Advisement Newsletter
January 14, 2021

Welcome back, ECE students & faculty!

Upcoming Events:

IMMERSE Application Deadline -TOMORROW!
Friday, January 15, 2021 | Apply here

Rocket Propulsion Info Session
Friday, January 15, 2021 | 4pm | Sign up here to get the ZOOM link
Did you know BYU has a research group developing a hybrid rocket with a target altitude of 30,000ft? We're having an info session on January 15th at 4 pm. Join us to learn more about our exciting goal and how you can get involved. Hosted by the BYU Hybrid Rocket Team.

Connections Night at the Weidman Center
Wednesday, January 20, 2021 | 7pm | Register Here
Breakout Rooms: Preparing for Grad School, Preparing for the STEM Fair, Out of Classroom Experiences, Research Mentorship, Connections Room, Grad Student Room

Ask an Expert Event: How to Rock the STEM Fair
Thursday, January 21, 2021 | 12pm | Register Here

Communicating for Success- the Key to Differentiation
Wednesday, January 27, 2021 | 7pm | Register Here
Guest speaker Sydne Jacques. RAFFLE! Boxes of Crumbl cookies will be given to 7 lucky participants. Spots are limited.

BYU Career and Internship Fair
Thursday, January 28, 2021

Annual Women in Law Event
Thursday, January 28, 2021 | 12pm-1pm | ZOOM, RSVP here

STEM Fair Prep: Employer Panel
Friday, January 29, 2021 | 12 pm | Register Here

BYU STEM Fair: Engineering
Thursday, February 4, 2021 | 9am-3pm | **Register** Here

Experiential Learning Opportunities:

Research Opportunities:

IMMERSE Applications due January 15th -TOMORROW!

IMMERSE is an undergraduate research program run by the ECEn Department. IMMERSE hires students after their 1st, 2nd, or 3rd years in the program to work on research projects with department faculty and other students. The program formally kicks off at the beginning of the Spring Semester but **you must apply online by January 15, 2021.** There is a screening and interview process before hiring decisions are made. We expect between 40 and 50 students to be hired by IMMERSE in 2021. If you have any interest in graduate school, IMMERSE provides excellent experience and can give you a significant boost when applying to graduate programs. All ECEn faculty are affiliated with IMMERSE and will be looking for student researchers.
For more information about IMMERSE: http://IMMERSE.byu.edu
To apply for the program click here.

University of Utah Summer Program for Undergraduate Research (SPUR)

The Office of Undergraduate Research at the University of Utah is pleased to announce that the student application for the 2021 Summer Program for Undergraduate Research (SPUR) is now available! For more information or to **apply, visit https://our.utah.edu/spur/. The deadline to apply is 11:59pm (MT) on Sunday, January 31, 2021.**
SPUR provides undergraduates with an intensive **10-week research experience** under the mentorship of a University of Utah faculty member. SPUR 2021 will begin on May 26 and end on August 5. Program **benefits include: a $4,000-5,000 stipend, on-campus housing*, travel reimbursement*, social programming, professional development events, and publication and presentation opportunities.**
*If you have any questions or would like more information, please contact Megan Shannahan at megan.shannahan@utah.edu or 801-581-8070.

Advanced Wireless Research Experience (AWaRE) REU

Monday, May 24 – Saturday, July 24, 2021 | Wireless Institute –University of Notre Dame, Indiana
The Advanced Wireless Research Experience (AWaRE) REU at the University of Notre Dame's Wireless Institute is **now accepting applications**. The AWaRE REU provides opportunities for undergraduate Electrical Engineering and Computer Science and Engineering majors to experience hands-on research in technical projects alongside faculty and students. These projects all have a wireless communications component to them. This is a **10-week** program including a **$6,000 stipend, free on-campus housing, a $125 weekly food allowance, and round trip travel (up to $6,000).** Students must be US citizens or US permanent residents. Students must also be enrolled in an accredited US university or college. The **Deadline for full consideration is February 10, 2021.** For more information and to **apply, visit http://wireless.nd.edu/.**

Montana State University Undergraduate Summer 2021 REU

Monday, June 1 – Friday, August 6, 2021 | Montana State University, Bozeman, MT
Projects in this program involve developing and using optical, acoustic, and other techniques to understand the world around us. A detailed listing of research projects for Summer 2021 can be found here. Each participant will work closely with a faculty mentor and will gain hands-on experience in

active research laboratories. In addition, students will participate in a number of group activities aimed at developing skills necessary to succeed in research.

This program will run from **June 1 to August 6, 2021. Stipends will be $6,000 with an additional $1,000 for meals**. **Travel costs to and from Bozeman will be covered** and university residence hall **lodging will be provided**. Participants must be full-time undergraduate students, and must not have yet received a Bachelor's degree at the time of the program. Applicants from underrepresented groups are especially welcome. **For more information and to apply, visit [our website](#) or email Dr. Kevin Repasky at repasky@montana.edu. Application deadline is February 12, 2021.**

Clubs:

Annual Women in Law Event
Thursday, January 28, 2021 | 12pm-1pm | ZOOM, [RSVP here](#)
You are invited to join us and our **special guest speaker and BYU Law alum, Erin Goodsell, Managing Counsel at Qualtrics** at the Annual Women in Law Event. This is an event dedicated to helping undergraduate women and other prospective law students connect with current law students and legal practitioners. **To attend, please register using the following link: [Women in Law RSVP](#)**
The first 200 students to RSVP/attend the event will receive a free gift in the mail!
Email questions to admissions2@law.byu.edu. All are welcome to participate! We look forward to meeting you!

Service Opportunity:

Tutoring Opportunity
The Y-Serve Tutoring program is **looking for more tutors** from the Electrical and Computer Engineering Department. Help your fellow students, build your resume with service hours, deepen your understanding of course material, and keep a flexible schedule! If you are interested in this great service opportunity, you can sign up at tutoring.byu.edu.
You can also use this website to find **free tutoring** for **any class**! Email us at tutoring@byu.edu for more information.

Competitions:

Robotics Competition
Wolves have gotten into the sheep pasture! Can your robot correctly identify and remove the most "wolves" without disturbing the sheep?
The ELC is hosting another robotics competition this semester, but instead of solving a maze, teams of 3-5 engineers will need to build a robot that can navigate an arena full of ping-pong balls, collecting the black ping-pong balls while trying to leave the white balls. The 5 teams that collect the most black and least white within 60 seconds will be able to compete in the final!
Kits will be loaned to the first 10 teams who sign up. $60 of ELC credit will be available for all teams to purchase extra material, supplies, components, etc.
The members of any team who compete will receive a **free ECE T-shirt**. Other **prizes** will be announced. [Register here](#) with your teammates to join the competition! The final team sign up deadline is Friday, January 22, 2021 at 11:59pm. Any questions or comments can be addressed to Michael Eyler, 801-422-6579 or by email: michael.eyler@byu.edu.

Student Innovator of the Year (SIOY) Competition
What's your "million-dollar idea?" Compete for a piece of **$50,000** to make your idea a reality. Past SIOY competitors have gone on to get funding from ABC's hit TV show, Shark Tank!
The BYU College of Engineering hosts a student competition each year in partnership with the Marriott School's Rollins Center for Entrepreneurship and Technology. The annual SIOY competition, **open to all BYU students**, has kickstarted now-successful companies Owlet, Khione, and MyoStorm over its 10-year

history. Students **receive up to $400 in funding to kickstart their idea** and compete for a piece of $50,000 to make their idea a reality. Competitors apply Fall 2020 and compete Winter 2021.
<u>**Deadlines Changed:**</u>
Final Application Deadline: February 15, 2021
Apply today! Learn more at https://engineering.byu.edu/sioy/.

Employment & Internship Opportunities:

For the latest jobs and internship postings, please visit **Handshake** – BYU's online job board. Employers who want to hire BYU graduates or offer internships to current students post job openings and campus events to this website, making them accessible to students. Just like LinkedIn, employers can view student profiles and students can network as they apply for jobs and internships. For the most up-to-date information on companies and employers, visit the Handshake website. To create a student Handshake profile, go to handshake.byu.edu and log in with your BYU NetID and password. Don't forget to download the Handshake app! Available for both iOS and Android.

Employer Info Sessions:

Women Tech Council #GetHired Tech Company Summit
Thursday, January 21 and Thursday, January 28, 2021
Women Tech Council partnered to create the #GetHired for women in technology. Over the next 2 weeks you have the opportunity to join companies and talk to them about their opportunities, what positions they are hiring for, meet their team, and learn about their culture. Whether you are looking for opportunities or just wanting to understand what companies offer you should join the info sessions. You can join each session and connect with the companies. This format has proven to accelerate relationships and information. In addition, we are hosting a 3x3 Connection during the Summit so you can meet other women and men in tech and expand your network to help you as you build your career. The info sessions will be held on Thursday, Jan 21 and Thursday, Jan 28.
Companies Attending:
January 21: Lucid (11am), Vivint Smart Home (11:40am), WTC 3x3 (12:10pm), YoungLiving (1:10pm), and Nice InContact (1:50pm). Register for January 21.
January 28: Listrak (11am), Route (11:40am), Chargebee (12:20pm), and others to be announced. Register for January 28.

Ask an Expert Event: How to Rock the STEM Fair
Thursday, January 21, 2021 | 12pm | Register Here
Learn how to make the most of your STEM Fair experience with expert advice on how to research, develop a strategic plan, present yourself to employers, ask good questions, follow up, and more.

BYU Career and Internship Fair
Thursday, January 28, 2021

STEM Fair Prep: Employer Panel
Friday, January 29, 2021 | 12 pm | Register Here
Hear from panelists from Micron, John Hopkins Applied Physics Laboratory, Marvel Studios, Idaho National Laboratory, and General Dynamics on how to best prepare for February's STEM Fair! There will be an open Q&A for career-related questions.

BYU STEM Fair: Engineering
Thursday, February 4, 2021 | 9am-3pm | **Register** Here
Don't miss this opportunity to connect with recruiters and secure your internships and full-time roles! Please note that this fair will be hosted on Handshake and you will need to sign up for times to speak with recruiters. Click here to familiarize yourself with a fair in Handshake.

University Career Center
If you would like EVEN MORE help in your job or internship hunt, the Career Center at BYU is happy to help! You can call 801.422.3000 to schedule a Zoom appointment (or phone appointment if you prefer) to get help, resources, and ideas they have to share on the job hunt! The career services are free, and you can meet with them as often as you would like!

Message from Tony Jewkes, Career Director, Engineering & Technology
As we progress through the semester with students still in need of help finding jobs and internships, please feel free to promote my services. Each week I maintain hours each day to meet with students one-on-one to help with their career search needs. Appointments can be made in the Student Services suite in 246 EB, in the Career Studio in the WSC or by calling 801-422-6535.

Please refer to ECEn Department boards near 450 EB and 460 CB for Non-BYU Summer Research Opportunities, Internships, and Employment!

Scholarships:

2021 BYU Scholarships
Remember to apply for BYU scholarships **by February 1, 2021**. This scholarship application is for spring, summer, fall 2021 and winter 2022 university academic, need-based, and private scholarships. **If you want to be considered for need-based scholarships, you will also need to complete the 2021-2022 FAFSA by January 20, 2021.**
You may think that you shouldn't fill out the application because you won't qualify, but we encourage everyone to complete it despite your GPA. The more of the application that you complete, the more you can be considered for. Also, your college or department may use the university application for department scholarships.

Please refer to ECEn Department Advisement Board outside of 450 EB for non-BYU scholarship opportunities.

New Elective Course: Machine Learning for Engineers ChEn 493R
(ECEn students will register under ECEn 493R section 002 winter semester.)
There is a new class (ChE493R, 3 credit technical elective) next semester on Machine Learning for Engineers. This is an interdisciplinary (Civil, Mechanical, Electrical, Chemical) college initiative to bring more analytics and data science into the curriculum with elective courses. There are no pre-reqs for the course although experience in programming does help. It will be focused on foundations, applications, and a group project.
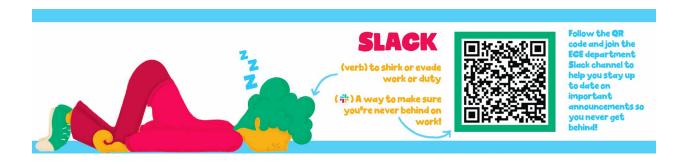For ECEn students, **this class will sub for CS 472** (under requirement 5 on the current program requirements). You would not take this class if you have already taken or plan to take CS 472. Also, to note, CS 472 will fill an elective requirement for the CS minor, where this one will not.

Machine Learning for Engineers:

Machine learning is a convergence of linear algebra, statistics, optimization, and computational methods to allow computers to make decisions and take action from data. Examples of machine learning are now pervasive and are expected to further influence transportation, entertainment, retail, and energy industries. This engineering course reviews theory and applications of machine learning to engineering applications with a survey of unsupervised and supervised learning methods. It begins with several case studies that provide an intuition for machine learning with theory and methods for classification, regression, and dimensionality reduction. A second phase of the course is a hands-on group project. The engineering problems and theory will guide the student towards a working fluency in state-of-the-art methods implemented in Python. Course web-site (under development): https://apmonitor.com/pds

Did you know that the Electrical and Computer Engineering Department has a Slack Channel? Click here to join!

BYU ECE IS NOW ON SOCIAL MEDIA!

Be sure to follow us on Facebook and Instagram so you'll never have to miss out on fun and important announcements again!

@byuecen
OR
BYU Electrical and Computer Engineering

@byu_ecen

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