

**Comments from students in MEEN 489 class**

**Written in group teammates' evaluations (not edited)**

<b>Class Outcomes</b>	<b>Very Satisfied</b>	<b>Satisfied</b>	<b>Somewhat Satisfied</b>	<b>Total # responses</b>
Help students to realign their thinking and learning processes by having a vision of real engineering work	<b>26 (62%)</b>	<b>13 (31%)</b>	<b>3 (7%)</b>	<b>42</b>
Facilitate the exploration of a topic of mutual interest by students and lecturer	<b>26 (62%)</b>	<b>14 (33%)</b>	<b>2 (5%)</b>	<b>42</b>
Provide a platform for students to engage in in-depth discussion on a specific (scientific) issue and to present their ideas clearly in oral and written form	<b>32 (76%)</b>	<b>9 (21%)</b>	<b>1 (2%)</b>	<b>42</b>
Offer students a diversity of scientific topics to choose from, exposing them to areas that they may otherwise not have the chance to experience	<b>33 (79%)</b>	<b>9 (21%)</b>		<b>42</b>
Establish a rapport between lecturer and students, creating opportunities for mentorship in the students' later UG years and beyond	<b>32 (76%)</b>	<b>10 (24%)</b>		<b>42</b>

Other choices: Dissatisfied and N/A (not applicable)

This class truly has been an enjoyable experience. I think every undergraduate student should have the opportunity to take advantage of this class. It allows one to see Mechanical Engineering from a different perspective and is a nice break from strictly technical learning. Also, being able to practice one's presentation and report writing skills were extremely beneficial. Engineers must be able to present information in a clear and concise way. In many of my other classes, it is evident that some undergraduate students CANNOT speak in front of an audience. This class helped me enormously with this and gave me some great tips in presentation and writing styles. Thank you so much Dr. San Andres, you have been one of my favorite teachers between this class and 363!

Thank you so much for providing me the opportunity to talk about my trip and a cause that I am so passionate about! Your support and encouragement mean a lot to me. Your class has been so exciting, and we all greatly respect you for challenging us to think beyond our typical engineering classes. I graduate this May, and yes, I would love to come back and present as a former student someday!

I enjoyed the format of the class. I feel that the class has great potential. I would like to see more international, and cultural discussion in the class.

This class has been a great motivator. The opportunity to learn about sources of energy such as nuclear & solar were very interesting as well as the economics of both. This is the first time I've heard the term 'soft skills' and the recommended reading was helpful to gaining a global perspective and understand how different cultures can encourage very different business mannerisms. Understanding these mannerisms, such as how the Chinese culture has deep respect and value of elders and they don't want to say 'no' is helpful for preventing misunderstandings and lots of frustrations in the future. Additionally, the current topic discussions gave us a global perspective about what is happening around the world.

I enjoyed the class so I would not want to completely get rid of it. With that said, I do have some personal opinions. I know for many people in the class they were learning new things and such, but I have been brought up in a very business environment and have been exposed to many of these things already. I think that we talked a little too much about China, grad school, and research. I know that these are all good, important topics, but they can only be talked about so much before it gets repetitive. The reason I was disappointed was because I thought the class was going to be a little different. I thought we were going to focus more on "modern engineering". What I mean by this is things like cutting edge technology being explored in different countries and what the benefits are of this and why we may or may not want to look into it more ourselves. I know that this is what the group presentations were about which I thoroughly enjoyed and think that presenting is a great aspect of the class. I guess I just thought the topics were going to be slightly different and more focused on new technology and application of engineering rather than grad school and research. Overall though, I would say that I enjoyed the class so thank you. There are definitely things that we have gone over this semester that many people overlook and do not realize the importance of.

I actually enjoy talking about China and think that it is a very important topic! If we do not get off of our high horse, China will soon be ruling us. I think that the U.S. is in great trouble and the debt is beginning to pile up. We have been lazy and cocky for far too long and eventually it is going to come back to bite us. I think that throughout the year we have talked about China in more of a cultural/statistical way instead of an engineering way. I will be interested to hear what you have to say about engineering in China today.

I personally have enjoyed this class. The guest speakers have helped keep me motivated by showing me that the pain I am going through in other class will someday be rewarded. I really enjoyed the fact that most of the speakers were more recent graduates. Also, the extensive reading list (that was not required) has really broadened the type of books I read. Most of the time I do not read, because I lack the time to search for something worth reading. I feel that the fact that the class is structured where the student can get as much or as little out of it is beneficial. Also, the professor has gone above and beyond to make the class a great learning experience.

I think the groups should be smaller. 5 or 6 team members are too much, especially when the assignments don't take very long. It makes some people do much more work than others.

I really like the presentations, but they should be at the beginning of class. I feel like since they are at the end, especially with that late of a class, everyone just wants to leave and they don't ask questions.

The speaker meetings were great, but they dragged on too much. Maybe make the speaker meetings only forty minutes. After a while, even if the speaker is interesting, I just become distracted and bored. A forty minute presentation is perfect in my opinion and it gives us time to ask more questions without worrying about being late to our next class, which I was several times.

We need to get a better room. It is a bad classroom for that type of a class where we want to have a discussion. It is fine for a class like Heat Transfer or Fluids, but it seemed weird to talk to people in that room.

I liked the lecture material; it was really interesting

All in all, I thought this class was very beneficial. I enjoyed talking about the different topics and how they relate to the real world and what the real-world issues implications are.

The class format was very enjoyable; it made for a good learning environment. I liked that it was not simply a lecture type of class but rather a discussion format where the floor is open to other people's ideas and topics. Everyone has something to bring to the table and this class enabled different people to share their ideas and bounce them off one another quite freely.

Overall, a great class!! I will be recommending it to others.

I appreciate your flexibility in the course and openness to talk about subjects we're interested in.

I greatly appreciate your lectures. It is obvious that you worked many hours to prepare them. I love the interactions that you foster with your students. It is obvious to me that you are a master in your field without even though I know very little about Tribology. I really enjoy the fact that you took the time to develop a relationship with your previous student so they would want to come back and speak. You have been a great role model, because we do have many common interests. I enjoy working on technical problems, but I also feel that I'm skilled with people as well. You have shown me ways to capitalize on all my skill sets as opposed to just focusing on one. You have renewed my interests in an engineering graduate degree. I had always planned to go to grad school, but I wrote off engineering because of my lacking emotion about the field. You have help renew that passion. One thing that I was sad to see you discontinue was the constructive criticism on the presentations. I understand that some students have a hard time hearing what they did wrong in front of their peers, but I feel it is a great learning experience. The classroom is a much safer place to learn from these mistakes than later on in a professional career.

This was a class that reminded my why I signed up for engineering. The lectures were informative and the guest speakers were motivational. I also thought it was great that you brought in people from industry and grad school. Great class!

I think every undergraduate student should have the opportunity to take advantage of this class. It allows one to see Mechanical Engineering from a different perspective and is a nice break from strictly technical learning. Also, being able to practice one's presentation and report writing skills were extremely beneficial. Engineers must be able to present information in a clear and concise way. In many of my other classes, it is evident that some undergraduate students CANNOT speak in front of an audience. This class helped me enormously with this and gave me some great tips in presentation and writing styles. Thank you so much Dr. San Andres, you have been one of my favorite teachers between this class and 363!

I enjoyed the format of the class. I feel that the class has great potential. I would like to see more international and cultural discussion in the class.

You did a good job and I learned a lot of things that would never be taught in another class.

Class was very interesting and kept my attention very well. Lecture topics became increasingly interesting as the semester progressed. It is a shame this semester (or at least this class) is coming to an end.

I would like to say that overall the topics we discussed in class were very intriguing. I really enjoyed all the speakers that you brought in. It was nice to take a break from technical lectures in other classes to learn more about the real world and current events in what is going on in the world today. Thank you for being very open with helping everyone in their career and school work, I probably did not take advantage of that resource enough. I really enjoyed this class and the topics it discussed. It did help me with my presentation fright a little bit as well as my writing ability. Thank you very much!

I'm very glad I took this course. I believe I speak for everyone in the class when I say that I feel better prepared for interviewing and "real-world" engineering.

Recommendation for future assignment:

Have the class write responses to typical interview questions (I believe you can find a list of questions in the career center). Doing so will make students better prepared for what to expect in an interview.

Our class seems to be full of seniors, probably because we all heard about the course after taking 363. But I believe this is an excellent course and would like to see it continued to be offered, but with more enrollment from the sophomores and juniors in the ME department. It is a great course that can truly spark some passion in engineering through a different point of view and it raises many more concerns and aspects of engineering that we cannot learn in technical courses.

I think this class should be a required course. The things that I have learned in this class are some of the most valuable, practical things that I have learned in the engineering college. It included very loosely-technical components, but also offered things that are normally taught in other colleges: such as the "global community" that is beginning to form, as well as the comeuppance of other countries that are beginning to rival – even overtake! – the U.S. in regards to technology/engineering; things I believe are vital to new engineers to understand in order to be successful in industry.

I think it is paramount that graduating engineers be exposed to this sort of "real-world" learning experience, as some of the material I have learned in this class I have talked about in interviews and have surprised the company at my understanding of life beyond college in the world of engineering. If I would have to describe this course, I would say it is a summary of my mechanical engineering education with a bit of personal advice thrown on top – advice from professors, within and without the college of engineering, as well as from industry professionals (both younger and older) that can only be learned by repeated engineering practice.

I really enjoyed this class! It was a refreshing change from the "typical" engineering classes, and I feel I learned a lot that I would not have been exposed to otherwise. Also, I loved the instructor was very open to questions, and would provide additional information to answer questions in the following lecture once he had time to research topics and provide further resources.

Also, I learned a lot about grad school in the class that I did not know! It made me 99.9% sure I will not be going to grad school for engineering, but I was happy to learn it anyways! ☺

I would like to thank you, Dr. San Andres, for your hard work this semester and your willingness to adapt for the students. That is something rare to see in engineering classes, and I will definitely recommend this class to my peers!

Thank you for the wonderful class. Loved the presentations, guest speakers, and diversity of topics discussed throughout the term.

I loved the Class. Thank you for Teaching It!

The class had a great balance of lecturers. It was always nice to have people other than the professor speak about their own personal experience. The professor did a great job of opening the class for the students to have their own opinions and have say in the direction of the class. The attitude of the professor was one thing I greatly enjoyed about the class. He was always willing to answer questions and took student input seriously. I would highly suggest this class to any other student. The only major suggestion I have is that smaller teams may assist in more group participation. It was always hard to find a time for all 5 team members to meet and it was hard to distribute tasks for small papers and short presentations among five members.