

**PURDUE UNIVERSITY
GRADUATE SCHOOL**

Minutes of the Graduate Council Meeting
October 19, 2017
1:30 p.m.

Second Meeting
Room 218AB
STEW

PRESENT: Linda J. Mason, interim chair; Council Members, Thomas W. Atkinson, Ryan A. Cabot, Natalie J. Carroll, David S. Cochran, William (Bart) Collins, Joy L. Colwell, Marius D. Dadarlat, Brian R. Dineen, Lucy M. Flesch, Melissa M. Franks, Jonathan M. Harbor, Takashi Hibiki, Mary E. Johnson, Singe E. Kastberg, David B. Klenosky, Maricel A. Lawrence, James L. Mohler, Melanie Morgan, James L. Mullins, Nancy Pelaez, Jerry P. Ross, Paul Salama, Carol S. Sternberger, Jun Xie, Yan Ping Xin,

APOLOGIES FOR ABSENCE RECEIVED FROM: Kuan-Chou Chen, Michael J. Connolly, Michael C. Loui, Marcela Martinez, Samuel P. Midkiff, Manushag (Nush) Powell, David G. Skalnik, Candiss B. Vibbert (Provost's Representative), Mohammad Zahraee

ABSENCES: Christopher R. Agnew, Janice S. Blum, Carlos M. Corvalan, (Vincent) Jo Davisson, Susan M. Mendrysa, Steven Son, Chong Xiang

GUESTS: Rita Burrell, Patrick Connolly, Debbie Fellure, Eckhard Groll, Barbara Golden
Brittany Wright

I. MINUTES

The minutes of the September 14, 2017, Graduate Council meeting were approved as presented.

II. DEANS REMARKS AND REPORTS

- a) Dr. Linda Mason gave a brief update on the changes for building a new Graduate School. Dr. Mason noted that the Graduate School is looking at different policy changes that will be coming to the Graduate Council. Dr. Mason noted that the Graduate Council will look at these changes and will discuss in order to move them forward.

Dr. Mason noted that the Graduate School will be sending information periodically on ideas that the Graduate School is looking at changing. Dr. Mason will use the Council as a feedback mechanism to get ideas before moving them forward. Dr. Mason noted that part of the reason members of the Graduate Council are on the Council is that they have that connection with their disciplines. Dr. Mason noted that she wants to know what the Council members are thinking before starting a Task Force in moving ideas

forward. Dr. Mason asked the Council to watch for those emails that will ask: 1) What are your thoughts? 2) Could you generate some ideas for us? 3) What is your immediate reaction? 4) Is this a bad idea? 5) What are we missing? 6) As we generate these, we will then move forward with those ideas.

Dr. Mason noted that the Graduate School is currently working on:

- Professional Development presented the Fall Blitz Opportunity during Fall Break on Monday and Tuesday with 64 workshops. The feedback from the students was phenomenal in that they were able to do two days of Professional Development and get a year series completed. The students enjoyed the opportunity with no conflicts such as having teaching assignments or labs in knowing that they could dedicate this time to Professional Development.

Dr. Mason noted that the Graduate School will hold the Fall Blitz again next year. Dr. Mason noted that the Graduate School will be reaching out to additional presenters for other Professional Development Opportunities that we can provide for our students. The Graduate School will also be reaching out to our senior undergraduates who are looking at Graduate School and want to start working on Professional Development. They will be invited to attend the workshops, as well as postdocs.

Dr. Mason noted that there was interest from our new faculty at the New Faculty Orientation in attending the Professional Development Opportunities next year.

Dr. Mason noted that we have not reached out professionally to our Faculty on Professional Development. As we develop a campaign, Dr. Melanie Morgan will take the lead on this campaign to think Professional Development with Marketing and Media. Dr. Mason noted that we will be looking at a way to communicate at the beginning of the semester all of the opportunities that we will be offering to students as you think about having a conversation in your individual development plan. Faculty will have a list of these opportunities that will engage that conversation from both the student side and the faculty side. We will be looking at what is the best way to get this information to the faculty and in getting that input.

Dr. Mason noted that we are looking at adding the workshops online so that online students and students who want professional development anytime of the day/night are able to get what they need professionally. Dr. Mason also noted that we want to know what the council members are doing in their departments/colleges so there are no duplications.

- b) Dr. James Mohler gave a report on pending degree program 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. POSTHUMOUS DEGREE REQUEST

Graduate Council Document 17-13a, Request to Award a Posthumous Degree, submitted by the Department of Technology, Leadership, & Innovation in the Purdue Polytechnic Institute.

Dr. Thomas Atkinson introduced Dr. Patrick E. Connolly, Interim Head for Technology, Leadership, and Innovation and Associate Dean for Undergraduate Programs & Learning Innovation. Dr. Connolly gave a statement on behalf of the department regarding the posthumous degree for the late Mr. Ean Seals. Dr. Atkinson stated that for the awarding of a posthumous degree, Purdue University requires that at least 85% of the credit hour requirements be met and that most of the requirements of the major be completed.

Dr. Atkinson presented Graduate Council Document 17-13a, *Request to Award a Posthumous Degree*, which stated that the late Ean Seals met the University's requirements for the conferral of a posthumous Master of Science degree. During the review of Mr. Seals' records, the following were noted: 1) Mr. Seals was enrolled as a non-thesis master's student in the Purdue Polytechnic Institute from Fall 2014 through Summer 2017. 2) Mr. Seals satisfactorily completed twelve of thirteen courses or 30 of 33 credit on his plan of study which was approved on September 7, 2017. Therefore, Mr. Seals had completed more than 90 percent of the requirements for the Master of Science degree, including most of the requirements of the major. 3) At the conclusion of Mr. Seals last enrollment, he was considered in *Continued Good Standing*.

Dr. Atkinson stated that based upon his review of applicable University policies, the late Mr. Seals met all of the requirements for conferral of a posthumous Master of Science degree. A motion was made by Dr. Mary Johnson. The council unanimously approved the request. The request will be forwarded to the Office of the President for final approval.

IV. PRESENTATION

Dr. Eckhard Groll, Director of Office of Professional Practice/ Reilly Professor of Mechanical Engineering presented an overview of the Professional Practice program.

Dr. Groll noted the mission is to facilitate the experiential education and professional practice of Purdue University students within the academic environments of the institution and its global partners; to participate in academic research within the field of Professional Practice; and to assist the academic units with enhanced employer engagement. Dr. Groll noted the vision is to offer comprehensive services to all Purdue students, staff, faculty, and employers participating in national and global Professional Practice Programs.

V. AREA COMMITTEE REPORTS (Area Committee Chairs)

Graduate Council Document 17-G, Graduate Council Documents Recommended for Approval:

Area Committee A, Behavioral Sciences (Yan Ping Xin, yxin@purdue.edu):

Graduate Council Document 17-15a, CDFS 64500, Couple and Sex Therapy (PNW-Hammond)

Graduate Council Document 17-15b, CDFS 64600, Contemporary Issues in Family Therapy (PNW-Hammond)

Graduate Council Document 17-15c, CDFS 64700, Diversity and Social Justice in Family Therapy (PNW- Hammond)

Graduate Council Document 17-15d, CDFS 64800, Applied Multivariate Analysis (PNW- Hammond)

Graduate Council Document 17-15e, CDFS 68100, Psychopathology and Behavior Disorders for Family Service Professionals (PNW- Hammond)

Dr. Yan Ping Xin presented five courses for consideration. The courses were approved by the council, upon a motion by Dr. Xin.

Area Committee C, Engineering, chemistry, and Physical Sciences (Lucy Flesch, lmflesch@purdue.edu):

Graduate Council Document 17-24a. ART 51500, Introduction to Facilities Engineering Systems (IUPUI)

Graduate Council Document 17-29a, CS 51510, Algorithms (PNW-Hammond)

Graduate Council Document 17-29f, CS 51560, Software Engineering (PNW-Hammond)

Graduate Council Document 17-29g, CS 51570, Computer Architecture (PNW-Hammond)

Graduate Council Document 17-29h, CS 51580, Computer Graphics (PNW-Hammond)

Graduate Council Document 17-29i, CS 51590, Parallel Computing (PNW-Hammond)

Graduate Council Document 17-28a, CSCI 50900, Software Quality Assurance (IUPUI)

Graduate Council Document 17-28b, CSCI 55800, Multimedia (IUPUI)

Graduate Council Document 17-28d, CSCI 57800, Statistical Machine Learning (IUPUI)

Graduate Council Document 17-28e, CSCI 57900, Bioinformatics Algorithms (IUPUI)

Graduate Council Document 17-28f, CSCI 62600, Advanced Information Assurance (IUPUI)

Graduate Council Document 17-25a. ECET 53800, Energy Management for Building (IUPUI)

Graduate Council Document 17-25b. ECET 54500, Management of IT, Telecommunication, and Video Infrastructure (IUPUI)

Graduate Council Document 17-26a. IET 51500, Introduction to Facilities Planning and Management (IUPUI)

Graduate Council Document 17-26b. IET 53000, Facilities Contract Management (IUPUI)

Graduate Council Document 17-26c. IET 53500, Facilities Maintenance and Operation (IUPUI)

Graduate Council Document 17-26d. IET 55000, Financial Aspects of Facilities Management (IUPUI)

Graduate Council Document 17-26e. IET 57500, Supply Chain Logistics Operations in Facilities and Industry (IUPUI)

Dr. Lucy Flesch presented eighteen courses for consideration. The courses were approved by the council, upon a motion by Dr. Flesch.

Area Committee E, Life Sciences (Natalie J. Carroll, chair; ncarroll@purdue.edu):

Graduate Council Document 17-20a, BIOL 53601, Biological & Structural Aspects of Drug Design & Action (PWL)

Graduate Council Document 17-21a, BCHM 53600, Biological & Structural Aspects of Drug Design & Action (PWL)

Graduate Council Document 17-16c. NUR 69100, Health Care Research Methods (PWL)

Dr. Natalie Carroll presented three courses for consideration. The courses were approved by the council, upon a motion by Dr. Carroll.

Area Committee F, Management Sciences (Jun Xie, Chair; junxie@purdue.edu):
Graduate Council Document 17-11f, ECON 68900, Experimental & Behavioral Economics (PWL)

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

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

Dr. Linda Mason presented the Purdue Graduate Student Government (PGSG) Report in the absence of Ms. Marcela Martinez, President of the (PGSG)

- PGSG, through the Community team event Next Generation Scholars (NGS), will be hosting the students from the Purdue Polytechnic High School on a learning event on Purdue's campus. Graduate students will present their research in a poster session and give tours of their labs to the high school students. The main goal of this event is to encourage the high school students to consider higher education and to provide graduate students with the platform for them to present their research in words that anyone can understand. Faculty are asked to encourage their graduate students, visiting scholars and postdocs to participate in this event.
- The Graduate Bill of Rights and Responsibilities committee will be presenting next week to the graduate senate with a resolution of endorsement for the current version of the Bill of Rights and Responsibilities. This will start the process of presenting the Bill to the Graduate Council and the Student Affairs Committee of the Faculty Senate.

VII. OLD BUSINESS

Dr. Mary Johnson presented Graduate Council Document 17-23a, Final Report from the Task Force on S/U Grades. Members of the committee are: Mary Johnson, Shawn Donkin, Joan Fulton, and Linda Mason.

Dr. Johnson noted that Task Force looked at the satisfactory/unsatisfactory grading on 69800 and 69900 courses. There are three grades: S, U, and SI. What happens sometimes is that a student claims that they are surprised when they receive an unsatisfactory grade for their research. Perhaps a faculty member has not communicated their expectations; therefore, the student is surprised when they have not met them.

Dr. Johnson noted that the committee presented a document to the departments in May and received feedback from them. Dr. Johnson noted that upon consideration of the feedback, the Task Force put together a revised policy. There was a minor language update.

Motion was made by Dr. Linda Mason. The council approved the request.

VIII. NEW BUSINESS

- a) Dr. Joy Colwell presented the PNW-Hammond and Westville Fall 2017 Enrollment Report. The complete report is posted on the Graduate School website. (<http://www.purdue.edu/gradschool/faculty/enrollment.html>)

- b) Dr. Paul Salama presented the IUPUI Fall 2017 Enrollment Report. The complete report is posted on the Graduate School website.
(<http://www.purdue.edu/gradschool/faculty/enrollment.html>)
- c) Dr. James Mohler presented Graduate Council Document 17-40a, Request for Exemption to Policy for Combined Degree, IUPUI.

Dr. Mohler noted that this is a standard Combined Degree Program which typically allows a student to take 9 credit hours of 500 or 600-level credits while in undergraduate status that can then be applied to both the undergraduate degree and the graduate degree. By policy when doing this they typically cannot use any undergraduate excess credit. A traditional undergraduate student can take 12 credit hours of undergraduate excess credit and if they move into masters they can apply it.

Dr. Mohler noted that this program is requesting that they not only be able to share the 9 credits hours between the bachelors in Electrical Engineering and the masters in Electrical and Computer Engineering, but also to be able to apply an additional 3 credit hours of undergraduate excess credit towards the master's degree.

The exemption to the policy for Combined Degree, IUPUI was approved by the council, upon a motion by Dr. Natalie Carroll; with one abstention.

VI. CLOSING REMARKS AND ADJOURNMENT

The council meeting was adjourned by Dr. Mason at 3:05 p.m.

Linda J. Mason, Interim Chair

Tina L. Payne, Secretary

APPENDIX A

PENDING DOCUMENTS

(October 19, 2017)

BOLDED ITEMS ARE IN REVIEW WITH AN AREA COMMITTEE

Area Committee A, Behavioral Sciences (Yan Ping Xin, chair: yxin@purdue.edu):

Graduate Council Document 17-15a, CDFS 64500, Couple and Sex Therapy (PNW-Hammond)

Graduate Council Document 17-15b, CDFS 64600, Contemporary Issues in Family Therapy (PNW-Hammond)

Graduate Council Document 17-15c, CDFS 64700, Diversity and Social Justice in Family Therapy (PNW- Hammond)

Graduate Council Document 17-15d, CDFS 64800, Applied Multivariate Analysis (PNW- Hammond)

Graduate Council Document 17-15e, CDFS 68100, Psychopathology and Behavior Disorders for Family Service Professionals (PNW- Hammond)

Graduate Council Document 17-31a, ITS 55100, Principles of Information Assurance (PNW-Hammond)

Area Committee C, Engineering, Chemistry, and Physical Sciences (Lucy Flesch, chair:

lmflesch@purdue.edu

Graduate Council Document 17-24a. ART 51500, Introduction to Facilities Engineering Systems (IUPUI)

Graduate Council Document 17-29a, CS 51510, Algorithms (PNW-Hammond)

Graduate Council Document 17-29f, CS 51560, Software Engineering (PNW-Hammond)

Graduate Council Document 17-29g, CS 51570, Computer Architecture (PNW-Hammond)

Graduate Council Document 17-29h, CS 51580, Computer Graphics (PNW-Hammond)

Graduate Council Document 17-29i, CS 51590, Parallel Computing (PNW-Hammond)

Graduate Council Document 17-28a, CSCI 50900, Software Quality Assurance (IUPUI)

Graduate Council Document 17-28b, CSCI 55800, Multimedia (IUPUI)

Graduate Council Document 17-28d, CSCI 57800, Statistical Machine Learning (IUPUI)

Graduate Council Document 17-28e, CSCI 57900, Bioinformatics Algorithms (IUPUI)

Graduate Council Document 17-28f, CSCI 62600, Advanced Information Assurance (IUPUI)

Graduate Council Document 17-25a. ECET 53800, Energy Management for Building (IUPUI)

Graduate Council Document 17-25b. ECET 54500, Management of IT, Telecommunication, and Video Infrastructure (IUPUI)

Graduate Council Document 17-26a. IET 51500, Introduction to Facilities Planning and Management (IUPUI)

Graduate Council Document 17-26b. IET 53000, Facilities Contract Management (IUPUI)

Graduate Council Document 17-26c. IET 53500, Facilities Maintenance and Operation (IUPUI)

Graduate Council Document 17-26d. IET 55000, Financial Aspects of Facilities Management (IUPUI)

Graduate Council Document 17-26e. IET 57500, Supply Chain Logistics Operations in Facilities and Industry (IUPUI)

Area Committee E, Life Sciences (Natalie J. Carroll, chair; ncarroll@purdue.edu):

Graduate Council Document 17-20a, BIOL 53601, Biological & Structural Aspects of Drug Design & Action (PWL)

Graduate Council Document 17-21a, BCHM 53600, Biological & Structural Aspects of Drug Design & Action (PWL)

Graduate Council Document 17-16c. NUR 69100, Health Care Research Methods (PWL)

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

Graduate Council Document 17-11a, ECON 63300, Macroeconomics with Heterogeneous Agents (PWL)

Graduate Council Document 17-11b, ECON 64100, Computational Economics/Numerical Methods (PWL)

Graduate Council Document 17-11c, ECON 65300, Economics of Early Childhood and Skill Formation (PWL)

Graduate Council Document 17-11d, ECON 68100, Bayesian Econometrics I (PWL)

Graduate Council Document 17-11e, ECON 68200, Bayesian Econometrics II (PWL)

Graduate Council Document 16-16a, HTM 50300, Business Statistics and Quantitative Analysis in Hospitality (PWL)

Graduate Council Document 16-16b, HTM 51100, Hospitality Business Law and Risk Management (PWL)

Graduate Council Document 16-16d, HTM 53600, Advanced Service Management for Hospitality and Tourism (PWL)

Graduate Council Document 16-16e, HTM 54200, Strategic Revenue Management in the Hospitality Industry (PWL)

Graduate Council Document 16-16f, HTM 59500, Applied Management Project (PWL)

NEW DOCUMENTS RECEIVED

(After the October 19, 2017 Graduate Council Meeting)

Area Committee C, Engineering, Chemistry, and Physical Sciences (Lucy Flesch, chair: lmflesch@purdue.edu)

Graduate Council Document 17-34a, EAPS 50700, Introduction to Analysis and Computing with Geoscience Data (PWL) Sem. 1 and 2. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: MA 26100 (or equivalent) and EAPS 31000 (or STAT 30100 or equivalent), or permission of instructor. Cannot get credit for both EAPS 50900 and EAPS 50700.

Course teaches computing techniques including error analysis, line and surface fitting, interpolation, map projections, geospatial and temporal correlations, signal processing, and visualization with discussions on specific and practical geoscience applications. Lectures with computer exercises and team project reporting using open-source computer software.

Graduate Council Document 17-34b, EAPS 51000, Climate Time Series Analysis (PWL) Sem. 1 and 2. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: STAT 51100, or EAPS 50900, or EAPS 31000, or permission of instructor.

This course in time series analysis combines traditionally taught basics with topics of central importance in current weather and climate research, including long memory, extremes, nonlinear time series, chaos and complexity.

Graduate Council Document 17-34c, EAPS 51500, Geodata Science (PWL) Sem. 1 and 2. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: EAPS 50700 or EAPS 50900, or permission of instructor.

Course covers a range of topics with applications of mathematical, statistical, numerical, and distributed parallel computing methods for modeling and understanding complex and large spatio-temporal geoscience datasets in the formats common to in-situ observations, asynoptic remote sensing data, volumetric gridded analysis, etc.

Graduate Council Document 17-34d, **EAPS 53000, Extreme Weather and Climate: Science and Risk** (PWL) Sem. 1 and 2. SS. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: MA 26100 or equivalent and EAPS 22500 or equivalent and CS 15800 or equivalent, or permission of instructor.

Trains students in the analysis of risk due to meteorological hazards, including climate change. Focus on integrating the basics of probability theory, including calculation of hazard return periods and exceedance curves, with the fundamental physics of meteorological hazards. Hazards may include hurricanes, tornadoes, and floods.

Graduate Council Document 17-34e, **EAPS 54000, Introduction to Geodesy** (PWL) Sem. 1 and 2. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: MA 26200 or MA 26500 or MA 35100 or MA 51100, or equivalent or permission of instructor.

Course offers an introduction and overview of theory, techniques, data sources, and applications of geodesy. Provides understanding of how various geodetic techniques work and how they can be used to investigate a number of geological, atmospheric, and related problems. Evaluation of the robustness and quality of data as well as assessment of models and conclusions derived from geodetic methods.

Graduate Council Document 17-34f, **EAPS 54100, Geodetic Data and Applications** (PWL) Sem. 1 and 2. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: MA 26200 or MA 26500 or MA 35100 or MA 51100, or equivalent or permission of instructor.

This course will provide students with hands-on experience in the selection, processing, and analysis of geodetic data sets, particularly InSAR and GPS. Students will learn how to select data, evaluate its strengths and weaknesses, process and analyze the data, and apply it to the investigation of geological problems.

Area Committee D, Humanities and Social Sciences (Manushag (Nush) Powell, chair; mnpowell@purdue.edu):

Graduate Council Document 17-41a, **COM 64100, Integrated Marketing Communication** (PWL) Sem. 1 and 2. SS. Distance. Credit 3. Prerequisites: Students must be admitted into the Online Masters of Science of Communication program. COM 60111.

Developing cohesive and integrated external and internal communication initiatives across traditional and social media channels is becoming increasingly important for strategic communication professionals. Traditionally, Public Relations, Marketing, and Advertising/Promotion have had separate functions; increasingly the role of strategic communication practitioners is to ensure the consistency of the brand story and message across all channels of communication.

Graduate Council Document 17-4b, **COM 64200, Persuasive Communication** (PWL) Sem. 1 and 2. SS. Distance. Credit 3. Prerequisites: Students must be admitted into the Online Masters of Science of Communication program. COM 60111.

This course focuses on the creation of persuasive messages in a variety of contexts from interpersonal to mass media. Specifically, students will review several of the prominent persuasion theories and models and examine the message, audience, and situational characteristics that influence the success of persuasive efforts. Understanding these theories and factors can assist students in the development of persuasive messages and persuasive strategies.

Graduate Council Document 17-41c, COM 64500, Healthcare Communication (PWL) Sem. 1 and 2. SS. Distance. Credit 3. Prerequisites: Students must be admitted into the Online Masters of Science of Communication program. COM 60111.

The healthcare environment is increasingly complex, and poses many challenges for communication professionals seeking to improve communication with key health industry stakeholders, including patients, providers, payers, government agencies, and others. This course provides an overview of a broad range of unique communication challenges associated with health and the healthcare industry. Topics include review and discussion of key issues such as, major health communication theories, issues associated with patient-provider interaction, adoption and use of health information and communication technologies, the development and implementation of health campaigns and other behavior change initiatives, and marketing and public relations issues commonly faced by healthcare organizations.

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

Graduate Council Document 17-13c, MGMT 51300, Student Managed Investment Fund (PWL) Sem. 1 and 2. SS. Experiential 1 time per week for 60 minutes. Credit 0 to 3.

This course provides undergraduate and graduate students with hands-on portfolio management experience by investing a \$300,000 (as of 2017) portfolio in the stock market. This student-managed fund is a large time commitment, and this course is a way to give students class credit for their experiential learning through SMIF.

Graduate Council Document 17-13g, MGMT 52610, Data-Driven Marketing (PWL) Sem. 1 and 2. Lecture 2 times per week for 90 minutes for 8 weeks. Credit 2. Prerequisites: MGMT 52300 B- or higher, or MGMT 52500 B- or higher, or MGMT 62500 B- or higher.

In a Big Data environment, managers have access to vast amount of market data. Technological developments have made it possible to generate insights from data within a matter of seconds which can be leveraged to formulate and refine marketing programs in real time. Data-driven marketing requires marketers to have the ability to understand what data they have, what data they can collect and, ultimately, how to utilize data to both quantify the strategic value of marketing initiatives and to craft effective marketing programs. This course will introduce students to this era of data-driven marketing. It has a heavy focus on understanding practical solutions for marketing applications, and better and more informed decision making.

Graduate Council Document 17-13h, MGMT 52710, Digital Marketing Lab (PWL) Sem. 1 and 2. Lecture 2 times per week for 90 minutes for 8 weeks. Credit 2. Prerequisites: MGMT 52300 B- or higher.

Companies today expect their marketing professionals to understand what it takes to develop, implement, and evaluate digital marketing strategies and campaigns. The best way for marketing professionals to gain such expertise is for them to actually build and execute specific digital marketing programs/campaigns using various digital and social media platforms for a real world client. This course offers students a unique hands-on learning opportunity with an online marketing project, each student team is given a budget up to \$300 to promote a chosen business or non-profit organization via digital advertising platforms including Google AdWords, Bing Ads, Facebook Business, LinkedIn Sponsored Ads, and Twitter Ads. Students are given flexibility in selecting projects of interest. All students are also expected to pass Google Analytics certification and Google AdWords certification.

Graduate Council Document 17-13i, MGMT 52900, Marketing Consulting Projects (PWL) Sem. 1 and 2. Experiential. Credit 3. Prerequisites: MGMT 52300 B- or higher, or MGMT 52500 B- or higher, or MGMT 62500 B- or higher.

In this course, students learn to apply marketing concepts to real world marketing problems. Projects are varied and may involve marketing plan development for a start-up, market research, analysis of marketing data, digital marketing, search engine marketing, web design, and social entrepreneurship. Clients include Purdue Marketing Advisory Board members, entrepreneurs working with Purdue's Foundry and Discovery Park, Purdue Research Park start-ups, small and medium-size Indiana businesses, and non-profit organizations. Students are given flexibility in selecting projects of interest. Teams work under the direction of a faculty member. Teams meet once a week to review project progress and discuss the next steps generally in the presence of the faculty supervisor. Projects are done in teams, although evaluation is individual.

Graduate Council Document 17-13j, MGMT 53700, Persuasive Communication (PWL) Sem. 1 and 2. SS. Lecture 2 times per week for 90 minutes for 8 weeks. Credit 2.

The purpose of this course is to work with you to improve your professional communications specifically as those communications relate to client and external communications. We will focus on oral and written communications theory, techniques, and practice.

Graduate Council Document 17-13d, MGMT 58500, IT Project Management (PWL) Sem. 2. Lecture 2 times per week for 90 minutes for 8 weeks. Credit 2. Prerequisites: Since the course is offered as a required part of the MS BAIM curriculum, BAIM students take the course at the same time.

The purpose of this class is to provide students with a basic understanding of the tasks and challenges facing IT and analytics project managers. Students learn about projects, roles and responsibilities of project managers. We start by discussing the skills and approaches commonly used in creating and monitoring project plans and breaking complex projects down into manageable segments. We also discuss important areas defined in PMI's PMBOK, like scope, time, cost and quality management. Next we look at how IT projects have traditionally been managed, and move on to the study of agile methods. We go through some of the most important aspects of agile project management, such as user stories, agile teams and agile planning, execution and tracking. In learning these tools and techniques, we take a hands-on approach wherever possible and use project management software, exercises and case studies.

Graduate Council Document 17-13e, MGMT 64000, Financial Modeling (PWL) Sem. 1 and 2. SS. Lecture 2 times per week for 90 minutes for 8 weeks. Distance. Credit 2 or 3. Prerequisites: MGMT 61000 (Note: students who have not taken MGMT 61000 may enroll with instructor permission).

This course provides an introduction to financial modeling using computer applications. The first part of the course covers how to use Microsoft Excel to analyze historical and pro forma financial statements, stock return data, linear regression analysis, Monte Carlo simulations, Pivot Tables and also covers many advanced functions within Excel. The second part of the course provides an introduction to using SAS to analyze financial data and more advanced regression techniques.

Graduate Council Document 17-13f, MGMT 64700, Financial Engineering (PWL) Sem. 1 and 2. Lecture 2 times per week for 90 minutes for 8 weeks. Distance. Credit 2 or 3.

The objective of this course is to provide students with the necessary skills to value and hedge a wide variety of derivatives contracts used in financial markets. The main tool of analysis of the course is stochastic calculus set in continuous-time. Some basic knowledge of stochastic processes would be helpful, but not essential: we will cover what we need in class. The course covers valuation of securities using modern martingale methods as well as the necessary parameter estimation and numerical methods such as Monte Carlo simulations. Applications will include derivatives such as options on stocks, bonds and currencies, as well as valuation of defaultable securities, and modeling the term structure of interest rates and risk management with Value-at-Risk.

MAJORS:

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

*Graduate Council Document 17-51a. **Major in Marketing**, submitted by the Department of Management (PWL)*