Description of Your Report

Your Course Evaluation Report contains up to four sets of items, represented in up to four sections in your report, described below.

Sets of Items

Institutional Items
These eight items are consistent across the University of Toronto. They are comprised of:

- Five rating-scale items which represent institution-wide teaching and learning priorities.
  - **The institutional composite mean, a mathematical average of these first five items.**
- One rating-scale item on the overall quality of a student's learning experience.
- Two qualitative comment items.

Divisional Items
These items are consistent across your division. They represent division-wide priorities for teaching and learning.

Departmental/Program/Course-Type Items
These items (when applicable) represent further levels of granularity and specificity for teaching and learning priorities within your division (e.g., department, program, course type).

Instructor-Selected Items
These items are optional items which may be selected from the item bank by instructors during the question personalization period.

- **Note that the results from these items are only reported to instructors, as they are primarily intended to function as personal formative feedback.**

Report Sections

The following provide different statistical summaries and representations for your institutional, divisional, and departmental/programmatic items (where appropriate).

Section 1: Course Evaluation Overview
Provides all course evaluation data except instructor-selected items.

Section 2: Response Distributions and Additional Statistics
Provides detailed response distributions.

- The number and relative percentage of respondents providing a given answer is provided, along with a graphical representation.
- This section also reports further statistics for each set of items relative to Section 1.

Section 3: Comparative Data
Provides comparative means for your course as compared to the relevant means across ***all*** *other evaluated courses at a particular level of comparison (e.g. division, program)* for each set of items.

Section 4: Instructor-Selected Items
Provides data for optional items that instructors can select from the item bank during the question personalization period. This section is formatted identically to Section 2.

Statistical Terms Used in this Report

Mean: The mathematical average. This measure is the most sensitive, and can be greatly affected by extreme and/or divergent scores.

Median: The middle value when all responses are ordered. This measure is less affected by extreme and/or divergent scores.

Mode: The most frequently occurring score.

Standard deviation: A measure of the "spread" of the data.

UTSC Fall 2024 UG

Course Name: Computer Graphics CSCD18H3-F-LEC01
Division: SCAR
Session: F
Session Codes: F = First/Fall, S = Second/Winter

Instructor: Francisco Estrada
Section: LEC01
Delivery Mode: INPER

Raters	Students
Responded	39
Invited	49

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.	4.7	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.	4.7	5.0
Course projects, assignments, tests, and/or exams improved my understanding of the course material.	4.6	5.0
Course projects, assignments, tests and/or exams provided opportunity for me to demonstrate an understanding of the course material.	4.4	5.0
Institutional Composite Mean	4.6	-

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 instruction is very good, and course is overall organized and shows the content of computer graphics very well.
Everything was well organized and devlivered clearly. The theory was complemented with great assignments.
The professor places a very large emphasis on learning and understanding. We are provided with very in–depth resources to study outside of lecture, and all of schoolwork is spent piecing everything together. Ray tracing is a technique I gave up on understanding on my own last year, but within a few weeks of this course I knew it like the back of my hand.
Very fun and well structured course, the assignemtns enhanced understanding of course materials, the lectures were not that much more helpful than the lecture notes created by the instructor (i.e. the course material could be understood just by reaidng course notes), but going to lectures was still fun.
Lectures were engaging and covered interesting topics.
The lectures were detailed and helpful
The quality of the instruction is good. The lectures are clear and the Matlab exercises are excellent. I especially liked the Matlab exercises because of his low environment. This allows students to easily experiment with topics. One thing that can be improved is to start a code of the assignments. As discussed during lecture the rate tracing and path tracing starter codes are incompatible, which is inconvenient. Revamping the assignments using an object oriented and performing language like C++ would be good. Minor suggestion: Documentation in the form of comments in the starter code is also inconvenient, as some ideas like Jet Brain's CLion cannot deduce that the function comments are part of the doc string.
It sometimes felt like there was something incomplete with the explanation being told that led to my understand of a concept being slightly wrong. The notes posted online were helpful, but sometimes there was a minor comment I had missed in class or just didn't see which ended up being extremely crucial.
I loved this course! It's one of, if not the best course I've taken so far. The professor, and TA :), were super helpful and provided an amazing learning enviorment. I really wasn't sure what to expect from this course since I wasn't at all fimiliar with Computer Graphics, but the teaching team really helped me understand everything from the ground up!
Needs more clear instructions for the assignments
I think the overall quality of instruction for D18 is excellent. The lecture style is very engaging because it incorporates a lot of audience engagement (e.g. we derived many key parts of integral formulas). The assignments are also really well designed — I liked the freedom they offered in the extra features we could implement. However, I would (maybe) suggest a few recommended resources to learn more about the implementation for the extra features. That being said, I was able to pretty easily find references for extra features online (PBRT, Ray Tracing gems, various websites) so this wasn't too big of a concern.
The course was taught well and in great detail.
Lectures were great, notes were also very helpful. Would have been nice if course went over more real time rendering stuff.
Paco's lectures are very engaging and he always makes abstract concepts easy to digest and wrap my head around!
Paco's teaching is straight forward and easy to understand, the course content is attracting to me, and that fact that it builds on top of each other makes more sense when I learn each topic. I always have the moment of realizing what we learned in the previous week can be applied in this week's material. I have also received a lot of help from Paco when I have questions. So, to me, this course is 10/10 so I don't really have any suggestions.
It was overall really good. Projects were fun, Marking was fair, grading scheme was fair, lectures were interesting and not just reading off of slides. Interaction was great, prof was clear, instruction overall was great. I will say my only qualm is that I feel like the projects don't really prepare you for the exams. Just doing the projects is kind of not enough. I know practice is important but there wasn't really any good practice tools (past exams, hw questions, etc). I do personally believe that providing some practice questions (whether assigned or not) would really help overall. For the mid term I tried to study but couldn't find any decent resources and overall the midterm went not so well. A1 and A2 had some good questions in there which I appreciated but otherwise it was missing. I know assigning it would make the course load really really heavy, but I do believe that either making it optional bonus in exchange for the crunchy features (like 0.5–1 point per question or something) or just making it worth nothing and completely optional would help a tonne.
pace too fast, too much reading to do outside of lecture time and tut.
The lectures were really interactive and well taught. The lecturer encouraged engagement and discussion in every lecture. The concepts were also explained really well and easy to understand.
good
Lectures were taught in a fun and engaging way. Diagrams that were drawn in class were very helpful to understand what was being taught.

Comments
The assignments given to us, and the material given to us to aid in the classwork were exceptional and truly helped me understand the basis of graphics a lot more intuitively and fully.
Paco ran the the course well, the way he handled the assignments, created a great learning environment and lastly just how he deals with students, he makes a great example of what a professor should be like and honestly is a great teacher.
The lectures are really engaging. The content is cool. Dealing with seg faults and bugs on the assignment isn't directly related to computer graphics concepts, but I guess it is a valuable skill as a programmer and computer scientist. On A3, there's a void pointer in which the image is stored and I didn't know that one of the provided functions already converts the binary data to floats rather than chars.
Overall great course and helped me understand about concepts I have never learned of before. Somethings I would change are there are some inconsistencies in the notes like formulas and not the best structured sentences that make me sit there and think what is the message but other than that great course.
Great :D Paco is a great prof
The course was overall one of the best courses I've ever taken at UofT. It was really cool that we covered real time rendering this semester. Although, I think it could have been very cool if we spent a bit less time on ray tracing in the beginning of the course, and spent a bit more time on the real time rendering.
Good
Good
These are the kinds of lectures that you would attend even if they were recorded

8. Please comment on any assistance that was available to support your learning in this course.

Comments
Piazza was helpful for califications on assignments, and tutorials are great to ask conceptual related questions regarding assignments and exercise homework
Q/A after class or tutorial.
The professor is readily available by email and Piazza, and he is very understanding. I had a situation in the middle of the term that severely limited my ability to do schoolwork, and aside from accommodation, he helped me a lot with course material, and gave me encouragement that I will never forget. Regarding questions on coursework, the professor always answers in a way that promotes learning. He never gives "answers" but rather directs us to concepts in the course that will help solve our issues. While it takes time, this ensured that I always built a stronger intuition on course material. I would give 11/10 for this area
Paco was very helpful during office hours, though the lack of TAs meant fewer time slots which made it hard since the OH timings did clash with other computer science lectures
n/a
Office hours were helpful for this class.
The Office hours and tutorials are great supports. I also liked the posted lecture notes. They are refined and great for review. I think making a announcement that suggests reading the lecture notes before the lecture will improve students' understandings. Students will have an idea of the lecture materials and bring their questions to class.
The tutorials and office hours helped a lot for the homework and assignments, and the answer given were always very clear.
Our professor was incredibly open to helping any and all students. There were many office hours available, and the prof would frequently answer questions after lectures and invited people to reach out to him for more help if needed!
More office hours should be provided
I can't comment on office hours because I had a scheduling conflict with the rest of my courses. However, I can say we also had a lot of support via Piazza (online QandA form) and the instructor response times were very quick. Also, the professor was very accommodating of the extensions I requested for health.
Office Hours and Tutorials
Tutorials are useful
I got a lot of help from Paco on and off his office hours, the open door policy really helped a lot in terms of solving questions.
I didn't really use too much assistance but I know for a fact it was there. However, I will mention that sometimes it feels like you get ghosted for certain questions on piazza. Even a simple, "answer was already answered" or something similar would be appreciated over just leaving it on unanswered.
cut the linear algebra stuff.
The assistance was overall excellent.
good
Assistance was always available. Lots of time during tutorials, office hours, and lectures, as well as any questions on piazza were answered quickly and properly.
Paco created an atmoshpere that was very conducive to learning, asking questions, and asking for help. I felt very supported the entire semester.
The TA (Paco) was always there and helpful, he made sure to explain what it is that the student must do and has always helped directing me to the right path. The professor was also a great deal of help and was very understanding. Those qualities from the teaching team were very much appreciated and I hope the course continues to be run like this.
Piazza was useful, and the professor is very reponsive.
The "TA" was avalible at needed times and got quick responses as well on Piazza.
A lot of office hours! Very helpful!
accessible office hours
Good

Part B. Divisional Items - UTSC

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

Question	Summary	
	Mean	Median
9. The course inspired me to think further about the subject matter outside of class.	4.3	4.0

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

Question	Summary	
	Mean	Median
10. Compared to other courses, the workload for this course was:	4.2	4.0

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

Question	Summary	
	Mean	Median
11. I would recommend this course to other students.	4.1	4.0

Part C. Departmental Items - Computer & Mathematical Sciences

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

Question	Summary	
	Mean	Median
12. The course instructor (Francisco Estrada) explained concepts clearly.	4.5	5.0

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

Question	Summary	
	Mean	Median
13. Course assignments, projects, tests, and/or papers highlighted important concepts of the course.	4.6	5.0

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

Question	Summary	
	Mean	Median
14. The course instructor (Francisco Estrada) encouraged students to ask questions about the course material.	4.9	5.0

Section 2: Response Distributions and Additional Statistics

This section provides detailed response distributions.

Mean: The mathematical average. This measure is the most sensitive, and can be greatly affected by extreme and/or divergent scores.

Median: The middle value when all responses are ordered. This measure is less affected by extreme and/or divergent scores.

Mode: The most frequently occurring score.

Standard deviation: A measure of the "spread" of the data.

Part A: Core Institutional Items

1. I found the course intellectually stimulating.

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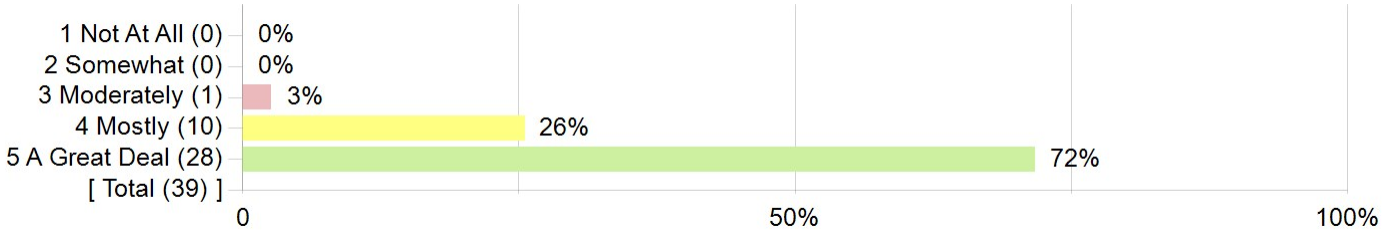
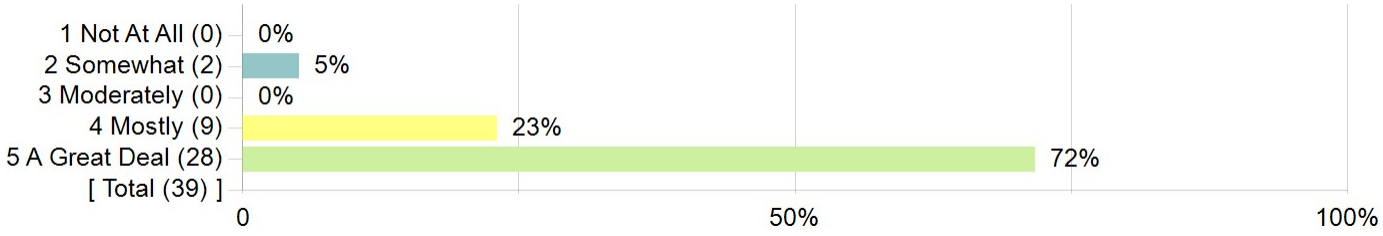


Statistics	Value
Mean	4.7
Median	5.0
Mode	5
Standard Deviation	0.5

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

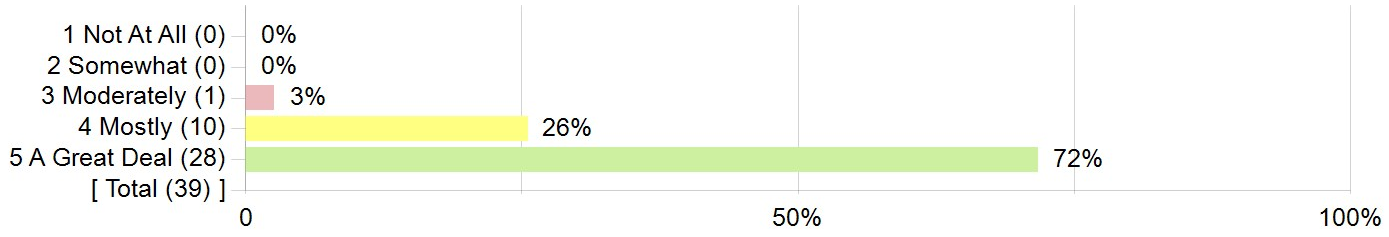
The course provided me with a deeper understanding of the subject matter.



Statistics	Value
Mean	4.6
Median	5.0
Mode	5
Standard Deviation	0.7

3. The instructor (Francisco Estrada) created a course atmosphere that was conducive to my learning.

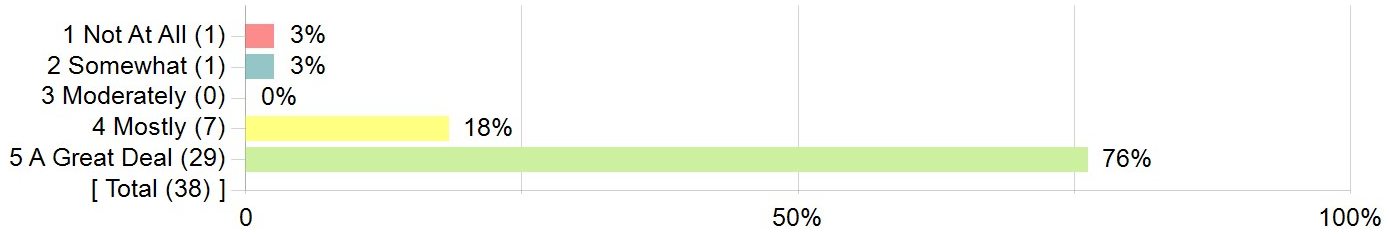
The instructor (Francisco Estrada) created an atmosphere that was conducive to my learning.



Statistics	Value
Mean	4.7
Median	5.0
Mode	5
Standard Deviation	0.5

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

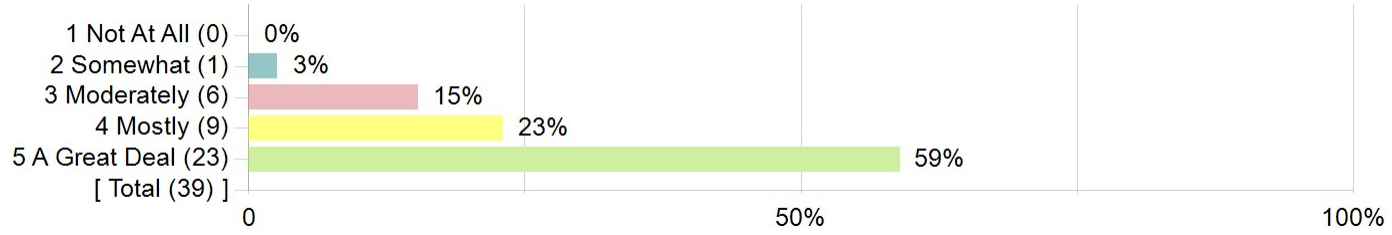
Course projects, assignments, tests, and/or exams improved my understanding of the course material.



Statistics	Value
Mean	4.6
Median	5.0
Mode	5
Standard Deviation	0.9

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

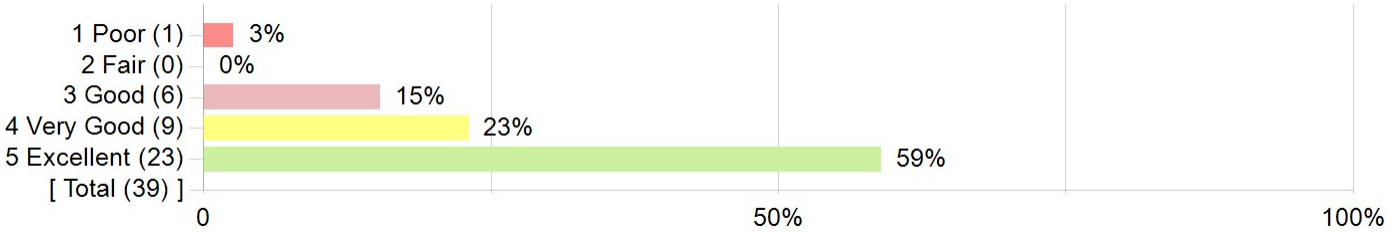
Course projects, assignments, tests and/or exams provided opportunity for me to demonstrate an understanding of the course material.



Statistics	Value
Mean	4.4
Median	5.0
Mode	5
Standard Deviation	0.8

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

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

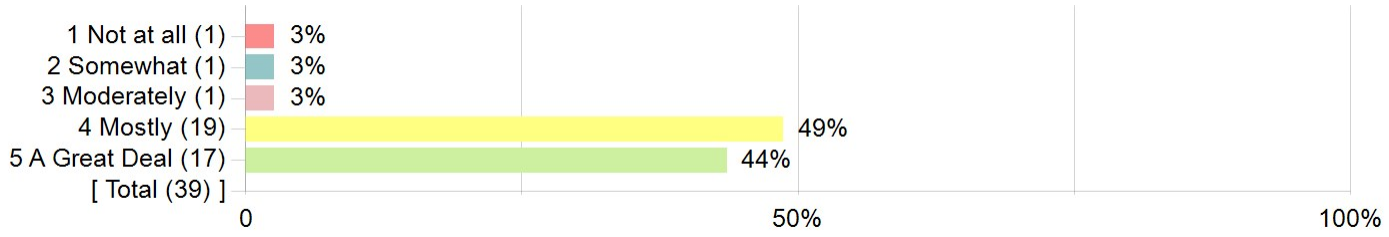


Statistics	Value
Mean	4.4
Median	5.0
Mode	5
Standard Deviation	0.9

Part B. Divisional Items - UTSC

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

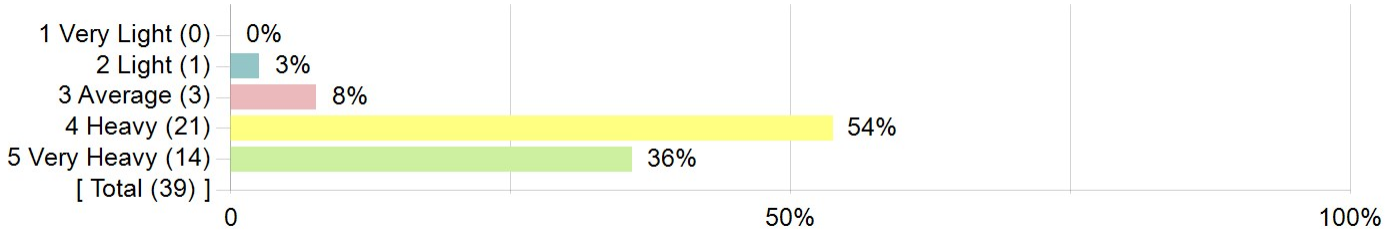
UTSC001 The course inspired me to think further about the subject matter outside of class.



Statistics	Value
Mean	4.3
Median	4.0
Mode	4
Standard Deviation	0.9

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

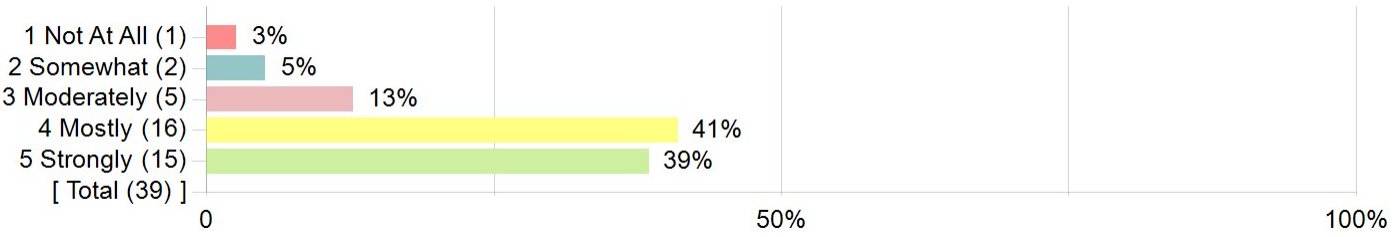
UTSC002 Compared to other courses, the workload for this course was:



Statistics	Value
Mean	4.2
Median	4.0
Mode	4
Standard Deviation	0.7

11. I would recommend this course to other students.

UTSC003 I would recommend this course to other students.

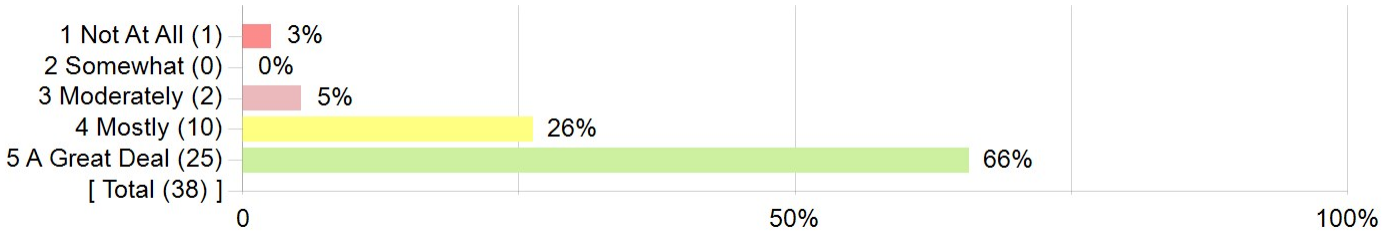


Statistics	Value
Mean	4.1
Median	4.0
Mode	4
Standard Deviation	1.0

Part C. Departmental Items - Computer & Mathematical Sciences

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

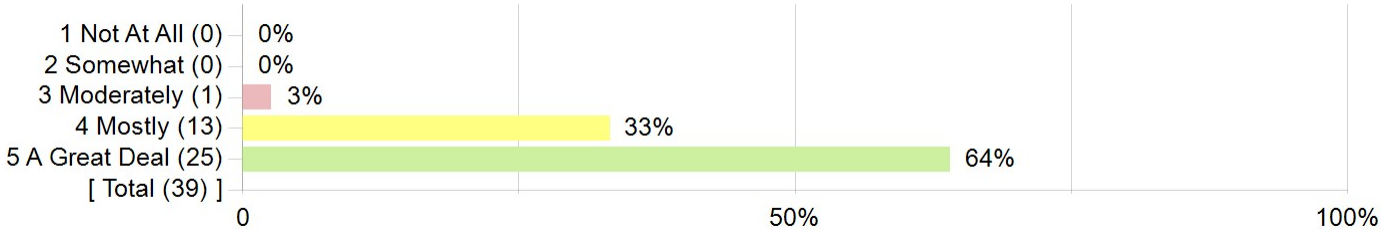
UTSCCMS001 The course instructor (Francisco Estrada) explained concepts clearly.



Statistics	Value
Mean	4.5
Median	5.0
Mode	5
Standard Deviation	0.8

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

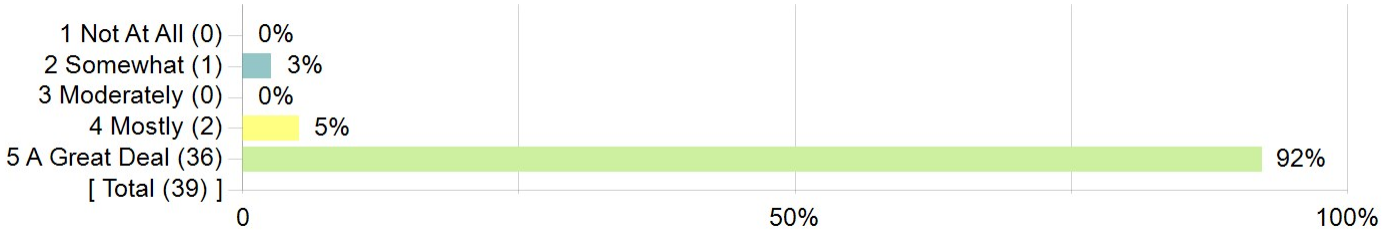
UTSCCMS002 Course assignments, projects, tests, and/or papers highlighted important concepts of the course.



Statistics	Value
Mean	4.6
Median	5.0
Mode	5
Standard Deviation	0.5

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.



Statistics	Value
Mean	4.9
Median	5.0
Mode	5
Standard Deviation	0.5

Section 3. Comparative Data

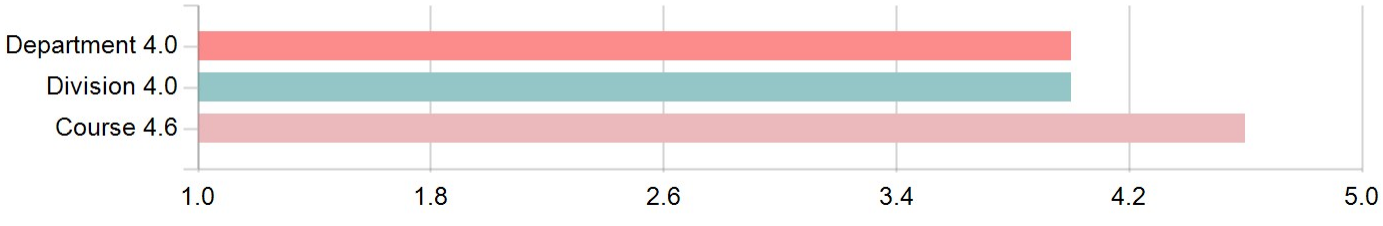
This section provides overall means for given comparators (e.g., division, department) alongside the mean values for a given course. Note that the comparators are calculated by pooling together all individual student survey responses (e.g., student responses for all of the courses in a department are 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 [(3.5x1000)+(4.5x10)]/1010]=3.51 ***and not*** *(3.5+4.5)/2=4.*

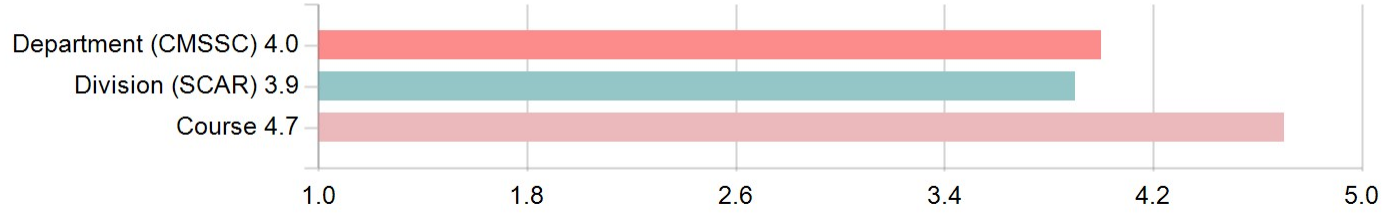
Part A. Core Institutional Items

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

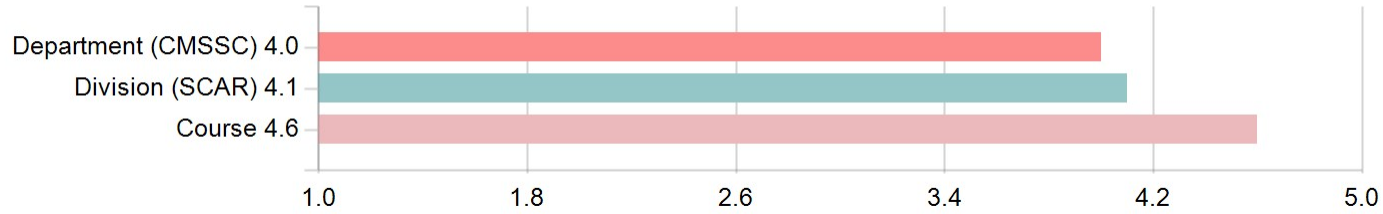
Institutional Composite Mean



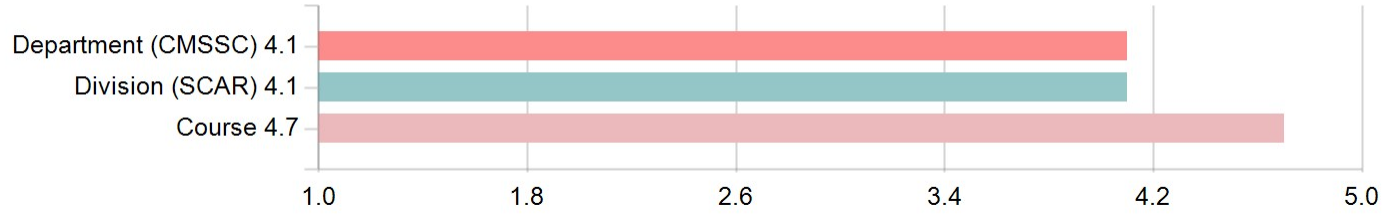
1. I found the course intellectually stimulating.



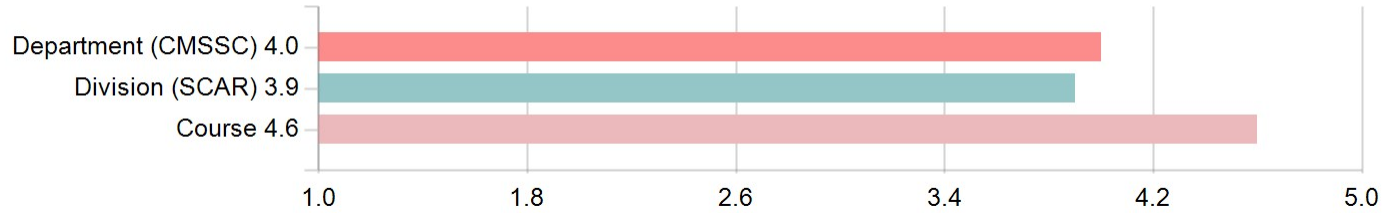
2. The course provided me with a deeper understanding of the subject matter.



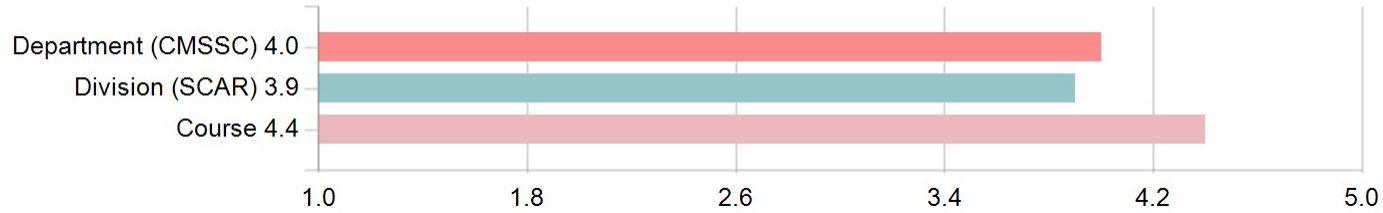
3. The instructor (**Francisco Estrada**) created an atmosphere that was conducive to my learning.



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

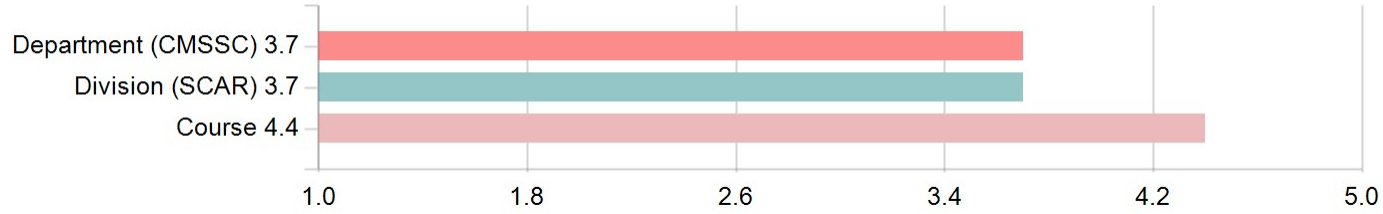


5. Course projects, assignments, tests and/or exams provided opportunity for me to demonstrate an understanding of the course material.



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

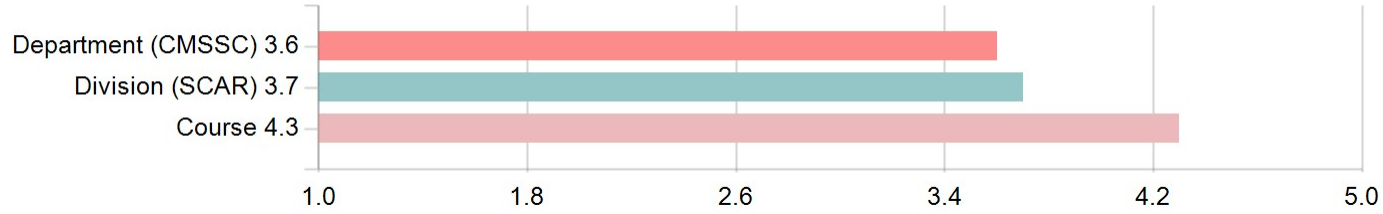
6. Overall, the quality of my learning experience in this course was:



Part B. Divisional Items - UTSC

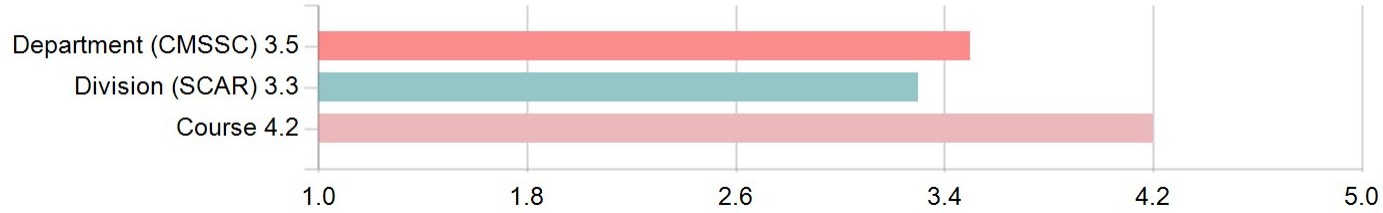
Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - A Great Deal

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



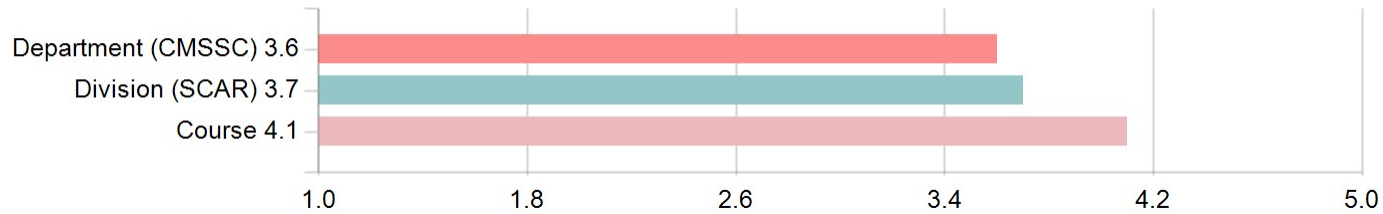
Scale: 1 - Very Light 2 - Light 3 - Average 4 - Heavy 5 - Very Heavy

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



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

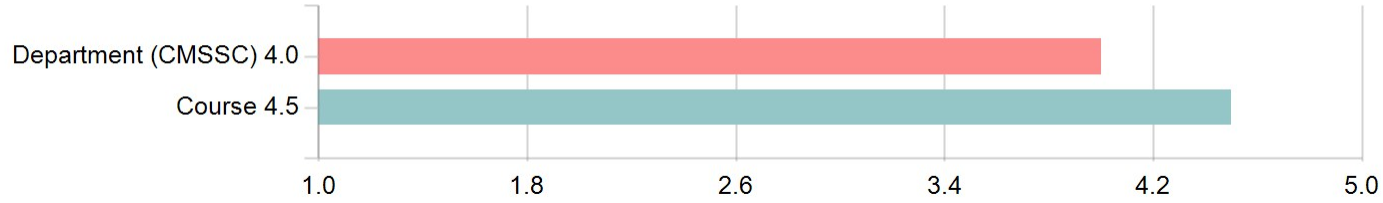
11. I would recommend this course to other students.



Part C. Departmental Items - Computer & Mathematical Sciences

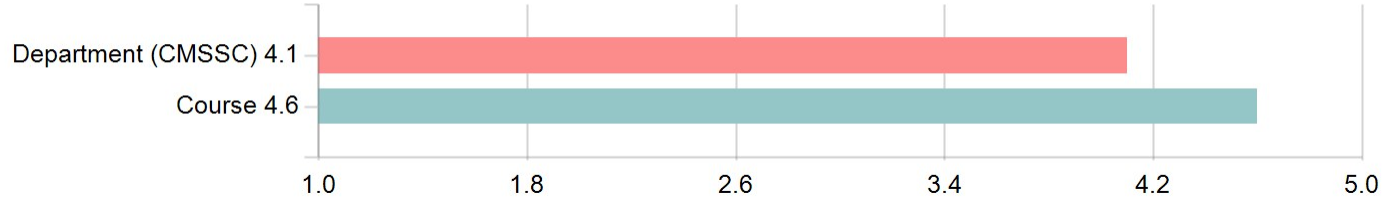
Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - A Great Deal

12. The course instructor (**Francisco Estrada**) explained concepts clearly.



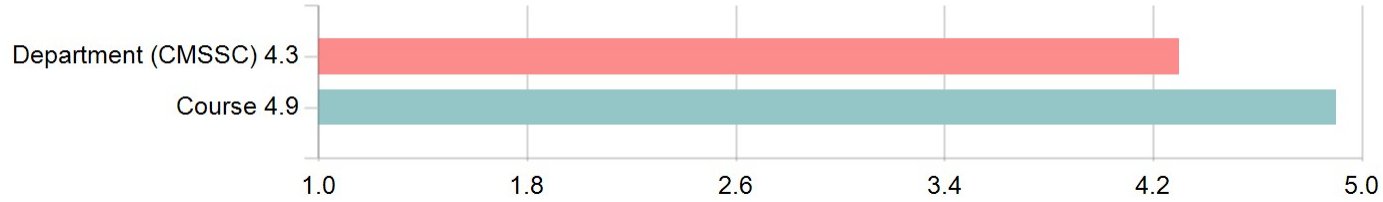
Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - A Great Deal

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.



Section 4: Formative Data

These items are optional items which you selected from the item bank during the question personalization period. Note that the results from these items are only reported to you as they are primarily intended to function as personal formative feedback.

C-2. The course instructor (Francisco Estrada) explained concepts clearly.

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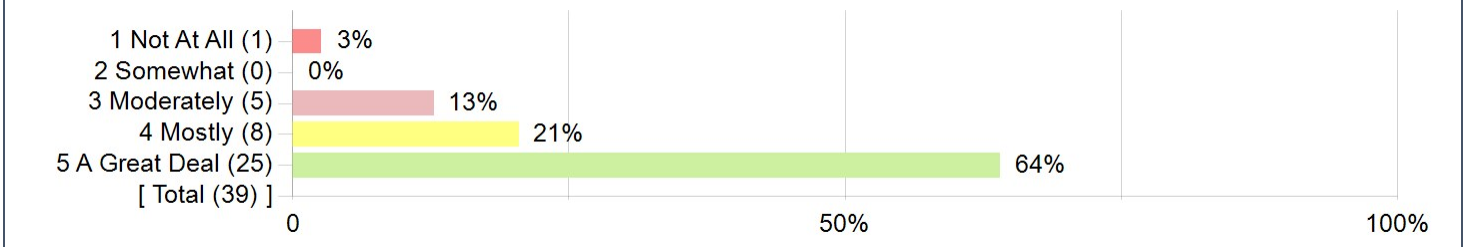

Statistics	Value
Mean	4.4
Median	5.0
Mode	5
Standard Deviation	0.9

K-1. Course lectures improved my understanding of the course material.

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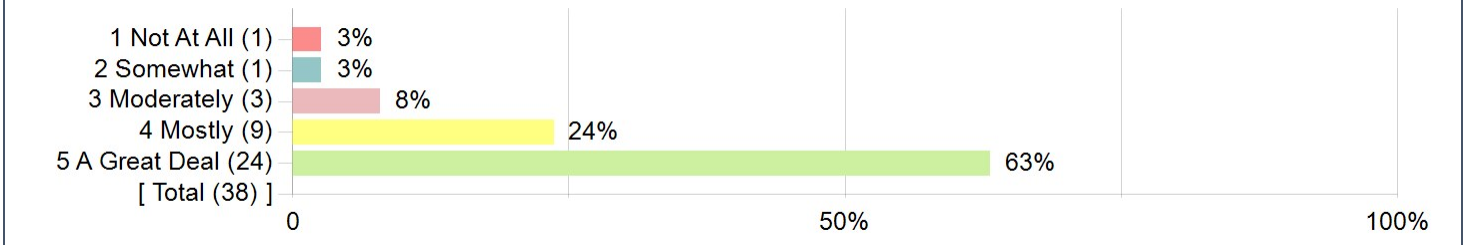

Statistics	Value
Mean	4.4
Median	5.0
Mode	5
Standard Deviation	0.9

K-4. Course assignments, projects, tests, and/or papers highlighted important concepts of the course.

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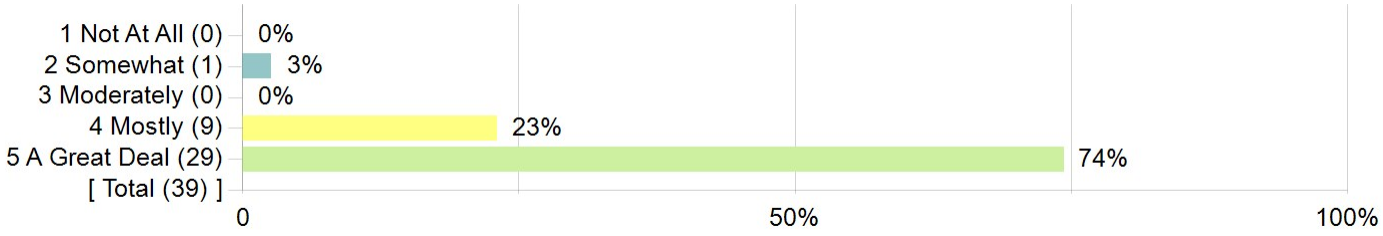

Statistics	Value
Mean	4.7
Median	5.0
Mode	5
Standard Deviation	0.6