Eee Newsletter
December 12, 2021

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Protect Purdue Resources at https://protect.purdue.edu/

Fuel for Finals*

The College of Engineering is hosting food and drinks in the MSEE atrium on Monday (12/13) and Tuesday (12/14) of Finals week. Come from 10-2 for some free goodies!

Level Up Workshop*

The Academic Success Center is hosting a four part workshop for Spring 2022 designed for students on academic grade probation or students looking to overcome academic setbacks. The activities within the workshop will learn more about goal setting, personal responsibility, self-management, and positive affirmations. Registration for the event is required. For more information and to register: https://www.purdue.edu/asc/workshops.html

IE 490-Intro to Machine Learning and Its Applications*

A new course will be offered next spring concerning machine learning and data science. Investigate regression models, data analysis, statistics, coding, as well as case study reporting in IE 490. The class will be three credit hours (MWF) from 12:30-1:20 in Grissom Hall. Calculus, Linear Algebra, and Probability and Statistics are prerequisites for the course.

Charles C. Chapelle Fellowship

The Charles C. Chappelle Fellowship provides a one-year fellowship to students with undergraduate degrees from Purdue for the furtherance of post-graduate research at Purdue University. Chappelle Fellows are selected on the basis of character, intellectual ability, and promise of degree attainment. The Chappelle Fellowship provides a stipend, Graduate School Fellow Scholarship, payment of most fees, and a medical insurance supplement. To learn more about this Fellowship, go to https://www.purdue.edu/gradschool/fellowship/fellowship-resources-for-staff/managed-fellowships/gs-managed-student-direct-apply-fellowships.html.

American Structurepoint Scholarship Opportunity

American Structurepoint is a multi-state, multi-discipline engineering firm looking for EEE and CE students enrolled at Purdue’s College of Engineering.

• The current scholarship opportunity is for students in either SWE or NSBE organizations and is a total of $2,000. To qualify for the scholarship, you must have a minimum 2.5 GPA.
• In addition to this scholarship, there are also opportunities to discuss potential internship opportunities within the company.
• If interested email your resume and letter of interest to Sr. Talent Acquisition Specialist, Megan Perratore at: mperratore@structurepoint.com. Submit your interest by Tuesday, February 1, 2022.
Purdue Scholarship Opportunities

- The Class of 1937 Scholarship recognizes students who have demonstrated outstanding leadership abilities and potential while attending Purdue University. The scholarship will be awarded for the 2022 - 2023 academic year, with one-half of the award distributed for Fall Semester 2022 and one-half distributed for Spring Semester 2023. It is anticipated that multiple scholarships will be awarded, depending on available funds. The selection process is highly competitive. The submission deadline for the application is **January 12, 2022 by 5:00 pm**.

- The Charles O. McGaughey Leadership Award recognizes students who have completed at least two years of full-time study on Purdue’s West Lafayette campus, have demonstrated exceptional leadership and an appreciation of the values of liberty, democracy, and respect for others. The award will be given for the Spring Semester 2022. It is anticipated that multiple awards will be given, depending on available funds. The selection process is highly competitive. The submission deadline for the application is **January 14, 2022 by 5:00 pm**.

Information and applications: [https://www.purdue.edu/vpsl/leadership/](https://www.purdue.edu/vpsl/leadership/)

Summer 2022 Schedule of Classes Available

The initial Summer 2022 schedule of classes is available in your myPurdue portal as of Monday, December 6. Summer scheduling is done manually by students in Scheduling Assistant- not PreReg/Batch- and your summer PIN is the same as your Spring PIN. See time ticket weeks at [https://www.purdue.edu/registrar/currentStudents/students/registrationFaq.html](https://www.purdue.edu/registrar/currentStudents/students/registrationFaq.html). Students’ can find their specific time ticket after 12/22/21 in myPurdue > Registration tab > Registration Status.

Summer Scholarship Opportunities at Purdue

Purdue offers a variety of summer scholarships. Information about each opportunity is detailed below.

**Summer Stay Scholars** (up to $2,500) — This program combines a research or internship experience with summer courses. The opportunity is available to current students with a GPA of at least 2.00.

**Summer Internship Plus** (up to $1,000) — This opportunity is available to students who are completing credits alongside a summer internship experience.

**Summer Finish** (up to $500) — This opportunity is open to seniors who graduate during August rather than wait until December.

Advisor-Initiated Scholarship - Advisors can nominate three students who would benefit from online or on-campus summer courses. Preference is given to first-year and second-year students needing to catch up on degree requirements. Let Tammi Thayer ([thayert@purdue.edu](mailto:thayert@purdue.edu)) know if you would like to be nominated.

Housing Scholarships

A limited number of housing scholarships are available to homeless students and students who have experienced foster care. If you would like to apply for one of these opportunities, please [email us](mailto:). Other Financial Aid

A student may receive up to the equivalent of six full-time years of Federal Pell Grants. Visit the [Federal Pell Grant website](https://www.fafsa.gov) to learn more.

Subsidized loans are determined by "years," not "terms," and eligible students get six years of federally subsidized direct loans. Students may receive unsubsidized federal loans until they borrow their federal aggregate loan limit or until they reach the satisfactory academic progress maximum time frame. Any questions can be directed to the [Division of Financial Aid](https://www.purdue.edu/financialaid/) at Purdue. You can visit the [Office of the Bursar](https://www.purdue.edu/bursar/) for current tuition and fee rates.

Ramboll Think Tank Internship

Do you want to push the boundaries of your profession and develop your excellence in an open, collaborative and empowering culture? As a Think Tank Intern, you will be part of a team of interns supporting the advancement of Ramboll’s innovation pipeline. You will work with an interdisciplinary team to research and develop solutions to Ramboll’s most innovative problem statements. Upgrade your internship experience. The Think Tank Internship posting will only be open through the end of the year. Submit an application to participate in this one-of-a-kind internship experience, slated to take place June-August 2022. This internship is anticipated to be held in-person, additional details to be forthcoming.

Some highlights of the program include:
- 10-weeks paid
- Work with Ramboll’s top subject matter experts
- Support the advancement of Ramboll’s innovation pipeline
Summer Internship at UCSD/Marine Physical Laboratory*

There is an opportunity for an internship this summer in the Marine Physical Laboratory (MPL) at the Scripps Institution of Oceanography, UC San Diego, in La Jolla, California. Our internship program is a great opportunity for inquisitive and motivated undergraduate students with exceptional aptitude for quantitative science majoring in oceanography, applied mathematics, engineering, physics, chemistry, biology, geology and related majors to work with some of the most notable scientists in the world while earning a modest salary. Applications for the internship are due by January 14th, 2022. For more information: https://scripps.ucsd.edu/mlpl/mlpl-summer-internship-program

NSF Undergraduate Summer Research Opportunity*

This University of Nebraska-Lincoln undergraduate research opportunity involves the sustainability of civil infrastructure in rural environments. Join this ten-week summer research program, where students will work with faculty and graduate students in the Department of Civil and Environmental Engineering at the University of Nebraska-Lincoln. Within the program, there is a $6,000 competitive stipend with a suite-style room and meal plan included from the university. Apply by February 1st to receive priority application status. For more information or to apply: https://www.unl.edu/summerprogram/civil

Schneider and AVEVA Go Green Global Student Competition

Schneider Electric, with AVEVA, is calling for sustainability innovators around the world who dare to disrupt and push the boundaries of innovation and digital transformation in Energy management. Submit your idea related to one of the five segments within energy management: Access to Energy, Homes of the Future, Supply Chain of the Future, Grids of the Future, and De[coding] the future. Submit your idea by December 31st to be eligible.


Well Track*

CAPS is offering a FREE self-help resources library that help address mental health challenges and life stressors. Well track’s topics include anxiety and stress, depression, public speaking, resilience skills, healthy sleep, mindfulness, as well as tools to track mood, a thought diary, and much more.

Reminder-FAFSA

Current students interested in receiving financial aid (including federal educational loans) at Purdue University for the 2022-2023 academic year must submit the Free Application for Federal Student Aid (FAFSA). For maximum aid consideration, students/families should complete a FAFSA by Purdue’s April 15, 2022 priority filing date.

The 2022-23 FAFSA will look two years back at 2020 tax data. This will allow most students and their families to use the IRS Data Retrieval Tool (IRS DRT) to submit the FAFSA with their already completed 2020 IRS tax return information.

Students/families submit the FAFSA at https://studentaid.gov/. Dependent students and one parent must each have a Federal Student Aid ID (FSA ID) to complete the FAFSA process. If you do not have an FSA ID, or have forgotten it, go to https://studentaid.gov/ and click on Create Account in the top right of the page.
THE COLLEGE OF ENGINEERING PRESENTS

FUEL FOR FINALS

MONDAY, DEC 13
TUESDAY, DEC 14
10 AM - 2 PM
MSEE ATRIUM

FREE FOOD & DRINKS
WHILE SUPPLIES LAST

PURDUE UNIVERSITY

College of Engineering
LEVEL UP YOUR ACADEMIC SUCCESS

A 4 part workshop series presented by the Academic Success Center.

It's a new semester - let's plan your comeback.

4:30pm in the Academic Success Center
TUESDAY, JAN. 18
THURSDAY, JAN. 20
TUESDAY, JAN. 25
THURSDAY, JAN. 27

Academics not working out as you planned? Do you recognize previous mistakes made and challenges you faced? Are you looking to take your success a level up?

REGISTER TODAY!

Level Up is recommended for students on academic grade probation or students looking to overcome academic setbacks.
IE 490 – Introduction to Machine Learning and its Applications

Good to know
- Credits hours: 3
- Class days: Mondays, Wednesdays, and Fridays
- Class hours: 12:30 P.M. – 1:20 P.M.
- Location: Grissom Hall 126
- Prerequisites: Calculus, Linear Algebra, Probability & Statistics

Course description
“Data scientist is the sexiest job of the 21st century” is the title of a 2012 Harvard Business Review article. What do data scientists do? They “make discoveries while swimming in data.” It’s their preferred method of navigating the world. They are able to bring structure to large quantities of formless data and make analysis possible. In a competitive landscape where challenges keep changing and data never stop flowing, data scientists help decision makers shift from ad-hoc analysis to an ongoing conversation with data.”

In this course, you will be trained to swim in the growing ocean of data by using machine learning tools.

In supervised learning, the goal will be to predict the value of an outcome measure based on a number of input measures. For example, what is the estimated time a patient waits for an organ transplant, given his medical condition? In unsupervised learning, there is no outcome measure, and the goal is to describe the association and patterns among a set of input measures. For example, how many types of customers does a company have?

Data problems arise in many fields, such as: medicine, finance, and marketing. We have an exciting journey ahead! Let’s dive in!

Who is teaching?
- Instructor: Ana María Estrada Gómez
- Office: GRIS 364
- Email: amestrad@purdue.edu
- Teaching Assistant: TBD
- Email: TBD

Learning objectives
Upon successful completion of this course, you will be able to:
1. Classify problems as regression or classification problems.
2. Classify problems as supervised or unsupervised learning.
3. Describe different machine learning methods to solve these problems.
4. Translate a real-life problem into a statistical one, using mathematical notation.
5. Implement the problem into a statistical software (R, MATLAB, Python).
6. Summarize the results and conclude: what did the data teach us?
7. Solve a case study based on a realistic situation by selecting one of the different statistical models learned in class.
Marine Physical Laboratory
Summer Internship Program

The Marine Physical Laboratory (MPL) at world renowned Scripps Institution of Oceanography (SIO) seeks inquisitive motivated undergraduates with exceptional aptitude for quantitative science, majoring in engineering, physics, applied mathematics, chemistry, biology, geology and related majors.

Undergraduate college students contemplating a career in scientific research and development are encouraged to apply for a summer research internship in marine science and technology. This ten-week summer internship program offers qualified students the opportunity to work with some of the most notable scientists in the world while earning a modest salary. In addition to their research, students will attend weekly seminars given by members of MPL faculty and scientific staff and others.

Eligibility
Applicant must be a US citizen or permanent resident currently enrolled as 1st, 2nd or 3rd year undergraduate at a college or university. Senior year undergrads, former MPL interns and high school applicants are not eligible.

- Summer intern salary $15.05 / hour.
- Internship located at SIO in beautiful La Jolla, California.
- Must be available to start in June and work the duration of the internship, 10 consecutive weeks from the start date.

Application Procedure
- To apply, visit the online registration at scripps.ucsd.edu/mpl/mpl-summer-internship-program.
- Complete all steps outlined to submit your application.
- Applications due 4 pm Pacific time January 14, 2022.
- Decisions emailed to applicants by end of April 2022.

Required Documents
- Resume
- Statement of interest, including anticipated college graduation date
- Academic records / unofficial transcripts
- Two letters of recommendation from current or recent professors

- scripps.ucsd.edu/mpl/mpl-summer-internship-program  
- facebook.com/mpl.internship  
- instagram.com/mplinternship

UCSD is an equal opportunity employer, with a strong institutional commitment to excellence through diversity.
Within the United States, rural areas provide unique resources such as the infrastructure for food and bioenergy production as well as the transportation infrastructure from inland urban centers to ports. Despite this, little attention is paid to the unique challenges and opportunities these areas face with respect to building and maintaining civil infrastructure.

In this ten-week summer research program, students will work with faculty and graduate students in the Department of Civil and Environmental Engineering at the University of Nebraska-Lincoln to improve our understanding of how best to address the challenges facing rural environments.

**Who Should Apply?**
- Must be US Citizen or Permanent Resident
- Current undergraduate with at least one semester of coursework remaining before obtaining BS
- We encourage applications from all undergraduate students including freshman and sophomores
- Students majoring in related fields: civil or environmental engineering; physics; mathematics; natural and social sciences; etc.

**Benefits**
- Competitive stipend: $6,000
- Suite-style room and meal plan
- Travel expenses to and from Lincoln, NE
- Campus parking and/or bus pass
- Full access to the Campus Recreation Center and campus library system
- Wireless internet access
- Social and professional development events throughout the summer

**Application Deadlines**
- November 15 - Application opens
- February 1 – Priority Deadline
- March 1 – Application closes
- April 15 – Decisions complete
- Program dates: May 31 – August 6

**For More Information**
Contact the program coordinator: Christine Wittich, Assistant Professor, Department of Civil and Environmental Engineering, 402-472-1915, cwittich@unl.edu

For more information and to access the on-line application [visit the website](www.unl.edu/summerprogram/civil).
CAPS is pleased to offer **FREE** self-help resources online to students. WellTrack is an evidence-based online library of engaging, interactive resources that address mental health challenges and life stressors. Topics include:

- Anxiety & Stress
- Depression
- Public Speaking
- Resilience Skills
- Your Guide to Healthier Sleep
- Finding Your Inner Calm Through Mindfulness
- Journey to Purpose and Meaning
- Tools including a MoodCheck, thought diary, and Zen Room