

## Calvin G. Douglass

### ABET Outcome Survey

Important Note: These outcomes reflect a personal (student) assessment of the course, not the instructor's assessment.

ABET Outcomes for AE 481W/482	Outcome not able to be assessed	Level of ability demonstrated but below acceptable	Minimum acceptable level of ability demonstrated	More than minimum level of ability demonstrated
	(Score of 0)	(Score of 1)	(Score of 2)	(Score of 3)
a. An ability to apply knowledge of mathematics, science, and engineering	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>
b. An ability to analyze and interpret data	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>
c. An ability to design a system, component, or process to meet desired needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>
e. An ability to identify, formulate, and solve engineering problems	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>
f. An understanding of professional and ethical responsibility	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>
g. An ability to communicate effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>
h. The broad education necessary to understand the impact of engineering solutions in a global and societal context	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>
i. An ability to engage in life-long learning	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>
j. A knowledge of contemporary issues	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>
k. An ability to use the techniques, skills, and modern engineering tools	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>

necessary for engineering practice				
o. Engineering design capabilities in at least two (2) of the (3) basic curriculum areas of architectural engineering, and that design has been integrated across the breadth of the program	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
p. Communication and interaction with other design professionals in the execution of building projects	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

### **AE 481W/482 Course Reflection:**

The experiences that I had in AE 481W/482 over the last two semesters taught me a lot about life. I learned the value of “just getting it done”, and found that Thesis in general is a very easy and manageable course so long as you do the work that is required of you. All of the assignments can be completed well ahead of time as long as you put in between 6 and 10 hours of work a week. For the many students who did not put in a consistent effort, Thesis became a ridiculously stressful task that was mashed into the last week or two of the second semester.

I also learned a lot about the students around me. Many of the students who put in the aforementioned consistent effort will be valuable resources to me in my future career. For those students who lacked effort and care, I would not rely on them or their future employers for any consulting, etc. I think that this is a valuable lesson that was not specifically taught in any class, but was overwhelmingly evident in Thesis. For this I am very grateful, and I will remember this lesson throughout my career.

The applicable knowledge used throughout my time in AE 481W/482 was mostly learned during the three summer internships that I held during the last 4 years. The knowledge learned from the Department of Architectural Engineering here at Penn State was similarly invaluable, as it served as the fundamental education which allowed me to understand concepts, software, and etcetera that was presented to me at my summer internships. The combination of a Penn State education and the imperative industry experience culminate during the Thesis course and create some pretty fantastic reports and presentations. Again, for this knowledge I am thankful, and I look forward to continued relations with Penn State and the Architectural Engineering Department in the future.

### **CPEP and Discussion Board:**

I did not particularly enjoy creating a website as a showcase of my work performed throughout Thesis. I am not interested in website design, and I think that my website does a poor job of relaying my engineering adequacy. In my opinion, the CPEP portion of Thesis should be purely extracurricular; students who do not have experience or interest in website design are stuck for the next 6+ years with a piece of work that they may not be proud of. I know that in my case specifically, I do not want to have my website accessible by the general public.

On another note, I did not find the discussion boards useful. I think that Thesis should be an independent project, and if a student needs help he or she should go out of their way to find consultation. Students this day in age are highly proficient at typing up letters or questions via email or discussion boards, and we need more practice in telephone conferencing and communicating to professionals in person. The discussion boards defeat this purpose, and give an “easy way out” to students who already have their hands held throughout most of Thesis.