

# PURDUE UNIVERSITY GRADUATE SCHOOL

Minutes of the Graduate Council Meeting  
February 16, 2023  
2:30 p.m.

Fifth Meeting  
Zoom

PRESENT: Council Members, James L. Mohler, Deputy Chair, Nurgul Aitalieva, Bradley J. Alge, Yong Bao, Shawn G. Bauldry, Carrie Berger, Stacy K. Betz, Arun Bhunia, Janice S. Blum, Steven J. Burdick, Vetria Byrd, William B. Collins, Joy Colwell, G. Jonathan Day, Eric D. Deemer, Duane D. Dunlap, Levon Esters, Kevin D. Gibson, Catherine A. Golden (Provost's Representative), Richard H. Grant, Jeffrey P. Greeley, Chong Gu, Nilupa Gunaratna, Erla Heyns, Troy D. Janes, Qing Jiang, Ann L. Kirchmaier, Douglas J. LaCount, Jiliang Li, Yanjun Li, Qiang Liu, Patti Ludwig-Beymer, Melanie Morgan, Brad E. Oliver, Tina L. Payne, Rodolfo Pinal, Julia M. Rayz, David Rollock, Paul Salama, Abraham Schwab, Alex Seto, Michael G. Smith, Joshua R. Widhalm, Nicole Widmar

APOLOGIES FOR ABSENCE RECEIVED FROM: Thomas W. Atkinson, Suzanne C. Bart, Keith B. Gehres, Nancy A. Jackson, Mary E. Johnson, Judith Lewandowski, Linda J. Mason, chair, Clarence D. Maybee, James E. Tisdale, Amanda D. Zelechowski

ABSENCES: Raida Abuizam, Kola Ajuwon, Emad Elwakil, Tong Jin Kim, Kimberly P. Kinzig, Joseph P. Robinson, Ann Shanahan, Kristin K. White, Christine Wuenschel

GUESTS: Macy Angrick, Traci Edmonds, Debbie Fellure, Michelle Goodin, Mark Haugen, Matt Ray, JoAnne Sandifur, Sharareh Taghizadeh Vahed, Korena Vawter

## I. MINUTES

The January 2023 Graduate Council meeting minutes were approved via the Qualtrics Survey.

## II. DEANS REMARKS AND REPORTS

### **James Mohler**

- Two major projects going on at the University with the first being the transition at IUPUI.

- The philosophy continues to be a one degree, one campus though there have been some challenges on the transition related to Indianapolis.
- The goal is that Indy would be an extension of degrees on the Purdue West Lafayette campus.
- Dean Mason and Dr. Mohler have been meeting with Biomedical Engineering, Computer Science, and Polytechnic programs with progress being made.
- Currently, there is a hold regarding where faculty are going to be placed. Once we know where faculty will be placed, we will know where the students will go.
- There are 46 students from Indianapolis that do not have plans of study that are Ph.D. or Master students.
- Will start working directly with faculty and students in Indy to get plans of study on file so that we know what courses may be needed to project what the needs are there.
- Waiting on data from IU relative to graduate assistantships and fellowships to know what funding commitment has been made to those students. The goal has been that no student is harmed in this process to the best of our ability.
- One of the biggest challenges is that the Indy campus will have to be Student & Exchange Visitor Information System (SEVIS) certified. This certification happens at the federal level saying that you can have international students working and taking classes on your campus which is not a quick process.
- There are project teams working with Chris Collins in ISS and the Provost Office who are working with Homeland Security as they are the ones who do that certification. There may be some restraints that are put on new degrees or majors because we do not want to add complexity.
- Another challenge is what do we do with international students in Indy while we are getting this certification.
- The second major project was announced a few weeks ago with the School of Business and the expected growth.
- Project teams have begun with the Graduate Programs Office and the Registrar in discussing the logistics and details of:
  - How do we transition?
  - How do we code them?
  - What is the crosswalk for this?
  - What is the prefix for this?
- The Graduate School is working with ITAP and the College of Engineering on a project on graduate processes supported by the Graduate School Database. It is a homegrown program that has existed for a long time because we never found a tool that would work.
- There have been conversations about:
  - How do we take it to the next level?
  - How do we integrate some features that engineering had designed into the Graduate School Database and bring it forward technology wise in the process?

- Two vendors that we are looking at are: VisualVault and Salesforce.

### III. AREA COMMITTEE REPORTS (Area Committee Chairs)

*Graduate Council Document 23B* Graduate Council Documents Recommended for Approval. See Appendix B. Voted via Qualtrics survey.

### IV. PRESENTATION

Mark Haugen, Director of the Oral English Proficiency Program presented information about the Oral English Proficiency Program. See Appendix C.

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

Alex Seto, President of the Purdue Graduate Student Government (PGSG)

- PGSG is working on a number of advocacy goals that have passed the Graduate Senate.
  - PGSG funded a care bill that will be contributing to the Corridor Organization establishing legislation for afterhours shuttle service on campus. City Bus service are not regular on weekends or late nights.
  - Legislation for parking on campus.
  - PGSG has signed three pieces of legislation from PSG. This was passed by PSG in the past, but only recently was made to PGSG about posting policies and other concerns.
  - Changes were passed for advocating car rental discounts.
  - A bill in support of Turkish and Syrian students affected by the earthquake.
  - Events have been lined up for Mental Health Action Week and Graduate Student Appreciation Week.

### VI. CLOSING REMARKS

- Dr. James Mohler encouraged the Graduate Council to make sure that their units are aware that Chris Collins in ISS shared a publication called University New World News about China Bans Foreign University Online Courses Only. During the pandemic, the Chinese government had been more open as many institutions were online courses because of COVID. In January, an article came out that the Ministry of Education issued that they would no longer recognize completely online courses. If you have any questions, contact Chris Collins.
- The Executive Committee will meet following the March 23<sup>rd</sup> Graduate Council meeting.

- The April 20<sup>th</sup> Graduate Council meeting will be held face-to-face meeting in the Purdue Graduate Student Center.

The council meeting was adjourned by Dr. Mohler at 3:13 p.m.

James L. Mohler, Deputy Chair  
Tina L. Payne, Secretary

## APPENDIX A

### PENDING DOCUMENTS (January 2023)

BOLDED ITEMS ARE IN REVIEW WITH AN AREA COMMITTEE

Area Committee A, Behavioral Sciences (G. Jonathan Day, chair; gjday@purdue.edu):

- Graduate Council Document 22-29b, EDU 52401, Counseling Practicum In Student Affairs (PFW)***
- Graduate Council Document 22-29c, EDU 52402, Advanced Counseling Practicum In Student Affairs (PFW)***
- Graduate Council Document 22-29d, EDU 53700, Organization And Development Of Student Affairs (PFW)***
- Graduate Council Document 22-29e, EDU 55001, Internship In Student Affairs (PFW)***
- Graduate Council Document 23-4a, EDU 55002, Advanced Internship In Student Affairs (PFW)***

Area Committee B, Engineering, Sciences, and Technology (Duane Dunlap, chair; ddunlap@purdue.edu):

- Graduate Council Document 22-20c, CIT 50300, Cloud Security And Privacy (IUPUI)***
- Graduate Council Document 22-20d, CIT 51200, Application-Oriented Advanced Database Design (IUPUI)***
- Graduate Council Document 22-20e, CIT 52300, Advanced Programming In IT (IUPUI)***
- Graduate Council Document 22-20f, CIT 52400, E-Commerce Application Development (IUPUI)***
- Graduate Council Document 22-20g, CIT 57400, Agile Systems And Database Analysis (IUPUI)***
- Graduate Council Document 22-27c, CNIT 55501, Social Engineering Mitigation In Information Technology (PWL)***
- Graduate Council Document 22-27d, CNIT 62500, Research Methods In Computing (PWL)***
- Graduate Council Document 22-23d ECE 60432, Nanophotonic Modeling (PWL)***

Area Committee C: Chemistry, Engineering, and Physical Sciences, (Suzanne Bart; chair, sbart@purdue.edu):

- Graduate Council Document 22-45a, CHE 50100, Medical Devices - Development And Clinical Application (PWL)***
- Graduate Council Document 22-45b, CHE 60000, Approaches To Graduate Research In Chemical Engineering (PWL)***
- Graduate Council Document 22-45c, CHE 65500, Safety in Chemical Engineering (PWL)***
- Graduate Council Document 22-33f, EAPS 50701, Geospatial Data Analytics (PWL)***

***Graduate Council Document 22-33g, EAPS 50801, Geographic Information Systems (PWL)***  
***Graduate Council Document 22-46a, EEE 57000, Solid And Hazardous Waste Management (PWL)***  
***Graduate Council Document 22-46b, EEE 69199, Professional Practice Graduate Co-Op I (PWL)***  
***Graduate Council Document 22-46c, EEE 69299, Professional Practice Graduate Co-Op II (PWL)***  
***Graduate Council Document 22-46d, EEE 69399, Professional Practice Graduate Co-Op III (PWL)***  
***Graduate Council Document 22-46e, EEE 69699, Professional Practice Internship (PWL)***  
***Graduate Council Document 23-3a, PHRM 69500, Introduction To Pharmaceutical Sciences Research (PWL)***

Area Committee D, Humanities and Social Sciences (William (Bart) Collins, chair; bcollins@purdue.edu):

***Graduate Council Document 23-2a, ILS 51400, Information Skills For Health Professionals (PWL)***  
***Graduate Council Document 22-50a, LC 57300, Methods Of Experimental Research In Linguistics (PWL)***  
***Graduate Council Document 22-50b LC 57700, Acoustic Analysis Of Speech (PWL)***  
***Graduate Council Document 22-48a, PHIL 56300, Directed Reading: Greek Philosophy Texts And Translations (PWL)***

Area Committee E: Life Sciences, (Richard Grant, chair; rgrant@purdue.edu):

***Graduate Council Document 22-49a, HSCI 61300, Professionalism And Professional Development In Health Sciences (PWL)***  
***Graduate Council Document 22-49b, HSCI 62500, Grant Writing For Health Sciences (PWL)***

Area Committee F, Management Sciences (Nicole, Widmar, chair; nwidmar@purdue.edu):

***Graduate Council Document 22-11b, ECON 56700, Managerial Economics And Business Strategy (PWL)***  
***Graduate Council Document 22-10L, MGMT 51099, Practicum In Taxation Compliance And Consulting (PWL)***

## APPENDIX B

GC Document 23-B

### DOCUMENTS RECOMMENDED FOR APPROVAL BY THE GRADUATE COUNCIL FEBRUARY 2023

#### GRADUATE COURSE PROPOSALS:

Area Committee A, Behavioral Sciences (G. Jonathan Day, chair; [gjday@purdue.edu](mailto:gjday@purdue.edu)):

*Graduate Council Document 22-29b*, **EDU 52401, Counseling Practicum In Student Affairs** (PFW) Individual Study. Credit 3. Prerequisite(s): B- equals the lowest passing grade.

Practicum experience. Closely supervised counseling practice with clients in the department's counseling laboratories or approved field sites in schools or agencies. Intensive supervision.

<https://purdue.curriculog.com/proposal:22097/form>

*Graduate Council Document 22-29c*, **EDU 52402, Advanced Counseling Practicum In Student Affairs** (PFW) Individual Study. Credit 3. Prerequisite(s): B- equals the lowest passing grade.

Practicum experience. Closely supervised counseling practice with clients in the department's counseling laboratories or approved field sites in schools or agencies. Intensive supervision.

<https://purdue.curriculog.com/proposal:22205/form>

*Graduate Council Document 22-29d*, **EDU 53700, Organization And Development Of Student Affairs** (PFW) Lecture 1 time per week for 150 minutes. Credit 3. Prerequisite(s): C- equals lowest passing grade.

Foundations and contextual dimensions of the student affairs profession. Leadership and student service theories, program development and implementation, and data evaluation. Environmental and population-based needs assessment for program planning. Emergency response plans. Post-secondary transitions. Budget, finance, and personnel practices in higher education.

<https://purdue.curriculog.com/proposal:22071/form>

*Graduate Council Document 22-29e*, **EDU 55001, Internship In Student Affairs** (PFW) Individual Study. Credit 3. Prerequisite(s): B- equals the lowest passing grade.

Advanced internship experience. Provide counseling services in a field placement with supervision.

<https://purdue.curriculog.com/proposal:22264/form>

*Graduate Council Document 23-4a, EDU 55002, Advanced Internship In Student Affairs* (PFW) Individual Study. Credit 3. Prerequisite(s): B- equals the lowest passing grade.

Advanced internship experience. Provide counseling services in a field placement with supervision.

<https://purdue.curriculog.com/proposal:22265/form>

Area Committee B, Engineering, Sciences, and Technology (Duane Dunlap, chair; [ddunlap@purdue.edu](mailto:ddunlap@purdue.edu)):

*Graduate Council Document 22-20c, CIT 50300, Cloud Security And Privacy* (IUPUI) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): CIT 35600 or equivalent network administration course.

The course focuses on the security/privacy issues in Cloud Computing systems. We will first examine cloud computing models and get familiar with environments of popular cloud platforms such as Amazon Cloud Services. Then, we will investigate the threat model and security/privacy issues related to data/computation in a cloud.

<https://purdue.curriculog.com/proposal:22025/form>

*Graduate Council Document 22-20d, CIT 51200, Application-Oriented Advanced Database Design* (IUPUI) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): CIT 30400 or CIT 31400 or graduate standing.

This course addresses enterprise data management and logical database design concepts with an emphasis on needs determination and data modeling skills from an organizational perspective. Students will create data models and apply forward and reverse engineering techniques by participating in scale-down real-world projects.

<https://purdue.curriculog.com/proposal:22046/form>

*Graduate Council Document 22-20e, CIT 52300, Advanced Programming In IT* (IUPUI) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): Graduate Standing; Previous knowledge of data structures and algorithms are helpful. CIT 38800 or CIT 30900 or instructor approval.

This course will explore how we can use the Python built-in data structures such as lists, dictionaries, and tuples to perform increasingly complex data and network analysis. Moreover, this course will provide in-depth knowledge of network programming, socket programming, and use cases of computer security using Python.

<https://purdue.curriculog.com/proposal:22022/form>

*Graduate Council Document 22-20f, CIT 52400, E-Commerce Application Development* (IUPUI) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): CIT 31300 or equivalent web programming experience. Front-end web design experience (CIT 31200 or



equivalent) is highly recommended. Students **MUST** be comfortable working in JavaScript and interacting with a database from day one.

Students will create data-driven e-commerce web applications based on given business requirements. Topics include user authentication and authorization, data storage and analytics, security, authentication, cloud-based data sources and services, and fundamental financial transaction processing. Students will combine custom code and third-party utilities for user and transaction management.

**<https://purdue.curriculog.com/proposal:22049/form>**

*Graduate Council Document 22-20g, **CIT 57400, Agile Systems And Database Analysis** (IUPUI) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): CIT 21400 or introductory relational database experience; CIT 31300 or JavaScript-based web programming experience*

Students will learn modern development methodologies to be ready to contribute as members of a fast-paced, highly engaged team that is working to build products for both business and consumer use. Students will collaboratively develop a variety of applications with relational and non-relational databases.

**<https://purdue.curriculog.com/proposal:22048/form>**

*Graduate Council Document 22-27c, **CNIT 55501, Social Engineering Mitigation In Information Technology** (PWL) Lecture 2 times per week for 75 minutes. Credit 3.*

Human vulnerability is currently one of the biggest threats to cybersecurity. Social engineering is one of the primary tools used to take advantage of this vulnerability. In this course students will learn about some techniques used in social engineering, the psychology harnessed to carry out social engineering attacks, and learn to identify possible avenues of attack and procedures to prevent and mitigate specific risks. Permission of instructor required.

**<https://purdue.curriculog.com/proposal:14253/form>**

*Graduate Council Document 22-27d, **CNIT 62500, Research Methods In Computing** (PWL) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): STAT 501 or STAT 511 or other statistics course; 6 credits of CNIT at the 500 level.*

The goal of this course is to provide you with the tools necessary to not only understand how to create your own research study on cyberphysical systems, but how to critically assess the different methodologies and components in various research designs used in applied information technology. In this course you will learn about the landscape of research in information technology. You will learn to differentiate between different research methodologies used in IT, identify threats to validity, learn specific protocols for commonly used methods in IT, and synthesize empirical literature and theory in order to design a scientific research study. The end product of this course will be the ability to design and report on an IT related research project. Permission of instructor required.

**<https://purdue.curriculog.com/proposal:14252/form>**

Area Committee C: Chemistry, Engineering, and Physical Sciences, (Suzanne Bart; chair, sbart@purdue.edu):

*Graduate Council Document 22-45a, CHE 50100, Medical Devices - Development And Clinical Application* (PWL) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): Prior biology, physics (mechanics) and calculus classes (or permission from the instructor)

This course is an introduction to the medical device field, with emphasis on the ways in which chemical engineering processes provide the foundation for many device-related therapies. The course involves the application of several fundamental chemical engineering principles, including those related to mass transfer, separations, and fluid flow, to devices used for extracorporeal therapies and other treatments. The first part of the course addresses the relevant physiology and pathophysiology serving as a foundation for subsequent clinical material. With the focus on extracorporeal devices, the interactions between blood and biomaterials in a general sense are also explored. The second part of the course assesses the extracorporeal treatment of kidney failure by dialysis, which is highlighted as the only long-term, device-based replacement therapy for terminal organ failure (end-stage renal disease). This analysis will not only consider the evolution of dialysis therapy from a technology perspective but also the forces that have shaped its development into a market generating annual revenue of nearly \$100 billion on a global basis. In addition, extracorporeal support therapies used clinically not only for failure of other organs (namely the heart, liver, and lungs) but also systemic inflammation secondary to severe infection (sepsis) will be presented. The third segment of the course addresses industry-focused concepts pertaining to medical device development, including verification/validation, lean manufacturing, project management, and regulatory issues. Providing a real-world perspective based on broad experience in the medical device field, Ms. Michelle Chutka (see below) will lead this third part of the course. Permission of instructor required.

<https://purdue.curriculog.com/proposal:16929/form>

*Graduate Council Document 22-45b, CHE 60000, Approaches To Graduate Research In Chemical Engineering* (PWL) Lecture 2 times per week for 50 minutes. Recitation 1 time per week for 50 minutes. Credit 3.

This course is designed to prepare and enable students to make a rapid start on their research. Additionally, key skills in critical analysis of the literature, technical writing and delivery of oral presentations are included.

<https://purdue.curriculog.com/proposal:15893/form>

*Graduate Council Document 22-45c, CHE 65500, Safety in Chemical Engineering* (PWL) Lecture 1 time per week for 50 minutes. Credit 1.

Safety in ChE is a one credit-hour course, offered in the fall semester. The completion of this course is mandatory for all chemical engineering graduate students in their first fall semester of studies at Purdue. The class meets once per week for 50 minutes, for the duration of the fall semester. For this class, all will need strong and reliable internet connection and an electronic device with internet access, such as a laptop or tablet. Please bring this electronic device with you to class every session, as you may need to use it in class for quizzes or for activities. There is no textbook for this course, but students are required to read the FRNY Building

Emergency Plan ([https://www.purdue.edu/ehps/emergency\\_preparedness/bep/FRNY-bep.html](https://www.purdue.edu/ehps/emergency_preparedness/bep/FRNY-bep.html)), the OSHA Laboratory Standard 29 CFR 1910.1450 and the Purdue Chemical Hygiene Plan (CHP) (<https://www.purdue.edu/ehps/rem/documents/programs/chp2014.pdf>). In addition, students are required to complete any assigned pre-class work before coming to the class. Students are also required to complete homework assignments and submit printed certifications by the end of the semester, as outlined in the lecture schedule.

**<https://purdue.curriculog.com/proposal:15892/form>**

*Graduate Council Document 22-33f*, **EAPS 50701, Geospatial Data Analytics** (PWL) Lecture 3 times per week for 50 minutes. Credit 3. Prerequisite(s): EAPS 50801. Cross-listed with CE 50700.

The course will introduce fundamental theories, analytical methods and programming skills that are needed to work with geospatial data. Students will learn the theories, methods, and techniques to visualize, analyze and model various geospatial data through hands-on computer programming practice based on various open source geospatial libraries. To be specific, the course will use R and its related packages as the basic tool for implementation. The goal is to enable the learners to develop their own geospatial analytical applications.

**<https://purdue.curriculog.com/proposal:21411/form>**

*Graduate Council Document 22-33g*, **EAPS 50801, Geographic Information Systems** (PWL) Lecture 3 times per week for 50 minutes. Credit 3. Prerequisite(s): EAPS 50801. Cross-listed with CE 50801.

This course covers a range of fundamentals in geographic information science and technology. Students will learn the use of current popular geographic information system (GIS) tools to handle various geographic data. Through working on real world geospatial problems, students shall gain extensive and hands-on experience in geographic data manipulation, visualization, and analysis. Course assignments are focused on both GIS theoretical basics and practical skills for students to achieve expected proficiency. The course will work with geospatial data in geography, topography, environmental science, hydrology, transportation, and geosocial science. It is targeted to students with interest in civil and environmental engineering, agriculture, geography, earth science, natural resources, smart cities or other related subjects.

**<https://purdue.curriculog.com/proposal:21409/form>**

*Graduate Council Document 22-46a*, **EEE 57000, Solid And Hazardous Waste Management** (PWL) Lecture 3 times per week for 50 minutes or Lecture 2 times per week for 75 minutes. Credit 3.

Students will be introduced to the regulation of solid and hazardous wastes; engineering design, planning and analysis of solid and hazardous waste management facilities.

**<https://purdue.curriculog.com/proposal:21557/form>**

*Graduate Council Document 22-46b, EEE 69199, Professional Practice Graduate Co-Op I (PWL) Experiential. Credit 0.*

Professional experience in environmental and ecological engineering. Program coordinated by EEE with cooperation of participating employers and the Office of Professional Practice. Students submit summary report and company evaluation.

<https://purdue.curriculog.com/proposal:21561/form>

*Graduate Council Document 22-46c, EEE 69299, Professional Practice Graduate Co-Op II (PWL) Experiential. Credit 0.*

Professional experience in environmental and ecological engineering. Program coordinated by EEE with cooperation of participating employers and the Office of Professional Practice. Students submit summary report and company evaluation.

<https://purdue.curriculog.com/proposal:21563/form>

*Graduate Council Document 22-46d, EEE 69399, Professional Practice Graduate Co-Op III (PWL) Experiential. Credit 0.*

Professional experience in environmental and ecological engineering. Program coordinated by EEE with cooperation of participating employers and the Office of Professional Practice. Students submit summary report and company evaluation.

<https://purdue.curriculog.com/proposal:21565/form>

*Graduate Council Document 22-46e, EEE 69699, Professional Practice Internship (PWL) Experiential. Credit 0.*

One-session professional experience in environmental and ecological engineering. Program coordinated by EEE with cooperation of participating employers and the Office of Professional Practice. Students submit summary report and company evaluation.

<https://purdue.curriculog.com/proposal:21566/form>

*Graduate Council Document 23-3a, PHRM 69500, Introduction To Pharmaceutical Sciences Research (PWL) Lecture 1 time per week for 110 minutes. Credit 0.50.*

Introduction of new graduate students to graduate programs, various disciplines, and the research environment in the College of Pharmacy, and prepare them for their graduate studies at Purdue College of Pharmacy. Each meeting is expected to have ~90 minutes presentation(s) and 30 minutes student discussion. Permission from department required.

<https://purdue.curriculog.com/proposal:22312/form>

Area Committee D, Humanities and Social Sciences (William (Bart) Collins, chair;  
bcollins@purdue.edu):

*Graduate Council Document 23-2a, ILS 51400, Information Skills For Health Professionals* (PWL) Lecture 2 times per week for 50 minutes for 8 weeks. Credit 1.

This course is designed to help you develop essential information skills to support your professional goals and prepare you to succeed in graduate or professional school in the health sciences. Learn how to navigate PubMed and other subject-specific databases, and differentiate between various types of research articles. Become adept at saving, organizing, and annotating articles so you can easily locate them, “cite while you write,” and share them with your classmates or research group. Prepare for writing for publication. And avail yourself of the resources and services academic libraries provide, beyond books and journals, to support your coursework and research. Permission from department or instructor required.

<https://purdue.curriculog.com/proposal:22941/form>

*Graduate Council Document 22-50a, LC 57300, Methods Of Experimental Research In Linguistics* (PWL) Lecture 2 times per week for 75 minutes. Credit 3.

The course is an overview of experimental methods used in linguistic research. The goal of the course is to introduce basic concepts, terminology, and procedures associated with experimental research in general, and to survey the types of experiments typically conducted in several major subfields of linguistics, including the associated experiment designs and approaches to data analysis. The course will focus mainly on designing and conducting the experiment, rather than on data analysis, although the data analysis techniques appropriate to the types of data will be briefly discussed whenever possible. The course will also cover additional topics such as ethics of experimental research (preparing an IRB protocol), doing background research, getting funding, choosing the right conference for presenting the results, writing a conference abstract, creating and delivering a conference presentation/poster, and writing up the results for publication.

<https://purdue.curriculog.com/proposal:22280/form>

*Graduate Council Document 22-50b LC 57700, Acoustic Analysis Of Speech* (PWL) Lecture 2 times per week for 75 minutes. Credit 3.

This course is an introduction to those aspects of acoustics most pertinent to understanding speech production and perception. It covers sound waves and their properties, digital signal processing, hearing and loudness, sound recording, and details of the acoustics of specific speech sounds such as vowels, plosives, fricatives, and nasals. The course includes a prominent practicum component aimed at learning to use software tools, specifically Praat, for analyzing acoustic properties of speech sounds.

<https://purdue.curriculog.com/proposal:22279/form>

Area Committee E: Life Sciences, (Richard Grant, chair; [rgrant@purdue.edu](mailto:rgrant@purdue.edu)):

*Graduate Council Document 22-49a*, **HSCI 61300, Professionalism And Professional Development In Health Sciences** (PWL) Lecture 1 time per week for 50 minutes. Credit 1. Prerequisite(s): GRAD 61200.

Professionalism is a skill set necessary for graduate student success and future career development. Professionalism consists of multiple attributes allowing for the development of effective and productive careers while also contributing to positive workplace environments. Specifically, these skill sets benefit all disciplines and career paths. This course will provide students with an overview of career development, soft skills, responsible conduct of research, and diversity, equity, and inclusion. This 1-credit course is specifically designed to supplement initial RCR training students receive in GRAD61200. The course is designed to support additional RCR training to meet expectations for best practices by NIH and other funding agencies. It will focus on professionalism and professional development for new students in their MS and Ph.D. programs across the Health Sciences. It will be delivered as a 50-min. combined lecture and class discussion once a week. All Ph.D. and thesis-based MS students in the School of Health Sciences are expected to take this course, typically in the Spring of their second or third year. Permission from department required.

<https://purdue.curriculog.com/proposal:22152/form>

*Graduate Council Document 22-49b*, **HSCI 62500, Grant Writing For Health Sciences** (PWL) Lecture 1 time per week for 50 minutes. Credit 1.

The ability to clearly communicate research concepts, ideas, and hypotheses is an essential skill for all researchers. Specifically, concise expression of complex research rationale, experimental design, and innovation through the grant application process benefits all disciplines and career paths. This course will provide students with an overview of the entire grant writing process through expert lectures, active discussion, writing activities, and peer-review processes.

<https://purdue.curriculog.com/proposal:21993/form>

Area Committee F, Management Sciences (Nicole, Widmar, chair; [nwidmar@purdue.edu](mailto:nwidmar@purdue.edu)):

*Graduate Council Document 22-11b*, **ECON 56700, Managerial Economics And Business Strategy** (PWL) Lecture 2 times per week for 75 minutes. Distance. Individual Study. Credit 1 to 4. Prerequisite(s): ECON 51400.

This course studies optimal decision-making processes made by managers and policy makers within firms and other organizations. The course is based on microeconomics and applies advanced microeconomics related concepts with an emphasis on pricing strategies. The course covers topics such as monopolies (price discrimination, optimal pricing strategies), advanced strategic decision making and imperfect competition (optimal pricing and production), new product introductions, product variety offered on the market, and entry deterrence strategies. We use a variety of examples and applications, and operate with modern tools (Game Theory) that facilitate the decision making process for individuals, policy makers and managers. The main goal of this course is to provide a basis for a good understanding of the logical mechanics, and to

provide a good intuition in managerial economics and business decision making processes that facilitate the understanding of daily business problems. Permission from instructor required.

<https://purdue.curriculog.com/proposal:22448/form>

*Graduate Council Document 22-10L, MGMT 51099, Practicum In Taxation Compliance And Consulting (PWL)* Lecture (1 credit) 1 time per week for 50 minutes. Lecture (2 credits) 1 time per week for 100 minutes or 2 times per week for 50 minutes. Lecture (3 credits) 1 time per week for 150 minutes or 2 times per week for 75 minutes or 3 times per week for 50 minutes. Credit 1 to 3.

MGMT 51099 is an experiential course to provide real-world experience and significant community service through volunteer tax compliance and consulting. The course partners with the Internal Revenue Service Volunteer Income Tax Assistance Program to provide significant free tax preparation and consulting services to low- and middle-income families in the Greater Lafayette community with an additional focus on providing these services to international students at Purdue. Learning outcomes include technical tax abilities as well as soft skills in a professional services environment.

<https://purdue.curriculog.com/proposal:22324/form>

## APPENDIX C

# **ORAL ENGLISH PROFICIENCY PROGRAM (OEPP)**

Mark Haugen, PhD

OEPP Director

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2/23/2023 | 1

## ***OEPP: An Overview***

- Established to fulfill Purdue's International Teaching Assistant verification requirement.
- OEPP Elements
  - Oral English Proficiency Testing
  - Instruction: Classroom Communication in ESL for International Teaching Assistants
  - Verify TAs are Certified for Oral English
  - Volunteer Program and Certificate



02/16/2023 | 2



## OEPP: Testing Services

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- For prospective international student TAs who do not meet the automatic certification requirements (e.g., 27 on the TOEFL speaking)
- In-person testing is offered monthly during the academic year.
- Weekly online testing for much of the summer



02/16/2023 | 3

## OEPT Five Point Scale Score Interpretation

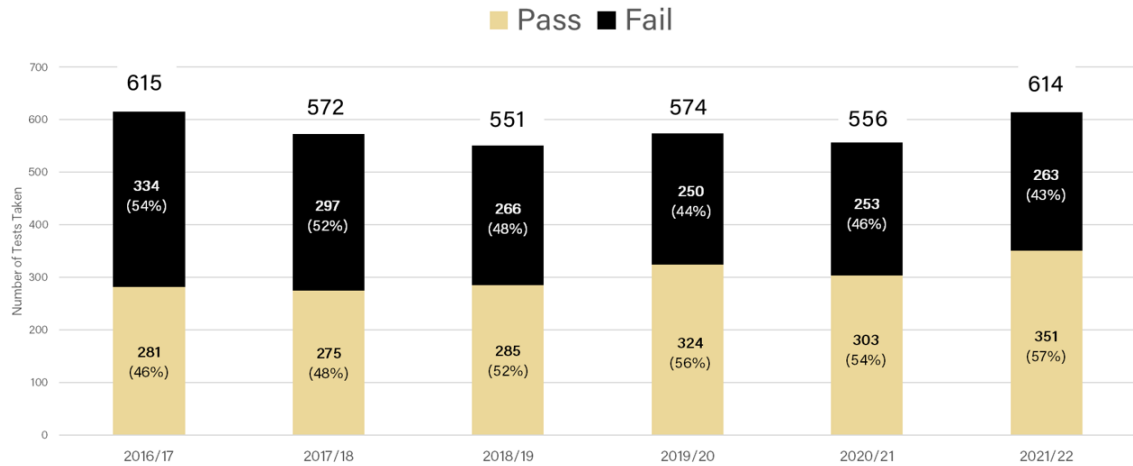
- 55: More than adequate proficiency for classroom teaching
- 50: Adequate proficiency for successful classroom communication without support
- **45: Minimally adequate for classroom teaching with support**
- 40: Language resources/ability to communicate at a level necessary for classroom teaching is limited - Not ready for classroom teaching
- 35: Language resources or ability to communicate is RESTRICTED



2/23/2023 | 4

## OEPP: Testing Continued

### Summary of OEPP Testing Statistics



02/16/2023 | 5

## OEPP: Instruction

### Instruction: Classroom Communication in ESL for International Teaching Assistants

- Language intensive 5-credit course with additional one-on-one tutoring
- 171 students in 2021-22
- Interaction with undergraduate students in 5 teaching presentations

## OEPP Volunteer Program

- Volunteers observe, participate, and prepare written feedback.
- For 10 hours of volunteering undergraduate students earn an *Intercultural Communication Partner Certificate*.
- 1048 unique volunteers; 1935 hours of volunteering in 2021-22.



02/16/2023

## Subskill Scores for Certification in Oral English for TAs

- Pay particular attention to **speaking** subskill scores.
- TOEFL iBT Speaking (0-30)
  - 27 on the speaking section are automatically certified.
  - **25 or higher** are likely to pass Purdue's Oral English Proficiency Test (OEPT).
  - 22 or lower are very unlikely to pass the OEPT and will need support to improve their speaking skills.
- Duolingo English Test (DET) and TOEFL Essentials
  - All prospective TAs with DET and Essentials scores will take the OEPT.
  - **DET 130 and higher** on **Production** and **Conversation**
  - Essentials **10 or higher** on the Speaking subsection

## Proficiency Test Concordance Table\*

Subhead Acumin Pro Semi Good Bold 22 pt

CEFR	TOEFL iBT	TOEFL Essentials	IELTS	DET
C1 Proficient User	117-118	12	8.0	150
	113-116	11.5	7.5	145
	109-112	11.0		140
	104-108	10.5		135
	98-103	10	7.0	130
B2 Independent User	93-97	9.5	6.5	125
	87-92	9.0		120
	82-86	8.5	6.0	115
	76-81 (80)	8.0		110
	70-75	7.5		105
	65-69	7.0	5.5	100
A2 Basic User	59-64	6.5		95
	53-58	6.0		90

Gold boxes are minimum scores for admission. The black box represents overall scores for those likely to receive at least a 45 on the OEPT. \*Concordance Table is approximate. It combines multiple concordance tables.

02/15/2023 | 9

## OEPP: Additional Support/Opportunities

- Feedback on Student Performance on the OEPT
  - One-on-One Tutoring
- Undergraduate Student Volunteers
  - Encourage your undergraduate students to volunteer
- Test Score Interpretation
  - OEPT, TOEFL, IELTS, Duolingo

# QUESTIONS, COMMENTS, CONCERNS

- Contact: Mark Haugen: [mhaugen@purdue.edu](mailto:mhaugen@purdue.edu)
- [OEPP@purdue.edu](mailto:OEPP@purdue.edu)
- <https://www.purdue.edu/oepp/>

## Overview of Accepted Proficiency Tests

- TOFL iBT, TOEFL Essentials, IELTS
  - Holistic scores composed of four subskill scores: reading, writing, listening, speaking
- Duolingo English Test (DET)
  - Sub scores are *Integrated Modalities*
  - Literacy (writing and reading), Comprehension (listening and reading), Production (speaking and writing), Conversation (speaking and listening)

## *Testing Tips for Students*

- Prepare, Prepare, Prepare
  - Decide which proficiency test you will take.
  - Utilize the extensive practice tests provided by the testing company (or Purdue for the OEPT).
  
- Warm up prior to taking the test.
  - At least the week before work on your language skills for at least the length of the test everyday (1-2 hours without pause).
  - The day of the test spend about 15 minutes warming up on each skill.
  - Practice all four skills (listening, reading, speaking, writing).

**NEW DOCUMENTS RECEIVED**  
(After the February 16, 2023, Graduate Council Meeting)

**GRADUATE COURSE PROPOSALS:**

Area Committee A, Behavioral Sciences (G. Jonathan Day, chair; gjday@purdue.edu):

*Graduate Council Document 23-18a, **SLHS 52501, Language And Communication In Autism Spectrum Disorders** (PWL) Lecture 2 times per week for 110 minutes for 8 weeks. Credit 2.*

This course explores the characteristics, courses, and potential causes of autism spectrum disorder (ASD) with a particular emphasis on language and social communication. And, how our understanding of these issues informs the assessment, diagnosis, and treatment of ASD. Students discuss and evaluate issues associated with ASD, including early diagnosis, behavioral challenges, evidence-based treatment techniques, and current issues in the field.

<https://purdue.curriculog.com/proposal:24086/form>

*Graduate Council Document 23-18b, **SLHS 54100, Cognitive Communication Disorders** (PWL) Lecture 2 times per week for 110 minutes for 8 weeks. Credit 2.*

This course examines the theoretical aspects and clinical management of cognitive communication disorders with an emphasis on right hemisphere brain damage, traumatic brain injury, dementia, and other degenerative neurological conditions.

<https://purdue.curriculog.com/proposal:23843/form>

*Graduate Council Document 23-18c, **SLHS 58800, Evaluating Research In Evidence-Based Practice** (PWL) Lecture 1 time per week for 100 minutes for 8 weeks. Credit 2.*

The focus of this course is on developing the skills necessary to critically consume literature and apply it to clinical practice as speech-language pathologists and audiologists. Students complete a comprehensive evidence-based practice project, which includes developing a clinical question, conducting a literature review, and critiquing acquired research articles. They gain guidance from a skilled mentor in their research area and receive course instruction on best practices in appraising research necessary for evidence-based practice.

<https://purdue.curriculog.com/proposal:23393/form>

Area Committee B, Engineering, Sciences, and Technology (Duane Dunlap, chair; [ddunlap@purdue.edu](mailto:ddunlap@purdue.edu)):

*Graduate Council Document 23-13b*, **CE 55010, Unit Operations And Processes In Environmental Engineering I – Physical And Chemical Treatment (PNW)**

Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): C or better in CE 35400.

To develop knowledge and skills necessary for the design and analysis of physical and chemical operations and processes utilized in water and wastewater treatment. Instructor permission required.

<https://purdue.curriculog.com/proposal:23902/form>

*Graduate Council Document 23-17a*, **CIT 56800, Distributed Systems And Cloud Computing (IUPUI)** Lecture 2 times per week for 75 minutes. Credit 3.

The objective of this course is to give students a basic grounding in designing and implementing distributed and cloud systems. This course will combine hands-on experience in developing cloud services with a firm grounding in the tools and principles of building both client-side and server-side cloud applications.

<https://purdue.curriculog.com/proposal:22886/form>

*Graduate Council Document 23-17b*, **CIT 59800, Directed MS Project (IUPUI)** Lecture 3 times per week for 50 minutes. Credit 1 to 3.

A formal investigation of a particular problem under the guidance of the Advisory Committee. Not applicable to a thesis option plan of study. Enrollment during at least two consecutive terms for a total of three credits is required. Permission of instructor is required.

<https://purdue.curriculog.com/proposal:21260/form>

*Graduate Council Document 23-20a*, **CM 55800, Advanced Construction Management For Disaster Recovery (PWL)** Distance. Credit 3.

Prepares construction project professionals to better plan and deliver post-disaster built environment and infrastructure restoration and reconstruction services. Emphasizes differences between conventional construction and disaster recovery work, considering projects of larger scope and including international concerns. Technical facets of restoration processes introduced to advise comprehensive management. Includes executive-level management case study with team solution. Permission from department required.

<https://purdue.curriculog.com/proposal:21266/form>

*Graduate Council Document 23-10c*, **MSE 51700, Materials For Hypersonics (PWL)** Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): Graduate standing or concurrent prerequisite with MSE 33000.

This course will include a brief history of hypersonic flight and design, along with a description of the aerothermal environment, to provide motivation for the use of ceramic materials as thermal protection systems and window materials. The classroom approach is to



develop a fundamental understanding of materials structure, forming and sintering, and properties (mechanical and thermal) of ceramics, and then apply that knowledge for hypersonic applications such as ultra-high temperature ceramics (UHTCs including  $ZrB_2$ ), ceramic matrix composites (including  $C_f/SiC$ ,  $SiC_f/SiC$ , and Carbon/Carbon), and materials requirements for RF and IR radomes and windows.

<https://purdue.curriculog.com/proposal:20982/form>

*Graduate Council Document 23-10f*, **MSE 52000, Steel And Aluminum Alloys: Processing, Structure And Properties** (PWL) Lecture 2 times per week for 75 minutes or 3 times per week for 50 minutes. Credit 3. Prerequisite(s): MSE 33000 or MSE 36700, or graduate standing.

Steel and aluminum alloy processing will be studied to provide fundamental understanding of how the final properties are influenced by processing from the extraction of metal from ore, through shaping by casting, hot-working and cold-working, and heat treatment for control of microstructure. This understanding will enable the student to go beyond comparisons of standard handbook values and recognize the fundamental metallurgical phenomena leading to differences in performance among the main alloy classifications. By examining the relationships among processing, microstructure, and properties, the course will provide the "know-how" for specifying, designing, and manufacturing with steels and aluminum alloys. Permission of instructor required.

<https://purdue.curriculog.com/proposal:23969/form>

*Graduate Council Document 23-10g*, **MSE 56800, Additive Manufacturing Of Materials** (PWL) Lecture 2 times per week for 75 minutes or 3 times per week for 50 minutes. Credit 3. Prerequisites: MSE 33000 or MSE 36700, or graduate standing.

The course takes an MSE approach to additive manufacturing, integrating deposition processing, powder processing, and solidification processing principles in the full range of AM process configurations and kinematics. The overarching goal is to learn how microstructure development, and thus the resulting material properties, are controlled by the interaction of physical, chemical, thermal and mechanical phenomena in the shaping of materials by additive processing. All the main classes of materials and AM processes are covered. Additional objectives are to quantitatively analyze the capabilities and limitations of AM relative to established commercial shaping processes; and to critically analyze the AM research literature. Permission of instructor required.

<https://purdue.curriculog.com/proposal:23972/form>

*Graduate Council Document 23-10d*, **MSE 57000, Introduction To Materials Modeling And Informatics** (PWL) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: Graduate Standing OR MSE 27000 and MSE 37000.

This course provides an introduction at the graduate level to theory and methods for simulating the structure and properties of materials. The course will provide a broad initial overview of many atomistic modeling techniques, followed by a detailed study of density functional theory (DFT) over several weeks, then a few lectures on classical molecular dynamics (MD) and Monte Carlo (MC) simulations, and finishing with an introduction to materials

informatics techniques which rely on learning from materials data. Students will obtain an essential understanding of quantum and classical theory and become acquainted with practical methods for running DFT, MD and MC simulations, as well as combining such simulations with simple machine learning and data science methods for materials design. Existing and new tools on nanoHUB, access to open-source simulation software, and writing simple Python code will be utilized for all necessary coursework and exercises. Permission of department required.

<https://purdue.curriculog.com/proposal:20777/form>

*Graduate Council Document 23-10e*, **MSE 57700, Materials Science Of Rechargeable Batteries** (PWL) Lecture 2 times per week for 75 minutes. Credit 3.

This course is aimed at junior/senior undergraduate and graduate students interested on developing an understanding on the Materials Science of Rechargeable Batteries. The focus is on electrochemical materials, its non-idealities (e.g., transport limitations, failure mechanisms), and its application to energy storage devices, such as batteries and fuel cells, particularly for portable electronics and hybrid/electric vehicles. This course will deliver an introduction to basic electrochemistry, principles of electrochemical devices, and electroactive materials as used in such systems. Current trends and directions in the field of battery technology will be outlined. Permission from department required.

<https://purdue.curriculog.com/proposal:21812/form>

*Graduate Council Document 23-10h*, **MSE 58500 Magnetic Materials: Physical Properties And Applications** (PWL) Lecture 2 times per week for 75 minutes. Credit 3.

Prerequisite(s): Graduate standing or MSE 33000 and MSE 37000.

This course provides an introduction of the basic physical and structural properties that determine the functionality of magnetic materials and devices. Starting from basic concepts on the physics of magnetism, materials synthesis and device fabrication, the functional requirements of magnetic materials for diverse applications will be discussed. Magnetic material properties depend on the electronic structure of the constituent elements and their electronic interactions. These interactions are controlled by their atomic arrangement, microstructure, defects, and strain fields that distort the local atomic order. Furthermore, the role of reduced dimensionality on the physical and functional properties of nanoscale materials will be discussed.

<https://purdue.curriculog.com/proposal:23839/form>

Area Committee C: Chemistry, Engineering, and Physical Sciences, (Suzanne Bart; chair, sbart@purdue.edu):

*Graduate Council Document 23-15b*, **BME 54600, Engineering Analysis Of Tissues** (IUPUI) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): Introductory Biomechanics or comparable Mechanics course.

This course will cover the principles of a number of characterization methods used to assess the quantity and quality of tissues. The course will primarily focus on musculoskeletal tissues, although techniques are relevant to other tissues as well.

<https://purdue.curriculog.com/proposal:22323/form>

*Graduate Council Document 23-19a, CHE 50200, Analytical Approach To Healthcare Delivery* (PWL) Lecture 2 times per week for 75 minutes. Credit 3.

This course provides a “real world” overview of healthcare delivery in the United States (US). The major medical technology segments (pharmaceutical compounds and medical devices) are a significant focus, including their research and development processes, regulatory framework, and market approaches. Another highlight of the course is an assessment of a series of critical medical conditions having the highest impact on the US healthcare system. Clinical cases illustrating these conditions along with case studies designed to provide practical examples of healthcare developments and challenges are included. A number of emerging healthcare developments, including precision medicine, artificial intelligence, digital health, and value-based care, are addressed. In addition, the numerous ways in which the COVID-19 pandemic has affected patients and the manner in which they receive healthcare are discussed. Permission of instructor required.

<https://purdue.curriculog.com/proposal:17053/form>

*Graduate Council Document 23-16a, MA 57300, Numerical Solution Of Ordinary Differential Equations* (PWL) Lecture 3 times per week for 50 minutes. Credit 3.

Prerequisite(s): MA 51400 or CS 51400.

Numerical solution of initial-value problems by Runge-Kutta methods, general one-step methods, and multistep methods; analysis of truncation error, discretization error, and rounding error; stability of multistep methods; numerical solution of boundary- and eigen-value problems by initial-value techniques and finite difference methods.

<https://purdue.curriculog.com/proposal:22069/form>

Area Committee D, Humanities and Social Sciences (William (Bart) Collins, chair;  
bcollins@purdue.edu):

*Graduate Council Document 23-15a, HIST 68000, Entering The History Profession* (PWL) Lecture 1 time per week for 150 minutes. Credit 3. Prerequisite(s): HIST 61000 and HIST 61100.

This seminar is for advanced graduate students who are in the final two years of the program. In your earlier courses, you have become proficient in various methodological approaches and have gotten well acquainted with the historiography in various fields of study. You also have pursued original research and have navigated the classroom challenges. Now is the time to prepare for the job market, thinking critically about the skills you have acquired during graduate school and discerning strategies to communicate your credentials to a hiring committee. During this seminar, we will focus on how to structure a curriculum vitae, write a cover letter, create a teaching portfolio, craft a diversity statement, and select writing samples. We will also hold mock interviews to prepare you to orally communicate your skills, experiences, and expertise. Graduate students will also meet with professionals outside

academia to learn about navigating the world of business, journalism, politics, non-profits, and public history. Permission of department required.

<https://purdue.curriculog.com/proposal:22963/form>

*Graduate Council Document 23-2b, ILS 55200, Research Data Management For Quantitative Data* (PWL) Lecture 1 time per week for 50 minutes. Laboratory 1 time per week for 100 minutes. Distance. Credit 3.

This course will provide students working with quantitative data an overview of major issues in quantitative data management such as data set organization; data versioning, backup, and archiving; computer file and directory organization; data quality control, exploration, visualization and analysis; and data sharing, publication, copyright and ownership. Students will be introduced to a wide range of public databases to serve as examples of data organization, sources of reusable research data, and possible platforms for data publication. Recent trends and emerging issues in data and information science will be discussed, but the primary focus will be on encouraging students to apply critical thinking so they can develop practical strategies to their own research data issues. Accordingly, the course places a strong emphasis on active learning with theoretical lectures and discussions reinforced by applied lab sessions using tools such as Excel, R, Unix, Git, and parallel computing.

<https://purdue.curriculog.com/proposal:23798/form>

Area Committee E: Life Sciences, (Richard Grant, chair; rgrant@purdue.edu):

*Graduate Council Document 23-5b, BIOL 51610, Molecular Biology Of Cancer* (PNW) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): BIOL 24300 and BIOL 24400.

A detailed course examining the molecular mechanisms controlling the growth of animal cells. Emphasis will be placed on current experimental approaches to defining the molecular basis of growth regulation in developing systems and the uncontrolled proliferation of cells in metabolic disorders, such as cancer.

<https://purdue.curriculog.com/proposal:23838/form>

