

Teaching and Mentoring Statement

Lin Jiu

“Teaching and learning promote and enhance each other.” —The Book of Rite, Warring States period.

This Chinese quote on teaching and learning reveals the mutual benefit between them, as well as between the instructor and students. Although I read it as a teenager, not until 2014, when I first became an instructor, did I finally begin to better understand the nature and connections between teaching and learning. There are several key concepts, such as

- *motivation and inspiration*: as William Arthur Ward said “The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires.”;
- *engagement*, by, e.g., group discussion, asking and answering questions;
- systematical *training plans* and *course designs*, by organizing materials, setting appropriate homework assignments, quizzes, and tests;
- involvement of *student research projects* (, as my published my first paper as a junior student) *and beyond*;
- and finally the cultivation in *active pursuing*.

For instance, teaching objects are no longer restricted to course materials; it is more important to foster a deeper understanding, to cultivate a self-independent learning, and to guide students with problem-solving skills. My ultimate goal is to cultivate the students necessary skills in problem solving, such as critical thinking and communication, and finally to guide the students into becoming self/independent math learners outside the classroom. To fulfill those goals, certain pedagogical strategies are applied.

1. Experiential teaching enriches the contents and activities in class. Besides traditional in-class activities, e.g., group discussion on problems with interactions, model tools, such as presentations on simulation demos, can catch the attention and stimulate students to further explore materials. Connecting a real-world problem to mathematical theory, not only encourages interdisciplinary learning for students; but also reveals the process of analyzing and solving real problems.
2. Research-driven teaching opens the door of higher-level research projects to graduate, as well as undergraduate, students. Some homework problems, especially in high level courses, are particularly selected. They are either directly from research projects or published papers, to offer the opportunity to the students participating certain projects; or are given in a literature review format, as the opening step to research topics. For example, presentation on topics related but beyond the teaching materials is one of such formats.
3. Ed-tech innovative teaching becomes increasingly a major part. The use of software such as Mathematica¹ and SageMath² is not restricted in presenting simulations and plots. Programming homework, dynamic notes, etc. always appear in my class.

1 Diverse and Abundant Experiences

Throughout all three institutes I have taught: Tulane University, Dalhousie University, and Duke Kunshan University, I experienced from private university, public university to the joint-venture liberal arts college. As shown in Appendix B, up to now, I have lectured (including current teaching ones)

- 23 sections, of 10 different regular math courses, including **various levels of calculus, linear algebra, probability, complex analysis, and number theory**, at three different institutes;

¹<https://www.wolfram.com/mathematica/>

²<https://www.sagemath.org/>

- **1 miniterm**, i.e., a 1-week short course, and **5 independent study**, i.e., reading courses, for completely different topics, e.g., **combinatorics, analytic number theory, quantum computing, and algebraic geometry**.

In general, for basic math courses, e.g. calculus, linear algebra, probability and statistics, I have no preference, as all such courses are essential and important to students majoring in STEM. Meanwhile, as my research topics include several branches, such as combinatorics, number theory, etc., many advanced courses, e.g., complex analysis, abstract algebra, also fit my area perfectly. Take MATH301—Advanced Introduction to Probability at Duke Kunshan University (DKU) as an example. This course was designed by me upon my arrival at DKU. Many ingredients were taken into consideration, including but not restricted to the seven-week session structure at DKU, undergraduate curriculum, related major requirements, and other courses. The course serves as an elective in math major, and also consists of important materials for further courses, such as MATH405—Financial Mathematics. Some research topics, e.g., probabilistic methods, Shor's algorithms in quantum computing are also introduced in the end.

2 Adjustment, Improvement, and Innovation

Teaching and learning is a dynamic process, so adjustment is required almost every single time. I am always willing to modify part of my teaching and adopt new already tested techniques into my course. This continuous adjustment encourages me to constantly reconsider the purpose and aims of the course and my teaching strategies. Moreover, comments on each course's evaluation are also helpful for improvement. The current average of the overall score and some comments show that I am a “good teacher”; still, there is room and space to become a better instructor. In order to constantly improve my teaching, I am also engaged in many activities. For instance, I led two sessions by the *Center for Teaching and Learning* (CTL) of DKU, on the **usage of MaxHub**³, a digital whiteboard in hybrid teaching; and **WeBWorK**⁴.

Also facilitated by the CTL, I was selected as one of the two instructors at DKU to conduct the **Gradescope⁵ Research Project**, awarded a grant of \$2,000. Gradescope is a digital grading system that allows instructors to scan and upload exams, and to grade them online. It reduces the grading time for classes of large size and digitizes the tests. In addition, I was selected as a **member of Faculty Learning Community** (FLC) 2022-2023, across all disciplines, to discuss and learn from each other in teaching.

3 Outside the Classroom—Undergraduate Mentoring

As an advisor at DKU, we are assigned **totally 10-16** undergraduate mentees, from each year, so that students can get guide and suggestions from course registrations, major declaration, etc. For instance, every semester before registering courses for the next term, advisees are required to meet the mentor, for discussion.

Undergraduate research has always been a strong part of my academic life; and I have benefited from it myself, by joining seminars and publishing my first 2 papers as an undergraduate student. As the current Discrete Math Seminar⁶ organizer, many talks/presentations are given by undergraduate students; and some projects eventually end as papers. Since 2020 at DKU, **each summer**, I have guided **at least 2 students** for summer research projects; in Summer 2024, as a visiting scholar at Dalhousie University, I also co-mentor, with Dr. Karl Dilcher, two undergraduate students. Since an undergraduate thesis, which is called Signature Work project at DKU, is required in China, I have guided **7 in 2023** and **3 in 2024**; among which, **three were based on publish/submitted papers**.

Admittedly, there is always a distance from being a great teacher, and I am willing to constantly improve in teaching. As my experience grows, my teaching will be more effective, diverse, and innovative. My enthusiasm and commitment will never decrease.

³<https://www.maxhub.com/>

⁴<https://openwebwork.org/>

⁵<https://www.gradescope.com/>

⁶https://sites.duke.edu/kits_team_101_48585/

Appendix

A TEACHING AWARDS

2022.12–2024.06	Faculty Learning Community Grant	Duke Kunshan University
2022.01–2022.12	Gradescope Research Project Grant Facilitated by Center for Teaching and Learning at Duke Kunshan University	Gradescope
2012–2013	Gradescope for math courses. Excellent Graduate Student Teacher	Math Dept., Tulane Univ.

B Teaching Experience

DUKE KUNSHAN UNIVERSITY

2023 Fall	MATH 105	Calculus
	MATH 202	Linear Algebra
	MATH 105	Calculus
	MATH 301	Advanced Introduction to Probability
2023 Spring	MATH 205	Probability and Statistics
	MINITERM 102	Experimental Mathematics and Symbolic Computation
2022 Fall	INDSTU 391	Introduction to Algebraic Geometry
	MATH 105	Calculus
	MATH 306	Number Theory
	MATH 301	Advanced Introduction to Probability
2022 Spring	INDSTU 391	Variational Quantum Algorithms
	MATH 201	Multivariable Calculus
	MATH 301	Advanced Introduction to Probability
	MATH 201	Multivariable Calculus
2021 Fall	MATH 105	Calculus
	INDSTU 391	Riemann Zeta-Function
	INDSTU 391	Quantum Algorithm
	MATH 306	Number Theory
	INDSTU 391	Combinatorics
2021 Spring	MATH 205	Probability and Statistics
	MATH 301	Advanced Introduction to Probability
2020 Fall	MATH 105	Calculus
	MATH 201	Multivariable Calculus

DALHOUSIE UNIVERSITY

2019 Summer	MATH 1030	Matrix Theory and Linear Algebra I
2019 Winter	MATH 3080	Introduction to Complex Variables

TULANE UNIVERSITY

2016 Spring	MATH 1060	Long Calculus II
2015 Fall	MATH 1310	Consolidated Calculus
2015 Spring	MATH 1210	Long Calculus I
2014 Summer	MATH 1160	Long Calculus II

C Sampled Course Syllabi and Evaluations

MATH 202 SECTION 002

Linear Algebra



Fall 2023, Session 2

Dates / Synchronous meeting time:	MoWe: 12:00—14:30	ROOM: IB 1047
Recitation	Tu: 16:15—17:30	Zoom: 997 5192 0472 PASS: MATH202
Academic credit:	4	
Course format:	Lectures, Recitations	

Instructor's Information

Dr. Lin Jiu	Assistant Professor in Mathematics
Email:	lin.jiu@dukekunshan.edu.cn
Office:	WDR 3004
Office Hours:	Tu 13:00—14:30, We: 10:00—11:30, or by appointment

My main research area is number theory and combinatorics in mathematics. Some other projects involve computations, such as symbolic computation, i.e., computer proofs. Please check my personal website for more information: <https://jiulin90.github.io/index.html>

Teaching Assistant Information

Lanze Liu	Lanze.Liu@dukekunshan.edu.cn
Office Hours:	Th: 13:00—14:00 Zoom: 949 8505 9527 PASS: MATH202

What is this course about?

This is an introduction to linear algebra for students in the first or second year of university. Linear algebra is the study of systems of linear equations, vector spaces, and linear transformations. Solving systems of linear equations is a basic tool in mathematics used for solving problems in science, engineering, business, and many other fields. Main topics of this course include systems of linear equations and elementary row operations, Euclidean n-space and subspaces, linear transformations and matrix representations, Gram-Schmidt orthogonalization process, determinants, eigenvectors and eigenvalues, and applications. The content of this course is essential to almost all areas of mathematics, engineering, computer science and other data-focused sciences and research.

What background knowledge do I need before taking this course?

Prerequisite: Math 101 or Math 105.

What will I learn in this course?

- Perform matrix algebra, apply Gaussian elimination, interpret the resulting matrix and describe the solution set to a system of linear equations.

- State, interpret, and apply key definitions and theorems, including vector spaces, subspaces, linear independence, basis, dimension, linear transformations and corresponding matrix representations, the Invertible Matrix Theorem, the Rank and Nullity Theorem, etc.
- Understand definition and properties of determinants and compute the determinant of a given matrix. Use Cramer's Rule to solve certain systems of linear equations, based on the calculations of determinants.
- Find eigenvalues and eigenvectors, and diagonalize matrices.
- Apply orthogonality and projections to solve geometric or algebraic problems, including Gram-Schmidt orthogonalization and least squares solutions.
- Use properties and results of matrix algebra, vector spaces, linear transformations, etc., to construct short proofs of statements in abstract settings.

What will I do in this course?

- You will attend two lectures per week.
- You will attend one recitation per week, except for Week 3 and Week 5, when we schedule two midterms.
- You will finish 6 sets of homework assignments via WeBWorK
- **You MUST attend the two midterm tests and the final exam.**
- Office hours, tutors from Academic Resource Center (see below on campus resources) will provide help on any questions.

What required texts, materials, and equipment will I need?

Free textbook: (uploaded to Sakai)

Matrix Theory and Linear Algebra, Peter Salinger

<https://www.mathstat.dal.ca/~selinger/linear-algebra/downloads/LinearAlgebra.pdf>

What optional texts or resources might be helpful?

Any textbook in linear algebra

How will my grade be determined?

Test I	20%	Nov. 7 th IB 1047 Coverage: Week 1 + Week 2
Test II	20%	Nov. 21 st IB 1047 Coverage: Week 3 + Week 4
Final Exam	40%	Dec. 13, AB 2103.
Homework Assignments	20%	See the description below

Tests: There are two tests during the recitation time of Weeks 3, and 5. Each is worth 20%.

Final Exam: Scheduled by the Registrar's Office, which is a 3-hour exam. 40%

Homework Assignments: There are 6 sets of homework assignments, on WeBWorK. Each is worth 4% and the lowest will be dropped.

Formula Sheet: For each midterm test, you are allowed to bring ONE A4 size formula sheet (double sided) and for the final exam, you are allowed to bring TWO pieces.

A+= 98% - 100% A = 93% - 97.99%; A- = 90% - 92.99%;
B+ = 87% - 89.99%; B = 83% - 86.99%; B- = 80% - 82.99%;
C+ = 77% - 79.99%; C = 73% - 76.99%; C- = 70% - 72.99%;
D+ = 67% - 69.99%; D = 63% - 66.99%; D- = 60% - 62.99%;
F = 59.99% and below

As you can see, the final percentage will be rounded DOWN to the closest integer.

Your course grade will not be lower than your final exam percentage. For example, if you obtained an A in the final exam; but overall course calculation, from the table above, shows an A-, you will still receive an A, not an A-.

Your grades will NOT be curved.

What are the course policies?

Language: English

The official language in this course is English.

- Communications during or after the class on course materials should use English
- Your answers to tests should be in English. **Each time, if I see another language other than English appearing in your answers, I will take 1% off from your COURSE GRADE.**

In case of documented illness or family emergency or documented University sponsored trips, you may miss the test, but the supporting documentation must be submitted to the instructor in advance. **With the document, your missing midterm score can be counted as the same as your final.** Do remember: let me know **BEFORE** the exam. An unexcused absence from any exam will be counted as a zero.

Academic Integrity:

As a student, you should abide by the academic honesty standard of Duke Kunshan University. The DKU Community Standard states: "Duke Kunshan University is a community comprised of individuals from diverse cultures and backgrounds. We are dedicated to scholarship, leadership, and service and to the principles of honesty, fairness, respect, and accountability. Members of this community commit to reflecting upon and upholding these principles in all academic and non-academic endeavors, and to protecting and promoting a culture of integrity and trust." For all graded work, students should pledge that they have neither given nor received any unacknowledged aid.

Please also include an indication of your typical penalties for an academic integrity violation (such as resubmitting for a reduced grade, 0 on the problem or the assignment, etc.). While the actual penalty might depend on the details of the specific situation, including some indication will help students understand that DKU takes academic integrity seriously. Please also be clear about your policies regarding the use of any online resources, including language translation tools, problem-solving tools, **artificial intelligence**, etc.

Academic Policy & Procedures:

You are responsible for knowing and adhering to academic policy and procedures as published in the University Bulletin and Student Handbook. Please note, an incident of behavioral infraction or academic dishonesty (cheating on a test, plagiarizing, **unauthorized use of online tools**, etc.) will result in immediate action from me, in consultation with university administration (e.g., Dean or Associate Dean of Undergraduate Studies, Student Conduct, Academic Advising). Please visit the Undergraduate Studies website for additional guidance related to academic policy and procedures. Academic integrity is everyone's responsibility.

Academic Disruptive Behavior and Community Standard:

Please avoid all forms of disruptive behavior, including but not limited to: verbal or physical threats, repeated obscenities, unreasonable interference with class discussion, making/receiving personal phone calls, text messages or pages during class, excessive tardiness, leaving and entering class frequently without notice of illness or other extenuating circumstances, and persisting in disruptive personal conversations with other class members. Please turn off phones, pagers, etc. during class unless instructed otherwise. Laptop computers may be used for class activities allowed by the instructor during synchronous sessions. If you choose not to adhere to these standards, I will take action in consultation with university administration (e.g., Dean of Undergraduate Studies, Student Conduct, Academic Advising).

Academic Accommodations:

Duke Kunshan University makes reasonable academic accommodations for qualified students with disabilities. All undergraduate accommodations must be approved through [the Student Accommodation Services](#). Students requesting accommodation for this course should forward their official accommodation letter to the instructor and ask to schedule a time to meet and discuss the implementation of their accommodation(s). It is the student's responsibility to meet, discuss, and provide an electronic copy of the Instructor Accommodation Letter to each instructor. Accommodation will not be granted retroactively. Accommodations for test, quiz, or exam taking must be arranged with the professor at least a week before the date of the quiz, test, or exam, including finals.

What campus resources can help me during this course?

Academic Resource Center

The Academic Resource Center provides tutoring services, and there will be tutors especially for our MATH202 course: <https://www.dukekunshan.edu.cn/academics-advising/tutoring-service/>

Academic Advising and Student Support

Please consult with me about appropriate course preparation and readiness strategies, as needed. Consult your academic advisors on course performance (i.e., poor grades) and academic decisions (e.g., course changes, incompletes, withdrawals) to ensure you stay on track with degree and graduation requirements. In addition to advisors, staff in the Academic Resource Center can provide recommendations on academic success strategies (e.g., tutoring, coaching, student learning preferences). Please visit the [Office of Undergraduate Advising website](#) for additional information related to academic advising and student support services.

Writing and Language Studio

For additional help with academic writing—and more generally with language learning—you are welcome to make an appointment with the Writing and Language Studio (WLS). You can register for an account, make an appointment, and learn more about WLS services, policies, and events on the [WLS website](#). You can also find writing and language learning resources on the [Writing & Language Studio Sakai site](#).

IT Support

If you are experiencing technical difficulties, please contact IT:

- China-based faculty/staff/students 400-816-7100, (+86) 0512-3665-7100
- US-based faculty/staff/students (+1) 919-660-1810
- International-based faculty/staff/students can use either telephone option (recommend using tools like Skype calling)
- Live Chat: <https://oit.duke.edu/help>
- Email: service-desk@dukekunshan.edu.cn

What is the expected course schedule?

We will cover most of the following materials from the textbook (*Tentatively, may up to some perturbation*).

Week 1	Systems of Linear Equations (Chapter 1) <ul style="list-style-type: none">• Geometric and Algebraic view of System of equations.(1.1, 1.2)• Elementary Operations (1.3)• Gaussian and Gauss-Jordan Elimination (1.4, 1.5)• Homogeneous Systems (1.6)
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	<ul style="list-style-type: none"> ● Uniqueness of the Reduced Echelon Form (1.7)
Week 2	<p>Vectors in n-dim space (Chapter 2)</p> <ul style="list-style-type: none"> ● Points and Vectors (2.1) ● Vector addition, scalar multiplication, linear combination (2.2---2.4) ● Length of a vector (2.5) ● Dot product (2.6.1---2.6.4) <p>Matrices (Chapter 4)</p> <ul style="list-style-type: none"> ● Definition, Matrix addition, scalar multiplication (4.1—4.3) ● Matrix Multiplication (4.4) ● Matrix Inverse (4.5.1, 4.5.2)
Week 3	<ul style="list-style-type: none"> ● Matrix Inverse (4.5.3, 4.5.4) ● Elementary matrices (4.6) ● Transpose (4.7) ● Trace: Definition <p>Spans, Linear Independence and Bases in R^n (Chapter 5)</p> <ul style="list-style-type: none"> ● Spans (5.1) ● Linear Independence (5.2) <p>Midterm I: Coverage: Week 1 + Week 2</p>
Week 4	<ul style="list-style-type: none"> ● Subspaces of R^n (5.3) ● Basis and Dimension (5.4) ● Null Spaces, Column Spaces, and Linear Transformations (5.5) ● Orthogonal and Orthonormal Basis (11.2, 11.3 but only for R^n) <p>Linear Transformations (Chapter 6)</p> <ul style="list-style-type: none"> ● Definition (6.1)

	<ul style="list-style-type: none"> ● The Matrix of a Linear Transformations (6.2) ● Properties of Linear Transformations (6.4)
Week 5	<p style="text-align: center;">Determinants (Chapter 7)</p> <ul style="list-style-type: none"> ● 2×2 and 3×3 (7.1) ● Determinants of a Triangular Matrix (7.3) ● Determinants and Row Operations (7.4) ● Minors and Cofactors (7.2) ● A formula for the Inverse of a Matrix (7.6) ● Properties of Determinants (7.5) ● Cramer's Rule (7.7) <p style="text-align: center;">Midterm II: Coverage: Week 3 + Week 4</p> <p style="text-align: center;">Eigenvectors and Eigenvalues (Chapter 8)</p> <ul style="list-style-type: none"> ● Eigenvectors and Eigenvalues (8.1) ● The Characteristic Equation, Find Eigenvalues and Eigenvectors (8.2)
Week 6	<ul style="list-style-type: none"> ● Diagonalization (8.4) ● Matrix Powers (8.5) ● Properties of Eigenvalue and Eigenvectors (8.9) ● Quadratic Form (11.9) ● Trace ● Jordan Canonical Form
Week 7	<ul style="list-style-type: none"> ● Selected Topics ● Review

Final Exam: Dec. 13th, 2023
15:30—18:30 @ AB 2103

Duke University - Duke Kunshan University
FA23S2 DKU UG End of Session Course Evaluations

Course: 7W2-MATH-202-002: Linear Algebra

Instructor: Lin Jiu *

Response Rate: 21/41 (51.22 %)

1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

The course learning objectives stated in the syllabus were clear to me.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	19	90.48%		4.90
Agree	(4)	2	9.52%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.90	0.30	5.00

1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

The course expectations were clear to me.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	20	95.24%		4.95
Agree	(4)	1	4.76%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.95	0.22	5.00

1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

This course had clear grading criteria.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	20	95.24%		4.95
Agree	(4)	1	4.76%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.95	0.22	5.00

1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

This course was well organized.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	20	95.24%		4.95
Agree	(4)	1	4.76%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.95	0.22	5.00

Duke University - Duke Kunshan University
FA23S2 DKU UG End of Session Course Evaluations

Course: 7W2-MATH-202-002: Linear Algebra

Instructor: Lin Jiu *

Response Rate: 21/41 (51.22 %)

1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

The course workload was appropriate for the credits earned.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	20	95.24%		4.95
Agree	(4)	1	4.76%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.95	0.22	5.00

1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I understood the language used in the instruction and course materials.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	20	95.24%		4.95
Agree	(4)	1	4.76%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.95	0.22	5.00

1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I had as many opportunities as the current situation allowed to interact with my classmates.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	18	85.71%		4.76
Agree	(4)	1	4.76%		
Neutral	(3)	2	9.52%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.76	0.62	5.00

1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I interacted with students from diverse backgrounds during this course.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	18	85.71%		4.76
Agree	(4)	1	4.76%		
Neutral	(3)	2	9.52%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.76	0.62	5.00

Duke University - Duke Kunshan University
FA23S2 DKU UG End of Session Course Evaluations

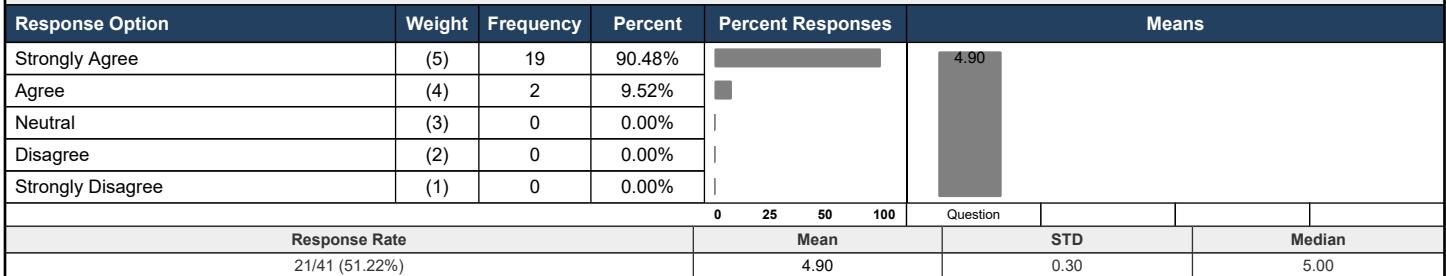
Course: 7W2-MATH-202-002: Linear Algebra

Instructor: Lin Jiu *

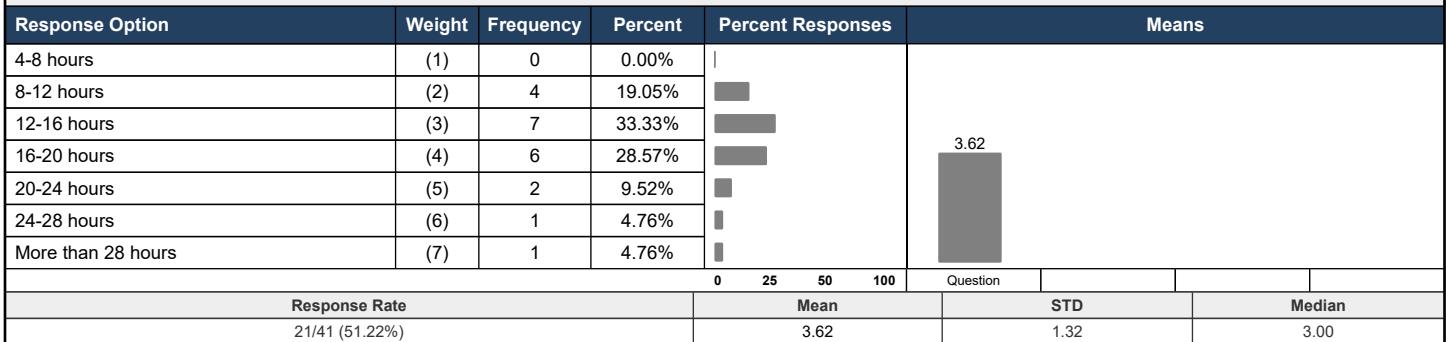
Response Rate: 21/41 (51.22 %)

1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

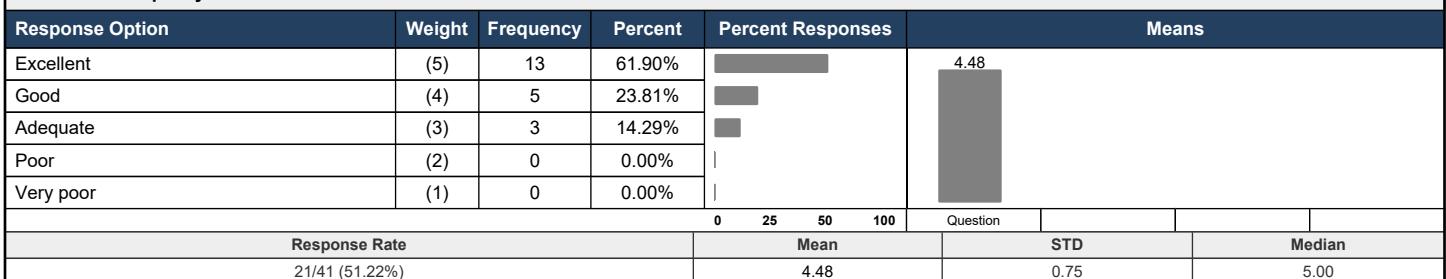
The course was intellectually stimulating.



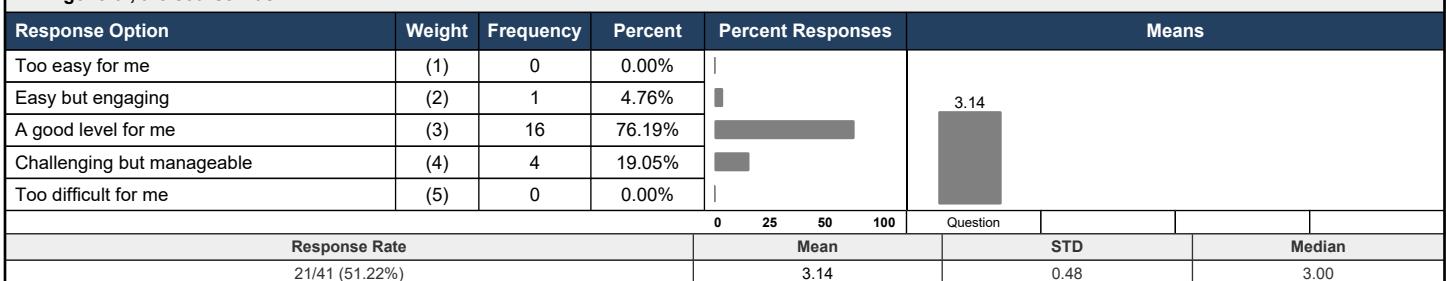
2 - How many hours per week, on average, did you spend in and out of class for this course (including attending synchronous/live meetings and office hours, as well as working on homework/assignments, course recordings, and course materials)?



3 - The overall quality of the course was



4 - In general, the course was



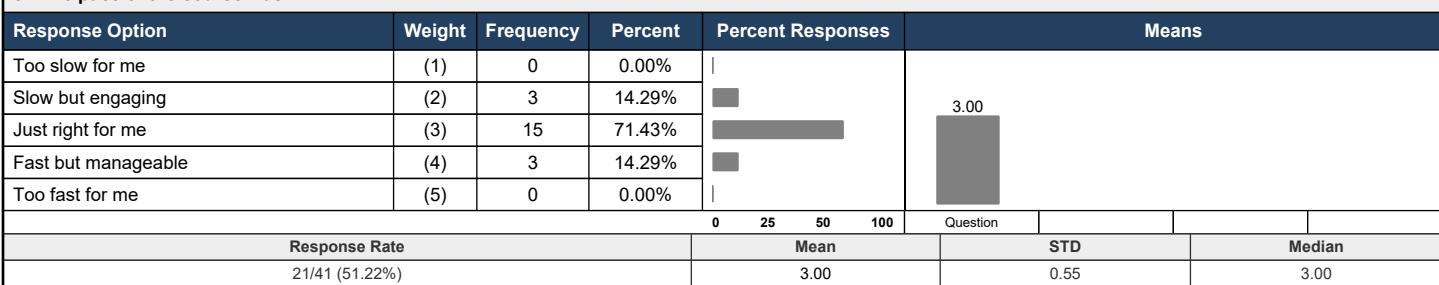
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FA23S2 DKU UG End of Session Course Evaluations

Course: 7W2-MATH-202-002: Linear Algebra

Instructor: Lin Jiu *

Response Rate: 21/41 (51.22 %)

5 - The pace of the course was



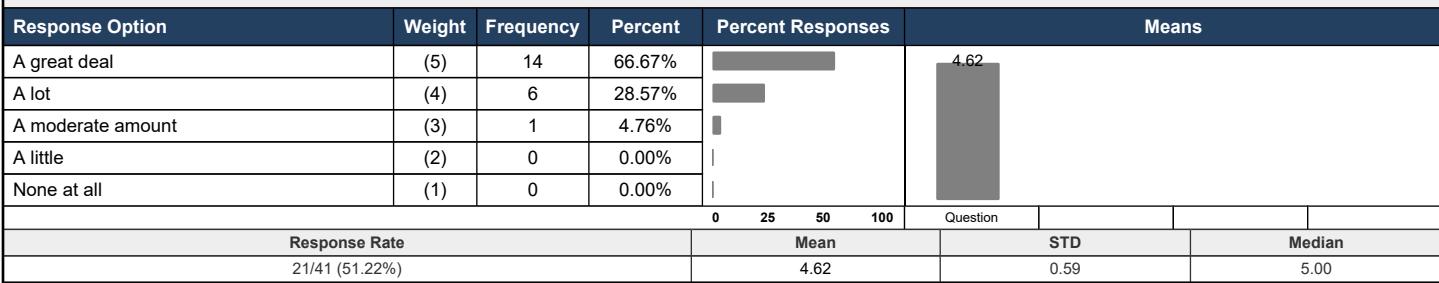
6 - Which assignment or activity would you most recommend the instructor to use again when teaching the course in the future and why?

Response Rate	7/41 (17.07%)
<ul style="list-style-type: none"> Webwork is a great way of providing homework. Weekly homework. It can help me practice what I learn in class and better prepare for the exams. no HW6, interesting Exams are ok The recitation in Week7, it gives me a new sight of the course. practice exercises 	

7 - Which assignment or activity could be improved and how?

Response Rate	8/41 (19.51%)
<ul style="list-style-type: none"> The only assignments were homework and exams, so there is not much feedback to provide in terms of improving such assignments. I do wish that the class was spread out to 1.25 hours per day instead of 2.5 hours per two days. Maybe you can give more attempts to multiple choices questions in homework? In-class Q&A session. Professor can sometimes pause a little bit and ask if students have any questions. no all perfect final exam could be easier Recitation, the handwriting of TA is a little confusing. all good 	

8 - Please use a five-point scale (5="A great deal", 1="Nothing") to indicate how much you learned from this course in general.



Duke University - Duke Kunshan University
FA23S2 DKU UG End of Session Course Evaluations

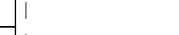
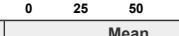
Course: 7W2-MATH-202-002: Linear Algebra

Instructor: Lin Jiu *

Response Rate: 21/41 (51.22 %)

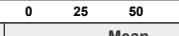
9 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

This course helped me gain factual knowledge.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	21	100.00%		5.00
Agree	(4)	0	0.00%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			5.00	0.00	5.00

9 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

This course helped me understand fundamental concepts and principles.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	21	100.00%		5.00
Agree	(4)	0	0.00%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			5.00	0.00	5.00

9 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned how to integrate knowledge.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	17	80.95%		4.85
Agree	(4)	3	14.29%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	1	4.76%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.85	0.37	5.00

9 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned about methods of inquiry during this course.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	18	85.71%		4.90
Agree	(4)	2	9.52%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	1	4.76%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.90	0.31	5.00

Duke University - Duke Kunshan University
FA23S2 DKU UG End of Session Course Evaluations

Course: 7W2-MATH-202-002: Linear Algebra

Instructor: Lin Jiu *

Response Rate: 21/41 (51.22 %)

9 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned how to analyze and evaluate ideas and arguments.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	16	76.19%		4.79
Agree	(4)	2	9.52%		
Neutral	(3)	1	4.76%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	2	9.52%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.79	0.54	5.00

10 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned how to work in a team.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	13	61.90%		4.53
Agree	(4)	3	14.29%		
Neutral	(3)	3	14.29%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	2	9.52%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.53	0.77	5.00

10 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

My oral communication skills improved during the course.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	14	66.67%		4.58
Agree	(4)	2	9.52%		
Neutral	(3)	3	14.29%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	2	9.52%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.58	0.77	5.00

10 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

My writing skills improved during the course.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	14	66.67%		4.53
Agree	(4)	1	4.76%		
Neutral	(3)	4	19.05%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	2	9.52%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.53	0.84	5.00

Duke University - Duke Kunshan University
FA23S2 DKU UG End of Session Course Evaluations

Course: 7W2-MATH-202-002: Linear Algebra

Instructor: Lin Jiu *

Response Rate: 21/41 (51.22 %)

10 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned how to generate my own ideas that reflect how I think about the world.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	16	76.19%		4.74
Agree	(4)	1	4.76%		
Neutral	(3)	2	9.52%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	2	9.52%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.74	0.65	5.00

10 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned knowledge of my own and/or other cultures' worldviews.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	14	66.67%		4.58
Agree	(4)	2	9.52%		
Neutral	(3)	3	14.29%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	2	9.52%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.58	0.77	5.00

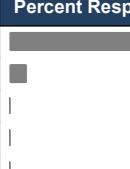
11 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned some things in the course that are applicable to other courses.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	21	100.00%		5.00
Agree	(4)	0	0.00%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			5.00	0.00	5.00

11 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned how to apply what I learned to real-life situations or problems.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	18	85.71%		4.90
Agree	(4)	2	9.52%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	1	4.76%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
21/41 (51.22%)			4.90	0.31	5.00

Duke University - Duke Kunshan University
FA23S2 DKU UG End of Session Course Evaluations

Course: 7W2-MATH-202-002: Linear Algebra

Instructor: Lin Jiu *

Response Rate: 21/41 (51.22 %)

11 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned some things in the course that are applicable to my life and/or my future career.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	20	95.24%		4.95
Agree	(4)	1	4.76%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	0	0.00%		
				0 25 50 100	Question
Response Rate				Mean	STD
21/41 (51.22%)				4.95	0.22
					Median
					5.00

12 - Please provide additional comments about the course if not covered by the previous questions.

Response Rate | 3/41 (7.32%)

- no
- Nothing
- NO more.

13 - This question is about Prof. Lin JiuPlease rate the following statements about Prof. Lin Jiu on a scale of 5 (strongly agree) to 1 (strongly disagree). -

Ideas and concepts were explained by the instructor clearly.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	18	85.71%		4.86
Agree	(4)	3	14.29%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
				0 25 50 100	Question
Response Rate				Mean	STD
21/41 (51.22%)				4.86	0.36
					Median
					5.00

13 - This question is about Prof. Lin JiuPlease rate the following statements about Prof. Lin Jiu on a scale of 5 (strongly agree) to 1 (strongly disagree). -

I was encouraged to participate in course discussions and activities.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	17	80.95%		4.71
Agree	(4)	3	14.29%		
Neutral	(3)	0	0.00%		
Disagree	(2)	1	4.76%		
Strongly Disagree	(1)	0	0.00%		
				0 25 50 100	Question
Response Rate				Mean	STD
21/41 (51.22%)				4.71	0.72
					Median
					5.00

Duke University - Duke Kunshan University
FA23S2 DKU UG End of Session Course Evaluations

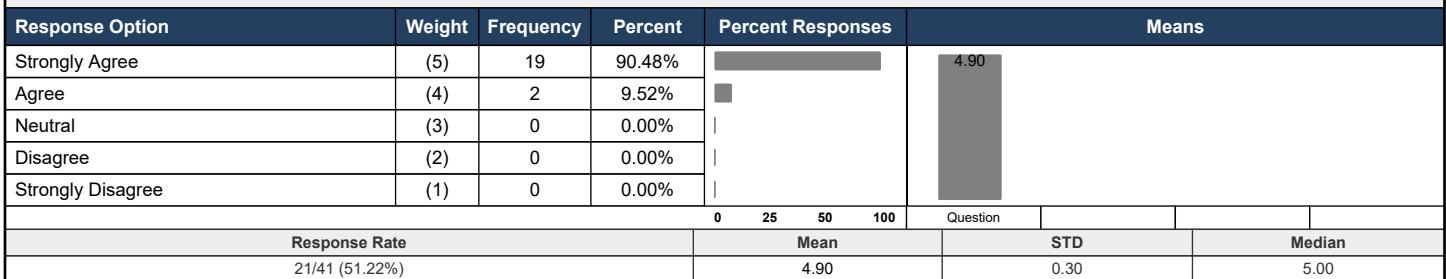
Course: 7W2-MATH-202-002: Linear Algebra

Instructor: Lin Jiu *

Response Rate: 21/41 (51.22 %)

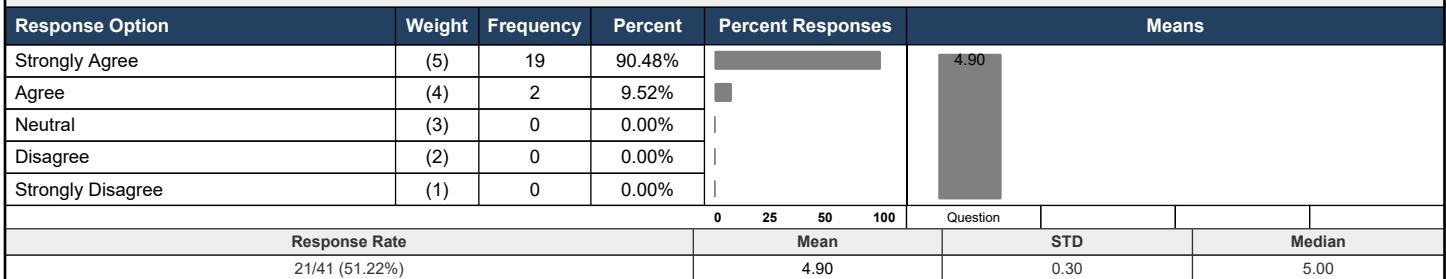
13 - This question is about Prof. Lin JiuPlease rate the following statements about Prof. Lin Jiu on a scale of 5 (strongly agree) to 1 (strongly disagree). -

The class atmosphere was comfortable and my contribution was respected.



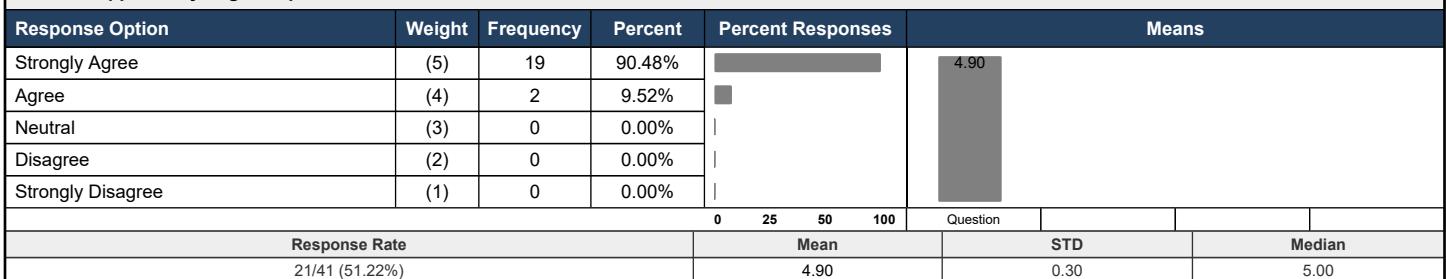
13 - This question is about Prof. Lin JiuPlease rate the following statements about Prof. Lin Jiu on a scale of 5 (strongly agree) to 1 (strongly disagree). -

I received helpful and timely feedback from the instructor on my coursework as much as the current situation allowed.



13 - This question is about Prof. Lin JiuPlease rate the following statements about Prof. Lin Jiu on a scale of 5 (strongly agree) to 1 (strongly disagree). -

I had the opportunity to get help from the instructor outside of the normal class time online and/or via email as much as the current situation allowed.



14 - This question is about Prof. Lin JiuAny other comments or suggestions for Prof. Lin Jiu? -

Response Rate 7/41 (17.07%)

- Prof. Jiu was an effective instructor for this course, and his lectures were not too difficult to understand. Due to the class's straightforward nature, I don't have much feedback to provide Prof. Jiu specifically.
- Excellent!
- no
- excellent teacher and excellent course
- Nice professor
- Great! I learned a lot from your office hour,
- really like his teaching style

Duke University - Duke Kunshan University
FA23S2 DKU UG End of Session Course Evaluations

Course: 7W2-MATH-202-002: Linear Algebra

Instructor: Lin Jiu *

Response Rate: 21/41 (51.22 %)

15 - About Online Learning Please provide comments and/or suggestions on any aspects of your online learning experience this term.

Response Rate	5/41 (12.2%)
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- N/A
- no
- Same efficiency as onsite learning
- Nothing
- The zoom meeting on week 7 has some problem when using the white broad, but it is ok.

MATH 105 SECTION 1

Calculus

Fall 2023, Session 1



Dates / Synchronous meeting time:	MoTuTh 10:00—11:15	ROOM: IB1047
Asynchronous Recordings:	Approximately 2—3 (average 2.5) hours per week.	
Academic credit:	4	
Course format:	Recordings, Lectures, Discussions.	

Instructor's Information

Dr. Lin Jiu	Assistant Professor of Mathematics
Email:	lin.jiu@dukekunshan.edu.cn
Office:	WDR 3004
Office Hours:	We 10:00—11:30, TuTh 16:00—17:30, or by appointment

My main research area is number theory and combinatorics in mathematics. Some other projects involve computations, such as symbolic computation, i.e., computer proofs. Please check my personal website for more information: <https://jiulin90.github.io/index.html>

What is this course about?

Calculus is one of the foundation courses at DKU, especially for the majors in Division of Natural and Applied Sciences (DNAS). Many tracks required courses list Calculus (and MATH101) as one prerequisite, such as MATH201-Mutivariable Calculus, MATH202-Linear Algebra, PHYS 121 Integrated Science – Physics, SOSC 313 Decision Making Under Uncertainty, etc.

With assumptions that you have already learned basics of calculus, e.g., functions, graphs, etc., this course begins directly with limits, then the two major parts: derivatives and integrations, including all the definitions, properties, methods, and applications.

What background knowledge do I need before taking this course?

You should be familiar with basic functions, e.g., polynomials, rational functions, root functions, trigonometric functions, exponential and logarithmic functions, together with their basic properties, such as graphs, inverses, etc. Also, you should have seen some basic formulas and examples of derivatives and integration.

What will I learn in this course?

1. Limit and Continuity
 - Understand the definition of limits, including at a point and infinity, as well as left and right limits.
 - Calculate limits by choosing the right method, e.g., factorization, conjugates, or by choosing the proper theorem, e.g., Squeeze Theorem, L'Hospital's Rule.
 - Understand the definition of continuity of a function.

- Analyze the continuity of piecewise functions.
 - Determine when a function has (vertical, horizontal, and slant) asymptotes, and find them.
2. Derivatives
- State the definition of definition of the derivative, and its geometric interpretation.
 - Calculate the tangent and normal line to the graph of a function at a point.
 - Understand the derivative as a function and high-order derivatives.
 - Calculate derivatives by applying
 - i. the table of derivatives of elementary functions,
 - ii. the differentiation rules,
 - iii. inverse and implicit differentiation method,
 - iv. and the logarithmic method
3. Applications of Derivatives
- Understand the definition of maximum and minimum values, critical numbers, inflection points of a function.
 - Apply the proper theorem, e.g., closed interval method, 1st and 2nd derivative tests, increasing/decreasing test, to analyze a given function's maximum and minimum.
 - Understand the definition of concavity and analyze the concavity of a function.
 - Sketch the graph of an elementary function
 - Apply the Mean Value Theorem to prove/show properties of a function.
 - Apply the linear approximation formula to calculate approximate values.
 - Analyze and solve practical optimization problems.
 - Analyze and solve related rates problems.
 - Apply the L'Hospital's Rule to compute the limit.
4. Integration
- Understand the definition of antiderivatives and check the table of antiderivatives.
 - Compute indefinite integrals by the table of antiderivatives.
 - Understand the definition of the definite integral.
 - Apply the fundamental theorem of calculus, to compute derivatives, to evaluate definite integrals, and, combining with L'Hospital's Rule, to evaluate certain limits.
 - Analyze and evaluate the integrations, by choosing the right method:
 - i. Substitution
 - ii. Integration by parts
 - iii. Trigonometric substitution and integration
 - iv. Partial fraction decomposition
 - Understand two types of improper integrals.
 - Determine whether an improper integral is convergent or divergent by, e.g., direct calculation, comparison theorem.
 - Evaluate complicated integrals with all the types and methods mixed.
5. Identify parametric curves and parametric basic curves into parametric equations. Moreover, the calculus problems on parametric equations, as:

- Find certain points on the parametric curve;
 - Compute the tangents, tangent lines, and normal lines;
 - Compute the second derivatives and determine the concavity of the curve;
 - Compute the area under the parametric curve.
6. Understand the definition of differential equations, including solutions, initial condition, and initial problems. Also,
- Given the general solution to a differential equation, verify that the given form is the solution;
 - Given the general solution and an initial condition, find the special solution to the initial problem
 - Solve two basic first order differential equations:
 - i. The separable equation
 - ii. The linear equation
 - Understand the basic models of exponential growth, population models (natural growth and logistic)

What will I do in this course?

- During the weekend BEFORE each week, there will be about 2.5-3 hours pre-recordings uploaded to Sakai. Detailed instructions will be given on which one(s) need(s) to be watched BEFORE lectures. You should watch them in order to follow the lectures.
- You should attend scheduled lectures. In particular,
 - ✓ On Monday and Tuesday lectures, after reviewing basics given in the recordings, we focus on more delicate examples; concepts that require discussions, etc.
 - ✓ Wednesday's lecture is replaced by office hours, due to the limitations of lecture hours.
 - ✓ Thursdays' lecture is used as recitation and test slot. For Week 1, 3, 5, and 7, we will work in groups to solve the most problematic questions.
- **You MUST attend the three tests and the final exam.**
- There is no homework assignment to be turned in; nor quizzed during the lecture time.
- According to topics, exercises/practice problems will be assigned via WeBWorK
- Office hours, tutors from Academic Resource Center (see below on campus resources) will provide help on any questions.

What required texts, materials, and equipment will I need?

Free textbooks: (both uploaded to Sakai)

1. Calculus, Volume I, by OpenStax. <https://openstax.org/details/books/calculus-volume-1>
2. Calculus, Volume II, by OpenStax. <https://openstax.org/details/books/calculus-volume-2>

What optional texts or resources might be helpful?

1. Calculus: Early Transcendentals 8th Edition, James Stewart.
2. Single Variable Calculus: Early Transcendentals, James Stewart

How will my grade be determined?

Test I	20%	Test I: Aug. 31 st . Coverage: Week 1 + Week 2's recordings
Test II	20%	Test II: Sept. 14 th . Coverage: Week2 + Week 3
Test III	20%	Test III: Sept. 28 th . Coverage: Week4 + Week 5
Final Exam	35%	October 17 th , 15:30—18:30. Coverage: EVERYTHING.
Formula Sheets	5%	See the description below

Tests: There are three tests on Thursdays of Weeks 2, 4, and 6. Each is worth 20%.

Final Exam: October 17th, 2023, IB 1047. 15:30—18:30. 35%

Formula Sheet: For each test, you are allowed to bring **ONE A4 size formula sheet (double sided)** and for the final exam, you are allowed to bring **TWO pieces**; When turning in your answer sheets, formula sheet(s) should also be included, and each piece will be given 1%.

A+= 98% - 100% **A =** 93% - 97.99%; **A- =** 90% - 92.99%;

B+= 87% - 89.99%; **B =** 83% - 86.99%; **B- =** 80% - 82.99%;

C+= 77% - 79.99%; **C =** 73% - 76.99%; **C- =** 70% - 72.99%;

D+= 67% - 69.99%; **D =** 63% - 66.99%; **D- =** 60% - 62.99%;

F = 59.99% and below

As you can see, the final percentage will be rounded DOWN to the closest integer.

Your course grade will not be lower than your final exam percentage. For example, if you obtained an A in the final exam; but overall course calculation, from the table above, shows an A-, you will still receive an A, not an A-.

Your grades will NOT be curved.

What are the course policies?

In case of documented illness or family emergency or documented University sponsored trips, you may miss the test, but the supporting documentation must be submitted to the instructor in advance. **With the document, your missing midterm score can be counted as the same as your final.** Do remember: let me know **BEFORE** the exam. An unexcused absence from any exam will be counted as a zero.

Academic Integrity:

As a student, you should abide by the academic honesty standard of Duke Kunshan University. The DKU Community Standard states: "Duke Kunshan University is a community comprised of individuals from diverse cultures and backgrounds. We are dedicated to scholarship, leadership, and service and to the principles of honesty, fairness, respect, and accountability. Members of this community commit to reflecting upon and upholding these principles in all academic and non-academic endeavors, and to

protecting and promoting a culture of integrity and trust." For all graded work, students should pledge that they have neither given nor received any unacknowledged aid.

Please also include an indication of your typical penalties for an academic integrity violation (such as resubmitting for a reduced grade, 0 on the problem or the assignment, etc.). While the actual penalty might depend on the details of the specific situation, including some indication will help students understand that DKU takes academic integrity seriously. Please also be clear about your policies regarding the use of any online resources, including language translation tools, problem-solving tools, **artificial intelligence**, etc.

Academic Policy & Procedures:

You are responsible for knowing and adhering to academic policy and procedures as published in the University Bulletin and Student Handbook. Please note, an incident of behavioral infraction or academic dishonesty (cheating on a test, plagiarizing, **unauthorized use of online tools**, etc.) will result in immediate action from me, in consultation with university administration (e.g., Dean or Associate Dean of Undergraduate Studies, Student Conduct, Academic Advising). Please visit the Undergraduate Studies website for additional guidance related to academic policy and procedures. Academic integrity is everyone's responsibility.

Academic Disruptive Behavior and Community Standard:

Please avoid all forms of disruptive behavior, including but not limited to: verbal or physical threats, repeated obscenities, unreasonable interference with class discussion, making/receiving personal phone calls, text messages or pages during class, excessive tardiness, leaving and entering class frequently without notice of illness or other extenuating circumstances, and persisting in disruptive personal conversations with other class members. Please turn off phones, pagers, etc. during class unless instructed otherwise. Laptop computers may be used for class activities allowed by the instructor during synchronous sessions. If you choose not to adhere to these standards, I will take action in consultation with university administration (e.g., Dean of Undergraduate Studies, Student Conduct, Academic Advising).

Academic Accommodations:

Duke Kunshan University makes reasonable academic accommodations for qualified students with disabilities. All undergraduate accommodations must be approved through [the Student Accommodation Services](#). Students requesting accommodation for this course should forward their official accommodation letter to the instructor and ask to schedule a time to meet and discuss the implementation of their accommodation(s). It is the student's responsibility to meet, discuss, and provide an electronic copy of the Instructor Accommodation Letter to each instructor. Accommodation will not be granted retroactively. Accommodations for test, quiz, or exam taking must be arranged with the professor at least a week before the date of the quiz, test, or exam, including finals.

What campus resources can help me during this course?

Academic Resource Center

The Academic Resource Center provides tutoring services, and there will be tutors especially for our MATH105 course: <https://www.dukekunshan.edu.cn/academics-advising/tutoring-service/>

Academic Advising and Student Support

Please consult with me about appropriate course preparation and readiness strategies, as needed. Consult your academic advisors on course performance (i.e., poor grades) and academic decisions (e.g., course changes, incompletes, withdrawals) to ensure you stay on track with degree and graduation requirements. In addition to advisors, staff in the Academic Resource Center can provide recommendations on academic success strategies (e.g., tutoring, coaching, student learning preferences). Please visit the [Office of Undergraduate Advising website](#) for additional information related to academic advising and student support services.

Writing and Language Studio

For additional help with academic writing—and more generally with language learning—you are welcome to make an appointment with the Writing and Language Studio (WLS). You can register for an account, make an appointment, and learn more about WLS services, policies, and events on the [WLS website](#). You can also find writing and language learning resources on the [Writing & Language Studio Sakai site](#).

IT Support

If you are experiencing technical difficulties, please contact IT:

- China-based faculty/staff/students 400-816-7100, (+86) 0512- 3665-7100
- US-based faculty/staff/students (+1) 919-660-1810
- International-based faculty/staff/students can use either telephone option (recommend using tools like Skype calling)
- Live Chat: <https://oit.duke.edu/help>
- Email: service-desk@dukekunshan.edu.cn

What is the expected course schedule?

We will cover most of the following materials from the textbook (*Tentatively, may up to some perturbation*).

Week 1 (Aug. 21--24)	<ul style="list-style-type: none">● Syllabus● Limits (1.2.2, 1.2.3).● Continuity (1.2.4).
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	<ul style="list-style-type: none"> ● Asymptotes (1.4.6).
Week 2 (Aug. 28–31)	<ul style="list-style-type: none"> ● Derivatives and Differentiation Rules (1.3.1 - 1.3.4, including essential formulas from 1.3.5 and 1.3.9). ● Chain Rule (1.3.6). ● Derivatives of Inverse Functions (1.3.7). ● Implicit Differentiation (1.3.8). ● Related Rates (1.4.1). <p>Test I: Aug. 31st. Coverage: Week 1 + Week 2's recordings</p>
Week 3 (Sept. 4--7)	<ul style="list-style-type: none"> ● Linear Approximations (1.4.2). ● Maxima and Minima (1.4.3). ● Mean Value Theorem (1.4.4). ● Derivatives and the Shape of a Graph (1.4.5). ● Optimization (1.4.7)
Week 4 (Sept. 11--14)	<ul style="list-style-type: none"> ● L'Hospital's Rule (1.4.8). ● Antiderivatives (1.4.10). ● Integration includes the Fundamental Theorem of Calculus (1.5.3) and the Net Change Theorem (1.5.4). ● Integrals Involving Exponential and Logarithmic Function (1.5.6). ● Integrals Resulting in Inverse Trigonometric Functions (1.5.7). ● Substitution (1.5.5). <p>Test II: Sept. 14th. Coverage: Week2 + Week 3</p>
Week 5 (Sept. 18--21)	<ul style="list-style-type: none"> ● Integration By Parts (2.3.1). ● Trigonometric Integrals (2.3.2). ● Trigonometric Substitution (2.3.3). ● Partial Fractions (2.3.4).

	Sept. 21st: Week 7's topics survey deadline
Week 6 (Sept. 25--28)	<ul style="list-style-type: none"> ● Other Strategies (2.3.5) ● Improper Integrals (2.3.7). <p>Test III: Sept. 28th. Coverage: Week4 + Week 5</p>
Week 7 (Oct. 9--12)	<ul style="list-style-type: none"> ● Parametric Equations (2.7.1, 2.7.2) ● Differential Equations (2.4.1, 2.4.2, 2.4.3, 2.4.5) ● Review

Final Exam: October 17th, 2023, 15:30—18:30 @ IB 2071

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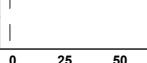
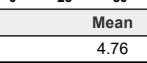
Course: 7W1-MATH-105-001: Calculus

Instructor: Lin Jiu *

Response Rate: 38/45 (84.44 %)

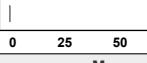
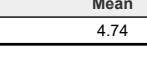
1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

The course learning objectives stated in the syllabus were clear to me.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	29	76.32%		4.76
Agree	(4)	9	23.68%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
38/45 (84.44%)			4.76	0.43	5.00

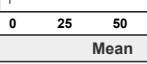
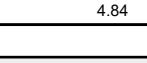
1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

The course expectations were clear to me.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	28	73.68%		4.74
Agree	(4)	10	26.32%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
38/45 (84.44%)			4.74	0.45	5.00

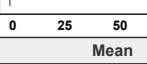
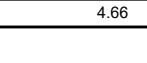
1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

This course had clear grading criteria.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	32	84.21%		4.84
Agree	(4)	6	15.79%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
38/45 (84.44%)			4.84	0.37	5.00

1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

This course was well organized.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	29	76.32%		4.66
Agree	(4)	5	13.16%		
Neutral	(3)	4	10.53%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
38/45 (84.44%)			4.66	0.67	5.00

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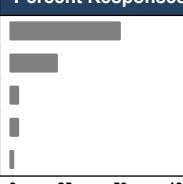
Course: 7W1-MATH-105-001: Calculus

Instructor: Lin Jiu *

Response Rate: 38/45 (84.44 %)

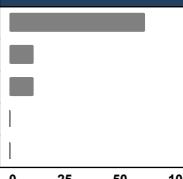
1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

The course workload was appropriate for the credits earned.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	23	60.53%		4.37
Agree	(4)	10	26.32%		
Neutral	(3)	2	5.26%		
Disagree	(2)	2	5.26%		
Strongly Disagree	(1)	1	2.63%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
38/45 (84.44%)			4.37	1.00	5.00

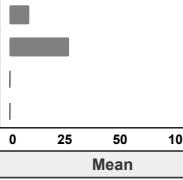
1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I understood the language used in the instruction and course materials.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	28	73.68%		4.61
Agree	(4)	5	13.16%		
Neutral	(3)	5	13.16%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
38/45 (84.44%)			4.61	0.72	5.00

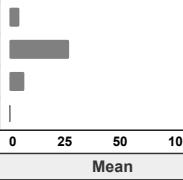
1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I had as many opportunities as the current situation allowed to interact with my classmates.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	21	56.76%		4.24
Agree	(4)	4	10.81%		
Neutral	(3)	12	32.43%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
37/45 (82.22%)			4.24	0.93	5.00

1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I interacted with students from diverse backgrounds during this course.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	20	54.05%		4.05
Agree	(4)	2	5.41%		
Neutral	(3)	12	32.43%		
Disagree	(2)	3	8.11%		
Strongly Disagree	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
37/45 (82.22%)			4.05	1.10	5.00

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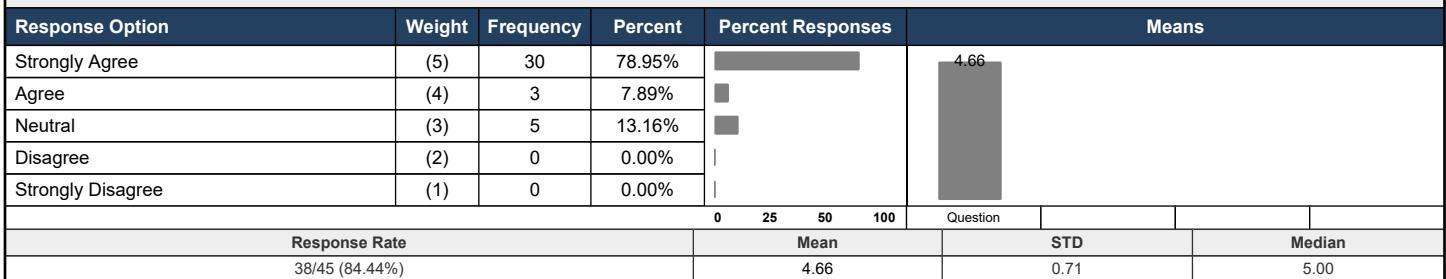
Course: 7W1-MATH-105-001: Calculus

Instructor: Lin Jiu *

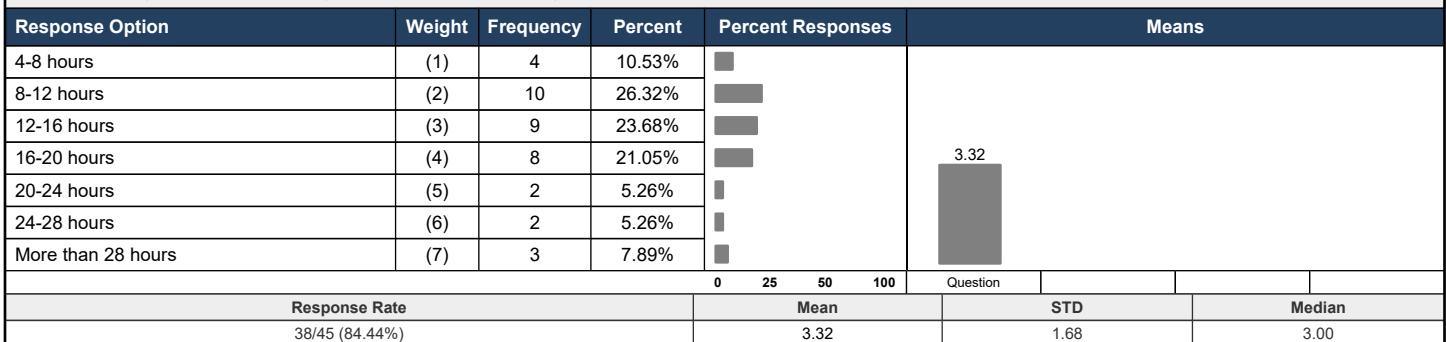
Response Rate: 38/45 (84.44 %)

1 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

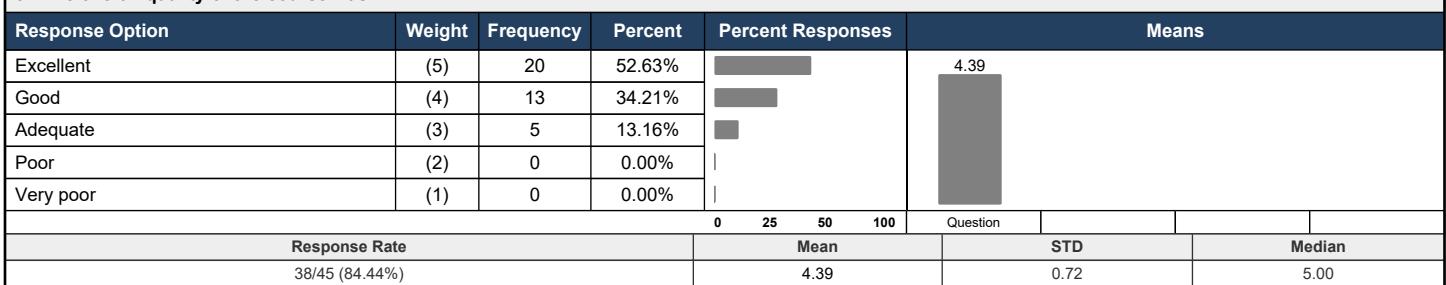
The course was intellectually stimulating.



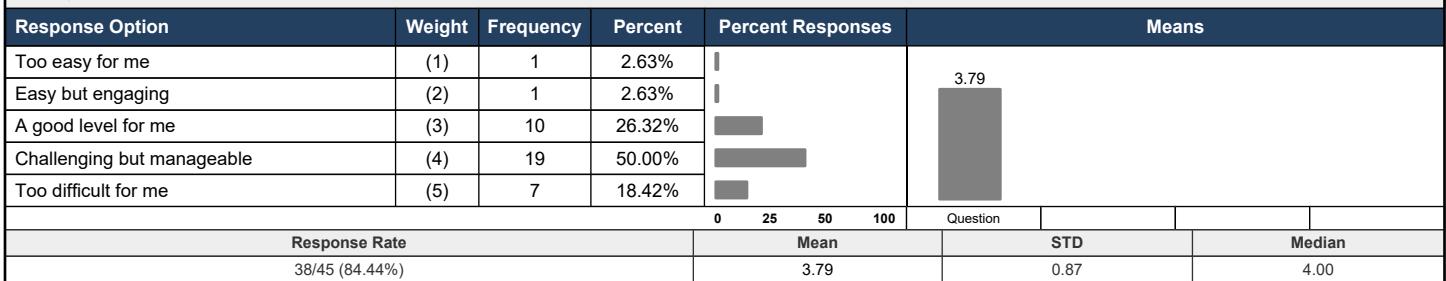
2 - How many hours per week, on average, did you spend in and out of class for this course (including attending synchronous/live meetings and office hours, as well as working on homework/assignments, course recordings, and course materials)?



3 - The overall quality of the course was



4 - In general, the course was



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Response Rate: 38/45 (84.44 %)

5 - The pace of the course was

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Too slow for me	(1)	0	0.00%	 	3.79
Slow but engaging	(2)	1	2.63%		
Just right for me	(3)	14	36.84%		
Fast but manageable	(4)	15	39.47%		
Too fast for me	(5)	8	21.05%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
38/45 (84.44%)			3.79	0.81	4.00

6 - Which assignment or activity would you most recommend the instructor to use again when teaching the course in the future and why?

Response Rate	15/45 (33.33%)
<ul style="list-style-type: none"> • Assigned homework • Can give some extra credit for homework. • Panopto An efficient way to preview new knowledge. • provide panopto for self-learning • I would most recommend the synchronous videos. It allows us to learn new concepts at our own pace. • The Panopto was great and please keep it. • The asynchronous mode which expects students to watch videos ahead of class and the 7th week of free choice. • Recording the explanation of slides. It helps me get more understanding of the materials. • recording. It allows us to learn at our own pace, and we can well review it. • Lectures were pretty good. • Selecting topics for Week 7 • I think it is good to allow us to try the homework without limitation on times. • Watching videos before the lectures because it can improve my knowledge of the new definitions and help me adapt into the lecture. • The teaching method of giving lectures online is extremely good. • Keep posting the preview lectures on sakai 	

7 - Which assignment or activity could be improved and how?

Response Rate	15/45 (33.33%)
<ul style="list-style-type: none"> • Homework should be given solutions for those who cannot handle it to figure out. • The water-pens used during the lectures could be replaced by some with darker ink. They don't see clearly during the lectures sometimes. • The tests are too difficult. • None. • nothing • Some of the webwork homework didn't correspond learning contents and sometimes the methods we would learn later appeared in earlier homework. These can be improved. • Maybe attach solutions to problems on WeBWorK • No. • Sometimes I think we do need peer tutor or TA to instruct us to do some exercises about the learning content. • The tests were very difficult, the exams we had in class were much harder than the placement exam we were given. • - • Maybe we need more explanations on the course we learn by ourselves. Sometimes I will be a little confused. • The weekly reviewing. I hope the professor can add a review class weekly to help us construct more solid foundation. • The meaning of professional words in mathematics is sometimes hard to find the right translations. • add back recitation courses 	

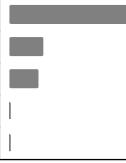
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Course: 7W1-MATH-105-001: Calculus

Instructor: Lin Jiu *

Response Rate: 38/45 (84.44 %)

8 - Please use a five-point scale (5="A great deal", 1="Nothing") to indicate how much you learned from this course in general.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
A great deal	(5)	25	65.79%		4.50
A lot	(4)	7	18.42%		
A moderate amount	(3)	6	15.79%		
A little	(2)	0	0.00%		
None at all	(1)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
38/45 (84.44%)			4.50	0.76	5.00

9 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

This course helped me gain factual knowledge.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	27	71.05%		4.68
Agree	(4)	10	26.32%		
Neutral	(3)	1	2.63%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
38/45 (84.44%)			4.68	0.53	5.00

9 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

This course helped me understand fundamental concepts and principles.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	29	76.32%		4.76
Agree	(4)	9	23.68%		
Neutral	(3)	0	0.00%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
38/45 (84.44%)			4.76	0.43	5.00

9 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned how to integrate knowledge.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	24	63.16%		4.53
Agree	(4)	10	26.32%		
Neutral	(3)	4	10.53%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	0	0.00%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
38/45 (84.44%)			4.53	0.69	5.00

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Instructor: Lin Jiu *

Response Rate: 38/45 (84.44 %)

9 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned about methods of inquiry during this course.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	24	63.16%		4.42
Agree	(4)	5	13.16%		
Neutral	(3)	5	13.16%		
Disagree	(2)	2	5.26%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	2	5.26%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
38/45 (84.44%)			4.42	0.94	5.00

9 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned how to analyze and evaluate ideas and arguments.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	21	56.76%		4.37
Agree	(4)	6	16.22%		
Neutral	(3)	8	21.62%		
Disagree	(2)	0	0.00%		
Strongly Disagree	(1)	0	0.00%		
Not applicable	(0)	2	5.41%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
37/45 (82.22%)			4.37	0.84	5.00

10 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned how to work in a team.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	14	37.84%		3.86
Agree	(4)	2	5.41%		
Neutral	(3)	9	24.32%		
Disagree	(2)	3	8.11%		
Strongly Disagree	(1)	1	2.70%		
Not applicable	(0)	8	21.62%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
37/45 (82.22%)			3.86	1.25	4.00

10 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

My oral communication skills improved during the course.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Strongly Agree	(5)	15	40.54%		4.00
Agree	(4)	2	5.41%		
Neutral	(3)	10	27.03%		
Disagree	(2)	1	2.70%		
Strongly Disagree	(1)	1	2.70%		
Not applicable	(0)	8	21.62%		
0 25 50 100				Question	
Response Rate			Mean	STD	Median
37/45 (82.22%)			4.00	1.16	5.00

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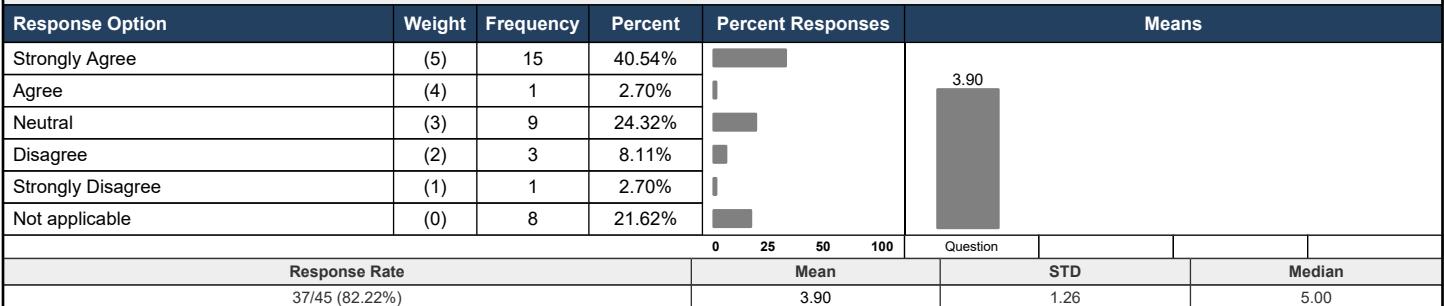
Course: 7W1-MATH-105-001: Calculus

Instructor: Lin Jiu *

Response Rate: 38/45 (84.44 %)

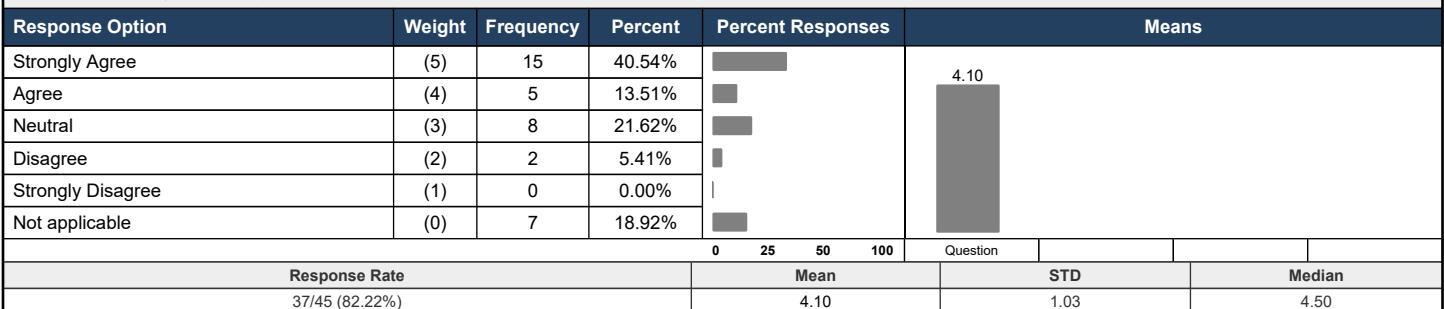
10 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

My writing skills improved during the course.



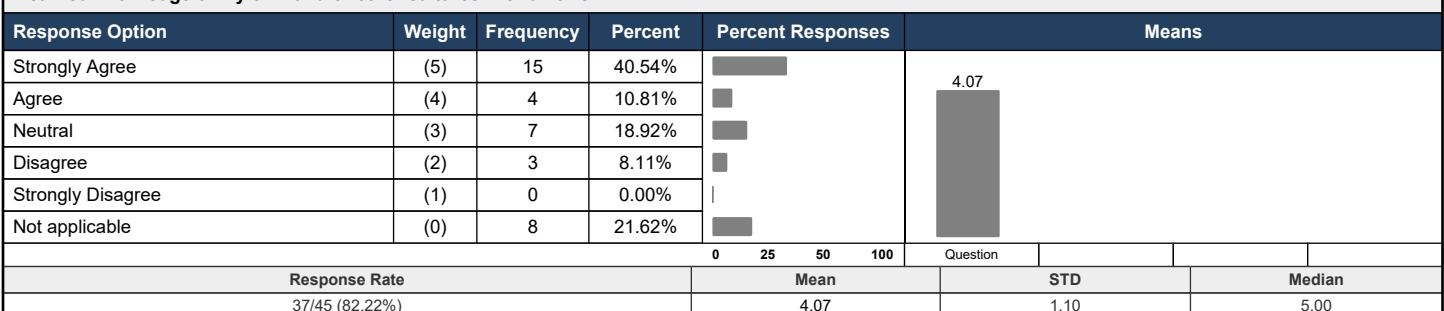
10 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned how to generate my own ideas that reflect how I think about the world.



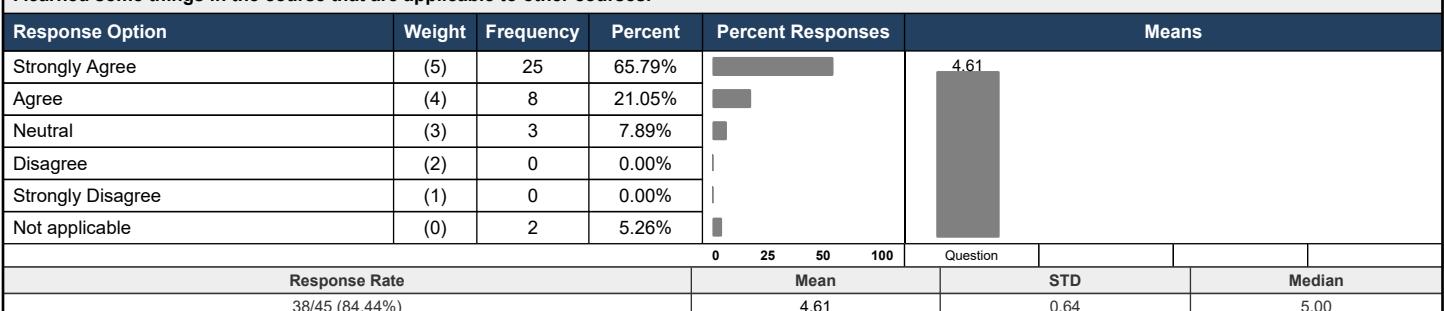
10 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned knowledge of my own and/or other cultures' worldviews.



11 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned some things in the course that are applicable to other courses.



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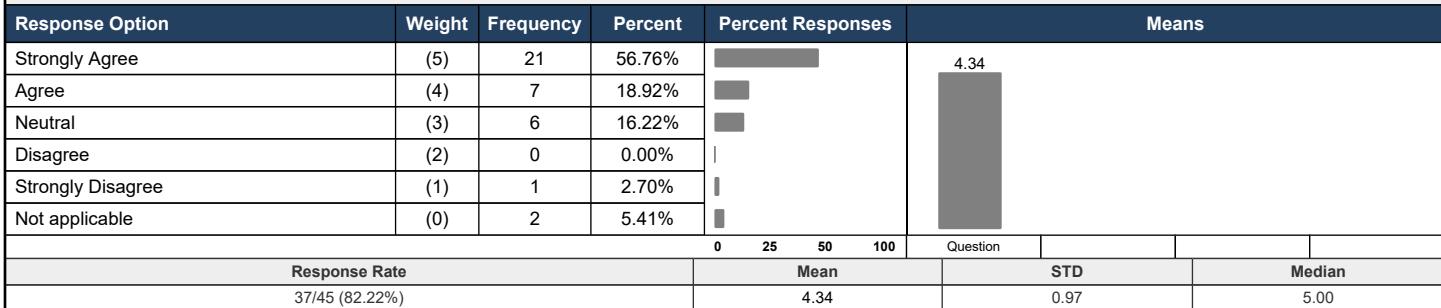
Course: 7W1-MATH-105-001: Calculus

Instructor: Lin Jiu *

Response Rate: 38/45 (84.44 %)

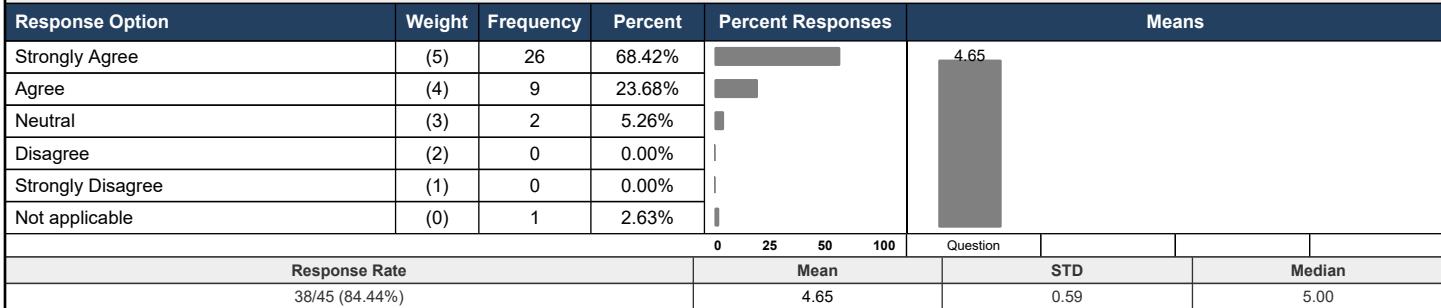
11 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned how to apply what I learned to real-life situations or problems.



11 - Please rate the following statements on a scale of 5 (strongly agree) to 1 (strongly disagree).

I learned some things in the course that are applicable to my life and/or my future career.



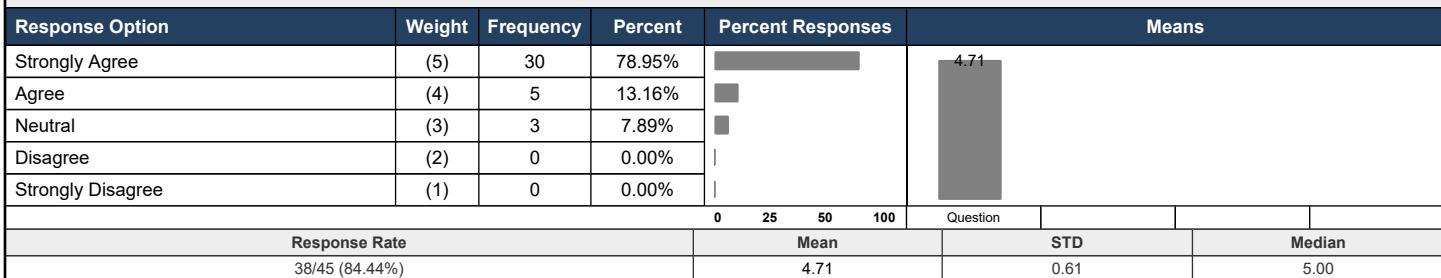
12 - Please provide additional comments about the course if not covered by the previous questions.

Response Rate 7/45 (15.56%)

- Nothing.
- Professor Jiu explains problems clearly.
- I learned study methods essential for future learning
- No.
- The course is inspiring and enlightening for students and greatly stimulates our interest in learning math problems.
- I think listing this course as the requirement for anyone with previous calculus experience is misleading. The course was very much geared toward the Chinese education system, which is much more rigorous in terms of the complexity of calculus covered than most international student's education. I took two years of IB level calculus at my high school and still felt like I was miles behind where I needed to be for this course. I know other international students in the class felt similarly. I think either the class needs to be reworked to work better for international students, or there needs to be a different course for students with more limited calculus experience. This needs to be properly communicated to students.
- Make the math questions on sakai graded so students are more encouraged to keep grades up and study more.

13 - This question is about Prof. Lin JiuPlease rate the following statements about Prof. Lin Jiu on a scale of 5 (strongly agree) to 1 (strongly disagree). -

Ideas and concepts were explained by the instructor clearly.



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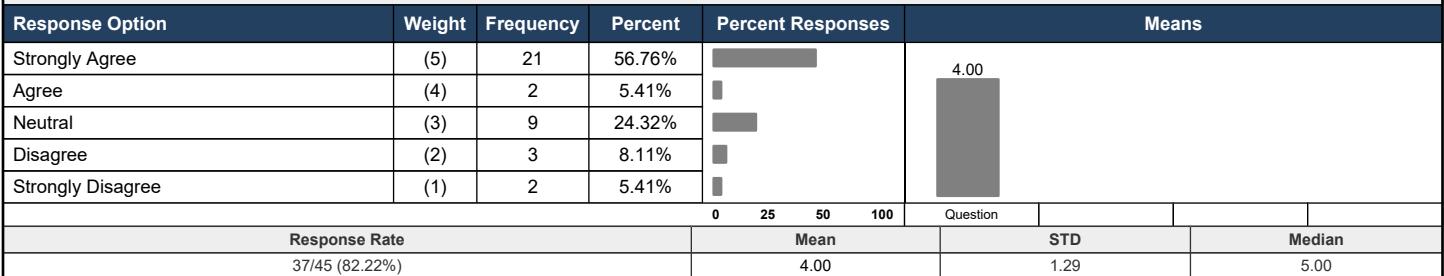
Course: 7W1-MATH-105-001: Calculus

Instructor: Lin Jiu *

Response Rate: 38/45 (84.44 %)

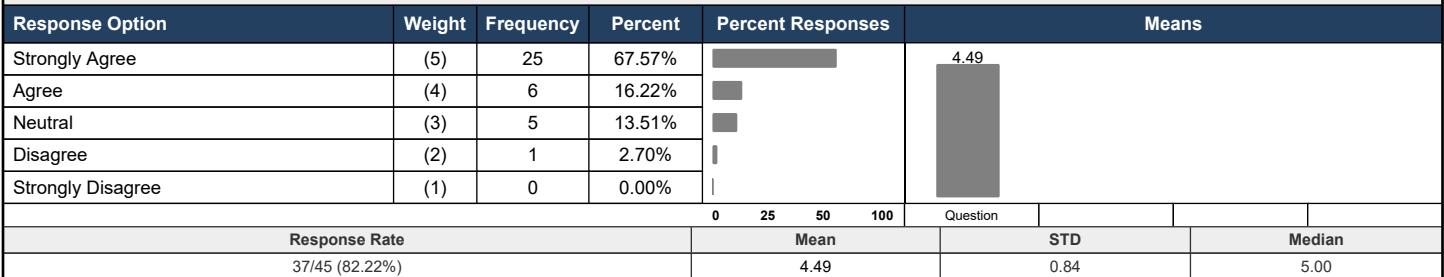
13 - This question is about Prof. Lin JiuPlease rate the following statements about Prof. Lin Jiu on a scale of 5 (strongly agree) to 1 (strongly disagree). -

I was encouraged to participate in course discussions and activities.



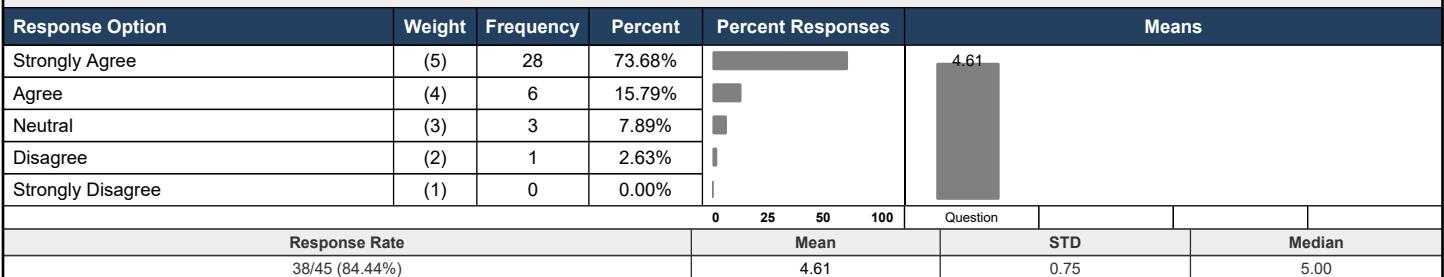
13 - This question is about Prof. Lin JiuPlease rate the following statements about Prof. Lin Jiu on a scale of 5 (strongly agree) to 1 (strongly disagree). -

The class atmosphere was comfortable and my contribution was respected.



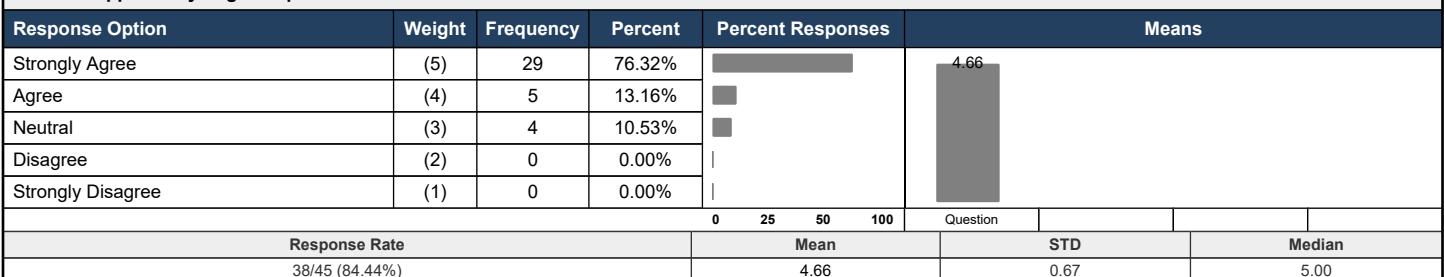
13 - This question is about Prof. Lin JiuPlease rate the following statements about Prof. Lin Jiu on a scale of 5 (strongly agree) to 1 (strongly disagree). -

I received helpful and timely feedback from the instructor on my coursework as much as the current situation allowed.



13 - This question is about Prof. Lin JiuPlease rate the following statements about Prof. Lin Jiu on a scale of 5 (strongly agree) to 1 (strongly disagree). -

I had the opportunity to get help from the instructor outside of the normal class time online and/or via email as much as the current situation allowed.



Duke University - Duke Kunshan University
FA23S1 DKU UG End of Session Course Evaluations

Course: 7W1-MATH-105-001: Calculus

Instructor: Lin Jiu *

Response Rate: 38/45 (84.44 %)

14 - This question is about Prof. Lin JiuAny other comments or suggestions for Prof. Lin Jiu? -

Response Rate	14/45 (31.11%)
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- No
- Nice but strict.
- Brilliant.
- maybe professor can use a pen with ample ink, since sometimes it is hard to figure out what he wrote on the blackboard due to the pen with no ink.
- Professor Jiu explains problems clearly.
- I really enjoyed this course and your teaching style! To me, your homework and grading policies are all very reasonable.
- For those who are comfortable with his style, it's great. For those who don't, it's tragic.
- Really inspiring
- No.
- Very nice teacher
- Prof. Lin Jiu is very open-minded. His class is both serious and attractive.
- Worked solutions for the webwork would really be helpful sooner than two weeks after they are posted. Since exams are every two weeks we need to have those for review sooner than we were getting them.
- An incredibly responsive professor eager to help students better grasp the course materials. At the same time, it could have been incredibly wonderful to listen to the lectures in person and follow them in real time, but the recordings were convenient to access at all times
- Prof. Lin Jiu is a responsible and knowledgeable teacher who not only offer us many useful examples to expand our knowledge, but also give us many advanced aid after class.

15 - About Online LearningPlease provide comments and/or suggestions on any aspects of your online learning experience this term.

Response Rate	11/45 (24.44%)
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- No
- Homework on WebWork is helpful.
- good
- I benefited a lot from the online learning part because I could learn at my own pace. I hope that this form can be kept in the future.
- I had a pre-class video to watch about the lecture content ahead and was able to practice with problems online. Overall it's great
- I really like the part and I hope it could be passes on
- Maybe the WebWork system can provide mathematical symbols.
- Good
- My online learning experience is very useful since it helped me prepare for the test, and meanwhile it is also very convenient.
- Learning was all in person
- We need to watch online videos before classes to preview the class.