a motion by Dr. Whitten.

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

Graduate Council Document 15-31a, CS 50010, Foundational Principles of Information Security (PWL)

Graduate Council Document 15-31b, CS 50011, Introduction to Systems for Information Security (PWL)

Graduate Council Document 15-31c, CS 52700, Software Security (PWL)

Graduate Council Document 15-31d, CS 52800, Network Security (PWL)

Graduate Council Document 14-29a, EAPS 51800, Soil Biogeochemistry (PWL)

Graduate Council Document 14-29b, EAPS 52700, Principles of Terrestrial Ecosystem Ecology (PWL)

Graduate Council Document 15-24b, ECE 60614, Reliability Physics of Nanoelectronic Transistors (PWL)

Graduate Council Document 15-24c, ECE 69200, Introduction to Graduate Research (PWL)

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

Area Committee E, Life Sciences (Jane Walker, chair; walkerj@purduecal.edu):

Graduate Council Document 16-4a, AGRY 51400, Environmental Stress

Management for Turfgrass (PWL)

Graduate Council Document 16-4c, AGRY 62400, Plant Ecophysiology (PWL)

Graduate Council Document 16-2a, ENTM 50800, Integrative Insect Taxonomy (PWL)

Graduate Council Document 16-2b, ENTM 64200, Analysis of Ecological Data (PWL)

Dr. Jane Walker presented four courses for consideration. The courses were approved as a block by the council, upon a motion by Dr. Walker.

GRADUATE CERTIFICATE(S):

Area Committee D, Humanities and Social Sciences (Richard Blanton, chair; blantonr@purdue.edu):

Graduate Council Document 16-6a, Graduate Certificate in African-American Studies (Interdisciplinary) (PWL)

Dr. Richard Blanton presented one certificate for consideration. The certificate was approved by the council, upon a motion by Dr. Blanton.

IV. PURDUE GRADUATE STUDENT GOVERNMENT – PRESIDENT’S REPORT

Mr. Andrew Zeller, President of the Purdue Graduate Student Government (PGSG) provided information regarding:

- Competitive pay
- Healthcare
- Grad Bill of Rights
- Graduate Student Issue Advocacy and Service Delivery

V. NEW BUSINESS

Dr. Mark Smith noted there are currently two Purdue schools at IUPUI, the School of Science and the School of Engineering and Technology. Most of the degrees awarded by these schools are Purdue degrees. However, a few are IU degrees. The Provost requested that the Graduate Council consider the addition of two other IU degrees to be housed in Purdue schools on the IUPUI campus: 1) M.S./Ph.D. in Applied Social and Organizational Psychology and 2) Ph.D. in Music Technology. He noted that these degrees had already been approved by IU.

Dr. Smith made a motion to endorse the request to have the IU M.S./Ph.D. in Applied Social

and Organizational Psychology program housed in the IUPUI School of Science and the Ph.D. in Music Technology housed in the School of Engineering and Technology. The motion was approved.

VI. OLD BUSINESS

Dr. Joy Colwell, Professor of Organizational Leadership and Supervision, and Director of Graduate Studies at Purdue University Northwest, Calumet and North Central campuses, presented an update on the progress of the unification of Purdue University Northwest. Dr. Colwell noted the goal for the unification as a single regional institution with two campuses with a single academic structure:

- Purdue University Northwest (PNW), as designated by the Board of Trustees
 - Purdue University Northwest Calumet Campus
 - Purdue University Northwest North Central Campus

Dr. Colwell noted the following:

Timeline

- February 26, 2014: Unification Announced
- February, 2014 – August, 2015: Preparation of Application for Higher Learning Commission (HLC)
- August 1, 2015: Application to HLC
- August, 2015 – February 2016: Fact-Finding Review by HLC Peer Reviewers
- February, 2016: HLC Board Vote
- March 4, 2016: HLC approves Change of Control Application (transaction date)
- July, 2016: Purdue University Northwest will be official. HLC follow up visit in 3-6 months
- August 2021 – Comprehensive visit by HLC Peer Reviewers

Accomplishments

- Alignment of academic programs – substantial progress
- Constitution of Unified Senate in approved by both Senates – moving on to bylaws
- Academic leadership positions for departments and colleges being finalized for new academic structure
- Chancellor – Designate named
- Provost Search ongoing
- Single instance of Banner, emails, website, etc. nearly ready for April 6 go live

Efficiencies

- 11 Colleges become 6 Colleges
- 29 Departments become 16 departments and 3 schools
- Colleges: Humanities, Education, and Social Sciences (CHESS), Technology, Nursing, Engineering and Sciences, Business, Honors

- Schools: White School of Hospitality, Tourism, and Management; Engineering, Education and Counseling

Impact of Unification on Graduate Programs

- Calumet campus has graduate programs in: Engineering (IDE, ME, ECE), Math, Computer Science, Biology, CDFS Communications, English, History, Business, Technology, Nursing, Accountancy, Education, MSV, and Grad Continuing Studies and related certificates
- MS, MA, MSE, MEd, MBA, MAcc, MSMSV, MSME, MSECE, DNP
- North Central campus has MBA and Grad Continuing Studies programs, one certificate
- MBA programs have been aligned for single plan of study
- Unification results in additional graduate faculty to serve on graduate committees and additional areas of faculty expertise
- Enhanced opportunities for grad student staff on the NC campus

VII. CLOSING REMARKS AND ADJOURNMENT

The council meeting was adjourned by Dr. Smith at 2:35 p.m.

Mark J. T. Smith, Chair

Tina L. Payne, Secretary

APPENDIX A

PENDING DOCUMENTS

(March 24, 2016)

BOLDED ITEMS ARE IN REVIEW WITH AN AREA COMMITTEE

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

Graduate Council Document 16-5a, CDFS 64300, Children in Family Therapy (PUC)

Graduate Council Document 16-5b, CDFS 64400, Trauma and Recovery in Family Therapy (PUC)

Graduate Council Document 15-28a, CGT 57200, Special Topics in Human-Centered Design and Development (PWL)

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

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

Graduate Council Document 16-1a, TECH 50801, Quality and Productivity in Industry and Technology (IUPUI)

Graduate Council Document 15-29a, TECH 53300, Design Theory and Technology (PWL)

Graduate Council Document 15-30b, TLI 52000, Foundations of Innovations Studies (PWL)

Graduate Council Document 15-30b, TLI 52600, Digital Innovation & Transformation (PWL)

Graduate Council Document 15-30c, TLI 52700, Behavioral Analytics (PWL)

Graduate Council Document 15-30d, TLI 62500, Research in Open Innovation I (PWL)

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

Graduate Council Document 15-31a, CS 50010, Foundational Principles of Information Security (PWL)

Graduate Council Document 15-31b, CS 50011, Introduction to Systems for Information Security (PWL)

Graduate Council Document 15-31c, CS 52700, Software Security (PWL)

Graduate Council Document 15-31d, CS 52800, Network Security (PWL)

Graduate Council Document 14-29a, EAPS 51800, Soil Biogeochemistry (PWL)

Graduate Council Document 14-29b, EAPS 52700, Principles of Terrestrial Ecosystem Ecology (PWL)

Graduate Council Document 15-24b, ECE 60614, Reliability Physics of Nanoelectronic Transistors (PWL)

Graduate Council Document 15-24c, ECE 69200, Introduction to Graduate Research (PWL)

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

Area Committee E, Life Sciences (Jane Walker, chair; walkerj@purduecal.edu):

Graduate Council Document 16-4a, AGRY 51400, Environmental Stress Management for Turfgrass (PWL)

Graduate Council Document 16-4c, AGRY 62400, Plant Ecophysiology (PWL)

Graduate Council Document 14-15j, BIOL 58610, Sensory Ecology (PWL)

Graduate Council Document 16-2a, ENTM 50800, Integrative Insect Taxonomy (PWL)

Graduate Council Document 16-2b, ENTM 64200, Analysis of Ecological Data (PWL)

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

Graduate Council Document 15-33a, NUTR 62600, Advanced Presentation Skills (PWL)

Graduate Council Document 15-33b, NUTR 62700, Scientific Writing (PWL)

Area Committee F, Management Sciences (Jun Xie, chair; junxie@purdue.edu):

Graduate Council Document 16-3a, AGECE 52800, Global Change and the Challenge of Sustainably Feeding a Growing Planet, (PWL)

Graduate Council Document 15-13b, OLS 53010 Mixed Methods Research (IUPUI)

NEW DOCUMENTS RECEIVED

(After the March 24, 2016 Graduate Council Meeting)

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

Graduate Council Document 16-19a, ENE 68700, Mentored Teaching in Engineering (PWL) Sem. 1 and 2. Lecture one time per week for 50/150 minutes. Variable Credit: 1 or 3. Prerequisites: Registration in or completion of ENE 50600 or ENE 68500; or permission of instructor.

Mentored experience in the teaching of engineering, with structured opportunities for individual reflection. All students create a scholarly teaching portfolio. Students who register for three credits conduct a scholarship of teaching and learning project. May be repeated to a maximum of 4 credits. Professor Loui.

Graduate Council Document 16-14a, PSY 50600, Professional Issues and Trends in Social Psychology (PWL) Sem. 1 and 2. Lecture one time per week for 50/150 minutes. Credit 3. Prerequisites: Consent of department.

This course is designed to help students acculturate to and acquire a broad knowledge of social psychological research. Topics to be covered include but are not limited to: how to apply for academic jobs, how to present your program of research, how to network at conferences, how to develop a website presence, how to approach potential collaborators, and how to structure your research questions in an appropriate manner for grant applications. Professor Tyler.

Graduate Council Document 16-14b, PSY 50700, Current Readings in Social Psychology (PWL) Sem. 1 and 2. Lecture one time per week for 150 minutes. Credit 3. Prerequisites: Consent of department.

This course is designed to expose students to a variety of readings, discussions, and presentations. The seminar examines a diverse assortment of social psychological topics. Students benefit from exposure to current research and methods in the field. Students also benefit from becoming increasingly conversant regarding the latest empirical advances in the field. Professor Tyler.

Graduate Council Document 16-14c, PSY 60601, ANOVA for the Behavioral Sciences (PWL) Sem. 1 and 2. Lecture one time per week for 150 minutes. Credit 3. Prerequisites: Consent of department.

This course is a first-semester graduate statistics course for students in psychology and related fields who conduct quantitative research. The course involves an accelerated review of fundamental concepts (e.g., data visualization, central limit theorem probability), after which the course will focus on statistical techniques for between- and within-person designs that include categorical independent variables (e.g., t-tests, ANOVA). Professor Hennes.

Graduate Council Document 16-14d, PSY 63600, Self and Identity (PWL) Sem. 1 and 2. Lecture one time per week for 150 minutes. Credit 3. Prerequisites: Consent of department.

This seminar explores many issues related to the self from a social psychological perspective. The goal is to develop a better understanding of theory and research dealing with various aspects of the self. To accomplish this goal, students will learn to critically analyze research papers addressing self-related material. Professor Tyler.

Graduate Council Document 16-14e, PSY 66900, Prosocial Behavior (PWL) Sem. 1 and 2. Lecture one time per week for 150 minutes. Credit 3. Prerequisites: Consent of department.

This course is designed to provide a broad and rigorous, graduate-level overview of contemporary scientific research on prosocial processes from the perspective of personality and social psychology. Professor Graziano.

Graduate Council Document 16-14f, **PSY 68800, Research Methods in Social Psychology (PWL)** Sem. 1 and 2. Lecture one time per week for 150 minutes. Credit 3. Prerequisites: Consent of department.

This course provides a broad and rigorous, graduate-level overview of contemporary research methodology in social psychology and personality. The course follows a discussion seminar format. Professor Graziano.

Graduate Council Document 16-20a, **TLI 56200 Foundation of Integrated STEM (PWL)** Sem. 1 and 2. SS. Lecture one time per week for 150 minutes. Credit 3.

This foundational course will provide students with a conceptual understanding of an integrated approach to teaching Science, Technology, Engineering, and Mathematics (STEM). You will evaluate various approaches to integrated STEM including pedagogies in project-based, problem-based, design-based, and inquiry-based approaches to teaching and engage in team teaching to deliver STEM instruction. Additionally, you will synthesize from the literature the various learning theories behind an integrated approach to STEM teaching. Participate in classroom observation in local K-12 classrooms to assess common teaching practices and determine areas of improvement. Professors Kelley and Mentzer.

Graduate Council Document 16-20b, **TLI 66200, Philosophy of Technology (PWL)** Sem. 1. Lecture one time per week for 150 minutes. Credit 3.

The term *technology* has multiple meaning and applications so vast that one clear and all-encompassing definition of the term has become unattainable. However, to build an epistemology of technology, we must explore ways to define technology so to provide a foundation for a philosophy of technology. This course will explore multiple views and definitions of technology embedded within the scholarly work focused on technology in order to build and defend a philosophy of technology. Professors Kelley, Mentzer, and Asunda.

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

Graduate Council Document 16-18a, **EEE 53000, Life Cycle Assessment: Principles and Applications (PWL)** Sem. 1. Lecture three times per week for 50 minutes. Credit 3.

Prerequisites: MA 26200 or equivalent (MA 26500+MA26600 or MA35100+MA 36600), CHM 11500 or equivalent (CHM 12500 or CHM 13500 or CHM 12300), PHYS 17200 or equivalent (PHYS 15200 or PHYS 16200+PHYS 16300): or Graduate Standing.

This course covers the basic concept of life cycle thinking, framework and computational structure of process and economic input-output based life cycle assessment (LCA), state-of-the-art LCA software tools, industrial case studies, and recent advances in LCA methodology. Students are required to complete a group project that could potentially facilitate the adaptation of LCA tools in engineering research, education, or practice. Professor Zhao.

Graduate Council Document 16-18b, **EEE 56000, Environmental and Ecological Engineering in Context (PWL)** Sem. 1 and 2. Lecture 0-2 times per week for 0-110 minutes for 5 or 15 weeks. Laboratory 1-2 times per week for 110-170 minutes for 5 or 15 weeks. Variable Credit: 1 to 3. Prerequisites: Graduate student standing.

An introduction to current challenges and issues in Environmental and Ecological Engineering (EEE) applications. Topics will change from semester to semester and will be announced in advance. The list of possible topics includes current events, emerging challenges, adaptation to

new regulations, innovative environmental and ecological engineering processes, life-cycle impacts of manufactured products, and sustainable management of industrial waste streams. Professors Hua and Mashtare.

Graduate Council Document 16-15a, FS 53100, Science of Experimental Cuisine (PWL) Sem. 1. Lecture two times per week for 100 minutes. Laboratory 1 time per week for 150 minutes. Credit 3. Prerequisites: FS 45300 and FS 45400 or FS 55000.

This course brings together culinary arts and the application of food chemistry and ingredient technology principles. Emphasis will be placed on food construction and deconstruction, using common food preparation and 'molecular gastronomy' techniques. Professor Mauer.

Graduate Council Document 16-15b, FS 53500, Aseptic Processing Technologies (PWL) Sem. 2. Lecture one time per week for 100 minutes. Credit 1. Prerequisites: FS 34100 and FS 36200 and FS 44200 and FS 45300 and FS 46700.

Overview of aseptic processing and packaging systems; thermal processing and fluid flow in continuous heat exchangers; food microbiology, chemistry, and packaging as applied to aseptic processing. Establishing processes for aseptic processing of liquid and particulate foods. Professors Nielsen, Oliver, Farkas and Sadler.

Area Committee F, Management Sciences (Jun Xie, Chair; junxie@purdue.edu)

Graduate Council Document 16-17a, AGECE 59500, Internship (PWL) Sem. 1 and 2. SS. Experiential. Variable Credit 0 to 3.

This course allows students to work in firms, government agencies or non-profit organizations undertaking projects with the supervision of faculty mentors and onsite supervisors. Instructor may vary.

Graduate Council Document 16-16a, HTM 50300, Business Statistics and Quantitative Analysis in Hospitality (PWL) Sem. 1 and 2. SS. Distance. Credit 3.

Data analysis is an important skill for effective managerial decision making. As advances in technology have made substantial amounts of data available to managers, it is increasingly important to be able to convert business data into actionable information. This course deals with the fundamentals of statistical analysis and forecasting techniques. Students will develop the ability to summarize and quantitatively analyze business data and make forecasts while taking into account seasonality and trends. Professor Jang.

Graduate Council Document 16-16b, HTM 51100, Hospitality Business Law and Risk Management (PWL) Sem. 1 and 2. SS. Distance. Credit 3.

This course provides an overview and analysis of the legal aspects of managing a hospitality and tourism business. Risk management principles will be utilized to develop liability mitigation plans. Case studies will be utilized to facilitate students' understanding and application of legal concepts for managing and owning businesses. Topics covered include: the rights and responsibilities of hospitality businesses and owners in the areas of civil rights, employment law, negligence, contract law, relationships with guests and others, licensing, real estate law, and product liability; the principles of risk management; and the fundamentals of business insurance. Professor Nelson.

Graduate Council Document 16-16c, **HTM 51200, Leadership in Hospitality and Tourism** (PWL) Sem. 1 and 2. SS. Distance. Credit 3.

Purdue's HTM is committed to developing global leaders and this course will focus on the knowledge and skills required for effective leadership. Topics will draw upon an extensive body of research on leadership theory and practice and cover organizational behavior and team dynamics, business communication, decision making, motivation, and change management. In addition to specific skill development in the areas of problem-solving, written and oral communications, leading teams, and goal setting, it will include models for examining personal career paths, ethical decision-making, and the role of organizational change-agents. This course will take an interdisciplinary approach and analyze leadership through different lenses and how leadership insights can be effectively applied to hospitality organizations. Students will examine leadership examples where individuals moved an organization from normal to exceptional functioning and extraordinary results. Professor Adler.

Graduate Council Document 16-16d, **HTM 53600, Advanced Service Management for Hospitality and Tourism** (PWL) Sem. 1 and 2. SS. Distance. Credit 3.

The service sector index is a measure of the country's overall economic health. Approximately two-thirds of U.S. economic activity resides in the service sector. Subsequently service firms' focus on the needs of their customers is rewarded by positive customer outcomes such as behavioral loyalty and positive word of mouth. This course explores and informs the design, management, and improvement of firms who operate in the service sector through the theoretical and empirical services management literature. Professor Sydnor.

Graduate Council Document 16-16e, **HTM 54200, Strategic Revenue Management in the Hospitality Industry** (PWL) Sem. 1 and 2. SS. Distance. Credit 3.

In this course, we will treat revenue management as a strategic platform for maximizing property-wide incomes, thus property value. The course is designed to provide students the theoretical foundation, tactical tools, and practical applications of revenue management. At the end of the course, students should be able to identify the problems and challenges during the implementation of revenue management systems and anticipate future trends and prospects. Professor Tang.

Graduate Council Document 16-16f, **HTM 59500, Applied Management Project** (PWL) Sem. 1 and 2. SS. Distance. Credit 3.

In this capstone course students integrate their knowledge across courses to address an issue presented by a corporate client. Students will develop a project scope based on problems presented by corporate clients. Projects may incorporate management, marketing, human resources and financial recommendations to address the issues presented. In addition to preparing the written project report, each team makes a formal presentation of the plan to the professor, the class and a panel of business professionals. Preparing the report involves reviewing and integrating concepts and skills developed in previous coursework. Professor Day.

