Welcome to ECE at Oregon State University
Outline

1. Goals for ECE 111
   - Does ECE interest me?
   - Am I able to learn and willing to work hard?
   - These skills will help you answer questions about ability and interest.

2. Expectations
   - Instructor
   - Teaching Assistant
   - Student

3. Impact on Society
   - Environmental
   - Societal

4. Prior Evaluations

5. High School vs College
My goal is to help you find success at OSU. Hearing of ECE students getting jobs, traveling, having adventures, starting families, and becoming good humans satisfies me.

Here are your goals for ECE 111:

- Do potential ECE jobs interest me?
- Am I smart and persistent enough?
- Learn some skills that are useful.
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Is ECE Interesting?
ECE is the hardware and firmware for all electronics.

Here are several companies with significant opportunities for ECE graduates.

- Intel
- NVidia
- SpaceX, Tesla, Solar City
- NASA
- Sawstop
- Startup Companies

1 Wikipedia
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ECE is tough, it takes confidence, focus, and effort to succeed in ECE.

- Develop and maintain a growth mindset
- Develop routines that enable efficient learning
- Work hard

References:

2 Wikipedia
3 Wikipedia
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Skills

These skills are useful for any engineering discipline, but are great for ECE.

- Textbook reading
- Firmware, Mbed programming for FRDM KL46Z Microcontroller
- Python
- Latex, for creating professional documents
- Beamer, for creating presentations. This slideshow was made with Beamer.
- Microsoft Excel, Microsoft Word, Microsoft Powerpoint
- Google Sheets, Google Docs, Google Slides
- Matlab and Octave
- Connect to a server through a terminal.
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Instructor

Instructor Requirements.

- Textbook
- Course Websites (Lecture, Lab, and Canvas)
- Curriculum development: homework, lectures, and lab.
- Learning assessment
- Supervise TAs.
- ABET reporting.
- Office hours and email response. Emails are answered 9 AM - 4 PM on Monday through Friday. Office hours are listed on the OSU website for the instructor and on the signature of e-mails.
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Teaching Assistants are undergraduates that recently did well in ECE 111 and want to help you succeed too.

- Conducting and assessing labs. TAs work together with other TAs to guide students through the lab curriculum and assess student progress on Canvas.
- Office Hours. TAs hold office hours and assist with questions about lab or lecture.
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Student Requirements.

- Read the textbook to learn about lecture topics before lecture.
- Attend every lecture and ask clarifying or elaboration questions.
- Take notes during lecture and actively participate in lecture.
- Review and reorganize notes after lecture.
- Work on homework problems the day they are discussed in lecture, not the day they are due.
- Work in study groups after finishing your homework questions to compare method and result for homework questions.
- Maintain a professional attitude during lecture, recitations, and office hours.
Email

Right Gud.

- Check FAQ and Syllabus on course website before writing an email.
- Put course and section the subject line.
- Use "Dear Mr. Shuman" in the first email. If I reply with Matt in my signature use Matt in future emails.
- Be concise, but thorough.
- Proofread your email.
- Allow 24 hours for a reply.
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Environmental Impact
How has computing impacted the environment?

- Telecommuting
- Smart Homes
- Renewable Energies
- Oil Drilling
- Paperless Companies
- LED fixtures
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High School vs College
How has computing impacted citizens of the US and the world?

- Freedom of information
- Medical equipment and analysis
- Cell phones
- Social networking
- Weapons
- Drones
- Agriculture
- Dishwasher, laundry, and microwave
- iPod
Evaluations
How tough is this guy? Fall 2015

Student: I understand this is a survey class, but having a lecture where we talk about the same things every time or having someone visit EVERY class is a waste of my tuition money. The lab was useful, but the lecture was pointless and again a waste of my money and time.

Response: The lecture has been restructured to no longer be a survey style course.
Evaluations

How tough is this guy? Fall 2015

Student: "Very good class I was sad that so many people skipped so often."

Response: Attendance is now required and will impact the course grade.
Student: Although in one of the lectures it was said that ECE 111 is just to expose students to what is available to them when they graduate, I would have enjoyed having covered the basics, as that would’ve helped someone like myself, who is fairly inexperienced when it comes to electrical engineering.

Response: This lecture now introduces basic skills.
Evaluations
How tough is this guy? Fall 2016

Student:

I really enjoyed learning ECE generalities from the textbook, and then discussing them in class, sometimes with built circuit examples. Assigning additional chapters or material similar to the textbook used as a further introduction to ECE would be interesting. Alternately, the minor problem solving with Excel and the unit conversion for the bicycle wheel was interesting; perhaps make that a more official lecture couple of lectures as a formal introduction to engineering and problem solving? I also really enjoyed the guest lectures, and appreciated the "pick-and-choose" attendance policy. It was well balanced between not wasting too much class time, while giving valuable opportunities to listen to and ask questions of past students. Overall, I greatly enjoyed this class. Thank you for an excellent semester, and I look forward to seeing you in Engr. 201 next term.

Response: This evaluation was positive, specific, and gave ideas for future steps. Well done.
Student:

i am sorry to say this but this instructor is by far the laziest instructor i have ever faced, and i have been subject to lazy instructors. I have paid thousands and thousands of dollars to hear him talk about his past and present life as an instructor, how much he paid in college, what he did to get here and overall made me realize how egocentric he is. I could of paid much less to a graduate or any other student who have completed this course to teach me more efficiently what he failed to do. I did not learn anything from him rather i spent all my down time studying at home or at library. I was able to teach my self because i wouldnt benefit from him in class. Beside my lab, i think i overpaid for this class, i felt that the professor uses his experienced years as a teacher to chill more and give us the material to learn it ourselves. I dont care what he did in his senior years nor how much he paid in college 16 years ago, i would prefer him teaching us more what to expect in future ece classes. This was a ridiculous class,saving all that money would have benefited me in many other ways and i would still have learned the material in 10 weeks by my self.

Response: This evaluation is an example of a bad attitude forming a bad experience.
High School Stories
Story Time

High School Stories (FRC Coach in 2016)
- Solo Coffee Errand
- Prohibited Shorts
- Illegal Pair Walking
- Punitive Food Lines

Stories from Madras, Oregon
- Failing a drug test (dilute)
- Banana bread, hard work, success

What is a common theme of High School?
OSU Stories

Story Time

OSU Stories (Not me, but true) 2001
- Night Train
- Mattresses
- Couch
- Smurfing
- Frozen Yogurt

Stories from OSU Robotics Club 2006
- Slices Pizza
- Parallax
- Boba Fett, Cocktail Dresses, OSU Football