Homework 3: Welcome to ECE 111

Matthew Shuman, Change this to your name

1 Introduction

Welcome to ECE 111 my name is Matt Shuman and I lived in Madras, Oregon before coming to OSU to start my undergraduate ECE degree in Fall 2001, but now Corvallis is home. I am teaching courses (ECE 111, ECE 271/272, ENGR 201, and ENGR 202). I used to coach the Crescent Valley High School robotics team, Team 955\textsuperscript{1}. I also used to teach a woodworking class at the OSU Craft Center\textsuperscript{2}. This September I am beginning a PhD in robotics, after teaching at OSU for 8 years as an instructor.

I’m a 3rd generation Beaver, so OSU is important to me. My grandfather studied soils and helped Oregon farmers grow crops in the 40’s - 70’s. My dad studied civil engineering at OSU and helped design roads and small bridges in Central Oregon in the 80’s-2013. I like engineering because it is learning how to overcome any obstacle to take an idea and make it a fully functional product. Hopefully you learn how to overcome challenges and learn new skills in the ECE program at OSU.

Change this paragraph to reflect your background, and insert your image into figure 1.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{image.png}
\caption{This is during my summer 2015 adventure to Colorado.}
\end{figure}

2 Defining Success

Success is the achievement of something desired, planned, or attempted. After you put years and thousands of dollars into your college education, what do you want from your ECE degree?

\begin{footnotesize}
\textsuperscript{1}http://team955.org/
\textsuperscript{2}http://mu.oregonstate.edu/craftcenter/
\end{footnotesize}
Write answer here

3  Word Processing

This homework assignment focuses on using Latex or another processor to create a professional looking .pdf for each assignment. What are the advantages of Latex compared to traditional WYSIWYG word processors (such as Microsoft Word, Google Documents, or VIM)? What are the disadvantages of using Latex?

Write Answer Here

4  Microcontrollers

Microcontrollers are a very inexpensive way to develop projects. Every future project in ECE 111 will use FRDM-KL25Z development kit from NXP. 

Lookup the cost of the FRDM-KL25Z development board
FRDM-KL25Z site on NXP's website
Lookup the cost of a Atmel Mega 32 microcontroller on Digikey. It doesn't have to be the one used on the Teensy 2.0.
KL25Z page on Digikey

Compare the cost of the microcontroller chip and the cost of the board here. What does the difference in this cost provide?

Look up a project on Youtube that uses an Atmel Microcontroller
What does the Atmel Microcontroller do for the project you researched?

5  Microcontroller Packages

Integrated Circuits, ICs, are made using many different types of packages. The KL25Z in lab is a 80-LQFP package type.

Insert a picture for the DIP, TO-92, VFQFN, and BGA package types

This link might be helpful

6  ECE 111 Binder

Professionalism is important as you start your education at OSU. Every student is given a binder as part of their ECE 111 lab kit. Create a cover and spine insert for your ECE 111 binder. Attach a picture to this document that shows your binder with a cover and spine.

http://oregonstate.edu/brand/print-downloads This link is really helpful for making professional documents. Use these templates for every course you take at OSU, and try to use official OSU colors from this color swatch.