COURSE ASSESSMENT SUMMARY - SINGLE COURSE

Course:	MATH 046 Intro to Applied Math	Total Enrollment:	14
Section:	01	Eligible to Complete Assessment:	14
Term:	202103 - Spring Term 2021	Completed Assessment:	13
Instructor:	Jan Glaubitz	Did Not Complete Assessment:	1

Individual Responses Student Background

Year at Dartmouth (12 Responses)	<u>1</u> 0%	<u>2</u> 41.7%	<u>3</u> 58.3%	<u>4</u> 0%	<u>5</u> 0%	<u>B.E.</u> 0%	Masters0%	<u>Ph.D.</u> 0%				
Reason(s) for taking course (12 Responses)	Distributive	<u>Major</u> 8	Minor4	Professor1	Interest2	Masters/PhD	Masters/PhD	Other0				
	Requirement1					Elective0	Requirement0					
Attendance in this course (11 Responses)	<u><20%</u> 0%	<u>20-40%</u> 0%	<u>40-60%</u> 9.1%	<u>60-80%</u> 0%	<u>80-100%</u> 90.9%							
Expected Grade (12 Responses)	<u>A</u> 83.3%	<u>B</u> 16.7%	<u>C</u> 0%	<u>D</u> 0%	<u>E</u> 0%	<u>NRO</u> 0%	<u>CT</u> 0%	<u>NC</u> 0%	<u>LP</u> 0%	<u>P</u> 0%	<u>HP</u> 0%	
Hrs/wk spent on coursework outside class (11 Responses)	<u><1</u> 0%	<u>1-5</u> 45.5%	<u>5-10</u> 45.5%	<u>10-15</u> 9.1%	<u>>15</u> 0%							_

Individual Responses Course Design and Effectiveness

I think the overall quality of the course was (12 Responses)	Median2 (Very Good)	Mean (Very Good)	Excellent41.7%	<u>Very Good</u> 41.7%	<u>Good</u> 8.3%	<u>Fair</u> 8.3%	<u>Poor</u> 0%	<u>N/A</u> 0%		
I learned a lot in the course. (12 Responses)	Median2 (Agree)	Mean (Agree)	Strongly Agree 41.7%	<u>Agree</u> 41.7%	<u>Neutral</u> 16.7%	Disagree0%	Strongly Disagree0%	<u>N/A</u> 0%		
I put a great deal of effort into the course. (11 Responses)	2 (Agree)	1.8 (Agree)	36.4%	45.5%	18.2%	0%	0%	0%		
I was intellectually engaged in the course. (11 Responses)	1 (Strongly Agree)	1.4 (Strongly Agree)	63.6%	36.4%	0%	0%	0%	0%		
The objectives of the course were clear to me. (11 Responses)	1 (Strongly Agree)	1.7 (Agree)	63.6%	18.2%	9.1%	0%	9.1%	0%		
I found the course to be well organized (11 Responses)	1 (Strongly Agree)	1.1 (Strongly Agree)	90.9%	9.1%	0%	0%	0%	0%		
The assignments reinforced my understanding of the course material (10 Responses)	1 (Strongly Agree)	1.3 (Strongly Agree)	80%	10%	10%	0%	0%	0%		
Comment on the aspects of the course that you think were most effective: (7 Responses)	View Responses									
Comment on 1-3 aspects of the course that could be improved or enhanced: (7 Responses)	View Responses									
How did you contribute to your own learning experience? (7 Responses)	View Responses									
What remote learning experiences worked particularly well for you in this course? In your response, please consider the various aspects of the course including lectures, labs, discussions, drills, and creative works. (7 Responses)	View Responses									
What remote learning experiences did not work well for you in this course? In your response, please consider the various aspects of the course including lectures, labs, discussions, drills, and creative works. (6 Responses)	View Responses									

Individual Responses Faculty (Jan Glaubitz)

I think the overall effectiveness of the teaching was (11 Responses)	Median (Excellent)	Mean1.5 (Very Good)	Excellent54.5%	<u>Very Good</u> 45.5%	<u>Good</u> 0%	<u>Fair</u> 0%	<u>Poor</u> 0%	<u>N/A</u> 0%		
The professor set high standards (11 Responses)	Median (Strongly Agree)	Mean (Agree)	Strongly Agree 63.6%	<u>Agree</u> 27.3%	Neutral0%	Disagree9.1%	Strongly Disagree0%	<u>N/A</u> 0%		
The professor explained central concepts clearly (11 Responses)	1 (Strongly Agree)	1.2 (Strongly Agree)	81.8%	18.2%	0%	0%	0%	0%		
The professor challenged me to think critically about the course material (11 Responses)	1 (Strongly Agree)	1.4 (Strongly Agree)	63.6%	36.4%	0%	0%	0%	0%		
The professor was available for consultation outside of class (10 Responses)	1 (Strongly Agree)	1.2 (Strongly Agree)	80%	20%	0%	0%	0%	0%		
Comment on 1-3 things that the professor did well and should continue to do in the future: (7 Responses)	View Responses									
Comment on 1-3 things that the professor should focus on to improve their classroom effectiveness: (6 Responses)	View Responses									
Add any specific recommendations on how the professor is assessing the course work and giving feedback to students that you believe would be useful: (7 Responses)	View Responses									

Individual Responses Student Initiated Questions

Comment on the methods of evaluation chosen by the instructor, e. g. tests, papers and examinations and the workload expected of students: (7 Responses)	View_Responses Image: Control of the second secon	
Comment on the structure of the class, for example the mix between lecture and discussion: (7 Responses)	View Responses Image: Constraint of the second sec	
How did this course influence your academic experience at Dartmouth? (7 Responses)	View_ Responses Image: Constraint of the second s	

COURSE ASSESSMENT REPORTS - My Specific Faculty Commer
--

Course: MATH 046 Intro to Applied

Term: 202103 - Spring Term 2021

Instructor: Jan Glaubitz

Question: Comment on 1-3 things that the professor did well and should continue to do in the future:

1 He explains everything clearly in the lecture

2 Prof. Glaubitz is a great lecturer and very easy person to talk to which I really appreciate.

- **3** Professor Glaubitz excelled at pacing the class according to what he wanted to cover: I wouldn't say there was one part of the class which was either too fast or too slow which I feel is becoming even more an anomaly in the remote environment. I could also appreciate why office hours were appointment-only, and they were also scheduled for times that worked well given the Dartmouth schedule.
- 4 The lectures were very straightforward and organized.
- **5** The professor explained the central concepts concisely and well to give us time to do practice problems for the homework set.
- **6** The professor was great at explaining material and helping students who were struggling with certain concepts.
- 7 Took time to have us walk through solutions verbally

Course: MATH 046 Intro to Applied Math

Term: 202103 - Spring Term 2021

Jan Glaubitz Question: Comment on 1-3 things that the professor should focus on to improve their classroom effectiveness:

1 I feel that some of the breakout rooms during lectures were either too short or too long (more often on the side of being too short to completely tackle the problem), and a couple more minutes in those cases would've been more beneficial for working through the problem before returning to the main session.

2 NA

Instructor:

- 3 Show more variety of problems and examples in script and lecture
- 4 The professor could work to connect the material to real-world applications so we know its use more.
- **5** The script notes contained a few errors and some calculation mistakes made during class distracted from the material covered in the lecture.
- 6 There are some typos in the script. Maybe revise that a little bit (?)

Course:	MATH 046 Intro to Applied Math					
Term:	202103 - Spring Term 2021					
Instructor	.: Jan Glaubitz	Question: Add any specific recommendations on how the professor is assessing the course work and giving feedback to students that you believe would be useful:				
1 Could	Ild use more assessments					
2 Exam	Exam evaluation and assignment evaluations were fair and reasonable.					
3 I feel	I feel like grading might be done too generously across the board, which as a student I appreciate but had I been the					

- grader I would likely have taken parts of points off some assignments my group submitted in hindsight.
- 4 If possible, office hours could be moved to early afternoon or late morning times.

5 N/A

6 No answer. The professor was very quick with grading assignments and offered excellent feedback.

COURSE ASSESSMENT REPORTS - Non-Faculty Specific Comments

Course:MATH 046 Intro to Applied MathTerm:202103 - Spring Term 2021Instructor:Jan Glaubitz

Course Design and Effectiveness

on the aspects of the Question course **Question:** Section that you think were most effective: I really enjoyed the structure of the class with the mix of lectures and examples to work on as a class and in breakout 1 rooms. I also really appreciated my group members when working on psets. 2 I thought that the lectures were extremely helpful I thought the balance of lecture to non-lecture exercise was both refreshing from a lot of what I've experience in a lot of 3 other remote courses and still very effective. 4 Professor was good in helping understand the homeworks The group homework's and the presentations of the homework were very effective. 5 The homework groups and flipped classroom helped me learn together with other students interested in math. 6 7 The script and lectures MATH 046 Intro to Applied Math Course: 202103 - Spring Term 2021 Term: Instructor: Jan Glaubitz Comment **Course Design and Effectiveness** on 1-3 aspects of the course Question Question: that could Section be improved or enhanced: I felt like a lot of the material required prior knowledge so some background materials and references that I could study 1 would have been extremely helpful. 2 I would've liked to see more material covered, although I suppose an intro-level class is not necessarily the best place to have too much material and I think given that constraint the course may be acceptable as is. 3 More assessments like guizzes to get more practice under our belts 4 N/A NA 5 Sometimes I didn't fully understand parts of the script which could use a bit more explanation in class. 6 The section on functional anlaysis could have been expanded since the material was much tougher than other sections. 7 MATH 046 Intro to Applied Math Course: 202103 - Spring Term 2021 Term[.] Instructor: Jan Glaubitz **Course Design and Effectiveness** How did you Question contribute **Question:** to your own Section learning

1 I came prepared to every class and assisted my group with all homework assignments.

experience?

Comment

- 2 I contributed to my learning experiences by attending lectures, reading the script, doing homework, and attending office hours if I was having trouble.
- 3 I did a lot of studying to understand everything needed before reading the script notes before class.
- 4 I tried to fully grasp every topic we went through on my own before class then reviewed to reaffirm that understanding.
- 5 Rewatching lectures, doing assignments in full
- 6 The course places a heavy emphasis on group work, and it was great to be able to work with my group whenever I felt like it. I was often a proactive piece in getting the group together to discuss work/review.
- 7 doing team homework

Course: MATH 046 Intro to Applied Math Term: 202103 - Spring Term 2021 Instructor: Jan Glaubitz Course Design and Effectiveness

remote learning experiences worked particularly well for you in this course? In vour response, **Question:** please consider the various aspects of the course including lectures, labs, discussions, drills, and creative works.

What

Question Section

1	Having script before class ar	d then having class to	reinforce what I rea	d was very helpful.
---	-------------------------------	------------------------	----------------------	---------------------

2 I enjoyed the Tuesday/Thursday pairing of lecture and discussion.

3 Lecture recordings

4 N/A

- **5** Sending out the script beforehand and providing the lecture notes (on iPad) soon after the lecture were helpful in learning.
- **6** The lectures themselves were sufficient but not overwhelming, and having the extra time to enforce my understanding of material from the previous week through presenting the homework was undoubtedly effective.
- 7 The reverse leaning was well-implemented with this material compared to other courses that tried to implement it.

Course:MATH 046 Intro to Applied MathTerm:202103 - Spring Term 2021Instructor:Jan GlaubitzQuestionCourse Design and EffectivenessSection

consider the various aspects of the course including lectures, labs, discussions, drills, and creative works.

		creative works.
1	Again, some of the material was initially hard to understand due to lack of prior knowledge.	
2	I did not meet anyone from outside of my homework group, which I was hoping to do.	
3	N/A	
4	NA	
5	The lecture frequency felt too low for me. Having one lecture a week for eight of the ten weeks doesn't add up material, and it really enforced that the class wasn't trying to cover too much. Additionally, office hours were av request during specific times, which was unique but could maybe have been better implemented.	to a lot of vailable on
6	team live meeting due to time conflict	
Co Ter Ins Qu Se	MATH 046 Intro to Applied Math rm: 202103 - Spring Term 2021 structor: Jan Glaubitz Course Specific Questions Mestion ction	Comment on the aspects of the Flipped Classroom style of the course that you think were most effective
1	Helped us be more able to tackle examples in lecture and thereby help our understanding for the homework	
2	I could follow the lecture more easily than the case where I know nothing about the materials	
3	I enjoyed that we went over the main concepts during the actual lecture from the script because in other cours professor would only do problems during the lecture which left many questions if we were struggling with mate	es the erial.
4	I thought the flipped classroom was especially effective for this course because I had some kind of background limited at times, with a lot of the course material, and consequently those weekends where I had the most bac got the most benefit out of the flipped classroom approach because I already had some baseline understandin was learning. As such, I think the flipped classroom works best in a class like this, and there would have been would have changed about the teaching style itself, if any.	d, although kground I g of what I little I
5	Lectures were great summaries of the material.	
6	The flipped classroom style helped us spend more time working on practice problems and less time repeating material that we could learn on our own.	over
7	The lecture reinforcing the script and the breakout rooms were helpful.	
Co Tei Ins	urse: MATH 046 Intro to Applied Math rm: 202103 - Spring Term 2021 structor: Jan Glaubitz	

Instructor: Jan Glaubitz Question Course Specific Questions Section

1	I personally would've enjoyed having the updated script a bit earlier than it was made available this term (for Saturday or Sunday instead of Monday morning) to allow for more time to read it, but other than that I very r the flipped classroom style.	instance, on nuch enjoyed
2	I think there could be more time in lecture spent on the Functional Analysis material.	
3	I thought that sometimes the script went in way more detail than the lectures so covering some of the detail lecture would've been nice as well.	s in the
4	It was hard for me to understand the script reading it alone, but the lectures clarified the most important cor	cepts.
5	More example problems in the script and lectures	
6	N/A	
7	There were some parts, like functional analysis, that were more difficult to learn through the flipped classroo	m approach.
Co Tei Ins Qu Se	wurse: MATH 046 Intro to Applied Math rm: 202103 - Spring Term 2021 structor: Jan Glaubitz Course Specific Questions uestion ction	Comment on the aspects of the team- based n: homework assignments that you think were most effective
1	Every week there were a few parts of the homework that stumped me and having a group to help me overce barriers was extremely helpful. I also had a very positive experience working with my group.	ome those
2	Gave us the option to be flexible with our workload and preparation while also collaborating	
3	Having access to three classmates was incredibly helpful throughout the term. It was great to be able to turn people I knew when I needed help, and I did my part to be as good a teammate as I could.	n toward
4	Learning from my classmates	
5	The group homework assignments were very effective.	
6	The homework group helped me rely on others especially when I didn't know how to solve a specific proble learn from them rather than not know how to do it at all.	m. I could
7	Working with other people and hearing their approaches to solving problems was very insightful.	
Co Tei Ins Qu Se	MATH 046 Intro to Applied Math rm: 202103 - Spring Term 2021 structor: Jan Glaubitz Course Specific Questions Mestion ction	Comment on 1-3 aspects of the team- based homework assignments that could be improved or enhanced

1 I believe that setting the threshold for full credit on the homeworks at 50% of the total points was too generous, and

Non-Faculty Comments

made several of the later homeworks feel like freebies where we didn't even need to submit the assignment to still have our homework grade intact. It was good to see all the groups continue to submit all the works even as full homework credit was guaranteed for everyone, but had that 50% threshold been set higher I would've definitely approached later homeworks with a different mindset to really maximize my own benefit from them. Additionally, dividing the problems evenly among the people in the group would probably have been a better approach than dividing the points evenly among the problems (perhaps the homeworks in a future installment are out of 16 points if there are 4-person groups again rather than this year's 18) to make work division on the students' end a bit easier.

2 It was overall good, not much to improve.

3 N/A

- 4 Since most teams are in groups of 4 it may be more helpful to have the problems split up in 4 ways.
- 5 Sometimes it could cause low efficiency

6 The homework could have been split up into 4 questions to make it easier to split up the presentation of the problems.

COURSE ASSESSMENT REPORTS - Student Initiated Comments

0	MATH 046 Intro to
Course:	Applied Math
Такина	202103 - Spring Term
ierm:	2021

Instructor: Jan Glaubitz

Question: Comment on the methods of evaluation chosen by the instructor, e.g. tests, papers and examinations and the workload expected of students:

1 Across the board, homework and exams are short but cover a solid breadth of material. Homework itself was much less significant in this course as students needed to get above 50% of the points on all homeworks to get full credit on the final homework score (something which was not an issue for anyone in the class) and was done in teams, but the homeworks themselves are great preparation for the exams which do not have the same lenient grading policy to them. Homework presentations to the instructor were something I hadn't seen before, but are ungraded and do not require much additional effort. The workload is moderate and consequently very manageable, and makes you feel adequately confident in the material rather than consistently overwhelmed by assignments to do.

- 2 Homeworks were fair based on course material as were the exams.
- 3 Less weightage of just two assessments without enough problem practice
- 4 Most were homework and examinations.
- **5** The course consisted of weekly homework (40%), a midterm (20%), and a final (40%). The workload was very manageable.
- 6 Workload is good. Weekly homeworks with one midterm and one final.
- 7 hw, 2 exams

Course: MATH 046 Intro to Applied

Term: 202103 - Spring Term 2021

Instructor: Jan Glaubitz

Question: Comment on the structure of the class, for example the mix between lecture and discussion:

- 1 At times, I would have liked more lecture to be able to familiarize myself with more material, but also the homework presentations served a unique role and were effective at doing that.
- 2 Class is all lectures.
- 3 Good balance
- 4 I really appreciated the rapid turnaround of feedback on assignments. As a result, I always had a great idea of what I was or was not understanding in the course.
- 5 It was mostly lecture and discussion.
- **6** The class had a flipped classroom approach with most of the learning happening during the script reading. The class had a brief lecture on the central concepts before we split up for discussion to solve practice problems.

7 lecture and breakout room discussions.

Course:MATH 046 Intro to Applied MathTerm:202103 - Spring Term 2021

Instructor: Jan Glaubitz Question: How did this course influence your academic experience at Dartmouth?

- 1 I've finished the requirements for my math major as of the end of this term, so I can't say that this course did anything to influence my academic path at Dartmouth, but it has opened up some potential areas of interest for education after Dartmouth.
- 2 It adds to my major courses and the class is interesting.
- 3 It influenced me to take more applied courses in the math department and to consider taking Math76.
- 4 It reaffirmed my wish to pursue applied mathematics.

5 It was a good final math class for my minor and I feel I can apply a lot of my knowledge to physical applications.

- 6 It was overall a positive experience.
- 7 N/A