

Course Name: Fund of Robotics Automated Sys CSCC85H3-F-LEC01 (INPER) Division: SCAR Session: F Session Codes: F = First/Fall, S = Second/Winter	Instructor: Francisco Estrada Section: LEC01 Delivery Mode: INPER
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Raters	Students
Responded	22
Invited	27

Section 1: Course Evaluation Overview

Part A. Core Institutional Items

Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - A Great Deal

Question	Summary	
	Mean	Median
I found the course intellectually stimulating.	4.8	5.0
The course provided me with a deeper understanding of the subject matter.	4.6	5.0
The instructor (Francisco Estrada) created an atmosphere that was conducive to my learning.	4.8	5.0
Course projects, assignments, tests, and/or exams improved my understanding of the course material.	4.5	5.0
Course projects, assignments, tests and/or exams provided opportunity for me to demonstrate an understanding of the course material.	4.7	5.0
Institutional Composite Mean	4.7	-

Scale: 1 - Poor 2 - Fair 3 - Good 4 - Very Good 5 - Excellent

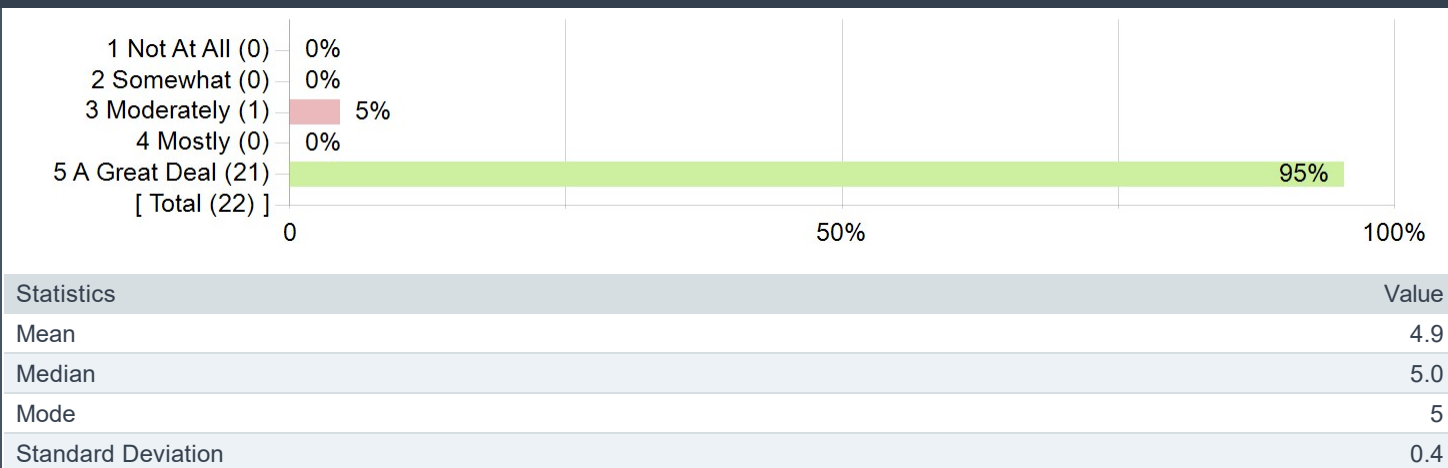
Question	Summary	
	Mean	Median
6. Overall, the quality of my learning experience in this course was....	4.4	5.0

7. Please comment on the overall quality of the instruction in this course.

Comments
The course is very challenging but rewarding, teaching through projects. I appreciated how all the concepts came back in the final project. My only concern with the course structure is that there is still an exam, which I don't think is a good requirement for this course. We should be able to demonstrate our knowledge with our robots, especially since there are many check ins that can be used for evaluation. The issue with having an exam on top is that this course is already very demanding, and by the time of the exam we'd have already shown all the material through our work. It would be much better if we can focus on the exam season without having to worry about demonstrating knowledge we've already implemented.
This course is probably the only course I will ever say was worth international tuition. Every lecture is extremely engaging and meaningful and the occasional visual aids are always relevant and intriguing. Said lectures act as the perfect jump point for getting into an assignment/project.
A+ very engaging.
Workload is pretty heavy, but the projects and exercises are very inspiring and interesting! It does require much effort and time, but the experience and knowledge I receive is valuable. I love this course, it is one of my favorite courses honestly!
A little sparse for revision, having only team notes and Quercus summaries to go off of, but lectures are engaging and assignments force full understanding of the course content.
The concepts are taught very clearly and the class atmosphere was very productive and welcoming. I think that the material is paced well and the assignments provide interesting problems to solve. The only issue comes from time commitment, as this course requires more time spent than almost any other course I have taken, in getting the robot to do what we want it to do. While this is due to the nature of the material, it becomes a bit of a sore point making it hard to recommend to other students who may find the time necessary overwhelming. It is definitely satisfying to complete the work, but I think the workload could be streamlined in some way.
It's an extremely challenging course that takes a lot of work – by far for than any of the courses I've taken in my 4 years here – but it has also been the most fun and rewarding course. I really enjoy being in a smaller class size as it feels like there is more community when we are all working in the lab together, and although there is a lot of work the course is still well organized. Paco is very understanding and accommodating of our schedules as students, and genuinely cares about our learning.
There was no room for extra comments at the end so I'll add them here: I'd strongly recommend this course to others ONLY if they are genuinely interested in it and passionate about robotics. I feel that the work load is not worth the effort if you don't find the topics interesting, but if you do you'll love it.
I greatly appreciate the energy Paco brings into this course. The topics covered are explored well in the exercises and projects.
Very fun and interactive course
Content is well structured, I have a couple ideas on making some exercises better reflect the concept they intend to teach. Would also love all the small video clips shown in class
Francisco is great at explaining concepts and keeping the class focused.
Professor Paco is amazing! This course is one of the most interesting and fun courses I've taken and I've learned so much!
The only issue was that it is like 3 courses worth of work. So it could be a good idea to split it into two courses: part 1 and 2. That way students could work more and perfect their localization, lander, optimization, fleetbyte, and so on and robo soccer could be given more time (maybe even kinda it's own term). I barely slept mostly because of this course and merely just because we didn't have enough time.
Great, especially that the course enrolment was small. I definitely felt the one–on–one interaction with the professor.
Engaging
Very good.
Lectures were very engaging and encouraged the students to openly discuss the material with the professor. Lots of it was theoretical but relatively easy to digest. It would help if there were more examples or extra readings to go over the more difficult/critical material like denoising techniques and PID controllers, but as Paco stated there is no good textbook to cover the material and most of it should be our own research.
I really really love this course, but to be honest, this is a really hard course. The overall difficulty was much much higher than other courses, but still really interesting though LOL. I love Paco, he is like one of us and like our friend. He is trying his best to help us. Love this course and love robot!
We got a good high level idea of the concepts in lecture, but I felt like it wasn't in depth or detailed enough to do our assignments.

14. The course instructor (**Francisco Estrada**) encouraged students to ask questions about the course material.

UTSCCMS003 The course instructor (**Francisco Estrada**) encouraged students to ask questions about the course material.



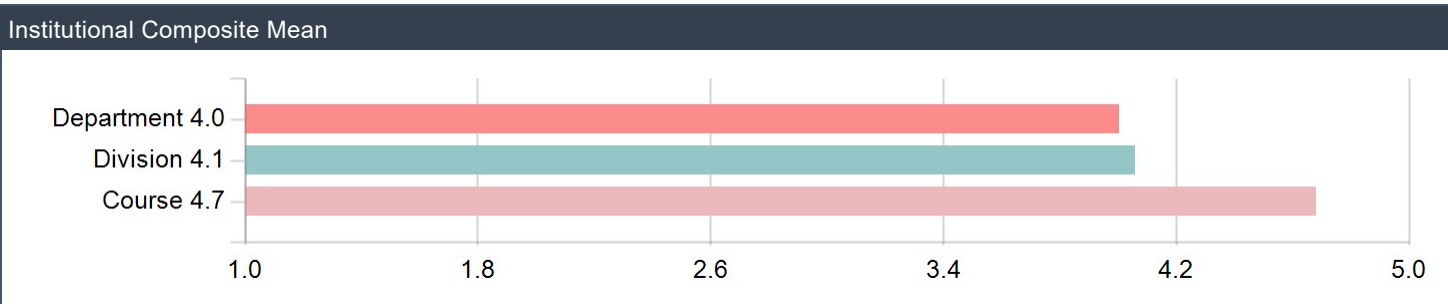
Section 3. Comparative Data

This section provides overall means for given comparators (e.g., division, department) alongside the mean values for a given course. Note that the comparators are calculated by pooling together all individual student survey responses (e.g., student responses for all of the courses in a department are pooled together and the departmental mean responses calculated from that). The provided comparators are thus a measure of the 'average' student experience for a unit or division; they are not a measure of the 'average' course in a unit or division. This calculation has the effect of giving large courses more 'weight' in the calculation of the comparator means. The effect of this on the calculated comparator varies depending on the relative proportion of large or small courses within a unit or division. As such, the departmental and divisional comparative mean values provided on course evaluations should not be regarded as an absolute and definitive benchmark.

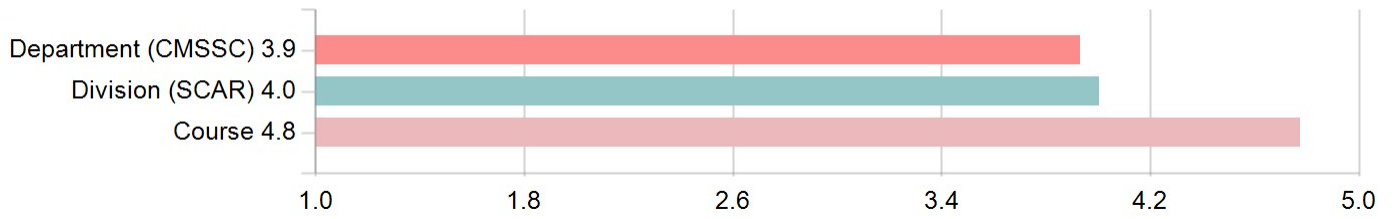
For example, if a department offered only two courses, one with 1000 students who all answered 3.5 and the other with 10 students who all answered 4.5 (so that the means would be 3.5 and 4.5 respectively), then the departmental mean provided on the course evaluations would be 3.51 since the calculation would be $[(3.5 \times 1000) + (4.5 \times 10)] / 1010 = 3.51$ and not $(3.5 + 4.5) / 2 = 4$.

Part A. Core Institutional Items

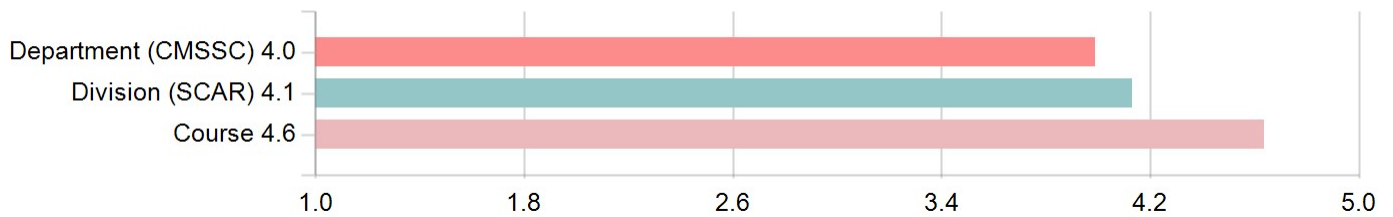
Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - A Great Deal



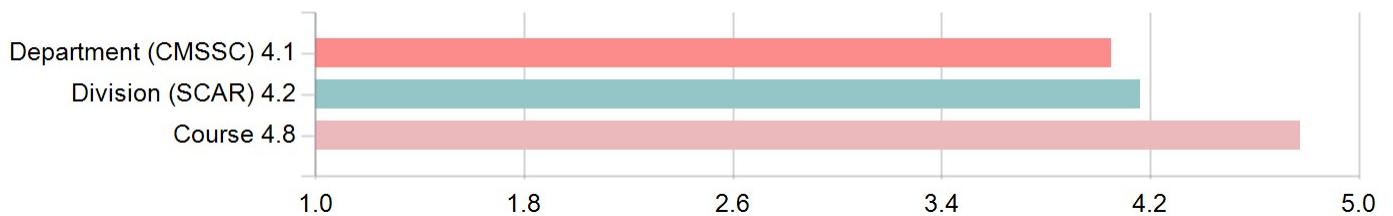
1. I found the course intellectually stimulating.



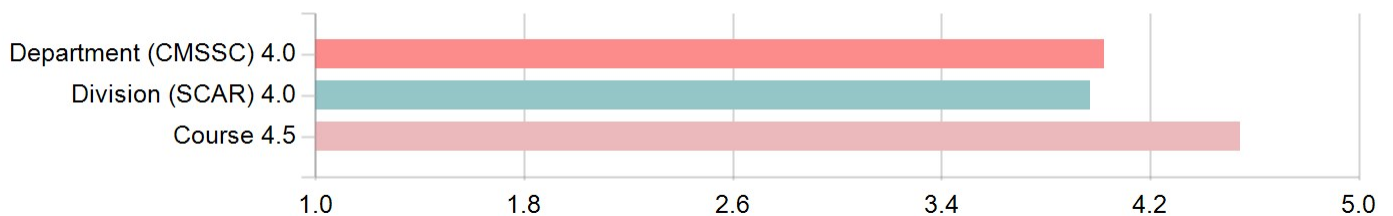
2. The course provided me with a deeper understanding of the subject matter.



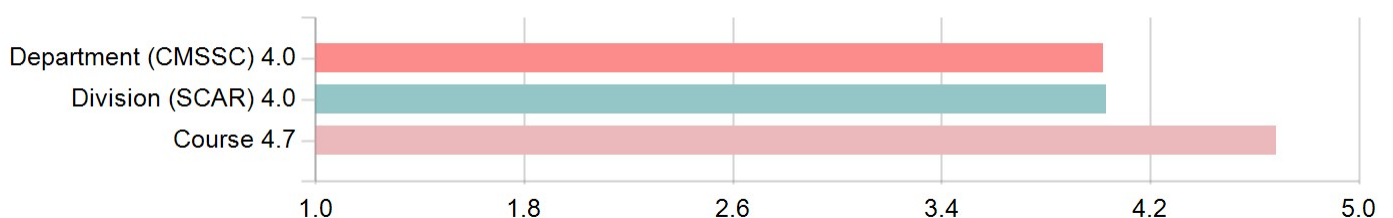
3. The instructor ([Francisco Estrada](#)) created an atmosphere that was conducive to my learning.



4. Course projects, assignments, tests, and/or exams improved my understanding of the course material.

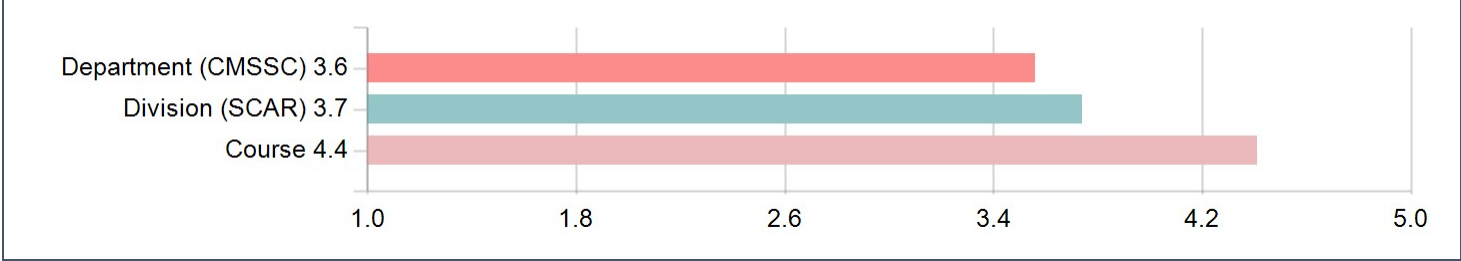


5. Course projects, assignments, tests and/or exams provided opportunity for me to demonstrate an understanding of the course material.



Scale: 1 - Poor 2 - Fair 3 - Good 4 - Very Good 5 - Excellent

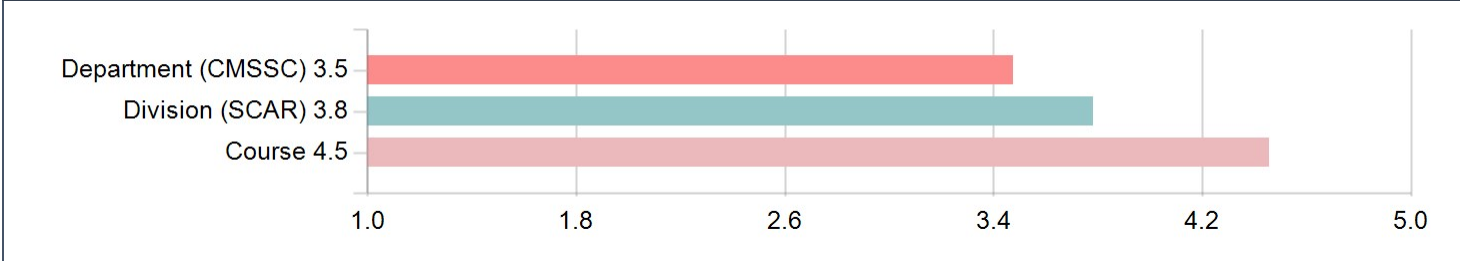
6. Overall, the quality of my learning experience in this course was:



Part B. Divisional Items - UTSC

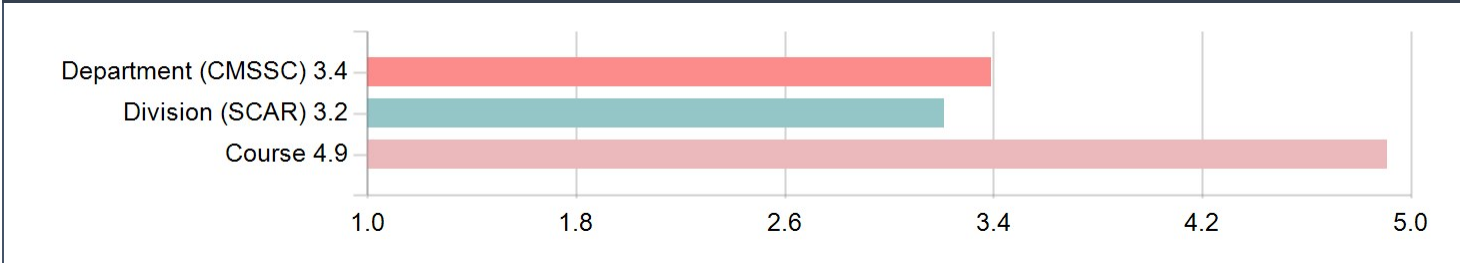
Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - A Great Deal

9. The course inspired me to think about the subject matter outside of class.



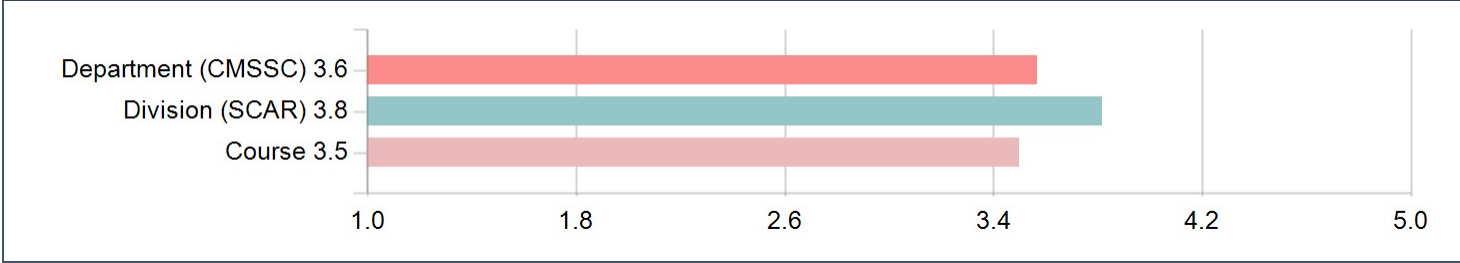
Scale: 1 - Very Light 2 - Light 3 - Average 4 - Heavy 5 - Very Heavy

10. Compared to other courses, the workload for this course was:



Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - Strongly

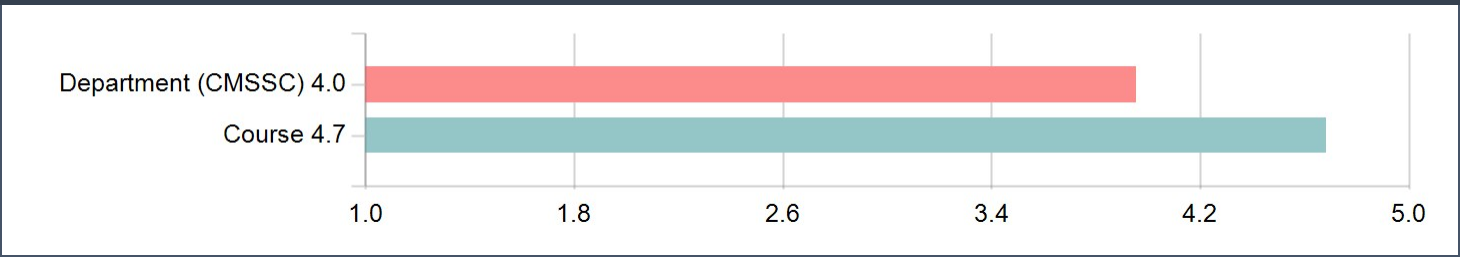
11. I would recommend this course to other students.



Part C. Departmental Items - Computer & Mathematical Sciences

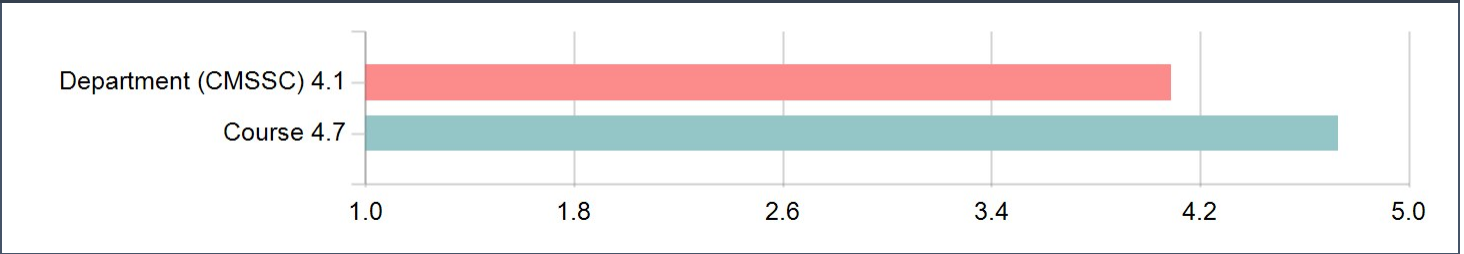
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12. The course instructor ([Francisco Estrada](#)) explained concepts clearly.



Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - A Great Deal

13. Course assignments, projects, tests, and/or papers highlighted important concepts of the course.



Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - A Great Deal

14. The course instructor ([Francisco Estrada](#)) encouraged students to ask questions about the course material.

