IASystem
The Course Evaluation Standard

COURSE SUMMARY REPORT
Numeric Responses

University of North Texas
College of Science
Mathematics
Term: Fall 2023

MATH 2700 008
Linear Algebra and Vector Geometry
Course type: Face-to-Face

Evaluation Delivery: Online
Evaluation Form: A
Responses: 20/46 (43% moderate)

Taught by: Ignat Soroko
Instructor Evaluated: Ignat Soroko-Other

Overall Summative Rating represents the combined responses of students to the four global summative items and is presented to provide an overall index of the class's quality:

Median
4.7
(0=lowest; 5=highest)

Challenge and Engagement Index (CEI) combines student responses to several *IASystem* items relating to how academically challenging students found the course to be and how engaged they were:

CEI: 4.8
(1=lowest; 7=highest)

SUMMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median
The course as a whole was:	20	60%	15%	20%	5%			4.7
The course content was:	20	55%	15%	30%				4.6
The instructor's contribution to the course was:	20	70%	10%	20%				4.8
The instructor's effectiveness in teaching the subject matter was:	20	65%	15%	15%	5%			4.7

STUDENT ENGAGEMENT

Relative to other college courses you have taken:	N	Much Higher (7)	(6)	(5)	Average (4)	(3)	(2)	Much Lower (1)	Median
Do you expect your grade in this course to be:	20	30%	25%	10%	35%				5.7
The intellectual challenge presented was:	20	30%	30%	20%	20%				5.8
The amount of effort you put into this course was:	20	20%	25%	25%	20%	10%			5.3
The amount of effort to succeed in this course was:	20	20%	15%	40%	25%				5.1
Your involvement in course (doing assignments, attending classes, etc.) was:	20	25%	20%	25%	30%				5.3

On average, how many hours per week have you spent on this course, including attending classes, doing readings, reviewing notes, writing papers and any other course related work?

Class median: 5.0 Hours per credit: 1.7 (N=20)

Under 2	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22 or more
	10%	55%	10%	15%	10%						

From the total average hours above, how many do you consider were valuable in advancing your education?

Class median: 4.2 Hours per credit: 1.4 (N=20)

Under 2	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22 or more
5%	30%	40%	10%	10%	5%						

What grade do you expect in this course?

Class median: 3.6 (N=20)

A (3.9-4.0)	A- (3.5-3.8)	B+ (3.2-3.4)	B (2.9-3.1)	B- (2.5-2.8)	C+ (2.2-2.4)	C (1.9-2.1)	C- (1.5-1.8)	D+ (1.2-1.4)	D (0.9-1.1)	D- (0.7-0.8)	E (0.0)	Pass	Credit	No Credit
30%	30%	15%	5%	5%		5%	5%					5%		

In regard to your academic program, is this course best described as:

(N=20)

In your major	A core/distribution requirement	An elective	In your minor	A program requirement	Other
45%	25%		15%	10%	5%

STANDARD FORMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median
Course organization was:	20	65%	20%	10%	5%			4.7
Clarity of instructor's voice was:	20	55%	25%	20%				4.6
Explanations by instructor were:	20	65%	15%	15%	5%			4.7
Instructor's ability to present alternative explanations when needed was:	20	65%	10%	25%				4.7
Instructor's use of examples and illustrations was:	20	60%	20%	20%				4.7
Quality of questions or problems raised by the instructor was:	20	65%	15%	15%	5%			4.7
Student confidence in instructor's knowledge was:	20	75%	15%	10%				4.8
Instructor's enthusiasm was:	20	80%	5%	15%				4.9
Encouragement given students to express themselves was:	20	60%	20%	20%				4.7
Answers to student questions were:	20	60%	25%	15%				4.7
Availability of extra help when needed was:	20	55%	25%	15%	5%			4.6
Use of class time was:	20	65%	20%	15%				4.7
Instructor's interest in whether students learned was:	20	60%	15%	15%	10%			4.7
Amount you learned in the course was:	20	65%	15%	15%	5%			4.7
Relevance and usefulness of course content were:	20	60%	15%	15%	10%			4.7
Evaluative and grading techniques (tests, papers, projects, etc.) were:	20	60%	10%	25%	5%			4.7
Reasonableness of assigned work was:	20	70%	10%	20%				4.8
Clarity of student responsibilities and requirements was:	20	70%	15%	15%				4.8

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STANDARD OPEN-ENDED QUESTIONS

Was this class intellectually stimulating? Did it stretch your thinking? Why or why not?

1. Yes , learning about matrix

2. Many of the mathematical concepts in this class were difficult to understand.

3. It was a learning experience in understanding the matrices and concepts of linear algebra. Grading is overall lenient and interactivity during lecture is satisfactory.

4. Yes this was a very interesting and enjoyable class

6. I was not previously familiar with much of the content of the course. It exposed me to a type of math that I had not before worked with, so it was interesting to learn.

7. It was very hard as the subject itself is difficult but the professor made it easier to understand

8. It was quite stimulating because of the content of the course.

9. This class provided many new methods to approach problems in most if not all of my classes.

10. Yes it was intellectually stimulating and stretched my thinking by introducing a new topic in math to me. It showed me that complex problems can be solved either easily or with a complex method.

11. Yes It was

12. This class was very intellectually stimulating. I thoroughly enjoyed the content progression and also really liked the content itself. I find matrices and their applications in programming pretty interesting, so I enjoyed having a course dedicated to matrices.

13. Yes. It really made me think about math in a different context

14. This class was filled with examples and times for students to show what they had learned. The professor made sure every student was learning what he was teaching and did a great job with the course.

What aspects of this class contributed most to your learning?

1. How to find the matrix and solve for it

2. Lectures, homework, weekly quizzes.

3. Homework and textbook, notes are very difficult to understand and would require full context to understand not the solving of the problem, but the interpretation of the problem and its context in linear algebra.

4. Conceptualizing matrices and their usefulness in computer science

5. The homework program is really great! I appreciate being able to view examples for problems, practice similar types of problems, and having the opportunity to get partial credit on homeworks passed their due date.

6. The course structure was very clear. I knew at all times what was expected of me, where to find information on the content, and how to get answers to my questions. That took away confusion/anxiety and let me focus on the math itself. Also, I really liked Professor Soroko. He is friendly, funny, fair, and cares about his students. Any questions I asked were answered quickly and thoroughly, even if it was outside of class time. He's a great teacher and I felt lucky to be in his class.

7. Attending class and listening to the lectures

8. Class really helped with learning the course, as well as having weekly quizzes that kept me on track.

9. Dr. Soroko is incredibly knowledgeable and good at explaining complex topics in a digestible way. He ensures that everyone understands the material before moving forward, and you can tell he cares about his students' success.

10. The notes were decent, but it was mostly self taught by redoing problems over and over again.

11. It was the professor he is very learned about the topic and will not move ahead till everyone understands it

12. Professor Soroko has been a great teacher. He was very thorough with the course content and made sure that we all understood what we were learning before he introduced anything new. He also came to class every day with an amiable and approachable atmosphere about him. We were encouraged to ask questions and received very kind and professional responses regardless of what the question was. I also think the pacing of the course was pretty good. I didn't ever feel like I was falling behind, nor did I ever think we were going too slow.

13. The professors examples and clearness when something wasn’t understood

14. The excellent examples that were provided often by professor Soroko.

15. The homework and quizzes helped me the most. The online homework was a good way to practice what i learned and figure out what I am doing wrong if I didn't understand a question. The quizzes were a good and fair knowledge check of what I should know and what type of problems I should be able to solve.

What aspects of this class detracted from your learning?

1. Nothing

3. Lecture notes and explanations during the lecture are very difficult to interpret.

4. There is a lot of material and there is not much room for exploration because there's so much material to get through

5. Having a math class be an hour and a half is very tough, especially in the evening from 5-7pm. I feel like a MWF class would be much more digestible and beneficial to students' learning (smaller chunks of time vs big chunks of time).

6. None, I was able to learn the material within the class as it was taught.

7. Unsure of an answer

8. Nothing to mention here.

9. Nothing.

10. I don't quite know how to answer this, so I will say nothing in particular comes to mind.

11. Nothing

12. There wasn't anything that detracted from my experience in this course.

13. None

14. Nothing.

15. Nothing detracted from my learning. This class was taught very well.

What suggestions do you have for improving the class?

1. Solve a lot of problems and ask questions if you need help

3. If possible, find methods that would help provide a better understanding of linear algebra to the students, much like an online diagram explaining its equations and process in matrices instead of drawing on a whiteboard. Simplification is also helpful in understanding the content of linear algebra as long as the meaning stays ideal to the course.

4. Maybe sharing some resources to help students conceptualize the matrices they're working on

5. Linear algebra is so much different than other maths so consistently relating topics to other advanced math, engineering, and technology courses/topics would benefit students by acting as a reminder for the goals they're working toward.

6. None. It's a good class and he's a great teacher.

7. Unsure of an answer

8. Great class overall. Probably the best math class I have taken at UNT till now, and definitely the best one for this semester.

9. None.

10. The homework, quizzes and test reviews should more mirror how the test is going to go. I also would recommend giving a review for the final. Lastly, I don't believe that a good chunk of the grade should be on true or false questions that are not only misleading, but hardly covered within the notes.

11. This is a really nice class and what makes it awesome is the professor

12. I can't really think of anything that could make this course better.

13. None

14. I do not have any. You can tell that professor Soroko knows what he is doing. He is a true professional.

15. I don't have any suggestions because the class is really good.

IASystem Course Summary Reports summarize student ratings of a particular course or combination of courses. They provide a rich perspective on student views by reporting responses in three ways: as frequency distributions, average ratings, and either comparative or adjusted ratings. Remember in interpreting results that it is important to keep in mind the number of students who evaluated the course relative to the total course enrollment as shown on the upper right-hand corner of the report.

Frequency distributions. The percentage of students who selected each response choice is displayed for each item. Percentages are based on the number of students who answered the respective item rather than the number of students who evaluated the course because individual item response is optional.

Median ratings. *IASystem* reports average ratings in the form of item medians. Although means are a more familiar type of average than medians, they are less accurate in summarizing student ratings. This is because ratings distributions tend to be strongly skewed. That is, most of the ratings are at the high end of the scale and trail off to the low end.

The median indicates the point on the rating scale at which half of the students selected higher ratings, and half selected lower. Medians are computed to one decimal place by interpolation.[1] In general, higher medians reflect more favorable ratings. To interpret median ratings, compare the value of each median to the respective response scale: *Very Poor, Poor, Fair, Good, Very Good, Excellent (0-5); Never/None/Much Lower, About Half/Average, Always/Great/Much Higher (1-7); Slight, Moderate, Considerable, Extensive (1-4).*

Comparative ratings. *IASystem* provides a normative comparison for each item by reporting the decile rank of the item median. Decile ranks compare the median rating of a particular item to ratings of the same item over the previous two academic years in all classes at the institution and within the college, school, or division. Decile ranks are shown only for items with sufficient normative data.

Decile ranks range from 0 (lowest) to 9 (highest). For all items, higher medians yield higher decile ranks. The 0 decile rank indicates an item median in the lowest 10% of all scores. A decile rank of 1 indicates a median above the bottom 10% and below the top 80%. A decile rank of 9 indicates a median in the top 10% of all scores. Because average ratings tend to be high, a rating of "good" or "average" may have a low decile rank.

Adjusted ratings. Research has shown that student ratings may be somewhat influenced by factors such as class size, expected grade, and reason for enrollment. To correct for this, *IASystem* reports **adjusted medians** for summative items (items #1-4 and their combined global rating) based on regression analyses of ratings over the previous two academic years in all classes at the respective institution. If large classes at the institution tend to be rated lower than small classes, for example, the adjusted medians for large classes will be slightly higher than their unadjusted medians.

When adjusted ratings are displayed for summative items, **relative rank** is displayed for the more specific (formative) items. Rankings serve as a guide in directing instructional improvement efforts. The top ranked items (1, 2, 3, etc.) represent areas that are going well from a student perspective; whereas the bottom ranked items (18, 17, 16, etc.) represent areas in which the instructor may want to make changes. Relative ranks are computed by first standardizing each item (subtracting the overall institutional average from the item rating for the particular course, then dividing by the standard deviation of the ratings across all courses) and then ranking those standardized scores.

Challenge and Engagement Index (CEI). Several *IASystem* items ask students how academically challenging they found the course to be. *IASystem* calculates the average of these items and reports them as a single index. *The Challenge and Engagement Index (CEI)* correlates only modestly with the global rating (median of items 1-4).

Optional Items. Student responses to instructor-supplied items are summarized at the end of the evaluation report. Median responses should be interpreted in light of the specific item text and response scale used (response values 1-6 on paper evaluation forms).

[1] For the specific method, see, for example, Guilford, J.P. (1965). Fundamental statistics in psychology and education. New York: McGraw-Hill Book Company, pp. 49-53.