EEE Newsletters Available Online!

EEE Discussion about CAD and other skills courses

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**EEE Student Newsletters: Now Available on the Web**

The EEE Newsletters are now housed on the EEE Current Students page! Have you ever deleted the email with the recent EEE Newsletter, then wished you could reference it to find the information you needed. Now you can!

- Go to the EEE Current Students page at https://engineering.purdue.edu/EEE/InfoFor/CurrentStudents
- Look under ‘Useful Resources’ column
- Click on ‘EEE Student Newsletter’

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**Purdue Winter Recess**

Special Notice Regarding Purdue Winter Recess

- Please note that all Purdue offices will be closed for the Winter Recess starting Wednesday, December 23, 2015, at 5 p.m. ET until Monday, January 4, 2016, at 8 a.m. ET.

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**EEE Townhall Followup: Discussion about CAD and other skills courses**

This section has been included in several EEE newsletters to respond to the major topics discussed at the Spring 2015 EEE Townhall meeting. This is the last in this series. There were too many points to address at once, so topics were placed in categories and a new category went into each newsletter. The category for this issue focuses on general questions about Auto CAD and other skills courses. Read below for the related questions posed and the responses.

**Discussion about CAD and other skills courses**

I think that a CAD course should be added to the required curriculum. Almost every job I have applied for like to see some CAD experience, which most EEE’s lack. We do not design curriculum to teach software skills. We teach design concepts. If a prospective employer asks about CAD or other software tell them confidently that you can learn quickly any software tools required for that job.

While applying to jobs and going to career fairs, I have been questioned about my experience in AutoCAD and if I have taken a structures course. While they say it’s okay that I haven’t, I feel as if they will always choose the civil engineering student who has had it over someone who hasn’t. When you are seeking employment opportunities you must constantly present a positive message about your skills. Are you a problem solver, do you work well in teams, are you an excellent communicator? If you cannot answer ‘Yes’ to the aforementioned then being good in CAD will not get you a job.

I was wondering if it would be a good idea to have EEE students take a GIS or AutoCAD class. I see experience with those programs desired on a lot of job applications.
Sure! Students could consider these as Selectives or Technical Electives in the future (there are two GIS courses on our core Selectives list FYI). EEE students have mastered many software packages which are more complex than CAD.

Are there other skills courses I should consider? Other departments such as ABE offer some skills classes. Some of these are short course 1 credit options. But these may not be relevant to all EEE students and not all EEE students will have the necessary background that’s recommended for students to be successful - because these are specifically intended for students in other programs.

I’ve also had company representatives tell me that I would have more opportunities if I did civil engineering instead, or tell me that their environmental engineers are actually civil engineers and they expect civil training (AutoCAD in particular) from their “environmental engineers.” Environmental Engineering is an established discipline in its own right that emerged from Civil Engineering. This is a fact that many “mature” alumni of CE programs may not embrace easily, but facts are facts. Look at the U.S. Dept. of Labor - Bureau of Labor Statistics web page. Forty years ago you could not earn a PE in Environmental Engineering but for about the last 20 years this has been possible. See the graph below.

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**Growth in ABET Accredited Undergraduate Environmental Engineering Programs**

<table>
<thead>
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<th>Year</th>
<th>ABET Accredited Programs</th>
</tr>
</thead>
<tbody>
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<tr>
<td>1965</td>
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<tr>
<td>2005</td>
<td>50</td>
</tr>
<tr>
<td>2015</td>
<td>70</td>
</tr>
</tbody>
</table>

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Other Courses and Course Requirements

Why do we not have any courses that teach us about LEED or very few classes that talk about sustainable infrastructure?

LEED is a professional certification. EEE graduates are qualified to eventually earn a PE license which is significantly more valuable. LEED is in the domain of the Arch E group within Civil. To my knowledge they do not attempt to prepare students for LEED certification either. Most people can take a short course and pass the LEED certification test. Earning a PE license in engineering requires considerably more education, knowledge and experience.

Can technical writing be approved as a technical elective for EEE? I believe in the school of Mechanical Engineering that it is.

EEE students are encouraged to always ask whether specific courses can be counted as Technical Electives or Selectives. Be specific: Course number and title.
What's the difference between CE 45700: Air Pollution Control And Design and CE 55700: Air Quality Management?

Why is one course considered an “Engineering Design” selective while the other is not?
For starters one course has the word “Design” in the title, and we have to use something to guide this determination. Air quality and air pollution are related to each other but are not the same thing. I would recommend finding a copy of the respective syllabi, reaching out to the instructor or talking to a student who has taken both courses. Both courses come highly recommended, and are very complementary to each other.

I think EEE 350 should be taken before EEE 360. It would help a lot with comprehension in the 360 lab.
We are always trying to optimize course sequencing. Faculty members do share syllabi and consult each other over course objectives and learning outcomes. It’s entirely reasonable to have some material overlap between courses, especially in the case of fundamental concepts; repetition and practice are good. I would be concerned about any perceived gaps in the curriculum (more so than repeated content). Course sequencing is always being evaluated. This is a good idea and such an adjustment has been made for the Fall 2015 catalog term.

I feel that senior design would be more useful and meaningful during a student's junior year. Is this at all a possibility?
We need to know more about why there is this “feeling”. We try to use evidence and data to guide curriculum decision making.

EEE300 should be moved later in the course plan because much of that is useful but has been forgotten by now.
I would suggest not saying something like this out loud to professors or prospective employers. There are things you can think but they should never be stated out loud.

Can you rate the importance of organic chemistry to research path?
This depends on the path to where? This is a topic best discussed in depth with your prospective research mentor or with your EEE faculty mentor.

What are the best EEE Selectives to take with regard to being a well-rounded graduate?
Talk with your EEE faculty mentor and pick a diverse set of well-rounded Selectives.

Is it okay to get a minor in something that isn’t necessarily related to the EEE major?
Yeah, it’s preferred. Diverse knowledge will enrich your life.

Job Corner with Ms. Whelton, PE

- As the semester comes to close, we are starting to get word of more permanent and internship opportunities. Unless the opportunity requires me to relay information or is time sensitive, it will only be posted on our website and not emailed. I highly suggest you check the jobs portion of the EEE website regularly especially during peak job periods such as the end/beginning of a semester.
- Permanent positions are found at this link: https://engineering.purdue.edu/EEE/Academics/InfoFor/CurrentStudents/EEERelatedFullTimeJobs
- Internships are found here: https://engineering.purdue.edu/EEE/InfoFor/CurrentStudents/https://engineering.purdue.edu/EEE/Academics/InfoFor/CurrentStudents/EEERelatedPartTimeJobs
- You can also go to the main EEE website and select the “current students” button. Under the “opportunities for work experience” column there are links to permanent position and internship position pages.
- Networking is the best way to find job opportunities. The most important part of networking is finding the right people, which can take a long time. The “right people” aren’t necessarily that obvious. Although focused on more of a marketing major, this article does a good job of communicating with potentials connections. https://www.linkedin.com/pulse/how-connect-powerful-people-raghav-haran
- Sophomores and Juniors: Co-ops can be a great way to gain experience and while also getting increasing responsibility with a company that you won’t find doing one summer internship. Soon after we return from break, emails will be sent out regarding co-op callouts and how to register. If you are interested, please read the emails and attend callout.
- Enjoy the break and congratulations to our Fall 2015 graduates!
Student Sustainability Council: Green Career Fair

The Green Career Fair is open to all students interested in green fields (STEM and otherwise) whether they hope to pursue this passion in industry, government, non-profits, or other ways. The Student Sustainability Council strives to provide an event that brings together like-minded people to show the breadth and depth of the opportunities and talents in sustainability. We work to make this career fair diverse to encourage both students and employers to be open minded as they talk with each other. This year the fair will be held in the Armstrong Atrium from 12-4pm on March 3, 2016.

Global Moral Issues (for Engineers): PHIL 11400 (CRN 15619) *

Still looking for a General Education Elective? Consider PHIL 11400 (CRN 15619).

- Students must have EPICS, GEP, internship, co-op, EWB, or student design team experience.
- Instructor permission required.

EEE 49500 Maymester Study Abroad *

- Want to include a global experience in your academic program but not sure you can commit to an entire semester off campus. Consider joining Prof. Inez Hua as she once again leads a group of approximately 18 students in a short-course called Sustainability Across Sectors, Sweden.
- Details:
  - Sustainability Across Sectors- Stockholm, Sweden (see attached flyer)
  - EEE 49500 - Earn 3 credits; course that can be counted as an EEE Selective
  - Must have taken CE/EEE 35000 or CE/EEE 35500
  - Apply at: https://www.studyabroad.purdue.edu/programs/flyer.cfm?flyer=1169&AcademicSchoolCode=E&ProgramTypeID=7

Adopt Your State recruiting

The Office of Future Engineers is putting together an “Adopt Your State” program, where we will pair current Purdue engineers with admitted students from their home state to serve as a point of contact, resource, and possibly even mentor/friend on campus! OFE has already received feedback that admitted students have been very impressed and surprised that they are being contacted by current students. There are several states where there is limited or no coverage as far as volunteers go.

The basic responsibilities/activities include:
• Sending an email to an assigned admitted student from your home state, introducing yourself and asking if they have any questions
• Inviting the student to lunch/coffee if they’re coming to campus (we will provide you with a meal card for this, yay free lunch!)
• Sharing some of your experiences, insights, and survival tips to help them be better prepared for college life and determine if Purdue really is the place for them
• Students may sign up for the program: https://purdue.qualtrics.com/SE/?SID=SV_bkZKgpGVGHdfhz. All volunteers are given instructions on how to proceed.
Register now for this new course!

Global Moral Issues for Engineers
PHIL 11400 – 005
CRN 15619
MWF 3:30 – 4:20 pm

Interested in learning how to anticipate and navigate global issues that will likely arise in your working life as an engineer? Do you want to learn how to understand cultural differences regarding work conduct and ethical norms that can interfere with achieving technical-related objectives? If so, you should consider taking this course to increase your understanding of professional and ethical responsibilities in national, international, and cross-cultural environments. This understanding will include not only the principles and practices of ethical engineering based on universal human challenges engineers seek to address in all cultures and contexts, but also the particular difficulties present in cross-cultural and global circumstances.

Students in this course are expected to have an engineering experience (EPICS, GEP, internship, co-op, EWB, student design team, etc.) to be used to explore the topics of the course, which include:

1. Introduction
2. Basic Ethical Principles for Global Engineering
3. The Global Business Environment
4. Casuistry as a Useful Tool
5. Cross-Cultural Issues
6. Balancing Autonomy and Adherence to Rules
7. The Approach of Professionalism as a Basis for Global Engineering
8. Broader Responsibilities of Engineers
9. Fundamental Rights of Engineers

The capstone of the course is a case study in engineering ethics comprised by both technical/engineering and non-technical/social, political, economic, etc. components.

Attributes: Lower Division, S General Education, GTC-Humanistic-Artistic, UC-Humanities
Sweden is ranked 9th in the world on the Environmental Performance Index reflecting on how the country performs in areas such as environmental health and ecosystem vitality. Stockholm is world famous for its stunning beauty. The city sits on 14 islands, is surrounded by water and has parkland, forest, and lakeshore beaches.

Purdue is partnering with KTH, the Swedish Royal Institute of Technology, in Stockholm for this program. You will receive lectures from KTH faculty, visit city hall where the Nobel Prize dinners are held, industry visits, water treatment and waste-to-energy facilities, as well as cultural sites: Royal Palace, Parliament, and the Nobel Prize Museum.

Program cost is estimated at $2600 which includes housing, excursions, ground transportation, breakfast daily, 2 dinners, 3 credits, and insurance. All eligible Purdue undergraduates will receive the $1000 Purdue Moves Scholarship toward your program's costs.

Additional expenses are: Air (estimated $1300) passport, visa (if non-US citizen), some meals, and personal spending money.

Earn 3 credits for CE 497 or EEE 495. You must be an engineering student who has taken at least one environmental engineering course EEE/CE 350 or 355 prior to departure. Rising sophomores through seniors are welcome to apply.

Contact Dr. Inez Hua hua@purdue.edu with academic questions or Jill Churchill churchil@purdue.edu with questions on travel, costs, or registration.