Duke University - Trinity and Pratt Undergraduate Programs
Pratt EGRP Course Evaluations - Fall 2021

Course: EGRMGMT-590-01: ADV TOPICS IN ENG MGMT

Instructor: Robert Twiss
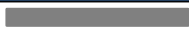
Response Rate: 16/19 (84.21 %)

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1 - Thank you for completing an evaluation.Your constructive comments and ratings will be helpful to the faculty for improving this course for future students, helpful to the Duke administration for faculty promotion and awarding teaching-based recognitions, and helpful to other students considering enrolling in this course.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
I understand the purpose of course evaluations.	(1)	16	100.00%		

0   25   50   100

Response Rate

16/19 (84.21%)

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2 - The goal of evaluations is to help instructors identify which aspects of the course are most effective and which aspects could be productively changed. Please do your best to focus on the course components and learning environment, and avoid superficial comments that are not relevant to the learning environment (for example, comments about the appearance of the instructors or personal attacks are not helpful or appropriate).

Response Option	Weight	Frequency	Percent	Percent Responses	Means
I will do my best to be constructive.	(1)	16	100.00%		

0   25   50   100

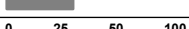**Response Rate**

16/19 (84.21%)

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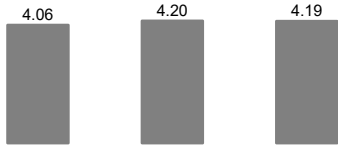
3 - Prior research has identified biases in course evaluations related to instructor gender, age, race, ethnicity, sexuality, or other aspects of identity. Keep this in mind when reflecting on your course experience, and do your best to minimize the influence of any particular instructor identities on your evaluation.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
I will do my best to avoid potential biases.	(1)	16	100.00%		

0   25   50   100

Response Rate

16/19 (84.21%)

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4 - When answering questions that refer to "learning," please consider the relevant aspects of learning that are specific to this course (for example, acquisition of skills and methodology, retention of course content, new ways of thinking, or anything else that the course offered).

Response Option	Weight	Frequency	Percent	Percent Responses	Means
I understand.	(1)	15	100.00%		

0   25   50   100

Response Rate

15/19 (78.95%)

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5 - Overall AppraisalGive an overall rating for the quality of this course (e.g., content, structure, approach, educational value).

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Very poor	(1)	0	0.00%		
Poor	(2)	1	6.25%		
Adequate	(3)	3	18.75%		
Good	(4)	6	37.50%		
Excellent	(5)	6	37.50%		

Means: Question 4.06 | Department 4.20 | All Masters Courses 4.19

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	4.06	0.93	4.00	1071	4.20	0.89	4.00	1286	4.19	0.90	4.00

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6 - Please elaborate on your impressions of the quality of the course.	
Response Rate	10/19 (52.63%)

• This was a course that I had chanced upon due to a shortage of electives but I am SOO HAPPY i stuck with it. Prof Twiss designed a truly great experience not just a course. As a person who has never experienced what a start-up environment - This was a crash course in it. I really liked that all our learning's were from real life experiences both from our end and Prof Twiss'.

• The course was very different from conventional courses because we had a lot of practical work. We not only listened to lectures but also built something from scratch.

• Need more software components over purely mechanical, need undergraduate who actually have the expertise to help, it will be helpful to have one mech and one software engineer Scope of the course can be well defined to take off the load as we can not do everything within 13 weeks Grading by the judges in design review not in line with what was communicated by the Prof in the beginning of the course

• The course covered a variety of topics which was useful in the field of product design.

• The course was one of the most intensive. Engineers from different disciplines collaborated to build a product, a smart one. I enjoyed the course and has an amazing learning curve for every product aspirant.

• The course could've been more structured

• Too hardware oriented and dependent on the juinors

• The course structure was good but there was scope of improvement. The initial sprints conducted as the part of the course were light and later sprints were unduly heavy. The undergraduates assigned didn't have sufficient incentive to work towards the product. Most of the work was kept incomplete till the last day.

• It is great in how you can make something from scratch, in such quick time. Has given us a lot of confidence in our ability and really gives alot of variety to the MEM program.

• Course was not executed as it was depicted. It was a good learning experience but not much was done in class.

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7 - Give an overall rating for quality of the instructor (e.g., presentation, knowledge, fairness, responsiveness).

Response Option	Weight	Frequency	Percent
Very poor	(1)	0	0.00%
Poor	(2)	2	12.50%
Adequate	(3)	1	6.25%
Good	(4)	6	37.50%
Excellent	(5)	7	43.75%

Means: Question 4.13, Department 4.41, All Masters Courses 4.39

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	4.13	1.02	4.00	1254	4.41	0.80	5.00	1507	4.39	0.82	5.00

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8 - Please elaborate on your impressions of the quality of the instructor.	
Response Rate	9/19 (47.37%)

• Professor Twiss went above and beyond to ensure that each student had a great experience. The fact that we did not have to refer notes and text books to learn but we got insights from his career was great. It was really nice that he would just us a prototype that he had personally worked on during his career to support the teachings for the day.

• Prof. Twiss is a master designer and he is the king of making prototypes. His knowledge in designing and fabricating new products is unparalleled. His teaching style was very enjoyable.

• Good

• Prof. Twiss brought his industry experience to class and used a lot of interesting anecdotes from his professional career to explain various concepts to the class.

• Professor Twiss went beyond and above to structure the course. The classes were amazing. It was great to learn new things every class about the product development.

• Very knowledgeable mechanically but not a great teacher

• The content delivery of the professor was good and most of the topics were covered well. But the professor sometimes didn't take responsibility for problems faced by teams.

• Prof. Twiss has so much design experience that every conversation with him is filled with ideas. He is the perfect guy to conduct the course and every class is a new experience. No other course had soo much involvement and at stake.

• Class was not valuable in any way. No help from the professor was provided in prototyping. All work done outside class.

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Instructor: Robert Twiss
Response Rate: 16/19 (84.21 %)

9 - Would you recommend this faculty member for a Pratt Teaching Award?

Response Option	Weight	Frequency	Percent	Percent Responses	Means		
Yes	(1)	11	68.75%				
No	(2)	5	31.25%				

Means: Question 1.31, Department 1.32, All Masters Courses 1.33

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	1.31	0.48	1.00	1235	1.32	0.47	1.00	1484	1.33	0.47	1.00

- He designed an experience and not just a course. I got first hand experience in soo many different phases of product design and got to further enhance my people skills because of him. He was also very patient when it came to answering our million questions regarding our projects,.

- He taught well and also guided us on how to make effective prototypes, presentations and pitches. These skills will be helpful throughout our corporate career.

- Novel idea, opportunity to work with undergrads and actually got a platform to build something from scratch

- I think given his experience in IT and his passion to teach makes me feel honored to be a student of such a professor. Hatsoff

- I would like to nominate Prof. Twiss for his idea of bringing the undergraduate and MEM students together for this course.

- He may have bias towards certain team

- Yes, the fact that he brought a new course to life and really gave us exposure to the world of bringing products to life.

10 - Self-EvaluationHow many hours per week, on average, did you spend outside of scheduled class (including labs) on this course?

Response Option	Weight	Frequency	Percent	Percent Responses	Means		
3-6 hours per week	(1)	0	0.00%				
6-9 hours per week	(2)	3	18.75%				
9-12 hours per week	(3)	5	31.25%				
12-15 hours per week	(4)	2	12.50%				
15+ hours per week	(5)	6	37.50%				

Means: Question 3.69, Department 2.05, All Masters Courses 2.13

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	3.69	1.20	3.50	1075	2.05	1.02	2.00	1289	2.13	1.08	2.00

11 - How difficult was this course for you?

Response Option	Weight	Frequency	Percent	Percent Responses	Means		
Very low difficulty	(1)	0	0.00%				
Low difficulty	(2)	0	0.00%				
Moderate difficulty	(3)	6	37.50%				
High difficulty	(4)	6	37.50%				
Very high difficulty	(5)	4	25.00%				

Means: Question 3.88, Department 2.92, All Masters Courses 2.97

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	3.88	0.81	4.00	1071	2.92	0.92	3.00	1285	2.97	0.93	3.00

12 - What level of critical thinking did this course require?

Response Option	Weight	Frequency	Percent	Percent Responses	Means		
Very low	(1)	0	0.00%				
Low	(2)	0	0.00%				
Moderate	(3)	2	12.50%				
High	(4)	9	56.25%				
Very high	(5)	5	31.25%				

Means: Question 4.19, Department 3.55, All Masters Courses 3.58

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	4.19	0.66	4.00	1072	3.55	1.04	4.00	1285	3.58	1.03	4.00

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Response Rate: 16/19 (84.21 %)

13 - What was your interest level in this course topic at the beginning of the semester?

Response Option	Weight	Frequency	Percent
Very low	(1)	0	0.00%
Low	(2)	1	6.25%
Moderate	(3)	2	12.50%
High	(4)	2	12.50%
Very high	(5)	11	68.75%

Means: Question 4.44, Department 3.58, All Masters Courses 3.59

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	4.44	0.96	5.00	1073	3.58	1.01	4.00	1287	3.59	1.02	4.00

14 - What is your interest level in this course topic now?

Response Option	Weight	Frequency	Percent
Very low	(1)	1	6.25%
Low	(2)	1	6.25%
Moderate	(3)	3	18.75%
High	(4)	5	31.25%
Very high	(5)	6	37.50%

Means: Question 3.88, Department 3.69, All Masters Courses 3.70

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	3.88	1.20	4.00	1075	3.69	1.09	4.00	1289	3.70	1.10	4.00

15 - How often did you attend class (either live or asynchronously)?

Response Option	Weight	Frequency	Percent
More than 95% of the time	(5)	16	100.00%
85-95% of the time	(4)	0	0.00%
75-85% of the time	(3)	0	0.00%
50-75% of the time	(2)	0	0.00%
0-50% of the time	(1)	0	0.00%

Means: Question 5.00, Department 4.66, All Masters Courses 4.68

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	5.00	0.00	5.00	1071	4.66	0.80	5.00	1285	4.68	0.80	5.00

16 - What grade do you expect to receive in this class?

Response Option	Weight	Frequency	Percent
A	(4)	14	93.33%
B	(3)	1	6.67%
C	(2)	0	0.00%
F	(1)	0	0.00%
Other	(0)	0	0.00%

Means: Question 3.93, Department 3.85, All Masters Courses 3.83

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
15/19 (78.95%)	3.93	0.26	4.00	1065	3.85	0.37	4.00	1277	3.83	0.41	4.00

Course: EGRMGMT-590-01: ADV TOPICS IN ENG MGMT

Instructor: Robert Twiss

Response Rate: 16/19 (84.21 %)

17 - Appraisal of Learning

The readings supported the objectives of this course.

Response Option	Weight	Frequency	Percent
Strongly agree	(5)	5	31.25%
Agree	(4)	8	50.00%
Neutral	(3)	2	12.50%
Disagree	(2)	0	0.00%
Strongly disagree	(1)	1	6.25%
N/A	(0)	0	0.00%

Means: Question 4.00, Department 4.40, All Masters Courses 4.39

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	4.00	1.03	4.00	1071	4.40	0.75	5.00	1284	4.39	0.78	5.00

17 - Appraisal of Learning

The assignments and projects supported the objectives of this course.

Response Option	Weight	Frequency	Percent
Strongly agree	(5)	7	43.75%
Agree	(4)	7	43.75%
Neutral	(3)	1	6.25%
Disagree	(2)	1	6.25%
Strongly disagree	(1)	0	0.00%
N/A	(0)	0	0.00%

Means: Question 4.25, Department 4.42, All Masters Courses 4.42

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	4.25	0.86	4.00	1067	4.42	0.79	5.00	1279	4.42	0.80	5.00

17 - Appraisal of Learning

The class discussions and/or lectures supported the objectives of this course.

Response Option	Weight	Frequency	Percent
Strongly agree	(5)	6	37.50%
Agree	(4)	6	37.50%
Neutral	(3)	2	12.50%
Disagree	(2)	1	6.25%
Strongly disagree	(1)	1	6.25%
N/A	(0)	0	0.00%

Means: Question 3.94, Department 4.42, All Masters Courses 4.41

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	3.94	1.18	4.00	1067	4.42	0.82	5.00	1280	4.41	0.83	5.00

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Instructor: Robert Twiss
Response Rate: 16/19 (84.21 %)

17 - Appraisal of Learning

I would recommend this course to future students.

Response Option	Weight	Frequency	Percent
Strongly agree	(5)	7	43.75%
Agree	(4)	4	25.00%
Neutral	(3)	2	12.50%
Disagree	(2)	2	12.50%
Strongly disagree	(1)	1	6.25%
N/A	(0)	0	0.00%

Means: Question 3.88, Department 4.25, All Masters Courses 4.23

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	3.88	1.31	4.00	1068	4.25	0.98	5.00	1281	4.23	1.01	5.00

17 - Appraisal of Learning

The evaluation method (exams, homework, etc.) matched the objectives and content for the course.

Response Option	Weight	Frequency	Percent
Strongly agree	(5)	4	25.00%
Agree	(4)	4	25.00%
Neutral	(3)	5	31.25%
Disagree	(2)	3	18.75%
Strongly disagree	(1)	0	0.00%
N/A	(0)	0	0.00%

Means: Question 3.56, Department 4.31, All Masters Courses 4.29

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	3.56	1.09	3.50	1068	4.31	0.86	5.00	1282	4.29	0.90	5.00

17 - Appraisal of Learning

The evaluation method (exams, homeweork, etc.) for this course was fair.

Response Option	Weight	Frequency	Percent
Strongly agree	(5)	4	25.00%
Agree	(4)	6	37.50%
Neutral	(3)	3	18.75%
Disagree	(2)	2	12.50%
Strongly disagree	(1)	1	6.25%
N/A	(0)	0	0.00%

Means: Question 3.63, Department 4.30, All Masters Courses 4.27

Response Rate	Mean	STD	Median	Department	Mean	STD	Median	All Masters Courses	Mean	STD	Median
16/19 (84.21%)	3.63	1.20	4.00	1063	4.30	0.89	5.00	1274	4.27	0.92	5.00

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Response Rate: 16/19 (84.21 %)

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18 - Open-Ended QuestionsWhat parts of the class were most useful for you? Why?	
Response Rate	8/19 (42.11%)

• I think the real life simulation of what it would be like in an actual product design environment was the most useful.

• Weekly sprints where we had to make incremental changes to our product and present it each week.

• The knowledge about marketing, financing, packaging, electronics was very useful.

• To get to learn the product life cycle

• 1. Managing juniors 2. Learning new things forcefully

• We were able to make an actual product from scratch which helped us in gaining lot of exposure. We learnt how to function in teams and deal with the technical staff. We understood how to deal with constraints and issues by finding a way out.

• The exposure to undergrads and their ability along with the varied classes teaching us the different aspects. Each sprint was a new learning experience.

• We learnt a lot of engineering, went back to engineering concepts. Creating a product from scratch was fun and insightful.

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19 - What parts of the class were least useful for you? Why?	
Response Rate	8/19 (42.11%)

• I think my team size was something that was not ideal as we were later assigned an additional member to the team which messed up the team dynamic ever so slightly considering we were already a team on the bigger side. Additionally i feel like there was a disconnect constantly between us and the advisor who was assigned to us which did not help the process and towards the end started to get to be more micro management than advising .

• Sometimes the content of the lecture was too broad/generic and was something which we already knew.

• NONE

• My team mate ▨▨ which was a new addition to the team was a serious nuisance creator and only created problems for me and the team. If she were not there, we would've done a better job

• 1. Prof spent no time in reviewing each week's progress. It should have been a feedback loop but instead it was just presentations with zero suggestions 2. Juniors have no incentive to work as its just pass/fail grade for them 3. Hardware product and no software touch is not that useful as most product managers want to go into tech

• Instead of learning more about product management we focused more on the technical side of things. This actually reduced the amount of Product Management knowledge that we could have learnt otherwise.

• There could be more reading and supporting material to help us through and give a bit of structure to the sprints

• 1. No prototyping help was provided by the professor 2. PPTs in class was not useful at all 3. No help provided by professor in prototyping.

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20 - Please add any additional comments or suggestions for improving the learning experience in this course.	
Response Rate	10/19 (52.63%)

• I found this course to be really interesting and I think it truly captures the essence of engineering management. However, I believe there must be pre-requisites/a method to validate interests of students before enrolling in this course (for both the MEM students and the technical staff) as it is very demanding and requires dedication and contribution from all members. The course experience can be ruined if all team members aren't driven/interested. There is a huge gap in skillset and interest amongst students within the cohort (and the technical staff). The expectations of the course could also more clearly laid out.

• I would suggest ensuring that the advisors were on the same page when it comes to the expectations of the outcomes of this course and the students. Apart from that i really liked the course.

• Very fun class. enjoyed the format of the class.

• The course needs some modification in the structure. 1. include team feedback touchpoints to understand the team's dynamics and progress. This can avoid undue conflicts. 2. First class can be spent on talking about psychological safety to be provided in each team. Especially in this course, it's needed. 3. This semester we had undergraduates only from mechanical. This could be a hindrance for the software development as there was a lack of students with programming language. My suggestion would be to incorporate students one from mechanical and one from EC/CS so that there is the right balance between the students from MEM and undergraduates.

• I'd suggest the pairing of undergrads with MEM teams is done after the team identifies their problem statement and the potential solution. This way right skills and interests can be matched with each product idea.

• Don't make the course highly team dependent as some of the teammates don't work at all

• 1. Prof should sit with each team every week and give suggestions 2. Prof should not have bias 3. Prof should teach how to design a product instead of telling how to over complicate a science project 4. TA should not be the one grading master students 5. Tech related products should be made instead of hardware products

• It would have been better if professor would have given his inputs after each and every sprint so that we would have understood how things work in the industrial settings considering the vast amount of experience that the professor has.

• The grading was not the most fair and could be improved. While the grading structure made sense the scoring didn't, it might be due to the uneven scorers or that they were online, but it could have been improved.

• 1. Professor should not have bias. 2. Prototyping should be done in class so that the 3 hours of can used better.

Mean of Means Calculations	Mean	Department	All Masters Courses	
Appraisal of Learning	3.88	4.35	4.33	
Course and Instructor Quality	4.10	4.30	4.29	