

PURDUE UNIVERSITY GRADUATE SCHOOL

Minutes of the Graduate Council Meeting
April 21, 2022
2:30 p.m.

Seventh Meeting
PFEN 241

PRESENT: Linda J. Mason, chair, Council Members, Yong Bao, Joy Colwell, G. Jonathan Day, Eric D. Deemer, Bryan DeWitt, Emad Elwakil, Levon Esters, Margaret Gitau, Catherine A. Golden (Provost's Representative), Jeffrey P. Greeley, Chong Gu, Erla Heyns, Randolph D. Hubach, Troy D. Janes, Ann L. Kirchmaier, Douglas J. LaCount, Jiliang Li, James L. Mohler, Deputy Chair, Melanie Morgan Madelina Nuñez, Tina L. Payne, Megan Sapp Nelson, Abraham Schwab, Ann Shanahan, Michael G. Smith, John A. Springer, Jill J. Sutor, Eric Waltenburg, Christine Wuenschel

APOLOGIES FOR ABSENCE RECEIVED FROM:

Thomas W. Atkinson, Janice S. Blum, Steven J. Burdick, David S. Cochran, Keith B. Gehres, Kevin D. Gibson, Timothy B. Lescun, Judith Lewandowski, Yanjun Li, Paul Salama, Joseph D. Thomas

ABSENCES: Raida Abuizam, Christopher R. Agnew, Kola Ajuwon, Suzanne C. Bart, Christopher K. Belous, Tong Jin Kim, Zhan Pang, Chenn Zhou

GUESTS: Debbie Fellure, April Ginther, Sharry Vahed, Korena Vawter

I. MINUTES

The March 2022 Graduate Council meeting minutes were approved via the Qualtrics Survey.

II. DEANS REMARKS AND REPORTS

Dean Linda Mason

- Duolingo was used during the pandemic as one of the English Language Proficiency test. We were allowed to get a COVID exception associated with the federal government to use this test.
- Admission requirements are submitted every couple of years to the federal government in order that they know what is used for admission standards when issuing visas for students who are coming.

- The COVID exception for Duolingo will expire, so we will not use it for the next couple of years; however, we will put in place starting in the Fall of 2024-2025.
- We will reach out to departments as we put the request in for those who want to use this additional test and for those who do not chose to use the test. We will have a list of those who will be sending those scores and those who will not.
- Communication was received from Christine Collins, Director, International Student Services on what the federal government and admissions on the update from Homeland Security.
- Homeland Security has noted that March 2020 COVID Reliance Guidance will continue through the 2022-2023 school year for those students who have been in the United States and maintained their status since March 9, 2020. Since Purdue will no longer offer a COVID online catalog and has resumed the model of normal operations going forward, we will enforce the strict limit on enrolling in online distance synchronous and asynchronous courses for all international students. However, there will be no negative impact for the next year if one or more of the traditional classroom-based classes are forced to move online due to COVID again.
- The financial model for the Purdue Global Concord Law certificates have been worked out by Martin Pritikin, Dean of the Concord Law School and Dr. Mohler in the Graduate School.
- Dean Pritikin was able to remove many of the fees and charge one tuition bill for international, in-state, and out-of-state students.
- Students that will be on assistantships on the West Lafayette campus will have fee remits cover their tuition. Students that are already paying their tuition would pay their tuition through this, but at a very reasonable price comparison for what they would be paying dollar to dollar for credit hour courses.
- They eliminated all additional fees that a student would pay to be an online student in the law school.
- A flyer will be created to get this information out to students.
- Dr. James Mohler will facilitate the process.

III. PRESENTATION

- a) JoAnne Brouillette, Trustee presented the role of the Board of Trustees. See Appendix C.
- b) Catherine Golden, Vice Provost of Teaching and Learning presented the *HLC Year 4 Assurance Review*. See Appendix D.

IV. AREA COMMITTEE REPORTS (Area Committee Chairs)

Graduate Council Document 22, E Graduate Council Documents Recommended for Approval. See Appendix B. Voted via Qualtrics survey.

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

Madelina Nuñez, President of the Purdue Graduate Student Government (PGSG) gave an overview of the Purdue Student Government. See Appendix E.

VI. POSTHUMOUS DEGREE REQUEST

Graduate Council Document 22-D, Request to Award a Posthumous Degree, submitted by the Brian Lamb School of Communication.

Dr. James Mohler presented Graduate Council Document 22-D, Request to Award a Posthumous Degree, which stated that the late Elif Ilkel met the University's requirements for the conferral of a posthumous Master of Science degree. During the review of Ms. Ilkel's records, the following were noted:

- Ms. Ilkel began her Purdue University graduate program in the Fall of 2021 in the Master of Science program in Communication.
- Ms. Ilkel's plan of study for the Master of Science in Communication was approved on November 11, 2021. The plan of study included 30 credits of coursework. Of the coursework, 24 was completed by Spring 2022 Semester.
- Ms. Ilkel's plan of study focused on Integrated Communication and Advertising.

Given that Ms. Ilkel was a candidate for graduation in Spring 2022, it is my conclusion that Ms. Ilkel fully meets the requirements to receive a posthumous Master of Science Degree.

A motion was made and the council unanimously approved the request. The request will be forwarded to the Office of the President for final approval.

The council meeting was adjourned by Dean Mason at 4:00 p.m.

Linda J. Mason, Chair
Tina L. Payne, Secretary

APPENDIX A

PENDING DOCUMENTS

(April 2022)

BOLDED ITEMS ARE IN REVIEW WITH AN AREA COMMITTEE

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

Graduate Council Document 22-16a, SLHS 56501, Vestibular Assessment And Rehabilitation (PWL)

Area Committee B, Engineering, Sciences, and Technology (John A. Springer, chair; jaspring@purdue.edu):

Graduate Council Document 22-19a, AT 54300, Contemporary Issues in Airport & Airline Finance (PWL)

Graduate Council Document 22-18a, CE 53610, Behavior Of Reinforced Concrete And Composite Structures (PNW)

Graduate Council Document 22-20a, CIT 51101, iOS Mobile Application Development (IUPUI)

Graduate Council Document 22-20b, CIT 51102, Android Mobile Application Development (IUPUI)

Graduate Council Document 22-4c, ME 54310, Solar Energy Engineering Systems (PNW)

Graduate Council Document 22-4b, ME 51210, Introduction To Aerodynamics (PNW)

Area Committee C: Chemistry, Engineering, and Physical Sciences, Margret Gitau, chair; mgitau@purdue.edu):

Graduate Council Document 22-2b, BME 52600, Cardiac Electrophysiology (IUPUI)

Graduate Council Document 22-11a, FS 55402, Food Processing (PWL)

Area Committee D, Humanities and Social Sciences (Jill Sutor, chair; jsutor@purdue.edu):

Graduate Council Document 21-16a, AMST 60600, American Studies Methods (PWL)

Area Committee E: Life Sciences, (Timothy Lescun, chair; tlescun@purdue.edu):

Graduate Council Document 22-13a, HORT 57200, Stakeholder Involvement In Landscape Management (PWL)

Graduate Council Document 22-14a, NRES 57200, Stakeholder Involvement In Landscape Management (PWL)

Area Committee F, Management Sciences (TBD):

Graduate Council Document 22-5a, ECON 58700, Advanced Quantitative Economics With Python (PWL)

Graduate Council Document 22-10a, MGMT 63150, Accounting For Private Equity (PWL)

Graduate Council Document 22-10b, MGMT 63250, Advanced International Accounting (PWL)

Graduate Council Document 22-10c, MGMT 63550, Accounting Consulting For Entrepreneurship (PWL)

Graduate Council Document 22-10d, MGMT 63650, Accounting Consulting For Entrepreneurship (PWL)

Graduate Council Document 22-10e, MGMT 63750, Advanced Taxation (PWL)

Graduate Council Document 22-10f, MGMT 63850, Public Company Reporting & Regulation (PWL)

Graduate Council Document 22-10g, MGMT 63901, London Trip for IASB (PWL)

Graduate Council Document 22-10h, MGMT 63902, Washington DC Accounting For Policy (PWL)

CERTIFICATE(S):

Area Committee B, Engineering, Sciences, and Technology (John A. Springer, chair;
jaspring@purdue.edu):

Graduate Council Document 22-3, Postbaccalaureate Certificate in Healthcare Technology from the Interdisciplinary Engineering Program, PWL

APPENDIX B

GC Document 22-E

DOCUMENTS RECOMMENDED FOR APPROVAL BY THE GRADUATE COUNCIL APRIL 2022

GRADUATE COURSE PROPOSALS:

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

Graduate Council Document 22-16a, SLHS 56501, Vestibular Assessment And Rehabilitation (PWL) Lecture 2 times per week for 110 minutes for 8 weeks. Laboratory 1 time per week for 110 minutes for 8 weeks. Credit 3.

This course will review anatomy and physiology of the vestibular system. Diagnostic assessment, interpretation and proper recommendation techniques will be discussed. Current research addressing dizziness and balance issues will be reviewed as well as case history discussions to help prepare students to see these patients in a clinic setting.

The clinical practice of audiology encompasses the assessment and habilitation/rehabilitation vestibular and balance disorders arising from a wide variety of medical and environmental etiologies. It is essential that audiologists have a firm understanding of the most common causes and medical treatments of vestibular disorders for all age groups.

Additionally, vestibular assessment and treatment options are expanding rapidly in the past 5-10 years. Student clinicians need exposure to this area of care so that they may grow as research and technology change. Audiologists practice in a medical setting and thus must be comfortable with the medical approaches and terminology used by otolaryngologists, otologists, neuro-otologists, pediatricians, physical therapists and other allied health professions.

<https://purdue.curriculog.com/proposal:17983/form>

Area Committee B, Engineering, Sciences, and Technology (John A. Springer, chair; jaspring@purdue.edu):

Graduate Council Document 22-19a, AT 54300, Contemporary Issues in Airport & Airline Finance (PWL) Distance. Credit 3.

This course provides an overview of aviation financial management and is intended for current and future aviation and aerospace leaders and managers. Taking a global view, the course opens with the tremendous economic impact of the aviation sector that both drives and enables the interdependent global economy. The course material covers the unique business models and best practices in financial management for both the airport and airline industries and analyzes the relationship between the two (including the complications implicit in highly divergent planning horizons). The complexity of aircraft financing decisions is covered that lead up to building a fleet to serve the airlines' forecast growth. The course uses relevant readings and case studies as well as statistical data in time series to demonstrate the way financial

management has evolved to improve performance in both the airport and airline industries. Permission of department required.

<https://purdue.curriculog.com/proposal:16581/form>

Graduate Council Document 22-18a, CE 53610, Behavior Of Reinforced Concrete And Composite Structures (PNW) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): CE 47100.

This course introduces advanced topics related to behavior of reinforced concrete (RC) and composite structures with emphasis on ductility of members and reinforcement detailing for seismic loads. Topics that are introduced in this course include flexural behavior of RC beams, design of two-way slabs using the direct design method and equivalent frame method, analysis and design concrete encased composite members including both beams and columns, axial behavior of concrete filled box columns, and the strut-and-tie model.

<https://purdue.curriculog.com/proposal:17771/form>

Graduate Council Document 22-20a, CIT 51101, iOS Mobile Application Development (IUPUI) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): Any programming course equivalent to 300-level programming. Any relational database course equivalent to 200-level database course.

This advanced programming course teaches students to create data-driven, location-aware mobile applications for the iOS platform. Students will learn common mobile app design patterns and will integrate cloud computing services into their applications. Prerequisite: Any programming course equivalent to 300-level programming. Any relational database course equivalent to 200-level database course.

<https://purdue.curriculog.com/proposal:18254/form>

Graduate Council Document 22-20b, CIT 51102, Android Mobile Application Development (IUPUI) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): Any programming course equivalent to 300-level programming. Any relational database.

This advanced programming course teaches students to create data-driven, location-aware mobile applications for the Android platform. Students will learn common mobile app design patterns and will integrate cloud computing services into their applications. Pre-requisite: Any programming course equivalent to 300-level programming. Any relational database.

<https://purdue.curriculog.com/proposal:18255/form>

Graduate Council Document 22-4b, ME 51210, Introduction To Aerodynamics (PNW) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): ME 31200 with C or better.

This course is an introductory upper level class on aerodynamics and will cover the fundamentals of aerodynamics on fixed, rotatory and flapping wings. Classic aerodynamic theories and models, including Kutta-Joukowski theorem, lifting line theory, blade element method, disk momentum theory, quasi-steady model and etc will be explained and discussed in

the class. Additionally, lab sections will be added to the class for an in-depth understanding about the subject. Permission of instructor required.

<https://purdue.curriculog.com/proposal:17799/form>

Graduate Council Document 22-4c, ME 54310, Solar Energy Engineering Systems (PNW)
Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): ME 31600 with C.

This course will cover various topics in solar engineering system, including solar radiation, flat plate collector, concentrating collectors, solar system for heating/cooling, solar desalination and photovoltaic system. A PV system designing software (PVsyst) will be introduced for the final project. Permission of instructor required.

<https://purdue.curriculog.com/proposal:17877/form>

Area Committee C: Chemistry, Engineering, and Physical Sciences, Margaret Gitau; chair, mgitau@purdue.edu):

Graduate Council Document 22-2b, BME 52600, Cardiac Electrophysiology (IUPUI)
Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): BME 39500 or equivalent with permission of instructor. Familiarity with basic analog and digital electronic circuits, basic methods of engineering design and basic numerical simulation techniques and numerical methods for the solution of ordinary and partial differential equations. Competency in the use of MATLAB in the solution of ordinary differential equations. A basic understanding of electrical sources and fields. Co-Requisite: BME 39500 or equivalent with instructor permission.

This course will introduce the basic principles of cardiac-generated bioelectricity as measured at cellular, extracellular and body surfaces. The generation, detection and classification of abnormal cardiac rhythms will be emphasized. Clinical and engineering principles of relevant electro-therapies will also be studied including cardiac pacemakers, defibrillators and ablation therapies involving cardiac mapping and a variety of ablative energy sources. Modern signal processing methods as applied to electrocardiography will also be presented. Permission of department required.

<https://purdue.curriculog.com/proposal:10841/form>

Graduate Council Document 22-11a, FS 55402, Food Processing (PWL) Lecture 3 times per week for 50 minutes for 5 weeks. Credit 1.

The Food Processing course will present an overview of the basic food engineering concepts and unit operations involved in the manufacture of various food products. Students will be able to understand the food processing literature and to effectively communicate with food technologists and engineers. Topics to be covered include: physical properties of foods, unit operations commonly found in the food industry, and processing equipment. Permission of department required.

<https://purdue.curriculog.com/proposal:19809/form>

Area Committee E: Life Sciences, (Timothy Lescun, chair; tlescun@purdue.edu):

Graduate Council Document 22-13a, HORT 57200, Stakeholder Involvement In Landscape Management (PWL) Cross-listed with NRES 57200. Lecture 1 time per week for 100 minutes. Credit 2.

Engaging the public in natural resource decision making is an increasingly important and complex task. This course provides an overview of how to include diverse stakeholders in decision making, collaboration, and conflict resolution through readings, class discussions, and role plays.

<https://purdue.curriculog.com/proposal:20023/form>

Graduate Council Document 22-14a, NRES 57200, Stakeholder Involvement In Landscape Management (PWL) Cross-listed with HORT 57200. Lecture 1 time per week for 100 minutes. Credit 2.

Engaging the public in natural resource decision making is an increasingly important and complex task. This course provides an overview of how to include diverse stakeholders in decision making, collaboration, and conflict resolution through readings, class discussions, and role plays.

<https://purdue.curriculog.com/proposal:19846/form>

Area Committee F, Management Sciences (TBD):

Graduate Council Document 22-5a, ECON 58700, Advanced Quantitative Economics With Python (PWL) Distance. Credit 3. Prerequisite(s): ECON 57700.

The main goal of this course is to extend the computational and programming toolkit developed in Quantitative Economics with Python course. In particular, we will cover advanced methods for working with, visualizing and analyzing data in Python. In addition, we will consider more advanced programming techniques including stochastic optimization and dynamic programming. Throughout the course we will consider a number applications related to microeconomics, macroeconomics, and econometrics covered in the MS Econ program curriculum.

<https://purdue.curriculog.com/proposal:18703/form>

Graduate Council Document 22-10a, MGMT 63150, Accounting For Private Equity (PWL) Credit 3.0: Lecture 3 times per week for 50 minutes. Credit 2.0: Lecture 2 times per week for 50 minutes. Distance. Credit 2 or 3.

The course offers students with knowledge of private equity services that accounting firms provide to clients. It covers investment banking, buy & sell side due diligence, M&A tax services, business valuations, etc.

<https://purdue.curriculog.com/proposal:19912/form>

Graduate Council Document 22-10b, MGMT 63250, Advanced International Accounting (PWL) Credit 3.0: Lecture 1 time per week for 150 minutes. Credit 2.0: Lecture 1 time per week for 100 minutes. Distance. Credit 2 or 3.

This course is designed to help students a) Learn about the development of international accounting movements and implications in a globalized financial market; b) Develop the ability to read and interpret the financial statements of companies that are prepared in accordance with International Financial Reporting Standards (IFRS); c) Emphasize the importance of professional judgment in international accounting when assessing different accounting treatments for the same event; d) Learn to cope with differences in financial measurement, recognition, and reporting practices; and e) Enhance the students' communication skills. The course should also contribute to the requisite background required for professional examinations such as CPA and to become prepared for a long-range successful accounting, auditing, and/or managerial career.
<https://purdue.curriculog.com/proposal:19808/form>

Graduate Council Document 22-10c, MGMT 63550, Accounting Consulting For Entrepreneurship (PWL) Credit 3.0: Lecture 3 times per week for 50 minutes. Credit 2.0: Lecture 2 times per week for 50 minutes. Distance.. Credit 2 or 3.

This course is an experiential learning experience that is part of the Experiential Learning Initiative in the Krannert School of Management. The main goal of the course is to provide various accounting services to STEM start-up companies which are based on Purdue's innovations (www.purduefoundry.com) and to established companies in the bigger corporate world. At the same time, we also would like to give our students the opportunity to apply their acquired classroom knowledge and have them exposed to some real-world accounting problems that start-up or established companies typically experience. Our students are expected to provide various accounting support services that are related to financial accounting & reporting, managerial accounting, business planning, and/or tax issues. The format of the course is very open. The first four weeks will be spent in a classroom setting, with presentations on how to professionally manage a client relationship and how to successfully tackle projects in a challenging STEM start-up and/or established corporate environment. Each project will be completed by teams of 3-5 students, which will be formed at the beginning of the semester. After the initial classroom sessions, the project teams will be on their own, with faculty guidance, running the engagement. The teams will meet with the clients to determine their needs and expectations. The students will do the work and deliver the output including a final presentation to the client.

<https://purdue.curriculog.com/proposal:19925/form>

Graduate Council Document 22-10d, MGMT 63650, Accounting Consulting For Entrepreneurship (PWL) Lecture 3 times per week for 50 minutes. Distance. Credit 3.

This course is designed to introduce students to the foundational elements underlying ethics and ethical behavior, with an emphasis on ethical issues facing professional accountants. The course will provide students with a framework of ethical reasoning, professional values and attitudes for exercising professional skepticism, and other behavior that is in the best interest of the public and accounting profession. The course will also review the core values of integrity, objectivity, and independence as well as rules of professional conduct. This course uses real-

world case studies and practical hands-on applications in order to enhance the student's ability to recognize ethical dilemmas and overcome them with sound ethical decision-making. Students successfully completing this course in a face-to-face, traditional classroom setting may be assured that the course meets the Texas State Board of Public Accountancy (TSBPA) and Illinois Board of Examiners ethics course required to apply for taking the Uniform CPA Examination.

<https://purdue.curriculog.com/proposal:19916/form>

Graduate Council Document 22-10e, MGMT 63750, Advanced Taxation (PWL)
Credit 3.0: Lecture 3 times per week for 50 minutes. Credit 2.0: Lecture 2 times per week for 50 minutes. Distance. Credit 2 or 3.

This course is directed at students who wish to learn more about the taxation of business entities beyond the basic principles taught in MGMT 504 Introductory Tax Accounting or an equivalent course. The course will cover broad topics such as tax law sources and tax research; the tax advantages and disadvantages of various business entities as well as how entrepreneurs may choose the optimal entity for tax purposes; taxable and nontaxable methods of mergers, acquisitions, and divestitures; fundamental concepts of consolidated tax returns for C Corporations; and the accounting for income taxes under ASC 740.

<https://purdue.curriculog.com/proposal:19923/form>

Graduate Council Document 22-10f, MGMT 63850, Public Company Reporting & Regulation (PWL) Credit 3.0: Lecture 3 times per week for 50 minutes. Credit 2.0: Lecture 2 times per week for 50 minutes. Distance. Credit 2 or 3.

This course introduces students to the Securities and Exchange Commission's (SEC) rules and regulations as they apply to U.S. companies and their auditors. Requirements for frequently encountered annual reporting responsibilities (e.g., Forms 10-K, 10-Q, 8-K, proxy statements, etc.) and registration statements are explored and analyzed. Actual SEC filings provide real-world applications and interpretation of the SEC's rules. Rules imposed by the primary U.S.-based stock exchanges are introduced as is the history of the SEC and current trends affecting this rulemaking body. Additionally, this course encompasses the enforcement power of the SEC and its implications to companies, their officers, and accountants.

<https://purdue.curriculog.com/proposal:19928/form>

Graduate Council Document 22-10g, MGMT 63901, London Trip for IASB (PWL) Distance. Individual Study. Credit 2 or 3.

This is an experiential study abroad class with workshops held at the International Accounting Standards Board (IASB) as well as at one of the leading universities in the UK. In addition, students will visit public multinational companies and/or accounting firms in the Greater London area, UK.

<https://purdue.curriculog.com/proposal:19920/form>

Graduate Council Document 22-10h, MGMT 63902, Washington DC Accounting For Policy (PWL) Distance. Individual Study. Credit 2 or 3.

This course offers students an intensive, distinctive, personal and professional development experience, addressing critical public policy institutions, issues, and trends affecting the profession of accounting. Over 3 days in Washington, D.C., participants meet with and gain a greater understanding of the role of regulatory agencies such as the Public Company Accounting Oversight Board and the Securities and Exchange Commission. Participants also have meetings and discussions with organizations governing the accounting profession, such as the American Institute of Certified Public Accountants and the Center for Audit Quality, as well as more informal but important organizations such as trade associations and think tanks. The course often includes visits with members and staff from Congress and officials from the Executive Branch to understand their institutional roles in governing the profession. These meetings include discussions of the relevant tax, securities, commodities, and oversight committees in Congress, for example. Within the Executive Branch, discussions typically include the operations of forensic accounting and compliance within agencies such as the U.S. Treasury and Internal Revenues Service and the Federal Bureau of Investigation. Participants also gain practical insights into the strategic role of government relations, as well as the role of public policy lobbying and advocacy by the overall profession and individual firms, regarding issues that affect them and their clients. Other topical sessions often include discussions of cybersecurity policy, tax policy, and other topics relevant to the profession and key clients.

<https://purdue.curriculog.com/proposal:19921/form>

CERTIFICATE(S):

Area Committee B, Engineering, Sciences, and Technology (John A. Springer, chair;
jaspring@purdue.edu):

Graduate Council Document 22-3, Postbaccalaureate Certificate in Healthcare Technology from the Interdisciplinary Engineering Program, PWL

<https://purdue.curriculog.com/proposal:20414/form>

APPENDIX C

Board of Trustees

What is the Board of Trustees?

- The Board of Trustees is the governing body of the university and is responsible for overseeing the university's operations and ensuring critical decisions are made to enhance and further the university's mission, long-term interests, and priorities.
- Indiana Code provides "that the Board may do all acts necessary and expedient to put and keep Purdue University in operation and that the Board may make all bylaws, rules, and regulations required to conduct and manage Purdue University."

Board of Trustees

Ten Members

- Six directly appointed by the governor.
- Three elected by Purdue Alumni Association; one must be from the College of Agriculture. Governor formally appoints.
- One is a student (undergraduate or graduate from WL, PNW, or PFW campus).
- Three-year terms, except student trustee (two years).
- No term limits, except student (one term).

Board of Trustees

Officers

- Chairman
- Vice Chairman
- Secretary
- Treasurer
- General Counsel
- Assistant Secretary
- Assistant Treasurer
- Deputy General Counsel

Board of Trustees

Committees

- Academic and Student Affairs
- Audit and Enterprise Risk Management
- Compensation
- Executive
- Finance
- Physical Facilities

Board of Trustees

Responsibilities

- Selection and evaluation of the university president

Oversight of...

- Academic functions, including conferral of degrees
- University's financial position, risk profile, and risk financing mechanisms
- Recruitment, compensation, and retention of the president, other senior administrators, officers, and coaches
- Management of the university's investments, funds and trusts, and debts
- Construction and renovation of university facilities, including student housing

Board of Trustees

Meetings

- Bylaws provide for six meetings per year
- Executive sessions: legal, personnel, etc.
- 48-hour notice required

Board of Trustees



Michael Berghoff



Gary Lehman



Sonny Beck



JoAnn Brouillette



Theresa Carter



Vanessa Castagna



Malcolm DeKryger



Mark Gee



Michael Klipsch



Don Thompson

Board of Trustees

On the web

www.purdue.edu/bot

[Board of Trustees 101](#)

APPENDIX D

HLC ASSURANCE REVIEW YEAR 4

Open Pathway
Timelines & Milestones



4/26/2022 | 1

Higher Learning
Commission (HLC)

Open Pathway Overview:
10 Year Cycle



4/26/2022 | 2

Year 4

Assurance Review

Submit Assurance Filing (Assurance Argument and Evidence File)

Peer Review; no Visit

Year 4 Assurance Review

Starting point is the Year 10 Comprehensive Evaluation (2019)

- HLC assumes we continue to meet all the criteria for accreditation
- “Affirm that the narrative and evidence presented at the time of the previous review is still in effect.”
- Updates on recent activities since Year 10
- Provide evidence to support updates

Topics of possible Year 4 updates include:

New evidence of the institution's commitment to student outcomes assessment or to changes made as a result of recently conducted program reviews, particularly if the institution reviews certain departments or programs on a rotating basis or introduced new majors, concentrations or degree programs since its comprehensive evaluation.

New activities, events or expansion plans that are connected to the institution's strategic plan or campus facilities master plan, in response to new initiatives or projects funded through extramural sources or Trustees' support, or that meet the needs of new student groups or cohorts.

Assessment of the value of new educational technologies and innovations in student learning, support activities, residential life, or off-campus activities.

An evaluation of the academic foundations laid by seed grants or extramural funding or made possible by new enrollment management successes or priorities that enable new growth opportunities across departments, schools or campus.

The appointment of new faculty members and staff in relation to the institution's strategic plan and academic priorities, departmental organization, research activities, funding opportunities or programmatic directions.

New activities related to civic engagement, community-based learning, apprenticeships, internships or service learning opportunities.



Lean Team

Roster

▪ Co-Chairs:

- Catherine Golden, Assistant Vice Provost for Academic Initiatives
- Anne Weiss, Assistant Director IDA+A

▪ Members

- Lisa Keefe, Curricular Initiatives Manager
- Theresa Martin, Assessment, Systems and Specialized Accreditation Lead
- David Nelson, Associate Director for Center for Instructional Excellence
- TBD, Faculty Representative

Actively seeking volunteer



Countdown to Lock Date - October 23, 2023

Timeline	Activity	Participants
Spring 2022	Planning	Lean Team
Summer 2022	Outreach begins - updates/evidence	Staff, Lean Team
Early Fall 2022	Outreach continues	Faculty, Staff, Lean Team
Late Fall 2022	Preliminary Draft and Evidence Inventory	Lean Team
Spring 2023	Preliminary Review and Additional Evidence Requests	Committees, Heads, Units, Lean Team
Summer 2023	Finalizing	Lean Team
Early Fall 2023	Final Review and Submission	Lean Team, Senior Team

More Information

Resources

- [2019 Submission available in Box @ Purdue](#)
- [HLC Criteria for Accreditation](#)
- [HLC Open Pathway Overview](#)
- [Evidence Examples](#)
- [21st Century Distance Education Guidelines](#)

QUESTIONS?

Please contact Catherine cagolden@purdue.edu or
Anne haweiss@purdue.edu

APPENDIX E



The Purdue Graduate Student Government (PGSG) is the legislative arm of, and the dedicated advocate for the Purdue graduate student body.



1985
Purdue Graduate Student Government established



2014
Purdue Graduate Student Center (PGSC) opens for graduate students



2021

EXECUTIVE BOARD

The Executive Board consists of the elected graduate body of leaders. Each Executive Board member has their own distinct roles that contribute to our mission of serving and advocating for the Purdue graduate student body. Executive Board members are available to meet with graduate students via email and during their respective office hours.

SENATE

The Purdue Graduate Student Senate (PGSS) is the representative body for graduate students at Purdue University and the legislative arm of the PGSG. The PGSS consists of Senators who are voting members of the Senate and represent a wide variety of graduate departments, programs, and centers. If your department, program, or center does not have a Senator elected for a given year, please contact the Senate Chair.

TEAMS

Teams consist of Life, Career, Community, and Grant Review and Allocation Council (GRAC). Each Team is led by a Team Chair. Team Chairs are elected leaders and are responsible for managing their respective teams and their goals. The Teams operate under the supervision and guidance of the Chief of Staff. All graduate students are welcome to become a member of a Team and may contact the Chief of Staff if interested.



PURDUE GRADUATE STUDENT LIFE PRIORITIES 2021-2022



HOUSING AND COMPENSATION

HOUSING AND COMPENSATION

Graduate students are the engine behind research and the broader Boilermaker community. Graduate student compensation is behind that of our peers in the Big10 and is also not commensurate with the rising costs of rent and groceries. We propose recommendations grounded in the data to address these concerns.

MENTAL HEALTH

Graduate students face an ever-growing mental health crisis, with rates of serious mental health issues six times that of the general population. Poor work-life balance, limited support, and financial burdens are all contributing factors. We propose a multifaceted approach to address these concerns.



MENTAL HEALTH

CAMPUS CLIMATE



CAMPUS CLIMATE

Ensuring that there are advocacy-based spaces on campus that address issues pertaining to discrimination and harassment. Additionally, we want to ensure that the spaces that already do exist such as cultural centers, CARE, and SLS receive the resources they need to continue to support Boilermakers.

Major PGSG Accomplishments 2021-2022

- ✓ Organized over 100 events
- ✓ Awarded over \$100,000 in grants to graduate students
- ✓ Established the PGSG Emergency Needs Grant - a new grant that looks to assist graduate students in crisis.
- ✓ Opened ACE Pop Up Pantry at Purdue Graduate Student Center - Free food available weekly with student ID
- ✓ PGSG Website, Branding Overhaul. Creation of PGSG Videos
- ✓ PGSG Adhoc Committees
 - Equity and Diversity
 - Sexual Violence & Graduate Students



2021-2022 PGSG Senate Legislation and Bills

Gender-Affirming Healthcare	Greater Transparency for Graduate Staff Leave of Absence	Support for the Framework for Accountability in Academic Research and Mentoring (FAARM) Project
Establishment of Support Space for Racial, Ethnic, & Xenophobic Discrimination	Expanding Grief Absence Policy	Establishment of Public Relations Committee
English Dept. Graduate Studies Funding	PGSG CARE Liaison	
Increase Graduate Representation in University Senate	PGSG Emergency Needs Grant	Waterbottle S. @ PGSC
Infant at Work Program	Declaration of Commitment to Shared Governance	

PGSG

EST. 1985

PGSG

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Purdue Graduate Student Government

UPCOMING

EVENTS

Below are some of our major events for Spring 2022!

April
4-8

Graduate Student Appreciation Week

A week of events to celebrate graduate students.

April
20

April PGSG Senate

Guest Speaker: Dr. Linda Mason. Hybrid - Purdue Graduate Student Center and Online.. Open to all of campus. 6 PM EST.

April
22

Spring Picnic

A true PGSG tradition. Open to all graduate students and graduate student families. Tacos, Bounce Houses, Music. Location: McCormick and 3rd Street (Gold Field 5) from 5-8pm

Thank you!

Special appreciation to the PGSG Executive Board, PGSG Advisor, PGSG Senate, all of our campus collaborators, and to every single graduate student at Purdue.

Madelina Nuñez, President 2020-2022
pgsg.president@gmail.com



**Purdue
Graduate
Student
Government**

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www.purduegradstudents.com

NEW DOCUMENTS RECEIVED
(After the April 21, 2022 Graduate Council Meeting)

GRADUATE COURSE PROPOSALS:

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

Graduate Council Document 22-28a, **EDCI 67600, Unpacking Research: Writing Literature Reviews In Learning Design And Technology** (PWL) Lecture 1 meeting of 1 hour 50 min/week OR Distance (DIS), equivalent of 1 meeting of 1 hour 50 min/week. Credit 2.

This course is designed to introduce the learner to the process of analyzing and preparing literature reviews on topics relevant to the field of Learning Design and Technology. Emphasis is placed on helping the learner to understand, critique, and synthesize the research literature in order to apply it to their own personal research agenda. Course activities and assignments are designed to help the learner develop the knowledge, tools, and strategies needed to become thoughtful consumers and producers of research and to use this knowledge to inform their practice. Learning experiences revolve around two major themes: 1) the examination and thoughtful critique of current research and 2) preparation of a thorough literature review that provides a rationale for continued study. Permission of instructor required.

<https://purdue.curriculog.com/proposal:20965/form>

Graduate Council Document 22-28b, **EDCI 67700, Unpacking Research: Writing Research Proposals In Learning Design And Technology** (PWL) Lecture 1 meeting of 1 hour 50 min/week OR Distance (DIS), equivalent of 1 meeting of 1 hour 50 min/week. Credit 2.
Prerequisite(s): EDCI 67600.

This course is designed to introduce the novice researcher to the process of developing a research problem statement supported by literature resulting in a professional organization conference proposal and a proposal for a funding agency in the field of Learning Design and Technology. Permission of instructor required.

<https://purdue.curriculog.com/proposal:20961/form>

Graduate Council Document 22-28c, **EDCI 67800, Unpacking Research: Writing For Scholarly Publications In Learning Design And Technology** (PWL) Lecture 1 meeting of 1 hour 50 min/week OR Distance (DIS), equivalent of 1 meeting of 1 hour 50 min/week. Credit 2.
Prerequisite(s): EDCI 67600 and EDCI 67700.

This course is designed to introduce the novice researcher to the process of publishing research in the field of Learning Design and Technology. Emphasis is placed on practical aspects of the publishing process as well as familiarizing students with the role that editors and reviewers play in that process. Prerequisite courses include: EDCI 67600 Writing Literature Reviews and EDCI 67700 Writing Research Proposals. Students must bring a draft manuscript completed through the methods portion into the course, and students must have completed research and collected data to facilitate completion of a research-based manuscript for publication during the course. Permission of instructor required.

<https://purdue.curriculog.com/proposal:20960/form>

Graduate Council Document 22-28d, **EDCI 67900, Capstone: Inquiry Into Practice** (PWL) Distance. Credit 3.

This course conceptually centers on the Ghanaian Sankofa symbol of a bird retrieving an egg from its back while facing forward. This metaphor represents the need to “go back to the past and bring forward that which is useful” (About the Sankofa [n.d.]. Retrieved from <https://cola.siu.edu/africanastudies/about-us/sankofa.php>). The twin aspect of looking back with the future in mind plays out in consonance with the Portfolio course generally taken in tandem with this course. In this course, students will reinforce and extend their learning of key concepts across the program and deepen their engagement with a topic of interest to them through an action research project. Permission of department required.
<https://purdue.curriculog.com/proposal:20937/form>

Graduate Council Document 22-28e, **EDCI 68000, Curriculum & Instruction MS Portfolio** (PWL) Distance. Credit 1.

This course was created to help guide C&I students near completion of their coursework to develop their competency portfolio. A competency portfolio reflects the depth and breadth of a student’s educational growth since entering the graduate program. The purpose of the C&I competency portfolio is to demonstrate that students have mastered the graduate competencies for the C&I online Master’s program. The portfolio will contain student projects aligned with C&I competencies and will be reviewed by committee members. The competencies are based on the Curriculum & Instruction departmental competencies and several program-specific competencies. The competency portfolio is a requirement for graduation from the C&I Master’s program. (multiple media are welcome) Permission of department required.
<https://purdue.curriculog.com/proposal:20941/form>

Graduate Council Document 22-24a, EDPS 51800, Relapse And Recovery (PNW) Lecture 1 time per week for 150 minutes for 16 weeks or 2 times per week for 150 minutes for 8 weeks. Credit 3.

Concepts and overview of relapse and recovery, counseling procedures and techniques, and treatment considerations. The emphasis of the course will be chemical dependencies, including alcoholism. Gambling, sexual compulsivity, and eating disorders will also be explored. Underlying all of these concepts will be a consideration of the impact of recovery and relapse on the individual, family, and culture. There will be an emphasis on breadth of understanding and areas of consensus and controversy.
<https://purdue.curriculog.com/proposal:20426/form>

Graduate Council Document 22-29a, **EDU 51900, Advanced Study In The Teaching Of Secondary School Social Studies** (PFW) Lecture 1 time per week for 150 minutes. Credit 3.

This course is intended to prepare teachers to design and integrate methods of teaching secondary-level social studies. Note: Public school participation is required.

<https://purdue.curriculog.com/proposal:18418/form>

Graduate Council Document 22-40a, **HDFS 60400, Developmental And Family Approaches To Diversity And Oppression** (PWL) Lecture 1 time per week for 165 minutes. Credit 3.

In this course, we will utilize an intersectional lens throughout the course to critically examine the development of individuals oppressed due to their minority status in the United States. We will review current research and literature across disciplines to: 1) understand the origin, meaning, and purpose of race and racism; 2) learn about the history of oppression and resilience of minoritized groups; 3) analyze systems of discrimination; 4) introduce theoretical frameworks for studying the unique, intersectional experiences of minoritized populations and examples of their application to empirical research, and 5) discuss how research can be used to advance social justice. Permission of department required.

<https://purdue.curriculog.com/proposal:21313/form>

Graduate Council Document 22-1c, **PUBH 52600, Randomized Control Trials In Public Health** (PWL) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): A graduate-level introductory statistics course.

Randomized control trials provide solid evidence on whether interventions and programs "work" to improve health outcomes. In this course, students will learn how to design a randomized study, handle practical issues that arise in data collection, analyze data using appropriate methods and good statistical practice, identify limitations to statistical evidence, and interpret and communicate findings in an audience-appropriate way. This is a hands-on course in which students will work with data and build skills using SAS statistical software in preparation for careers as biostatisticians, data scientists, and researchers.

<https://purdue.curriculog.com/proposal:17980/form>

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

Graduate Council Document 22-18b, **CE 50100, Map Projection And Geometric Geodesy** (PWL) Lecture 3 times per week for 50 minutes. Credit 3.

After the course, the student will be able to:

- Solve most 1D/2D/3D survey problems based on rigorous 1D-, 2D-, 3D-modelling,
- Perform coordinate transformations,
- Assess mapping characteristics based on principles of differential geometry,
- Develop mapping dedicated to any engineering project,
- Generate novel engineering solutions to newly presented survey problems,
- Evaluate 1D-, 2D-, 3D-models, the coordinate frames used for these and their interrelationships,
- Model the physical reality underlying most geometry-based models, in earth-fixed as well in inertial space.

<https://purdue.curriculog.com/proposal:13950/form>

Graduate Council Document 22-18c, CE 50301, Digital Photogrammetric Systems (PWL) Lecture 3 times per week for 50 minutes. Credit 3.

This course deals with various aspects related to 3D reconstruction from 2D imagery. The course starts with comprehensive coverage of data acquisition systems while focusing on different factors that affect the quality of image measurements. Then, the course focuses on the mathematical details for deriving 3D information from imagery including 2D/3D rotation, collinearity equations, projective transformation, direct linear transformation, theory of orientation, bundle adjustment, image resampling according to epipolar geometry, image matching, and orthophoto generation. The course also covers the similarities/differences between photogrammetric and computer vision approaches towards 3D reconstruction.

<https://purdue.curriculog.com/proposal:20015/form>

Graduate Council Document 22-18d, CE 50400, Laser Scanning (PWL) Lecture 3 times per week for 50 minutes. Credit 3. Prerequisites: CE 50300 or permission from instructor.

This course covers laser scanning data acquisition and processing activities. The first half of the course deals with the operational principles of laser scanning including laser light generation, laser scanning patterns, georeferencing, point positioning equation, impact of random and systematic errors on derived point clouds, and system calibration. The second half deals with point cloud data processing including characterization, data structures, segmentation, quality control, and product delivery. The course also covers the similarities/differences between photogrammetric and laser scanning approaches for 3D reconstruction.

<https://purdue.curriculog.com/proposal:20017/form>

Graduate Council Document 22-18e, CE 50600, Adjustment Of Geospatial Observations (PWL) Lecture 3 times per week for 50 minutes. Credit 3.

This course presents a thorough and comprehensive look at the topic of fitting data to a mathematical model. The techniques presented will free the scientist or engineer from dependence on restrictive software applications, and allow customization of solutions using weighting, constraints, parameter dependencies, and robust techniques which minimize the influence of blunders. Example applications include 2D/3D ranging, 2D/3D triangulation, curve and surface fitting, coordinate transformations, leveling, and image triangulation. Pre-analysis and design techniques permit the precision of unknown parameters to be determined in advance, prior to expending time and effort in field measurements.

<https://purdue.curriculog.com/proposal:13947/form>

Graduate Council Document 22-18f, CE 50700 Geospatial Data Analytics (PWL) Lecture 3 times per week for 50 minutes. Credit 3. Prerequisites: CE 50800.

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:20006/form>

Graduate Council Document 22-18g, **CE 50801 Geographic Information Systems** (PWL) Lecture 3 times per week for 50 minutes. Credit 3.

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:13948/form>

Graduate Council Document 22-18h, **CE 52500, Built Environment Modeling** (PWL) Lecture 3 times per week for 50 minutes. Credit 3.

A study of computational tools to model, analyze, and manage the built environment, specifically, the civil infrastructure from a life cycle and system's perspective. Such computational tools include geospatial technologies, engineering sensing technologies, engineering database, building information modeling, object-oriented modeling, and spatial analytics.

<https://purdue.curriculog.com/proposal:20738/form>

Graduate Council Document 22-18i, **CE 53100, Nanotechnology For Civil And Environmental Applications** (PWL) Lecture 3 times per week for 50 minutes. Credit 3.

This course will introduce students to the field of nanotechnology with a special emphasis on nanomaterials synthesis, characterizations and their applications in civil and environmental engineering. The specific applications will include, but not limited to, tailoring mechanical property, durability, self-cleaning, self-sealing, self-sensing, energy harvesting and other multi-functionality. It integrates the fields of materials science, civil engineering and electrical engineering. The basic concepts will be discussed including nano-scale effect, process-structure-property relationship, nano- and micro-structure property characterizations, multi-functional materials, nano-device fabrication and their applications for energy harvesting, water infiltrations and environmental sensing. lab will be provided to students enrolled in the course to learn nano and micro-structure characterizations skills.

<https://purdue.curriculog.com/proposal:20315/form>

Graduate Council Document 22-18j, **CE 53600, Non-destructive Testing & Sensing For Civil Infrastructures** (PWL) Lecture 3 times per week for 50 minutes. Credit 3.

This course will equip students with necessary fundamental knowledge related to the Non-Destructive Testing methods. The topics will be discussed including fundamental materials mechanical properties and linear fracture mechanics of materials, testing procedures of commonly used civil materials and structures. The content such as, elasticity, fracture mechanics, and wave propagation, will be covered. Various case studies will be discussed to help students understand and apply the knowledge to field inspection or monitoring of civil materials and structures.

<https://purdue.curriculog.com/proposal:20316/form>

Graduate Council Document 22-18k, **CE 55201, Environmental Biotechnology** (PWL) Lecture 3 times per week for 50 minutes. Credit 3. Prerequisites: CE35000 or CE/EEE45600.

This course focuses on fundamental of molecular biology and biotechnology for environmental applications. The major topics include activated sludge processes, stoichiometry, bioenergetics, anaerobic digestion, biological nitrogen and phosphorus removal, molecular microbiology tools, biofouling, antibiotic resistance, viruses and biofuels.

<https://purdue.curriculog.com/proposal:20318/form>

Graduate Council Document 22-18L, **CE 65000, Photochemical Reactors: Theory, Methods, And Applications Of Ultraviolet Radiation** (PWL) Lecture 3 times per week for 50 minutes. Credit 3. Prerequisites: CE 55000 or Graduate Status.

This course provides comprehensive coverage of the foundational principles of photochemistry and fundamental photochemical reactor theory. Contemporary analytical and numerical methods used to simulate and design photochemical reactors are also presented, along with detailed presentations of several common and emerging applications of these devices.

<https://purdue.curriculog.com/proposal:20005/form>

Graduate Council Document 22-30a, **CIT 50100, Data-Driven Cloud Computing Applications** (IUPUI) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): Any programming course equivalent to 300-level programming, any relational database course equivalent to 200-level database course, and any introductory web development course.

This course introduces students to data hosted in cloud platforms and provides the opportunity to develop applications that read and write to those sources. Projects include transferring data to the cloud, development of a user interface, and development of software applications that meet user needs and utilize custom datasets.

<https://purdue.curriculog.com/proposal:20984/form>

Graduate Council Document 22-27a, **CNIT 53600, IT Policy, Law, And Ethics** (PWL) Course is offered 100% online. Schedule Type: DIS; 8 Week Module for Fall and Spring. 8 Week Module for Summer. Credit 3.

This course examines the policy, legal, and ethical aspects of information technology. Issues covered include ethical decision making, policy development, professionalism, privacy, freedom of expression, intellectual property, liability, and social responsibility. Included will be the

philosophical ethical theories that underpin ethical decision making in the context of executing IT based projects.

<https://purdue.curriculog.com/proposal:19257/form>

Graduate Council Document 22-27b, CNIT 53700, Professional Research And Communication (PWL) Course is offered 100% online. Schedule Type: DIS; 8 Week Module for Fall and Spring. 8 Week Module for Summer. Credit 1.

This course explores aspects of research and communications that pertains to technology-based projects and professions as well as informed changes in business process. Specifically, the methods involved in objective driven research within and across technology and business domains, as well as the use of rationale for a concisely written summary of research methods and findings for a working professional.

<https://purdue.curriculog.com/proposal:20309/form>

Graduate Council Document 22-32c, CS 55100, Cloud Computing Fundamentals (PWL) Lecture 3 times per week for 50 minutes or 2 times per week for 75 minutes. Credit 3.

A comprehensive course that investigates all aspects of cloud computing, including: cloud data centers and infrastructure (equipment for processing, storage, communication, and special-purpose facilities); the use of virtualized servers (virtual machines and containers), virtualized storage (Storage Area Networks, Network Attached Storage, object storage), and virtual networks; automation; orchestration systems, such as Kubernetes; programming paradigms used to construct cloud-native software, such as MapReduce, microservices, controllerbased computing, and serverless computing; edge computing; security and privacy in cloud systems; software models. The course emphasizes researching new ways to use cloud computing and research into new ways to design and build cloud systems. The course includes a project. Students should have completed coursework in or have equivalent familiarity with operating systems and computer networks.

<https://purdue.curriculog.com/proposal:21272/form>

Graduate Council Document 22-32a, CS 55600, Data Security And Privacy (PWL) Lecture 3 times per week for 50 minutes or 2 times per week for 75 minutes. Distance. Credit 3.

Prerequisite(s): C or better in CS 42600 or CS 52600.

Data security and privacy is an important part of information security. This course provides an introduction to the fundamental principles and techniques for data security and privacy. The course covers fundamental theories of access control, discretionary access control, mandatory access control, and role-based access control, database access control approaches including grant revoke, virtual private databases and labelled databases, database encryption. On privacy, it covers data anonymization, re-identification attacks, definition, primitives, and applications of differential privacy.

<https://purdue.curriculog.com/proposal:20676/form>

Graduate Council Document 22-32b, **CS 58500, Data Security And Privacy** (PWL) Lecture 3 times per week for 50 minutes or 2 times per week for 75 minutes. Credit 3.

This course covers fundamental techniques and a range of mathematical tools that underlie today's research in theoretical computer science. The course material is essential for research in theoretical computer science as well as machine learning theory. The course is targeted at students who plan to pursue research in these areas. Topics will be chosen from four core areas: Convex Analysis and Optimization, Spectral Methods, Concentration Inequalities, and Discrete Fourier Analysis. Depending on student and instructor interest, additional topics will be chosen and may include applied analysis, coding theory, probabilistic proofs, and more advanced topics in discrete Fourier analysis. Students will read papers in theoretical computer science and machine learning theory using, exploring and extending the covered techniques and tools. Students are expected to be proficient in probability theory, have the maturity to follow and carry out basic analysis proofs, and have completed courses in calculus, linear algebra, discrete mathematics, and analysis of algorithms. More specifically, the course expects mastery of the material covered in Calc III (Math 261), Linear Algebra (Math 265), Probability (STAT 416), Foundations of CS (CS 182), and Analysis of Algorithms (CS 381 or CS 580).

<https://purdue.curriculog.com/proposal:20654/form>

Graduate Council Document 22-23f **ECE 51214, CMOS Analog IC Design** (PWL) Lecture 3 times per week for 50 minutes. DIS. Credit 3. Prerequisite(s): ECE 255 or equivalent.

The course covers general topics in CMOS analog IC design; biasing, noise, single stage amplifiers, differential amplifiers, OP-Amp, OTA, frequency domain analysis, and active filters. While the focus of the course is on CMOS IC design, design in bipolar and Bi CMOS technologies are introduced as well. A design project is a key component of the course. The students conduct group or individual design projects. Process Design *Kit* and EDA tools are provided for the design projects.

<https://purdue.curriculog.com/proposal:20966/form>

Graduate Council Document 22-23e **ECE 60645, High-speed Semiconductor Devices** (PWL) Lecture 3 times per week for 50 minutes. Credit 3. Prerequisite(s): ECE 60600.

As semiconductor device geometry miniaturizes, the device becomes faster and some devices move into the quantum-effect region. These high-speed devices are the key components for future electronic systems in communications, computers, control, and consumer applications. This course covers the physics and operational principles of these devices to meet the needs of microelectronics in the 21st century. This course emphasizes the integration of the state-of-the-art technologies such as high-k dielectrics, SiGe, SiC and GaN devices. This course is intended for graduate students in science and engineering who are either i) interested in pursuing research in semiconductor materials, structures or devices, or ii) seeking the broad device background on the state-of-the-art technologies for a future R&D career in the microelectronic industry.

<https://purdue.curriculog.com/proposal:20610/form>

Graduate Council Document 22-4d, **ME 50202, Sustainable Thermal Fluid Systems Analysis** (PNW) Lecture 3 times per week for 50 minutes. Credit 3. Prerequisite(s): ME 30500 and ME 41600 and ME/CE 31200.

This course will cover thermal fluid analysis of sustainable energy conversion processes, production and use of alternative fuels such as hydrogen, efficient energy systems and waste heat recovery, environmental impacts of industrial technologies, industrial energy consumption, power generation, and energy end-use distribution for improved thermal energy utilization.

<https://purdue.curriculog.com/proposal:20602/form>

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

Graduate Council Document 22-33a, **EAPS 51201, Planetary Origins** (PWL) Lecture 3 times per week for 75 minutes. Credit 3.

The goal of this course is to introduce students to our current understanding of how planetary systems form and evolve. We will focus on the physical theories describing how the structures of planetary systems develop and how planets, moons, and other heavenly bodies form. We will also consider the relationship between these theories and observations (astronomical, geophysical, cosmochemical) of the Solar System and extrasolar planetary systems. This will include some discussion how the Solar System fits into our understanding of the veritable menagerie of planetary systems.

<https://purdue.curriculog.com/proposal:20152/form>

Graduate Council Document 22-33b, **EAPS 52400, Laboratory Analysis** (PWL) Lecture 3 times per week for 75 minutes. Credit 3. Prerequisites: Junior, Senior, or Graduate status required. Recommended minimum background for undergraduates: Introductory knowledge of Earth and Planetary materials (e.g., one of EAPS 10500, 24300, 34300)

This course focuses on becoming familiar with various laboratory techniques used in the analysis of earth and planetary materials and understanding what questions data products from these techniques can answer. This course will include discussion of the instruments and how they operate, as well as provide hands-on experience working in the lab and processing data.

<https://purdue.curriculog.com/proposal:20154/form>

Graduate Council Document 22-33c, **EAPS 55501, Numerical Modeling of Planetary Orbits** (PWL) Lecture 3 times per week for 75 minutes. Credit 3. Prerequisites: Instructor Approval.

The goal of the course is twofold. First, you will develop quantitative skills to understand the orbital motions of planets and minor bodies in planetary systems, both in our solar system and in exosolar systems. Second, you will develop practical skills and techniques for using computers to solve scientific problems. We will begin with classical analyses of the two-body and N-body problems. We will then learn about modern, powerful, analytical and numerical techniques. We will then see how these techniques are applied to solving real problems in understanding the origin and evolution of planetary systems. These problems will include understanding planet formation, planet migration, resonance dynamics and resonance capture, tidal evolution of planets and natural satellites, and the collisional evolution of small body populations.

<https://purdue.curriculog.com/proposal:20177/form>

Graduate Council Document 22-33d, EAPS 56700, Planetary Atmospheres (PWL) Lecture 3 times per week for 75 minutes. Credit 3.

This course is intended to for upper-level undergraduates and graduate students and will provide an in-depth look into the to the diversity of planetary atmospheres in our solar system and beyond. Topics to be covered in this class include: The processes by which atmospheres are constructed and eroded over plants lifetime, radiative balance, general circulation, the formation of hazes, clouds, and aerosols, atmospheric compositions and chemistry, the link between planetary interiors, surfaces, and atmospheres, how we measure and interpret observations of exoplanet atmospheres, and much more. To achieve this, we will briefly introduce the properties and components of an atmosphere, visit the planetary atmospheres in our solar system to learn more, and finally explore exoplanetary atmospheres.

<https://purdue.curriculog.com/proposal:20179/form>

Graduate Council Document 22-33e, EAPS 58801, Impact Cratering (PWL) Lecture 3 times per week for 75 minutes. Credit 3. Prerequisite(s): Senior or graduate status.

Impact cratering is arguably the most pervasive geologic process in the solar system. In this course we will study the physical process of impact cratering and its place in planetary science. The course will take a process oriented approach to understanding impact cratering with firm foundations in geologic observation and impact experiments. To explore the extreme process of impact cratering, we will use continuum/rock mechanics, thermodynamics, numerical modeling, experiments, and observations. Principal topics will include the formation of craters from contact of the projectile to final crater morphology; shock metamorphism; impact ejecta and products; cratered terrains; impacts and planetary evolution; and impact hazards.

<https://purdue.curriculog.com/proposal:20176/form>

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

Graduate Council Document 22-30b, ANTH 60800, Proseminar In Graduate Studies In Anthropology (PWL) Lecture 1 time per week for 50 minutes. Credit 1.

This is an introduction to graduate study in Anthropology at Purdue. Students will be introduced to the research of Purdue Anthropology faculty and how their work fits into the contemporary landscapes of their fields. Students will gain familiarity with tools needed for graduate work in Anthropology at Purdue and be exposed to navigating the world of academic conferences and publishing. Students will have opportunities to engage in discussions on research ethics in our field. Students will engage with visiting speakers and their work as well as participate in learning how to organize academic events. During the semester, students will also be introduced to the resources available at Purdue to support their graduate studies and professional development including funding opportunities, procedures for preparing for research, career planning, supports for teaching, information about the structure of the Anthropology graduate program and supports for work-life balance. Students will receive credit for the course based on participation. Permission of instructor required.

<https://purdue.curriculog.com/proposal:21225/form>

Graduate Council Document 22-30a, ANTH 62700, Political Ecology (PWL) Lecture 2 times per week for 75 minutes or 1 time per week for 150 minutes. Credit 3.

Political ecology centers on questions described as a research framework that pairs the strengths of political economic analysis with sociocultural and ecological approaches to environmental change. Students will explore the diverse ways of doing political ecology by drawing upon the fields of anthropology, political science, geography, and history as well as interdisciplinary environmental sciences. Students will critically examine the field through a historical exploration of its intellectual genealogy, an investigation of current research trends, and imagining possible future directions. Emphasis will be placed on both theory and methods while analyzing a variety of case studies. Permission of instructor required.

<https://purdue.curriculog.com/proposal:21199/form>

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

Graduate Council Document 22-22b, BIOL 57110, Advanced Cell Biology (PNW) Lecture 2 times per week for 75 minutes. Credit 3. Prerequisite(s): BIOL 24300 Cell Biology and BIOL 24400 Genetics, or permission of instructor.

In this lecture only course, we will explore in-depth cell structure and function. Topics covered include: protein structure; methods used to explore molecular mechanisms and visualize cell structures; membrane structure and transport; electrical properties of membranes; protein sorting and trafficking; structure and function of the cytoskeleton; cell signaling and communication; apoptosis, the cell cycle and how it is controlled; and cancer. Primary research studies will be incorporated to reinforce lecture topics.

<https://purdue.curriculog.com/proposal:20986/form>

Graduate Council Document 22-25b, NUR 51700, DNP Project Seminar (PWL) This class will meet twice each semester for 3 hours. Credit 0.

This seminar will allow the student to begin contemplating and organizing their thoughts in developing the DNP project. In this seminar, the student will be introduced to the requirements for the DNP project and begin to cultivate feasible project questions that have an impact in clinical care, obtain feedback and network with peers.

<https://purdue.curriculog.com/proposal:20860/form>

Graduate Council Document 22-25a, NUR 60400, PhD Seminar (PWL) Meets 3 times per semester for two hours each meeting time. Credit 0.

This seminar is taken by Ph.D. nursing students each semester to integrate themselves to the academic and professional roles of the Ph.D. prepared nurse. This seminar will facilitate students to share their research ideas and progress through networking and collegial discourse. It also provides a low-stake forum where students can give and receive feedback on each other's

research. Seminar goals include improving students' presentation and writing skills, teaching how to give constructive criticism, and advising on the academic and professional job market. <https://purdue.curriculog.com/proposal:19589/form>

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

Graduate Council Document 22-39a, BUS 59302, Financial Analytics (PFW)

Lecture 1 time per week for 165 minutes. Credit 3. Prerequisites: BUS 52400 and BUS 54000 and BUS 54200.

An introductory graduate course designed to expose students to various advanced analytical tools in finance. The course provides the user-friendly guides using a data-driven approach to Portfolio Theory, Capital Asset Pricing Model (CAPM), Duration Analysis, GAP Analysis, and Value at Risk (VaR).

<https://purdue.curriculog.com/proposal:21381/form>

Graduate Council Document 22-39b, BUS 59502, Business Law And Ethics (PFW)

Lecture 1 time per week for 240 minutes for 10 weeks or 1 time per week for 165 minutes for 16 weeks. Credit 3. Prerequisites: None for MBA students.

Business Law and Ethics examines a wide range of common law, statutory, and regulatory concepts that play key roles in well-reasoned business decision-making. This course intersects two related fields: the law related to business and commercial activities; and, business ethics. Topics to be emphasized include the following: the American legal system; contract formation and performance; the UCC and Sales of Goods law; business entities, from the proprietorship through the limited liability company (LLC); the role and duties of boards of directors; Alternative Dispute Resolution (ADR), including key aspects of negotiation, mediation, and arbitration; agency law; intellectual property; employment discrimination and harassment law; business ethics frameworks and the application of ethics in personal and corporate decision-making.

<https://purdue.curriculog.com/proposal:21414/form>

Graduate Council Document 22-26a, OBHR 66201, Leadership (PNW) Lecture. Meeting time to vary by credit hours. Credit 1 - 4.

Examines organizational leadership responsibilities, forms of leadership, the acquisition, use, and consequences of power, critical leader skills, and how corporate environments shape leadership. Emphasis on self-discovery and development of managerial leadership knowledge and skills.

<https://purdue.curriculog.com/proposal:18647/form>

CERTIFICATE(S):

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

Graduate Council Document 22-37a, Postbaccalaureate Certificate in Hypersonics submitted by the Department of Aeronautics and Astronautics, PWL

<https://purdue.curriculog.com/proposal:20981/form>

MAJOR(S):

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

Graduate Council Document 22-34a, Major in Autonomy submitted by the Department of Interdisciplinary Engineering (MS/MSE), PWL

<https://purdue.curriculog.com/proposal:18940/form>

Graduate Council Document 22-35a, Major in Internet of Things submitted by the Department of Interdisciplinary Engineering (MS/MSE), PWL

<https://purdue.curriculog.com/proposal:18941/form>

Graduate Council Document 22-36a, Major in Robotics submitted by the Department of Interdisciplinary Engineering (MS/MSE), PWL

<https://purdue.curriculog.com/proposal:18939/form>