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.

Course Name: INTRO MACHINE LEARNING CSC2515H-F-LEC0101 (INPER)
Division: SGS
Session: F
Session Codes: F = First/Fall, S = Second/Winter

Instructor: Amir-massoud Farahmand
Section: LEC0101
Delivery Mode: INPER

Report Generation Date: January 6, 2022

Raters	Students
Responded	95
Invited	104

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.	4.1	4.0
The course provided me with a deeper understanding of the subject matter.	4.3	4.0
The instructor (==**Amir-massoud Farahmand**==) created an atmosphere that was conducive to my learning.	4.0	4.0
Course projects, assignments, tests, and/or exams improved my understanding of the course material.	4.2	4.0
Course projects, assignments, tests and/or exams provided opportunity for me to demonstrate an understanding of the course material.	4.2	4.0
Institutional Composite Mean	4.2	-

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

Question	Summary	
	Mean	Median
Overall, the quality of my learning experience in this course was:	3.8	4.0

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

Comments
The slides could be more clear. There could be more application of concepts being learned instead of going through derivations and heavy theory. The examples would be preferably worked out by hand instead of slides. That would give students a more clear understanding of the material. The instructor could prepare for the lectures better and give potentially better introductions to the material within each lecture. *I will try to improve, but the slides don't have heavy math with proper background.*
I think the instructor and teaching team did really well on orgainizing the course materials and tried their very best to help the students to learn and to improve. As an introductory machine learning course, this one focus more on the mathematical part, which really helps to get a deeper insight on this subject. It was a excellent learning experience. Professor is passionate about teaching and genuinely want students to learn instead of just getting a mark and complete the course.
Quality of instruction was great, and helped me learn, understand and apply many new concepts.
The content in this course was a great foundation for ML basics. The lectures covered a lot of material, but reviewing the content to do the homework assignments helped a lot with my understanding. The only complaint I would have is there were maybe too many topics covered, so some of the lectures had to be rushed / completed in tutorials and it would have been great to finish the last homework assignment before the exam/project deadline. *↳ I requested two sessions/week for Fall 2022.*
Lectures could have fewer proofs and more interesting insight, but perhaps that's just the nature of this course.
I made the last HW optional to reduce the loads and extend deadline. Overall I will think of this course to be a great course and I am willing to recommend it to my friends.
In this course, machine learning is introduced with enough theoretical background, which is essential in solving machine learning problems efficiently. I have attended a couple of machine learning courses but none of them presented what theory and concept are behind the algorithms. Also, we have the opportunity to employ our theoretical knowledge in assignments, and practice and improve our programming skills in solving machine learning problems. Prof. Farahmand knows how to define assignments and coursework in a way that you deeply understand the concept of learning and practice different learning algorithms through programming too.
I am a mech student with very little background knowledge in computer science, and I think this is a high–quality course that explained thoroughly on a variety of machine learning methodologies.
The course structure and materials are well organized, but the schedule is a little bit messy and the lecturing is a little bit confusing.
In face of the pandemic, Professor Farahmand was very accommodating which I very much appreciated. He also spent a lot of time ensuring students understood the material. I also found the problem sets to be helpful in my learning. This being said, I believe the course was very slow and too much time was spent on covering basic mathematical tools that I believe should be a pre–requisite for the course particularly in the interest of covering more important material. I also believe that the weekly Questions and Answers assignments did not help in my learning. Finally, I believe that the course assessment was poorly organized. There are too many things due in the last week of class which was been overwhelming given other course loads, TAing, etc..
The assignments of the course were very informative and I learned a lot from them. Professor Farahmand was also very responsive to answer any questions in the classroom or in the piazza. Overall, I would suggest this course to my friends that might want to consider ML as their future research area.
I wish that the questions on homeworks and exams were more clear.
Overall quality is really good. I learned a lot of stuff by taking this course.
Organization of the lectures could've been done better. We were behind for most of the semester and required tutorial time for catch–up lectures.
↙ I may revisit them, but I believe they are useful to deeper understanding and thinking about research. I wasn't fond of the requirement for lecture questions. I understood the lectures fine and I found that it was more of a chore to come up with questions rather than an opportunity for learning. Also, they weren't being regularly graded, so I didn't know if I was asking the right kinds of questions.
Overall, the quality of the course was very good.
I could not attend most lectures, so I will not comment. *There were a few, especially in new content. I proofread all slides before each lecture, but sometimes they were only captured during the lecture.*
I would say the quality of the notes was about 85–90%. There were some math typos here and there, which led me down rabbit holes trying to figure out where my derivation was going wrong. However, I would notify the prof about this and the errors would be fixed. I think if there was one comprehensive set of intro–ML course notes that was well–vetted by all of the profs, that would be a very good resource for students (because right now, these notes are updated one–by–one and sometimes errors slip in). *This student might have missed that since they didn't attend most lectures.*
I loved that the course had a lot of theory behind machine learning and introduced me to the idea of doing research in ML. I've always learnt it from a coding perspective and it was nice to learn it this way as well.
I can feel that Professor Farahmand wanted to provide the best learning experience for students with maximum effort. Thank you Professor Farahmand!
Course was taught and tailored well for graduate students. Focusing on collaboration, research, and analyzing of algorithms.

Comments

However that does take a lot of time to understand deeper concepts to finish the homework.

However I do feel that given the broad range of machine learning algorithms, some tailoring of which ones to show the derivations or which ones are not would be better to reduce the workload at the end of the semester.

I will consider this, perhaps by inviting speakers from industry.

I wish we can have more practical examples of applying these machine learning models. After taking this course, I don't know which machine learning algorithm I should use when I face a real–world problem (maybe this requires some industry experience).

The quality of instruction was excellent, I had a great time learning all of the machine learning algorithms in depth and knowing how they work in reality.

Professor Farahmand thoroughly taught the fundamentals to machine learning in a way that was receptive to student feedback and open to questions. The assignments were well–designed to showcase and expand on the material taught in lectures. My one issue was the pace of the course, having started off perhaps slower than intended but ending with multiple deadlines toward the end of the term. Beyond the pacing, I really enjoyed the course.

Instructions are clear.

Pretty good.

just soso *Not informative enough.*

Explanations were very clear, and concepts were well–motivated.
However we'd often spend a lot of time on a single point, and end up falling behind schedule.

The overall quality of the instruction is execellent.

Great.

Will improve
The course materials are well–designed. The instructor is knowledgeable. But the progress of the course is a bit unstable. I mean sometimes it's fast sometimes it's slow. Also the grading scheme changed too much. *I believe it was only once to make HW4 optional.*

I found the lectures very clear and helpful. Tutorials with coding examples (like the one using PyTorch) was also very good.

I would suggest that the Q&A assignments be revised a little. So far although we were asked to ask questions about the lectures and answer them ourselves, we have not received any feedback on whether our answers were correct or not. Having that feedback would make this much more helpful. *True that they didn't receive feedback, for two reasons: 1) Encouraging students to go through the mental process of coming up with questions and trying to answer was the main goal;*

The quality of the course was great for graduate level.

It is a good course, content is helpful for interviews as well
2) We didn't have enough TAs to evaluate 800-1000 (104×8 or 104×10) short submissions

The course contents are very useful and instruction is good

The professor really put his effort into the course. Materials are very easy to follow. Nice balance between technical/math fundamental to machine learning and practical aspect (coding from homework).

Excellent

I liked the breadth of the material in this course and the fact it didn't go too deep into each subject but gave a good intuition about each method.

I feel the course content was good however the assignments took way more time and I felt a lot of pressure during the end of the course as there were 4 deliverable's for the same project around those dates. *I will improve the organization.*

The teaching was good, however he could schedule the assignments and projects a little better. It seemed like there was a mad rush to get all of the content of the course done at the end, especially with regards to the project, assignment and exam.

Instructor definitely has a good attitude, is enthusiastic and his heart is in the right place, but the course overall felt a bit inconsistent. It seemed as though it was his first time teaching it and like he tried to add extra content to the course that wasn't there before. This lead to the situation where it felt as though we were having to rush through some things that lead to me being confused or not totally understanding what was going on. It also lead to some situations where it felt like we were spending more time than we needed on some simpler things and then rushing through what felt like more complicated things. Understood that it's a big field, but I think it's important to decide what aspects to focus on in a given course and accept that some topics will be out of scope and have to be explored in another course or through grad research. Trying to do too much reduces how well you can understand the topics that we do cover. *Adding a new session may improve on this.*

I also got the feeling that this course has been being shuffled around between different instructors from year to year. It would probably be a good idea to keep it with one person to improve the consistency.

The amount of information was quite large. I would reduce the amount of types of models that the course introduces students to. It was quite overwhelming. Don't try to cover everything. One note on instruction: I often found the instructor going into specific details about statistical and mathematical proofs and calculations. This is a graduate course in Computer Science, not mathematics or statistics. Students should be able to either verify the details of the proofs or find the proofs online. Professor shouldn't go into such details about proofs. This made lectures a little dry and harder to follow. I found myself dosing off during nitty gritty details in the proofs and then it was harder to bring myself back to attention when more interesting details were shown. All in all, the quality of *?*

I disagree about the nature of CS. We shouldn't shy away from using math. Note that this course doesn't even have any "rigorous" math proofs.

Comments

instruction was great. Instructor explained everything very intuitively and provided justification for everything.

Professor Farahmand was a wonderful professor. He was always very open to answering questions and took great care in ensuring students were following the lecture.

Professor Farahmand is enthusiastic about the course content and tremendously understanding of the students in his class. His active engagement in research related to the course makes it better for all students to enjoy and to understand the state of the industry. His knowledge and ability to explain concepts is great.

He doesn't seem to prepare the lecture and the lectures are extremely confusing. *[handwritten: I find this odd and far from truth.]*

Dr. Farahmand is a great instructor – his lectures were well–prepared and well–presented. I personally would have liked to have moved through the lectures at a slightly faster pace, although I appreciate the thorough instruction he provided. I think that the assignments were well–designed and helped me grasp concepts better. I enjoyed the practical components of the assignments (ie. gaining more ML coding experience). *[handwritten: I did a poll regarding the pace after a few weeks. We had outliers on both sides (slow & fast), but the majority find it right. I will adaptively adjust.]*

Overall I thought the course was good. The lecture slides were very thorough and I liked the level of detail.

Dr. Farahmand is a good lecturer who very clearly cares about his students' learning and creates a very positive learning environment in his lectures. There were times that some material felt a little rushed when we had to make up for falling behind in lectures, and it was challenging as a student to manage the time requirements for the course when we needed to have additional lectures in a week to cover all of the material.

Overall, the instruction was good. But, in the interest of providing some constructive criticism, here are a few points:

1– A lot of the courseload happened towards the end of the semester. Some of the components had the ability to be scheduled a little earlier. For example, I think we could have gotten started on the projects earlier (especially if the pace of the class had been a little faster, as I will discuss in the next point).

[handwritten: We need more lecture hours for this course. I requested more for Fall 2022.]

2– Related to the point before, a good deal of the teaching also happened towards the end of the semester. At first, we had relatively lighter–weight lectures, only on Tuesdays, but towards the end, the material covered in each lecture started to increase, and also we had multiple sessions on Thursdays. This in turn meant that components like the project had to be started later because some ground needed to be covered beforehand and also that we had much more QA components to submit towards the end. This point contributes to point 1. There was a poll at the beginning about the pace of the class, but, personally, I can only say that we were going slow at the start only in hindsight because I didn't know how much material we needed to cover.

3– The QA component was a good tool as it incentivized regular reviewing of the course material, but we didn't receive any feedback on them throughout the semester. This meant that we wouldn't know if we were doing something wrong and have a chance to fix it. Maybe it would be helpful to enforce a strict size constraint on the Q&A that students submit (e.g., you have 6 lines with font x for each Question and its answer), so that giving feedback earlier becomes easier for the instructor.

Good quality

[handwritten: Probably not a good match for their background.]

The instructor was quite good. The class itself was fairly boring, and I rather regret that I had to take it for credits.

The overall quality of the instruction was good, just at the beginning of the class, the speed of lecture was quite slow, and caused the work at the later of the semester was highly condensed and gave me lots of pressure.

The lectures could have been better timed such that we could have more time to understand the more complex concepts that were browsed over at the end of the course in the interest of time. The course started from very basics but became quite complex at times which was difficult to follow. *[handwritten: Will be fixed in Fall 2022.]*

Professor was enthusiastic and accommodating. However, I found the lectures long and difficult to follow. I didn't like that lectures were sometimes presented during TA tutorial times which were not on the time schedule when enrolling in the course. The assignments were very long and involved despite there being 4 worth only 10% each. As well, most of the course assessments were only due/available in the last four weeks of the course making for a very stressful and difficult end to the semester.

The overall instruction quality was good.

[handwritten left margin: They could work in a team to reduce the load.]

– Sometimes the lecture feels a bit like the instructor is only reading slides. *[handwritten: I frequently interrupted the lecture to solicit questions. I didn't get this signal.]*
– There are a few students in class, who're already well–versed in ML concepts. The instructor paces the lectures according to those students' understanding instead of taking in everyone's understanding into account, even when some people in class do not have a comp science background. *[handwritten: May use an app to get real-time feedback.]*
– The last 3 weeks of the course have been extremely rushed. Lectures in tutorial times, 2 assignments back to back, an exam and a project deadline all in the last 3 weeks.

Overall quality was great. Professor was able to cover a broad range of topics in a relatively limited amount of time, enough to start me off in my ML journey.

The content is good but too much, too heavy to be an intro–level course in general.
If we look back to what we get, we will soon realize that too much content was occupied by things like "Advanced Statistic Models for Classification", instead of Machine Learning Algorithm.

Comments

Unfortunately, no! :(

It is not saying that the math behind is not important, but occupied too much. I believe the instructor will agree with this, since most of the "mathematical proof" can't be finished during 2 hours lecture hours, and occupied the tutorials a lot. Lots of more general hints were missing there.

I made HW4 optional (after the deadline for submitting the Course Eval). I'll consider reducing the workload.

Also, I think it is very very strange to have both "Final Test", "Group Projects", "Reading Assignments", and "4 Big Homework" together within an intro course together. Please at least consider keeping 2 out of 4, making the workload normal, instead of running out of all students' hours to finish them. The fact is that if the workload is heavy, the students will find some alternative ways to solve those problems, which is actually harming their study process.

And after finishing the final examination, I personally think it will be better to separate all the questions into weekly steps, which differ from the homework. This will actually help students keep their pace with learning, instead of another struggling in the final season.

I wanted to have a final review of all material close to the end (it was a take-home exam, so they could

Overall quality is good. Initially, there's a problem of interaction with students online. However, prof tried to answer some questions asked by the online students to make sure fair interaction.

work on it for a few days. 3-7th could be enough). The Q&A component was meant to act as an excuse to review. I'll try to incorporate this suggestion though.

The delivery of the course *It was supposed to an in-person course.* was a bit problematic since the classes were hybrid, and it was impossible to have the same amount of attention to both in person students and students online.

Slides are very good and were helpful when I went over the lectures afterwards to brush up my understanding of the material. Lectures were on the whole instructive and valuable to understanding content

lecture quality was decent

there was so much work to do, but most of it was trivial and uninteresting which was very frustrating. I wish there were fewer, more difficult problems instead.

Will work on it.

The course is generally great. However, it could be better if the instructor can evenly distribute the workload during the semester. Most workload (homework, reading assignment, final exam, and group project) are heavily concentrated in the last four weeks, which is quite unreasonable. In addition, the instructor could re–organize the materials and make them fit the timeframe of the course to prevent holding extra lectures in tutorials and during office hours.

It is just like the name of this course, an introduction. I think the pace of this class is so slow that the instructor have no time to cover enough topics. He spent so much time answer all the questions during the lecture. And the accent of the instructor make this class a little bit hard for me to follow on time. Besides, I think the instructor did not prepare enough for this class. He could not make this class interesting and sometimes he will pause a while to think about the topic. Sometimes, he cannot answer students' question. Therefore, I don't he prepared enough for this course and he could did better if he try hard. However, I think he is a good professor with kindness.

!

Overall, the quality of the instruction was good. Considering the global pandemic, Professor Farahmand was very accommodating for people not able to attend lectures in person. The lectures were well presented and easy to follow. The assignments were great for learning, but it would have been helpful to discuss more practical matters during lecture as this would have greatly shortened the time required to do the assignments. The main downside of this course was its organisation. There was very little work to do for over two months (just two assignments) and a tremendous amount of work in the last 4 weeks (2 assignments, a project proposal, a project, a test and the reading assignments). Better organisation would have made the experience much more enjoyable.

The course structure and expectations are clear.

The instructor did his best to facilitate the course.

Great!

Quality of instruction was good and the professor was great at explaining one and one and helping understand concepts. However, the workload was extremely heavy. I think we could've done without the take home test and/or the reading assignments. Or we could've had 2–3 reading assignments instead of 5. I felt that too many deliverables for this class all came within 2 weeks of each other, which was a lot to handle. I would've also liked more coding questions than math questions in the assignments, which would've had more real–world application learning. Otherwise, it was a good course and I liked the dual delivery and processed youtube videos. Piazza was an excellent tool for getting questions answered and concepts explained.

The professor was enthusiastic about the material and explained it well. However there was a ton of assignments near the end which made the course abnormally work heavy near the end (two homework assignments, a project, and reading assignment etc).

Lectures were interesting and I enjoyed them but found it challenging when the professor sometimes had 4 hours worth of lecture in a given week.

The course is very comprehensive (i.e. there are many ML topics to cover), but the lectures where quite slow, which translated in extra lectures and reduction of material. I think the assignments were amazing and they helped me confirm my knowledge. However, I think there were too many evaluations that are very time consuming and not adding much to my knowledge.

The lectures are not organised well. There is no flow in the lectures. Delivery of lecture could be improved a lot.
For example, an introduction to a new topic would be better done if the context is informed first, and then moving into all possible

Comments
options for doing a particular task and then coming to why the method we will discuss is better. basically an overall picture before going specific. Further, it's best if the examples solved arent from some internet paper/online course which is anyway available. Sometimes basic concepts were being stressed but important key concepts were left out! it does make us feel that only topics are being taught and no reference to the importance
I think overall the course is instructive, but sometimes feel less organized.
The professor was very knowledgable and you could tell that he cared about teaching the material to the students. He was very accommodating and answered all questions students had.
Overall it is a great course, the professor cares about us and it feels. He's mindful in terms of slowing down in case we don't comprehend the materials. He always arrived on time and he even offered lectures (via Zoom for everyone to watch at their convenience) out of the time of the schedule in order for us to get all the materials covered. I think this course should be assigned three hours and not only two.   *I agree.*
The quality of instruction was excellent! Dr. Farahmad did very well in explaining the course material and answering related questions. This is quite challenging given the high course capacity and the mixture of online and in person teaching pattern.
The content is good, but the instruction quality can be improved if there the depth of each topic can be maintained well.

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

Comments
We used zoom, piazza, markus, and the instructor had an email which he responded to quickly as well. So these resources were good. Perhaps setting up an official social media platform would be good for students to talk with each other as well.   *Not sure how exactly.*
Teaching team really tried their best to accommodate any assistance students might need.
The course was conducted in hybrid mode, and all in–person lectures were recorded, to help students who weren't able attend the classes on campus due to COVID–19.
The office hours for the project and assignments were very helpful. The tutorials were also great, although some had to be cancelled to use the time slot for extra lectures.
Average response time was good.
TAs, Reocrds, Homeworks, etc
As well as teacher assistants that are supportive, we are able to ask our questions on Piazza and get helpful feedback there.
Piazza was a great platform; the instructor responded to our questions on Piazza in time. The groups we formed for the assignments also supported our learning since we can discuss about the course content among ourselves.
The assistance is good
There was a lot of assistance available.
Assistance includes lectures, assignments, online resources, TA, and some materials the professor posted.
Piazza feedback was great. TA sessions for project feedback were helpful.
Office hours and Piazza were both very helpful.
The professor always answered doubts and the TAs were very helpful
TA office hours for project proposals were very helpful
The tutorial about the math and statistics that are needed for this course is quite helpful. It would be much better if you can also give us a list of the required math and statistics material so that we can study the list by ourselves.
The Professor was very open to questions and took adequate time answering our doubts and I liked that very much. The Piazza and in–person questions were all very welcomed and it felt like a very conducive learning environment overall.
None. *?!*
TAs are very helpful in terms of explaining homework problems.
watch many other videos and resources from google
None.
Online resources and youtube recordings
tutorial is helpful, wish there was more tutorials
The lecture slides are very detailed and well–organized

Comments
Homework, Slides, TAs, recordings
The TA office hours helped in the project discussion
Instructor had a lot of office hours and there was plenty of assistance provided. In that sense the course was outstanding.
Professor Farahmand was extremely quick to reply by email and always very kind.
TAs are not helpful at all
Plenty of helpful assistance was provided online through the course's Piazza website; the course instructor/TAs were very responsive. Office hours were provided on regular basis; additional office hours were provided for assistance with our course project, which was much–appreciated.
Piazza was very helpful. I often found questions I had were already posted there and the prof was very good at answering them.
Excellent book recommendations/suggested readings and papers. Piazza and TA's did a good job. Question assignment indeed helped me think more about the ideas and pushed me to try to be creative to come up with good questions.
I didn't need assistance.
Youtube, Stanford open classes
The office hours were helpful in solving doubts
The TA office hours were useful
The office hours and tutorials with TAs were helpful.
Recording is helpful.
The TAs of the course were very helpful and accommodated to student's needs
TA sessions, specially for the project–related discussions, were very helpful in clarifying doubts. Instructors were also active on Piazza which was great.
I turned to some other public courses online from Stanford and CMU when I cannot understand the topic in our course.
Office hours, project consultation sessions and tutorials were available for support. There was no problem at all on this end.
I think the course was very tricky to facilitate due to its hybrid structure. Furthermore, the course consisted of students of varying background: some with much more experience in machine learning than others. I think it might have been difficult to balance the depth of the assignment/content to make it engaging for some and yet not too overly challenging for others. I think I came in the course with less experience and it made the course a little more challenging.
office hours and tutorial classes as well as Piazza posts were helpful.
Asking questions during office hours, Q/A, HW assignments and exams all helped me develop my learning.
The professor provided weekly office hours and created a space where he was willing to answer questions without making students feel 'inadequate' or 'intellectually limited'. He encouraged different ideas and helped us explore the space of machine learning.
Not much. assistance was bad on Piazza! Questions asked on homework–related doubts were just responded to with ambiguous replies! Homework questions could be made a lot clearer with respect to deliverables! A newbie into the subject would not know the packages and places where packages are expected to be used and where they expect it not to be used (for each question! We were left to guess what to be used where and at times a different expectation by the instructor made us rework our assignments completely! (Homework – 3 for example!). for example, again for someone who does not know much about precision and recall, and ROC specifically, asking us to build a ROC curve for a multiclass classification will need some understanding of what is really the understanding behind ROC. same with R2score and a few others. The class only talks of MAE and MSE each time! which we know from undergrad. the intuition of r2score and ROC is what I expected to understand here.

The questions asked on the piazza were answered with a repetition of what is given in the homework instruction instead of clarifying the doubt.

The TAs were approachable during the tutorials and helped a bit to know what is required of us. |
| The workload probably can be better organized, for example, spread the reading through all the term. The end–semester workload is too intense. |
| The website of the course was very complete. The tutorials I think are a very rushed, it's impossible for the TAs to offer a good tutorial in 1 hr. |
| As a student with very weak math and python coding background, the group project and assignments helped me learn efficiently with collaboration . |

(Handwritten annotations:)
- Not sure what happened, but this wasn't my impression. I know a few students expected TAs to help with their assignments too much and the TAs didn't oblige.
- This comment is very spot-on.
- I expect grad students being robust to minor ambiguities, though I consider the assignments clear enough. Perhaps pairing with more experienced student would help.

Part B: Divisional Items

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

Question	Summary	
	Mean	Median
FAS001 The instructor (Amir-massoud Farahmand) generated enthusiasm for learning in the course.	4.0	4.0

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

Question	Summary	
	Mean	Median
FAS002 Compared to other courses, the workload for this course was…	4.0	4.0

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

Question	Summary	
	Mean	Median
FAS003 I would recommend this course to other students.	4.0	4.0

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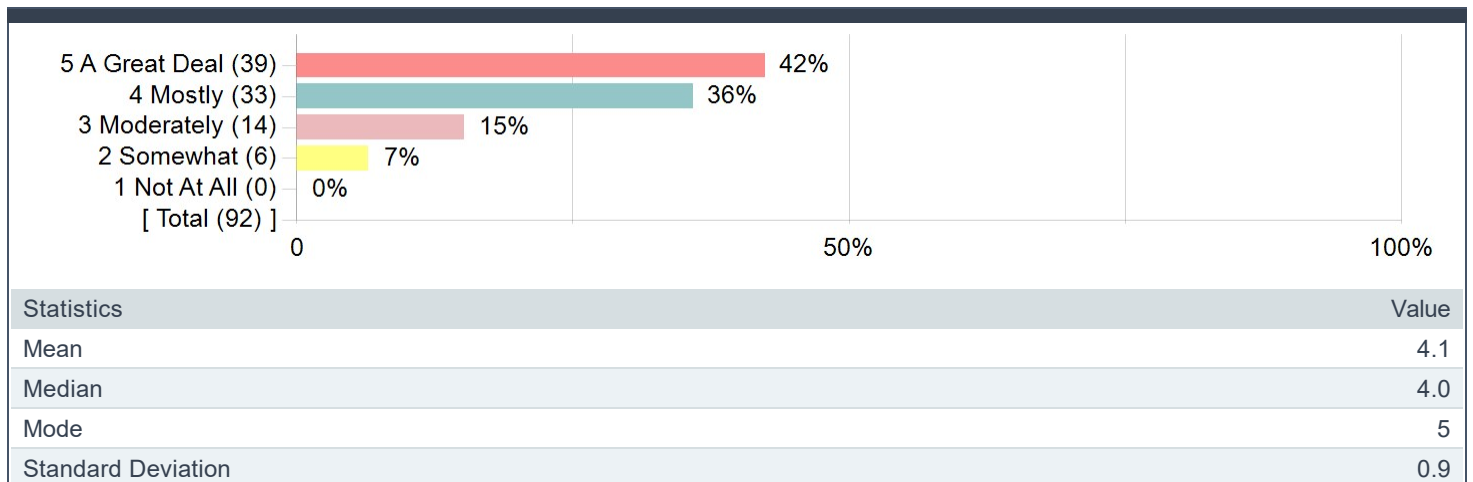
Median: The middle value when all responses are ordered. This measure is less affected by extreme and/or divergent scores.

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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5 A Great Deal (39)  ████████████████ 42%
4 Mostly (33)        ██████████████ 36%
3 Moderately (14)    █████ 15%
2 Somewhat (6)       ██ 7%
1 Not At All (0)     0%
[ Total (92) ]
                     0          50%          100%
```

Statistics	Value
Mean	4.1
Median	4.0
Mode	5
Standard Deviation	0.9

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

```
5 A Great Deal (45)  ██████████████████ 47%
4 Mostly (38)        ███████████████ 40%
3 Moderately (5)     ██ 5%
2 Somewhat (6)       ██ 6%
1 Not At All (1)     █ 1%
[ Total (95) ]
                     0          50%          100%
```

Statistics	Value
Mean	4.3
Median	4.0
Mode	5
Standard Deviation	0.9
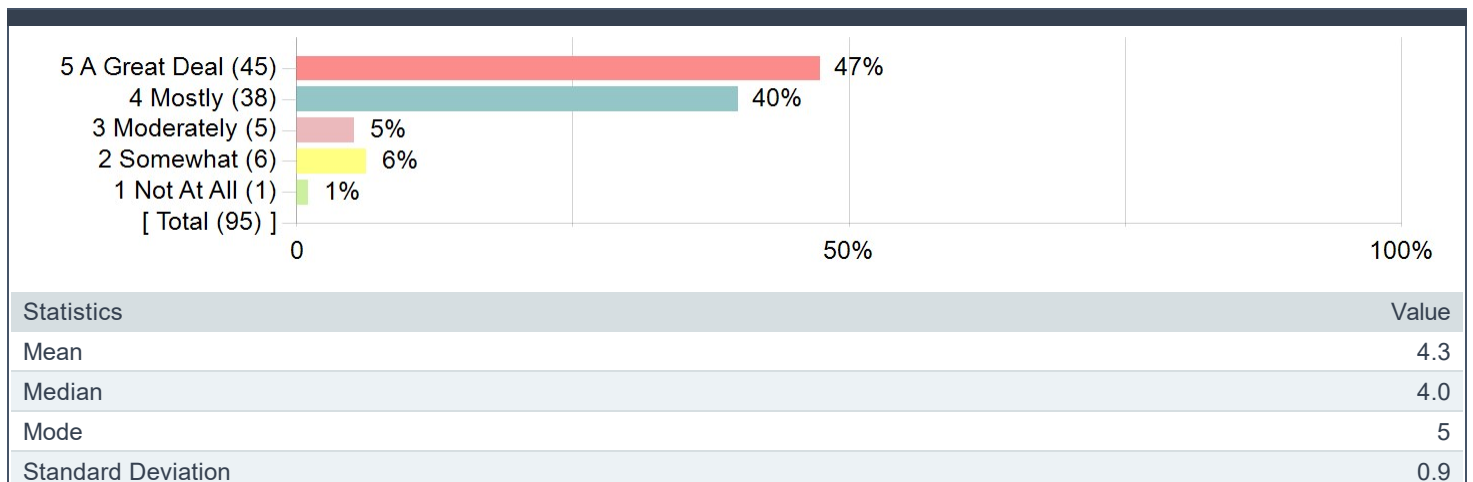
3. The instructor (Amir-massoud Farahmand) created a course atmosphere that was conducive to my learning.
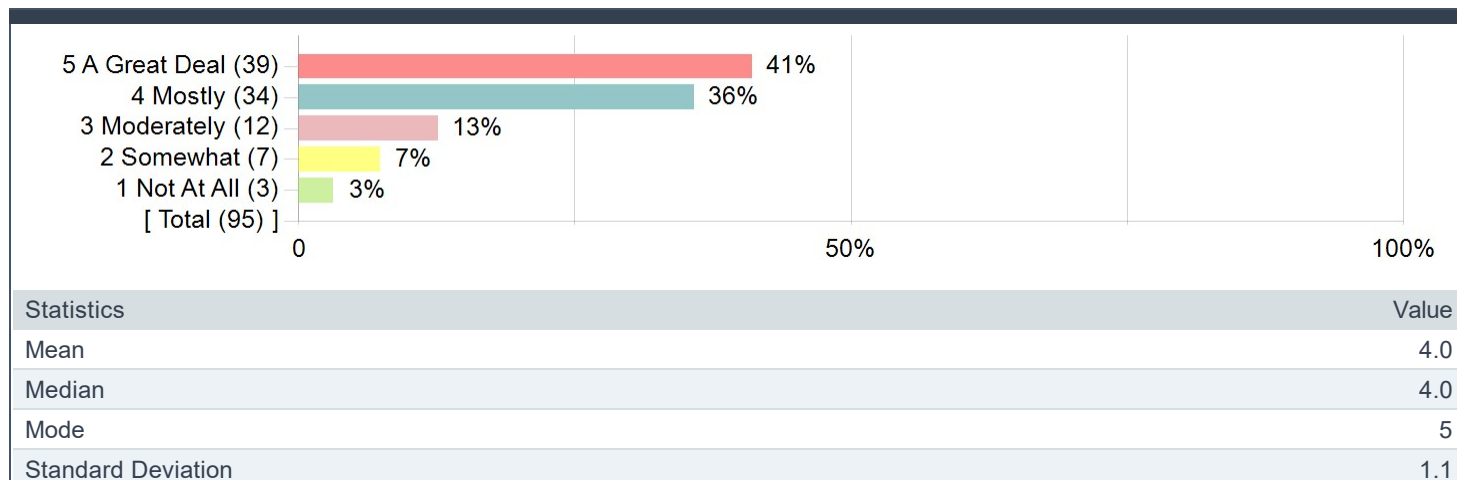
5 A Great Deal (39)	41%
4 Mostly (34)	36%
3 Moderately (12)	13%
2 Somewhat (7)	7%
1 Not At All (3)	3%
[Total (95)]	

Statistics	Value
Mean	4.0
Median	4.0
Mode	5
Standard Deviation	1.1

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

5 A Great Deal (43)	46%
4 Mostly (33)	35%
3 Moderately (13)	14%
2 Somewhat (4)	4%
1 Not At All (1)	1%
[Total (94)]	

Statistics	Value
Mean	4.2
Median	4.0
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.

5 A Great Deal (43)	46%
4 Mostly (35)	37%
3 Moderately (10)	11%
2 Somewhat (3)	3%
1 Not At All (3)	3%
[Total (94)]	

Statistics	Value
Mean	4.2
Median	4.0
Mode	5
Standard Deviation	1.0

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

	5 Excellent (28)	29%
	4 Very Good (34)	36%
	3 Good (21)	22%
	2 Fair (10)	11%
	1 Poor (2)	2%
	[Total (95)]	

This should be improved by having more lecture hours and rebalancing the workload.

Statistics	Value
Mean	3.8
Median	4.0
Mode	4
Standard Deviation	1.0
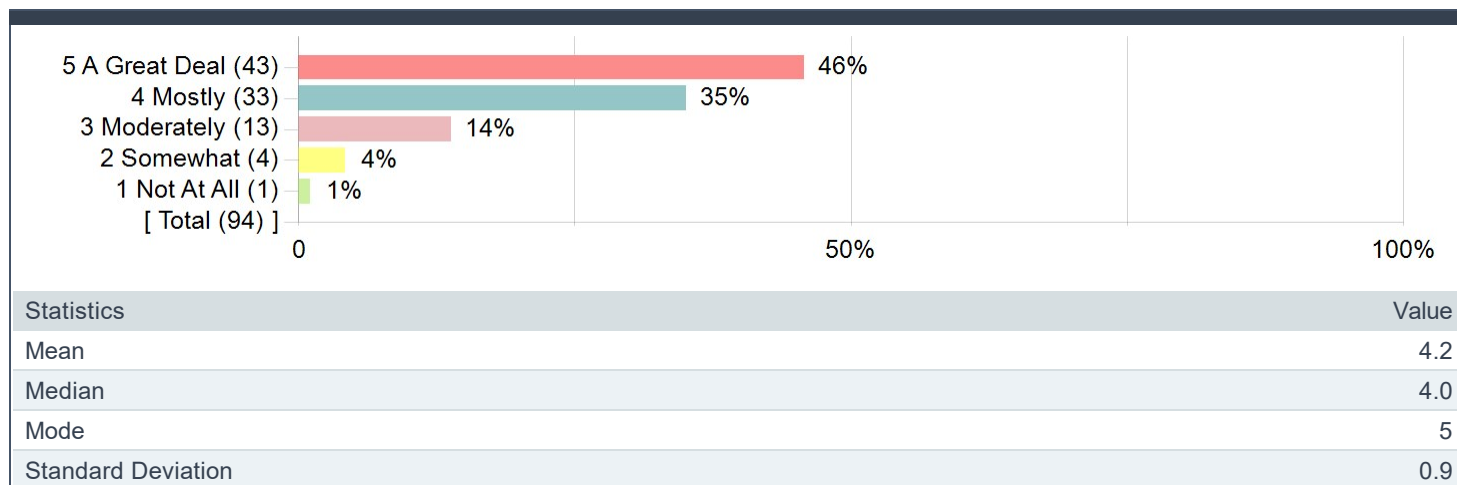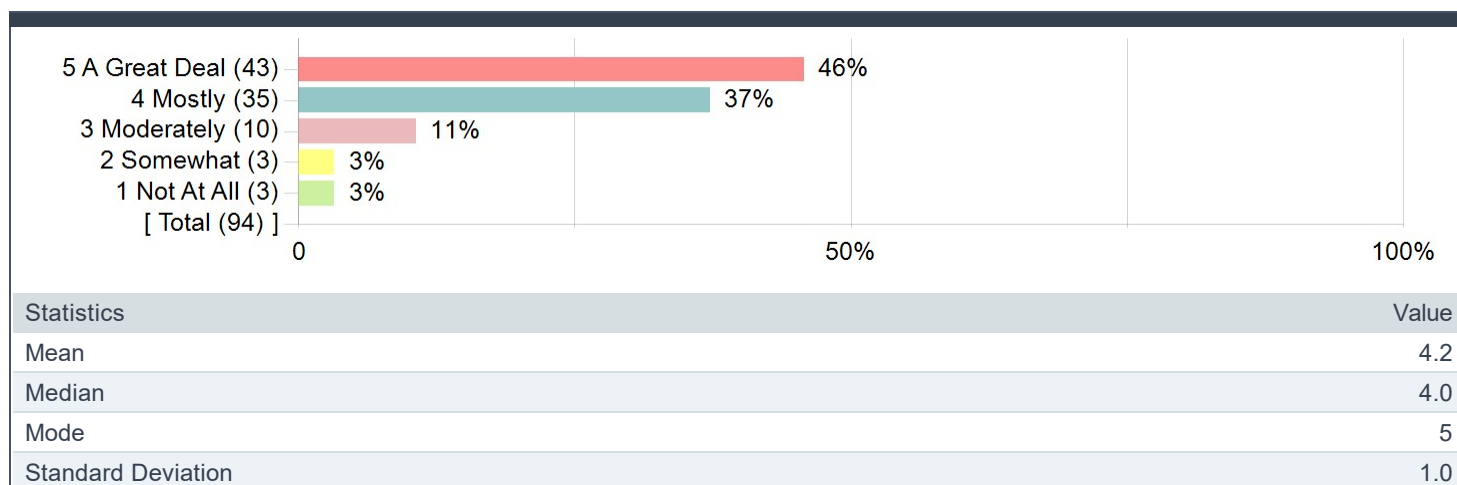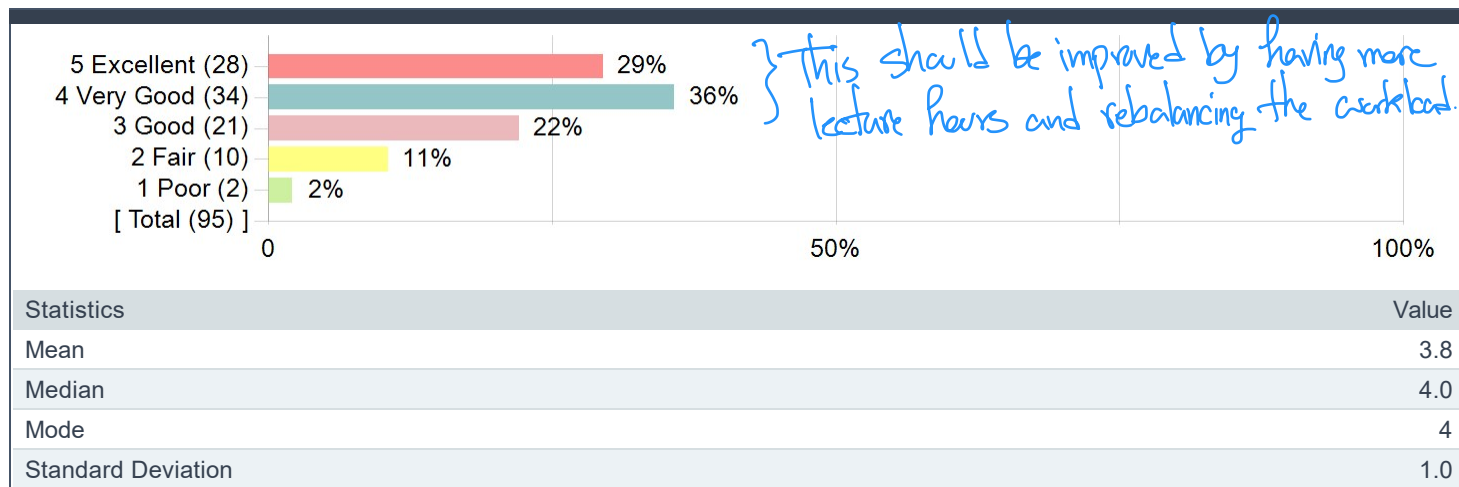
Part B. Divisional Items

The instructor (Amir-massoud Farahmand) generated enthusiasm for learning in the course.
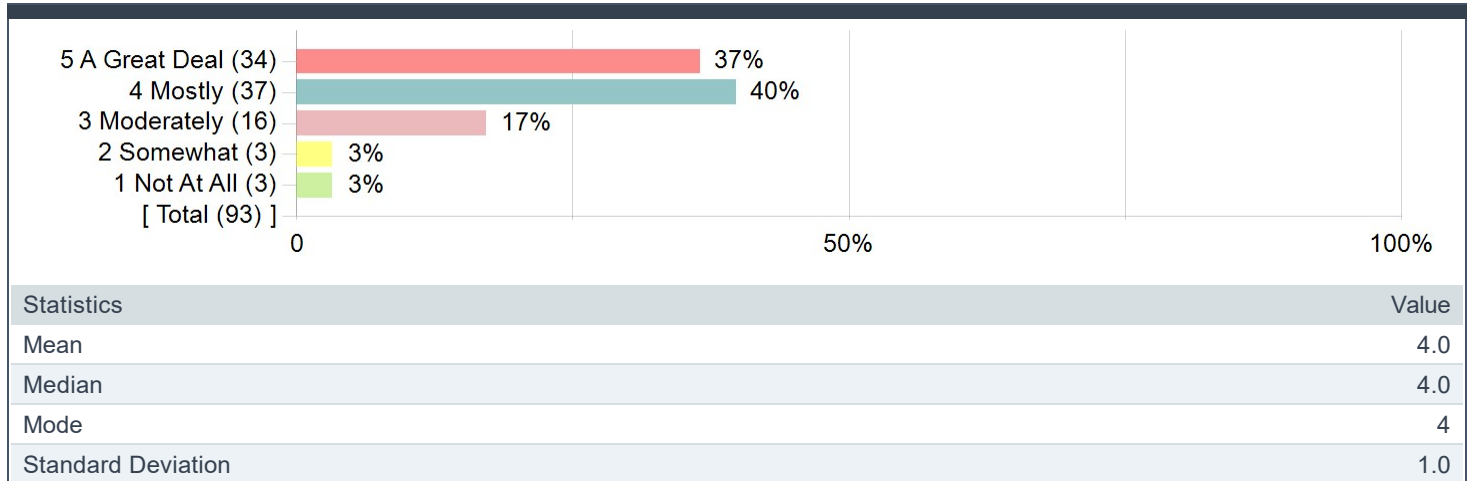
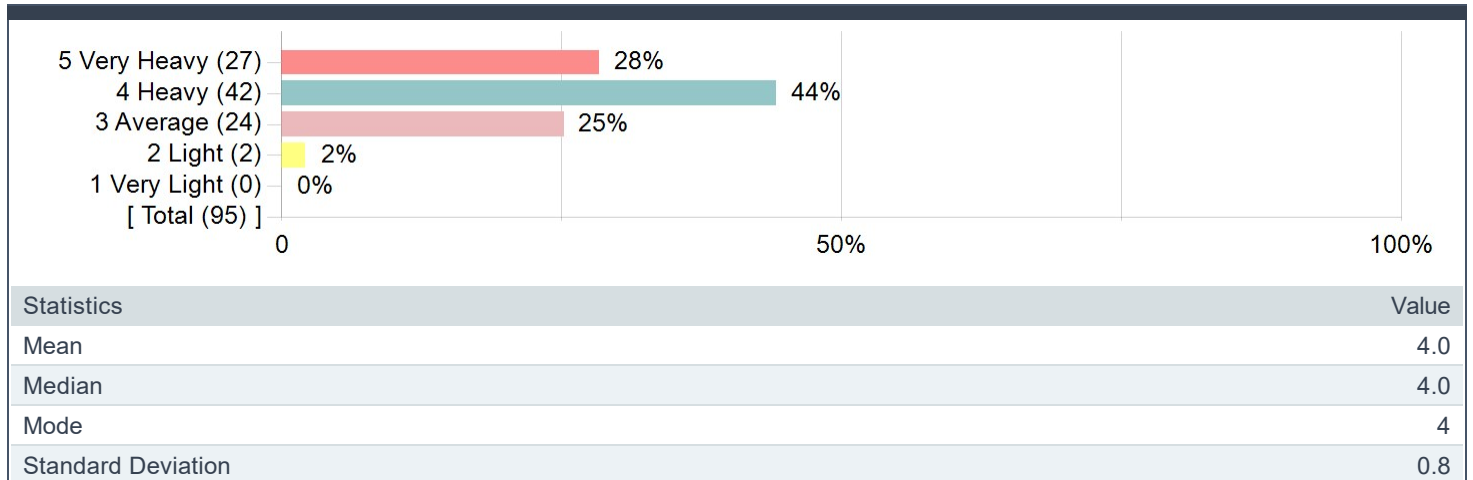|	
5 A Great Deal (34)	37%
4 Mostly (37)	40%
3 Moderately (16)	17%
2 Somewhat (3)	3%
1 Not At All (3)	3%
[Total (93)]	

Statistics	Value
Mean	4.0
Median	4.0
Mode	4
Standard Deviation	1.0

Compared to other courses, the workload for this course was…

5 Very Heavy (27)	28%
4 Heavy (42)	44%
3 Average (24)	25%
2 Light (2)	2%
1 Very Light (0)	0%
[Total (95)]	

Statistics	Value
Mean	4.0
Median	4.0
Mode	4
Standard Deviation	0.8

I would recommend this course to other students.

5 Strongly (33)	35%
4 Mostly (37)	39%
3 Moderately (16)	17%
2 Somewhat (8)	8%
1 Not At All (1)	1%
[Total (95)]	

Statistics	Value
Mean	4.0
Median	4.0
Mode	4
Standard Deviation	1.0
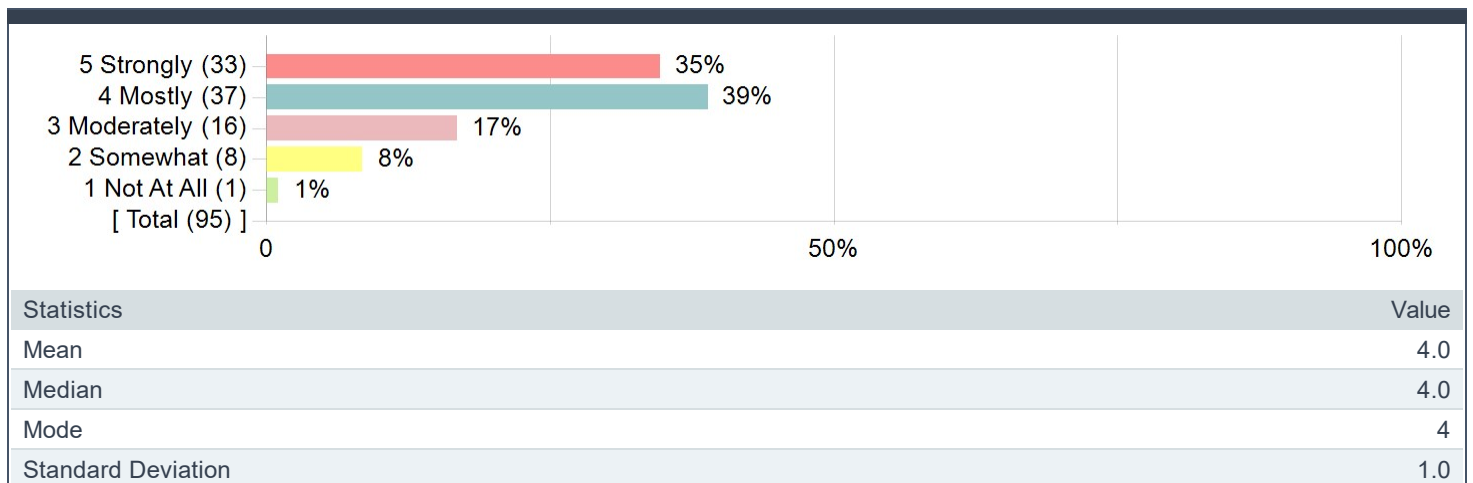
Section 3. Comparative Data

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.
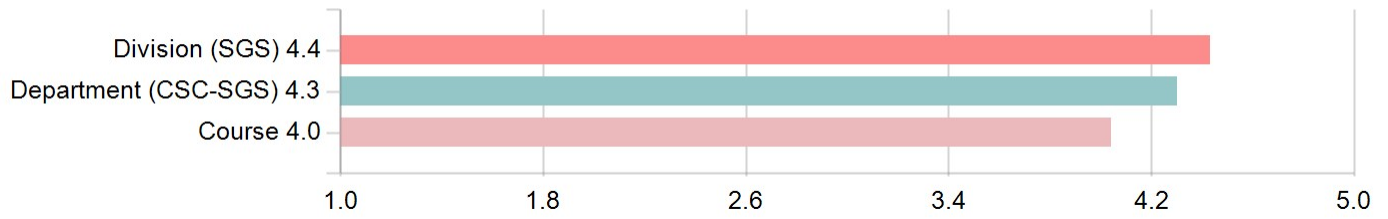
*For example, if a department offered only two courses, one with 1000 students who all answered 3.5 and the other with 10 students who all answered 4.5 (so that the means would be 3.5 and 4.5 respectively), then the departmental mean provided on the course evaluations would be 3.51 since the calculation 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

Division	4.3
Department	4.3
Course	4.2

1. I found the course intellectually stimulating.

Division (SGS)	4.3
Department (CSC-SGS)	4.3
Course	4.1

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

Division (SGS)	4.3
Department (CSC-SGS)	4.2
Course	4.3

3. The instructor (**Amir-massoud Farahmand**) created an atmosphere that was conducive to my learning.

Division (SGS) 4.4
Department (CSC-SGS) 4.3
Course 4.0

1.0 — 1.8 — 2.6 — 3.4 — 4.2 — 5.0

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

Division (SGS) 4.2
Department (CSC-SGS) 4.3
Course 4.2

1.0 — 1.8 — 2.6 — 3.4 — 4.2 — 5.0

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

Division (SGS) 4.3
Department (CSC-SGS) 4.3
Course 4.2

1.0 — 1.8 — 2.6 — 3.4 — 4.2 — 5.0
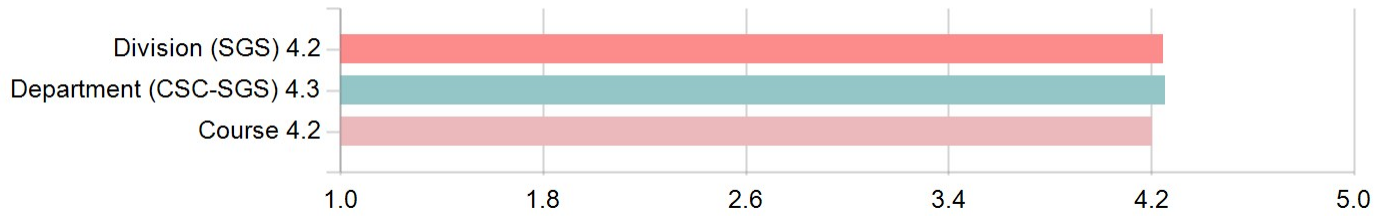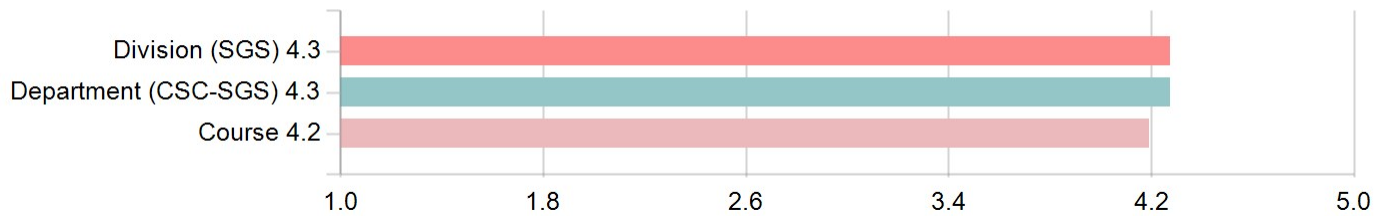
Scale: 1 - Poor   2 - Fair   3 - Good   4 - Very Good   5 - Excellent

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

Division (SGS) 4.1
Department (CSC-SGS) 4.0
Course 3.8

1.0 — 1.8 — 2.6 — 3.4 — 4.2 — 5.0

Part B. Divisional Items

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

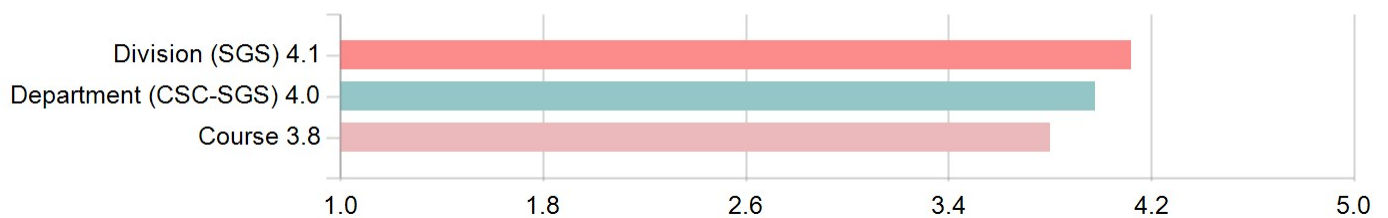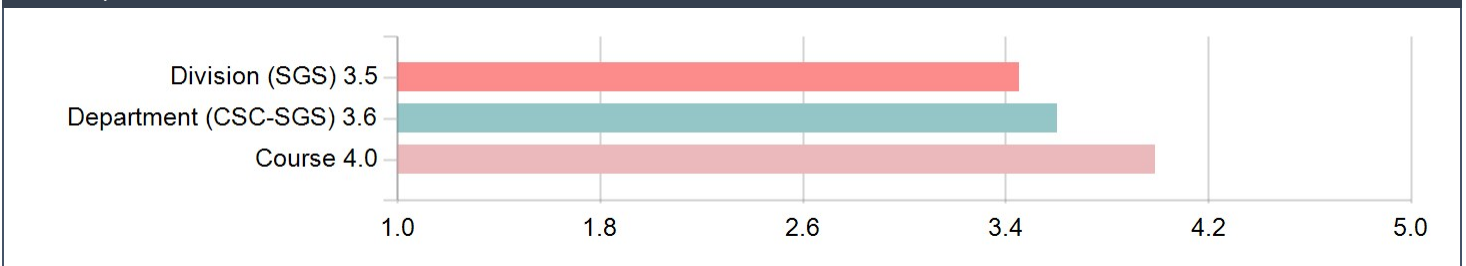**9. The instructor generated enthusiasm for learning in the course.**

Division (SGS) 4.5
Department (CSC-SGS) 4.4
Course 4.0

1.0   1.8   2.6   3.4   4.2   5.0
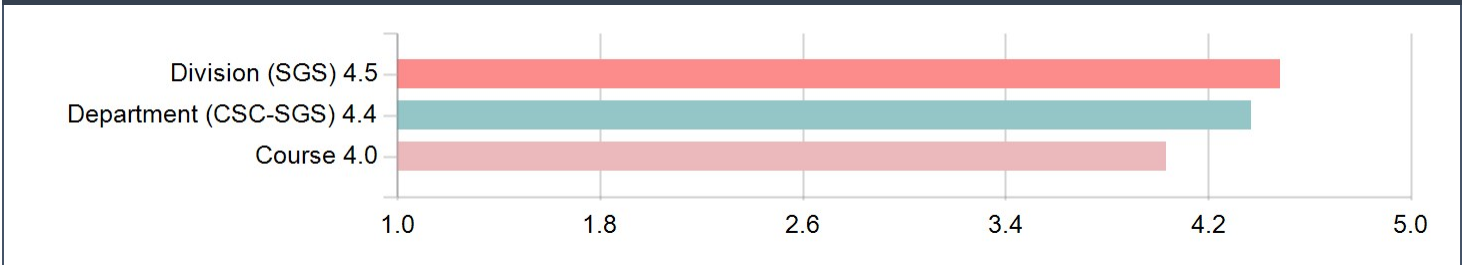
Scale: 1 - Very Light 2 - Light 3 - Average 4 - Heavy 5 - Very Heavy

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

Division (SGS) 3.5
Department (CSC-SGS) 3.6
Course 4.0

1.0   1.8   2.6   3.4   4.2   5.0

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

11. I would recommend this course to other students.

Division (SGS) 4.1
Department (CSC-SGS) 4.0
Course 4.0

1.0   1.8   2.6   3.4   4.2   5.0
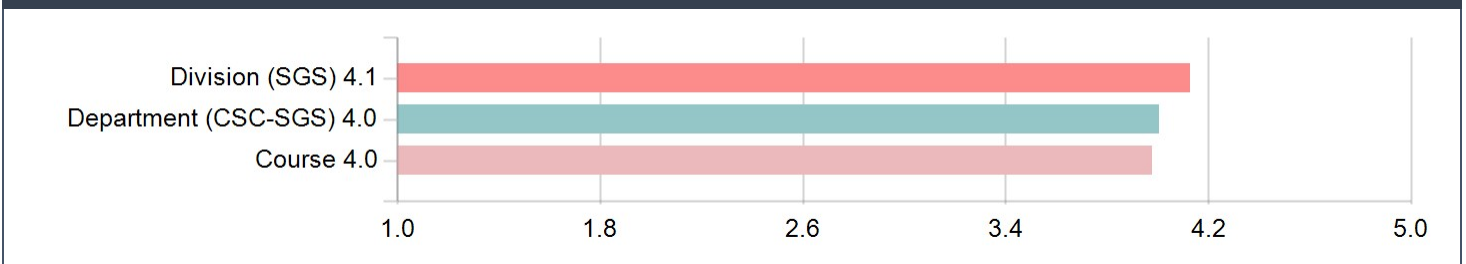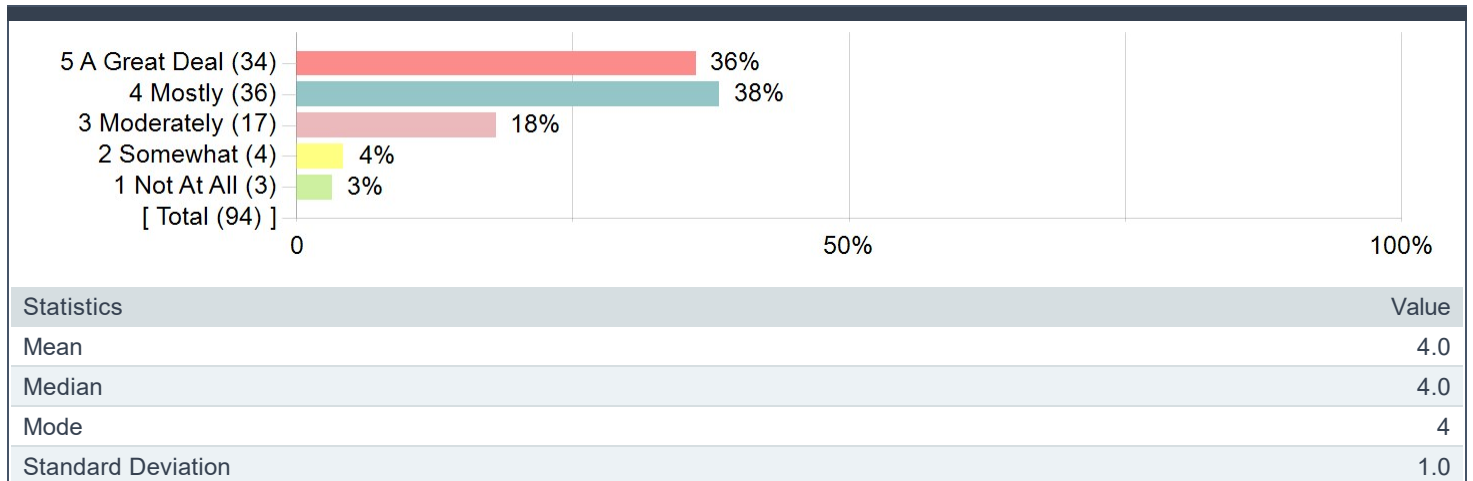
Section 4: Formative Data

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 (Amir-massoud Farahmand) explained concepts clearly.

5 A Great Deal (29)	32%
4 Mostly (39)	43%
3 Moderately (15)	16%
2 Somewhat (6)	7%
1 Not At All (2)	2%
[Total (91)]	

Statistics	Value
Mean	4.0
Median	4.0
Mode	4
Standard Deviation	1.0
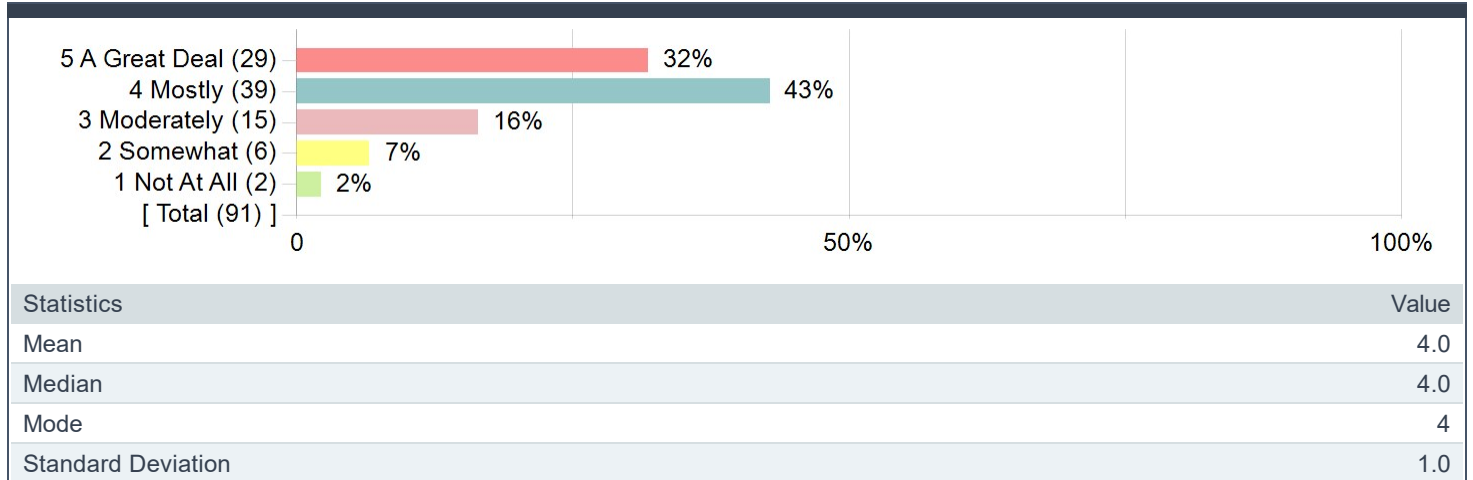
K-3. Course group work improved my understanding of the course material.

5 A Great Deal (34)	36%
4 Mostly (36)	38%
3 Moderately (17)	18%
2 Somewhat (4)	4%
1 Not At All (3)	3%
[Total (94)]	

Statistics	Value
Mean	4.0
Median	4.0
Mode	4
Standard Deviation	1.0

X-14. *Overall, the quality of support the teaching assistant provided in this course was:

Response	Percentage
5 Excellent (18)	19%
4 Very Good (38)	40%
3 Good (26)	28%
2 Fair (10)	11%
1 Poor (2)	2%
[Total (94)]	

Statistics	Value
Mean	3.6
Median	4.0
Mode	4
Standard Deviation	1.0