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.

FAS Winter 2022 Undergrad

Course Name: Analysis II MAT257Y1-Y-LEC0101 (INPER)

Division: ARTSC Session: Y

Session Codes: F = First/Fall, S = Second/Winter

Instructor: Dror Bar-Natan Section: LEC0101 Delivery Mode: INPER

Report Generation Date: April 12, 2022

Raters	Students
Responded	32
Invited	108

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

2. castian		nmary
Question	Mean	Median
I found the course intellectually stimulating.	4.9	5.0
The course provided me with a deeper understanding of the subject matter.	4.9	5.0
The instructor (Dror Bar-Natan) 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.	4.6	5.0
Institutional Composite Mean	4.7	-

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

Question	Summary		
Question	Mean	Median	
Overall, the quality of my learning experience in this course was:	4.7	5.0	

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

Comments

Easily the best lecturer I have had this year. Motivating concepts in class helped with digesting them, and it's hard to find professors that even bother doing this. I find it to be especially useful in this level of math, especially since it's easy to forget what you were even doing with all your definitions and theorems at this level of abstraction. Personally not a fan of Spivak's textbook which was used for this course, but the lectures more than make up for that.

Really high quality.

great professor

Professor is great at making very difficult and abstract concepts accessible.

Dror was great at motivating this course.

The course was taught in a very logical way, and the structure of the content became very clear. The instruction was always very clear, but I did feel like I lacked examples at times.

Very good!

pretty good

The professor is enthusiastic and helpful, with many great analogies to help with understanding the difficult material of the course. The pacing was good, and the lectures clear.

continuity between topics could have been better conveyed. Most everything was emphasized, meaning it was difficult to gain a sense of the relative importance of different concepts. Dramatic presentation style obstructed communication of facts.

The instructor (Dror Bar–Natan) was completely amazing throughout the whole year. His lectures were a delight to attend, the materials he provided were very clear, well–organized, concise, and very relevant to the subject. The instructor made super abstract concepts easy to grasp and visualize. The teaching skills of the instructor are incredible. This was not an easy course, but it was the absolute best course I have taken so far in university (and this is solely because of the quality of the instructor).

It was very well–structured with clear expectations of what we are supposed to do. It was taught incredibly well! Professor Bar–Natan went into incredible detail with every theorem and proof, and he also provided a lot of motivation as to why we were doing things in a certain way. The lectures were so brilliant, that I barely needed to rely on the textbook for this course. He drew a lot of diagrams, and his class was very engaging. The assignments were fun to do, and the tests felt like the reinforced understanding.

Fantastic

The quality of instruction was excellent. By far, one of my favourite courses in my undergraduate career thus far. Professor Bar–Natan does an excellent job of laying out the material in a very clear and precise manner. I could not have asked for a better instructor for this course.

I really don't have anything bad to say about this course. The material is indeed very hard, but Professor Bar–Natan makes every effort to make it comprehensible. Approachable in office hours and has a good sense of humour which keeps lectures interesting. Seriously speaking, this is one of the best–taught courses I've taken thus far.

Professor Bar–Natan is a great lecturer. He made the material accessible and genuinely cared that students had the opportunity to do well in the course.

Good. In-person lectures were good, however course notes were not as well-organized or thorough.

The professor was great. He explains concepts well, and goes at a pace designed for students to be able to follow. The materials covered are difficult, but he makes things manageable.

Amazing, brilliantly taught

Pretty much everything in this course was good, so I don't even know what to comment on.

I really liked the prof's teaching style, it was always a good combination of rigorous and intuitive. I also liked his personality and the atmosphere of the class, which made it a very enjoyable class to be in. The fact that they were at 9am was always quite a bit of struggle for me, but that is more on me, and my other courses for having late deadlines.

The assignments were hard enogh to make you think about the material and understand it, but not too hard or too much for weekly assignments. As opposed to other courses where weekly assignments are very scary & time—consuming, the light workload and the fact that there were 4 assignments made it much less stressful.

I did do bad on the tests, but I think that's on me!

I think the quality of the instruction in the course was excellent. Professor Bar–Natan always delivered lectures with a lot of enthusiasm, which made the lectures engaging. Professor Bar–Natan also had a good sense of humor, which made the lectures engaging. Despite the fact that certain concepts were often very detailed and complicated, he did a good job reducing these very complicated ideas into "pictures." This is important because the material would been too hard to memorize and use creatively without having an intuitive understanding of things. The textbook used is very difficult read and self–study, so it was a very rewarding experience to receive guidance from a professor on the topic. Furthermore, he was always happy to answer questions from the students without passing judgment of any sort.

Comments

Furthermore, sometimes he would cover material differently from the textbook in cases where there was a clearer way to prove/explain something. I found this to be helpful because the textbook sometimes had the tendency of being unmotivated. I also felt that Professor Bar–Natan motivated the content quite well. Explaining what concepts were used for in applications instead of in isolation. It is hard to have an intuitive understanding of things without understanding some applications or examples, so this really helped to elucidate the material. Explaining the thought process behind steps of a proof also filled in some important gaps for me conceptually. There would be times that I read the textbook and while I can follow the author's argumentation, it was not apparent to me why the author had taken that approach to proving something. Professor Bar–Natan often alleviated this issue by explaining why certain steps were taken in the proofs and why it made sense to take that approach a priori. I felt that motivating things and explaining the "bigger–picture" ideas of the material helped me to better own the course material.

The tests were fair and tested the concepts well without being too stressful and difficult, and the marking scheme for the course is quite generous, which gives students an opportunity to improve their mark at the end of the year. The homework were sometimes pretty difficult and sometimes they were light in terms of workload. Some of these assignments were quite insightful and required deep thought while I think others served more as just practice. I think that the homework overall was quite reasonable but could sometimes have been supplemented by suggested exercises or bonus problems (which could be optional, since I know that's more work for TAs).

The only criticism I have for the book isn't really with the instruction, but the pacing of the course. I felt that the last month of the course became very difficult when things switched over to the differential geometry portion of the course. So much material was taught in such a short time and many explanations had to be skipped and sort of handwaved as a result. I remembered being really confused at this point of the course, whereas I was following the course pretty well before that. All this being said, the textbook is structured like this as well (to become much harder near the end of the book). I am not really sure what can be done about this though, since the course's goal is to teach a ton of content.

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

Comments

The TAs were great and very knowledgeable.

The tutorials were invaluable for this course. Sometimes the way to solve problems was not very clear just fro lecturs, but the tutorials helped a lot with that.

Great. The tutorials and TAs were helpful. They would be available as much as possible, working through many problems that were both stimulating and conductive to learning the material.

Professor was unhelpful and belittling when asked for help during office hours, so much so that I had another student email me afterwards commenting on how 'mean' he was to me.

TA's did not respond to requests to explain correct solutions to past assignments.

The tutorials were very helpful, and there were weekly office hours in which we could clarify any doubts we had. There was also Piazza to ask questions.

The tutorial really helps to improve the understanding about course materials, some extension were also provided.

All TAs were extremely helpful. I really enjoyed attending tutorial each week because the TA helped me understand a lot of the material.

Tutorials were quite helpful.

Professors and TA all helpful during office hours

There were TA and professor office hours before tests and on a weekly basis, as well as tutorials. I only attended the tutorials, which I thought were very helpful. I'm sure the office hours were really helpful too, for the people who attended. There was also a piazza discussion board that I found to be pretty useful for the duration of the course.

Part B. Divisional Items

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

Question		Summary	
Question	Mean	Median	
FAS001 The instructor (<u>Dror Bar-Natan</u>) generated enthusiasm for learning in the course.	4.7	5.0	

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

Question	Summary	
Question	Mean	Median
FAS002 Compared to other courses, the workload for this course was	3.9	4.0

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

Question	Sur	Summary	
Question	Mean	Median	
FAS003 I would recommend this course to other students.	4.4	5.0	

Part C: Departmental Items

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

Quartien	Sun	mmary	
Question	Mean	Median	
The course instructor (Dror Bar-Natan) explained concepts clearly.	4.7	5.0	

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

Question	Summary	
	Mean	Median
The course instructor (<u>Dror Bar-Natan</u>) was approachable.	4.3	5.0

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

Question	Summary Mean Media	nmary	
Question	Mean	Median	
The course instructor (<u>Dror Bar-Natan</u>) answered questions clearly.	4.5	5.0	

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

Question		Summary	
- Question	Mean	Median	
UNIT(OQI) Overall, the quality of instruction provided by (<u>Dror Bar-Natan</u>) in this course was:	4.7	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.

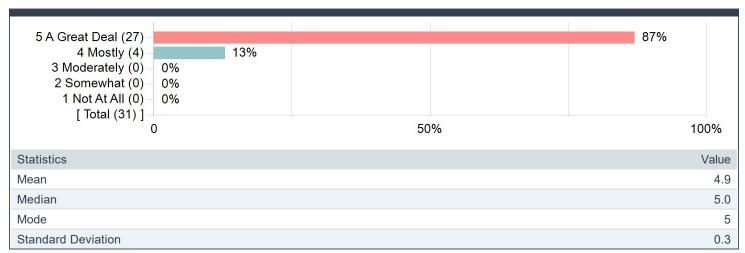
Median: The middle value when all responses are ordered. This measure is less affected by extreme and/or divergent scores.

Mode: The most frequently occurring score.

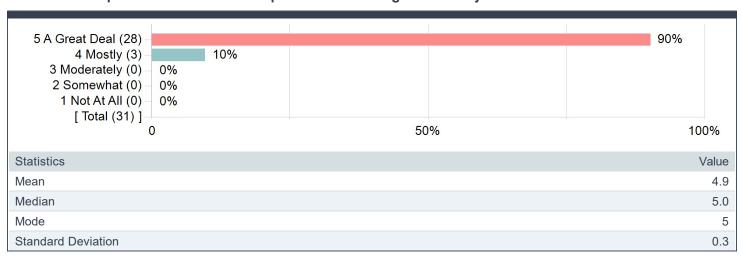
Standard deviation: A measure of the "spread" of the data.

Part A: Core Institutional Items

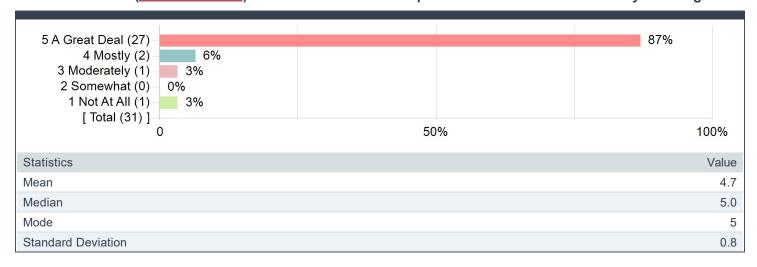
1. I found the course intellectually stimulating.



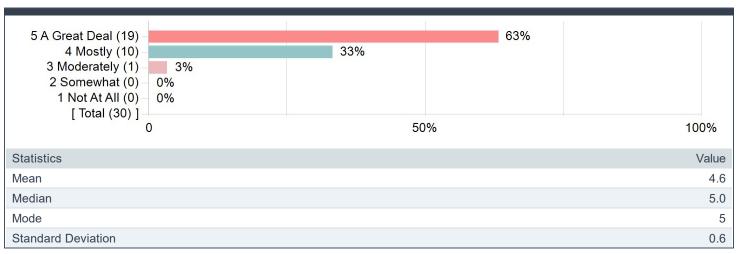
2. The course provided me with a deeper understanding of the subject matter.



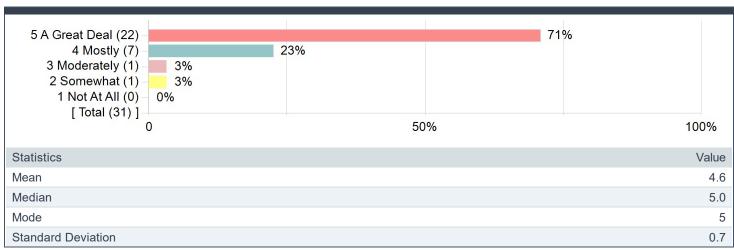
3. The instructor (Dror Bar-Natan) created a course atmosphere that was conducive to my learning.



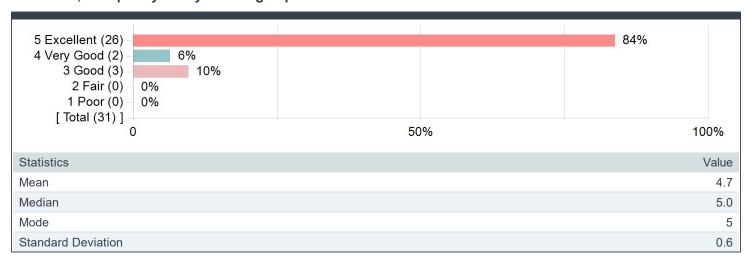
4. Course projects, assignments, tests and/or exams improved my understanding of the course material.



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

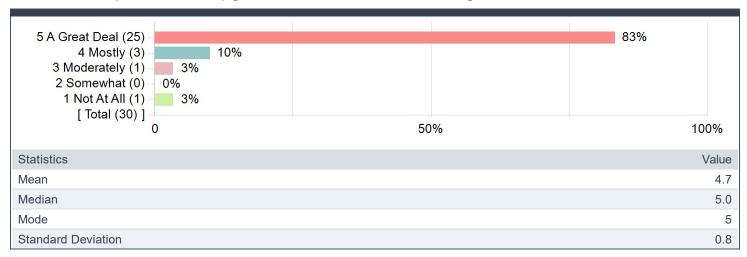


6. Overall, the quality of my learning experience in this course was....

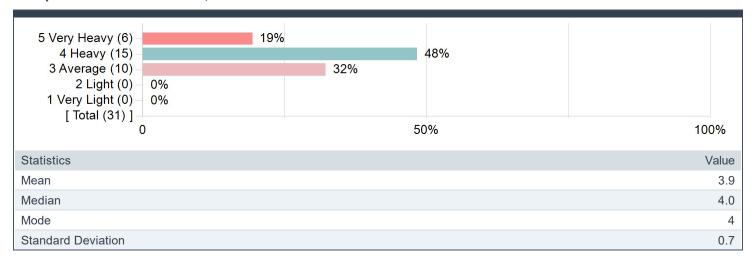


Part B. Divisional Items

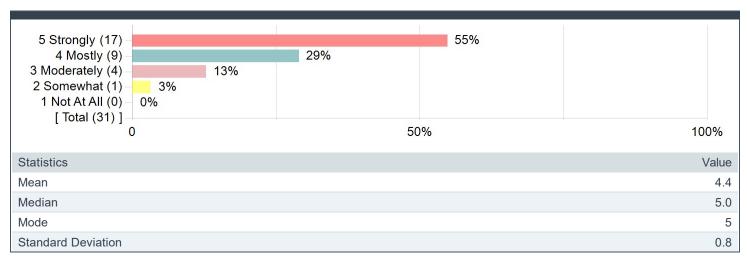
The instructor (Dror Bar-Natan) generated enthusiasm for learning in the course.



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

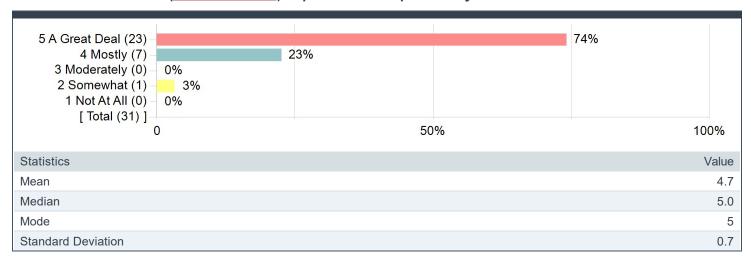


I would recommend this course to other students.

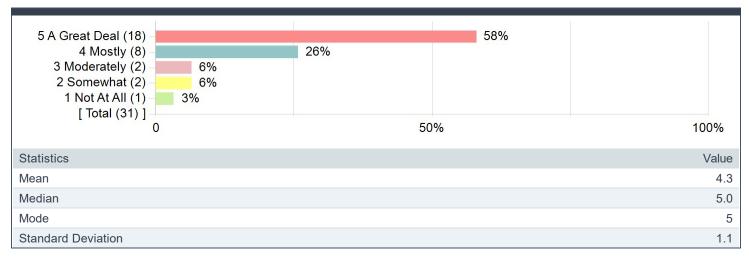


Part C. Departmental Items

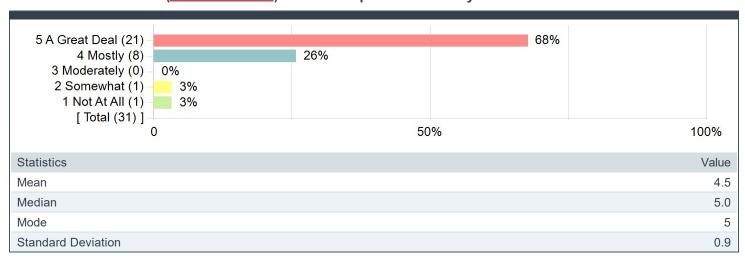
The course instructor (**Dror Bar-Natan**) explained concepts clearly.



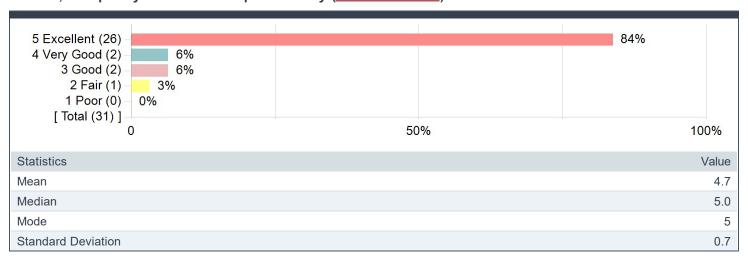
The course instructor (<u>Dror Bar-Natan</u>) was approachable.



The course instructor (**Dror Bar-Natan**) answered questions clearly.



Overall, the quality of instruction provided by (Dror Bar-Natan) in this course was:



Section 3. Comparative Data

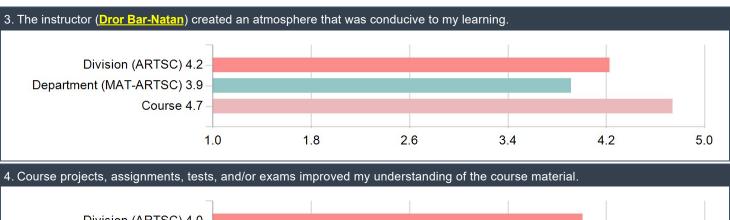
This section provides overall means for given comparators (e.g., division, department) alongside the mean values for a given course. Note that the comparators are calculated by pooling together all individual student survey responses (e.g., student responses for all of the courses in a department are 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

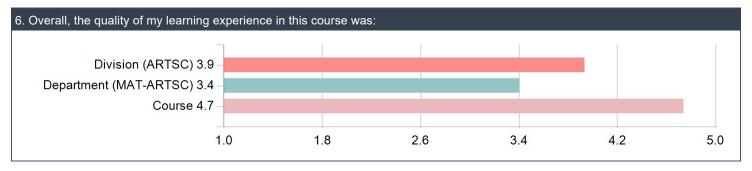








Scale: 1 - Poor 2 - Fair 3 - Good 4 - Very Good 5 - Excellent



Part B. Divisional Items

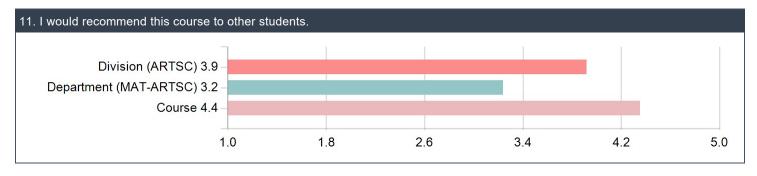
Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - A Great Deal



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



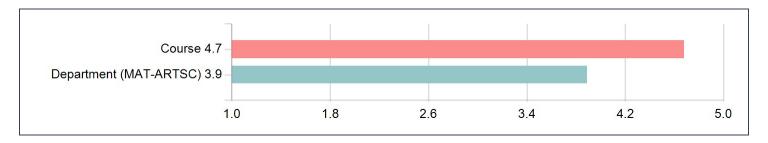
Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - Strongly



Part C: Departmental Items

The course instructor (<u>Dror Bar-Natan</u>) explained concepts clearly.

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



The course instructor (**Dror Bar-Natan**) was approachable.

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



The course instructor (**Dror Bar-Natan**) answered questions clearly.

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



Overall, the quality of instruction provided by (Dror Bar-Natan) in this course was:

