### COURSE ASSESSMENT SUMMARY - SINGLE COURSE

Course:	MATH 020 Probability	Total Enrollment:	34
Section:	01	Eligible to Complete Assessment:	34
Term:	202209 - Fall Term 2022	Completed Assessment:	30
Instructor:	Jan Glaubitz	Did Not Complete Assessment:	4

### Individual Responses Student Background

Year at Dartmouth (29 Responses)	<u>1</u> 3.4%	<u><b>2</b></u> 48.3%	<u>3</u> 24.1%	<u><b>4</b></u> 24.1%	<u>5</u> 0%	<u><b>B.E.</b></u> 0%	Masters0%	<u><b>Ph.D.</b></u> 0%				-
Reason(s) for taking course (30 Responses)	Distributive Requirement	<u>Major</u> 22	<u>Minor</u> 7	Professor4	Interest10	Masters/Ph D Elective	Masters/PhD Requirement 0	Other0				
Attendance in this course (29 Responses)	<u>&lt; <b>20%</b></u> 0%	<b><u>20-40%</u></b> 0%	<u><b>40-60%</b></u> 0%	<u><b>60-80%</b></u> 24.1%	<u>80-100%</u> 75.9%							
Expected Grade (30 Responses)	<u>A</u> 93.3%	<u><b>B</b></u> 6.7%	<u><b>C</b></u> 0%	<u>D</u> 0%	<u><b>E</b></u> 0%	<u>NRO</u> 0%	<u>CT</u> 0%	<u>NC</u> 0%	<u>LP</u> 0%	<u><b>P</b></u> 0%	<u>HP</u> 0%	-
Hrs/wk spent on coursework outside class (29 Responses)	<u>&lt; 1</u> 3.4%	<u>1-5</u> 44.8%	<u><b>5-10</b></u> 51.7%	<u>10-15</u> 0%	<u>&gt; 15</u> 0%							

### Individual Responses Course Design and Effectiveness

I think the overall quality of the course was (29 Responses)	Median1 (Excellent)	Mean (Very Good)	Excellent 65.5%	<u>Very Good</u> 20.7%	<u><b>Good</b></u> 13.8%	<u>Fair</u> 0%	<u><b>Poor</b></u> 0%	<u>N/A</u> 0%		
Learned a lot in the course. (29 Responses)	Median1 (Strongly Agree)	Mean (Strongly Agree)	Strongly Agree62.1%	<u>Agree</u> 34.5%	Neutral 3.4%	Disagree 0%	Strongly Disagree 0%	<u>N/A</u> 0%		
I put a great deal of effort into the course. (29 Responses)	1 (Strongly Agree)	1.5 (Agree)	58.6%	31%	10.3%	0%	0%	0%		
I was intellectually engaged in the course. (29 Responses)	1 (Strongly Agree)	1.5 (Agree)	58.6%	31%	10.3%	0%	0%	0%		
The objectives of the course were clear to me. (29 Responses)	1 (Strongly Agree)	1.4 (Strongly Agree)	65.5%	24.1%	10.3%	0%	0%	0%		
I found the course to be well organized (29 Responses)	1 (Strongly Agree)	1.3 (Strongly Agree)	75.9%	20.7%	3.4%	0%	0%	0%		
The assignments reinforced my understanding of the course material (29 Responses)	1 (Strongly Agree)	1.3 (Strongly Agree)	75.9%	20.7%	3.4%	0%	0%	0%		
Comment on the aspects of the course that you think were most effective: (16 Responses)	View Responses									
Comment on 1-3 aspects of the course that could be improved or enhanced: (14 Responses)	View Responses									
How did you contribute to your own learning experience? (14 Responses)	View Responses									

### Individual Responses Faculty (Jan Glaubitz)

I think the overall effectiveness of the teaching was (27 Responses)	Median (Excellent)	Mean1.3 (Excellent)	Excellent 70.4%	<u>Very Good</u> 29.6%	<u>Good</u> 0%	<u>Fair</u> 0%	<u><b>Poor</b></u> 0%	<u>N/A</u> 0%		
The professor set high standards (27 Responses)	Median1 (Strongly Agree)	Mean1.5 (Agree)	Strongly Agree63%	Agree 25.9%	Neutral 7.4%	Disagree 3.7%	Strongly Disagree 0%	<u>N/A</u> 0%		_
The professor explained central concepts clearly (28 Responses)	1 (Strongly Agree)	1.3 (Strongly Agree)	75%	21.4%	3.6%	0%	0%	0%		
The professor challenged me to think critically about the course material (28 Responses)	1 (Strongly Agree)	1.4 (Strongly Agree)	71.4%	21.4%	3.6%	3.6%	0%	0%		
The professor was available for consultation outside of class (28 Responses)	1 (Strongly Agree)	1.5 (Agree)	64.3%	25%	10.7%	0%	0%	0%		
Comment on 1-3 things that the professor did well and should continue to do in the future: (15 Responses)	View Responses									
Comment on 1-3 things that the professor should focus on to improve their classroom effectiveness: (13 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: (10 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: (14 Responses)	<u>View</u> <u>Response</u> <u>S</u>						
Comment on the structure of the class, for example the mix between lecture and discussion: (13 Responses)	<u>View</u> <u>Response</u> <u>S</u>						
How did this course influence your academic experience at Dartmouth? (14 Responses)	<u>View</u> <u>Response</u> <u>s</u>						

### COURSE ASSESSMENT REPORTS - Non-Faculty Specific Comments

Course:MATH 020 ProbabilityTerm:202209 - Fall Term 2022Instructor:Jan GlaubitzQuestion SectionCourse Design and EffectivenessQuestion:Question:

Comment on the aspects of the course that you think were most effective:

1.00	Great Lecturing
2.00	Great, helpful lectures. TA was also made themselves very available and open to going over complex topics, especially prior to examinations.
3.00	Homework sets
4.00	I don't think this course covered probability in breadth, but I appreciated getting into the depth of the most fundamental topics.
5.00	I thought the lectures were very well done
6.00	Lectures were engaging and taught me the material well. Assessments of learning were fair.
7.00	Prof Jan's teaching strategy works wonderfully for a math prof - he goes at just the right pace for students to follow and ask questions, and it doesn't feel rushed or pressurizing like other math courses. The group homework is a genius idea I wish other courses also made use of - it helped all of us engage more intellectually when we had to explain our answers to each other. I maintain homework is always better done in groups.
8.00	Professor Glaubitz's lectures were the most effective part of the class.
9.00	The assignments and lectures reinforced my understanding of the material.
10.00	The lectures and textbook are really helpful.
11.00	The lectures were very organized and the homework reinforced my learning well.
12.00	Very interesting content! Found it kind of similar to statistics but with a bit more calculus
13.00	great lecture content and flow of the materialbuilt on itself and made a lot of sense
14.00	problem sets
15.00	we went really slow and covered everything one would need to know to proceed to the next step
16.00	x
Course Term: Instruc Questi 1.00	MATH 020 Probability     202209 - Fall Term 2022 tor: Jan Glaubitz on Section Course Design and Effectiveness     Question:     Comment on 1-3 aspects of the course that     could be improved or enhanced:
2 00	Could be more practice problems
3.00	I think the participation aspect of the course should be based on in-class participation; this term we had a very strange "answer- presentation" system that didn't really help anyone.
4.00	Lectures, often we covered a very abstract/vague example quite unrelated to the assigned homework
5.00	More content delivered in lectures
6.00	None, I think the pace and the difficulty of the course is great
7.00	None.
8.00	Nothing that I can think of.
9.00	The collaborative approach to homework seemed a little counter-productive to me, at least for this course. I also felt like the homework problems were all over the place in terms of type, difficulty, and how clearly they related to the content of the lectures.
10.00	The course is pretty perfect.
11.00	The homework review sections were only necessary for the participation grade. Other than that, they weren't helpful.
12.00	perhaps the explanations and motivations of the proofs could be better explainedsometimes they were pulled out of thin air leaving the class wondering why or how one would even think to do such a thing
13.00	would have been better to have more weekly problems having practice exams would have been nice
14.00	x
Course Term: Instruc Questi	e: MATH 020 Probability 202209 - Fall Term 2022 tor: Jan Glaubitz on Section Course Design and Effectiveness Question: How did you contribute to your own learning experience?
1.00	I reviewed lecture notes regularly.
2.00	I studied notes outside of class
3.00	I went to class and completed necessary assignments.
4.00	Participated in class and completed all assignments.

5.00 Reviewed textbook and watched videos on YouTube and Khan Academy

6.00 Reviewing the textbook and notes outside of class

7.00	Went to lecture, did the homework, read the textbook along with the class.
8.00	Working in groups and revision after each class
9.00	Working in groups, asking the TA/professor for help.
10.00	Working with peers, going to review sessions, etc.
11.00	going to class, reading the textbook, doing weekly problems
12.00	practicing the examples from class and then finding problems either online or in the textbook
13.00	re-read lecture notes and read the corresponding sections in the textbook to understand in different wording, tried some of the practice problems and made sure I understood the implications and nuances of the formulas
14.00	x

### COURSE ASSESSMENT REPORTS - My Specific Faculty Comments

Course	MATH 020 Probability
Instruc	202209 - Fail Term 2022 or: Jan Glaubitz Question: Comment on 1-3 things that the professor did well and should continue to do in the future:
1.00	<ol> <li>He gives us a break in the middle which works very well so no one gets drained or burned out in a single class 2. He has an amazing personality that doesn't make the class dreary, he has a very fun way of teaching probability that I've never seen in a math prof at Dartmouth before - everyone seems like they don't want to be there</li> <li>His explanation of exam expectations and testing was always very clear</li> </ol>
2.00	Amazingly nice guy and great teacher, explained things thoroughly and came up with great examples and practical/intuitive connections
3.00	An amazing professor, really made sure to explain concepts clearly, went really slow and paused often to give us a chance to ask questions
4.00	Being open to what we wanted to cover, for example he spent an entire lecture covering examples of the CLT instead of doing the proof, which significantly increased my understanding of the theorem.
5.00	Excellent teaching. Would love to take a course with Jan again if I ever have the chance!
6.00	Great Lecturing in class
7.00	I really like how Jan allow students to participate in class and ask questions. The study break are really good.
8.00	Jan explained things super clearly and was happy to answer any questions
9.00	Lectures were engaging. Prof Glaubitz was kind and taught at a good pace.
10.00	Professor Glaubitz's cleaning of the blackboards was marvelous.
11.00	The lectures were very helpful as were the homework assignments.
12.00	The professor is a really effective lecturer. At no point did I feel lost or confused during lectures, but I never felt like they were redundant or simplistic either. If I had any issues with the course, they were mainly in terms of topics/structure.
13.00	Went through many examples in the lecture
14.00	ecture
15.00	X
Course Term: Instruc	<ul> <li>MATH 020 Probability</li> <li>202209 - Fall Term 2022</li> <li>or: Jan Glaubitz</li> <li>Question:</li> <li>Comment on 1-3 things that the professor should focus on to improve their classroom effectiveness:</li> </ul>
1.00	1. The initial 2-3 weeks of the course could perhaps move a little faster; most of us have learned the material in high school and could use a little more practice in other topics of the course
2.00	Add in some more stuff that's not in the textbook if possible.
3.00	Again, trying to explain the theorems with some more relevant examples> little less abstract when that is possible.
4.00	Everything is perfect.
5.00	I thought the classroom was effective
6.00	More examples in class? Not sure I think he did a great job
7.00	None. Professor was great.
8.00	Nothing in particular. Again, I thought the lectures were pretty great.
9.00	Nothing that I can think of.
10.00	mixing activities other than lecture into the class maybe
11.00	more practice problems
12.00	the steps/directions/motivations of some of the proofs could be better explained, sometimes it felt like the steps were arbitrarily chosen and hard to see how one would come up with such progression
13.00	X
Course Term: Instruc	<ul> <li>MATH 020 Probability</li> <li>202209 - Fall Term 2022</li> <li>or: Jan Glaubitz</li> <li>Question:</li> <li>Add any specific recommendations on how the professor is assessing the course work and giving feedback to students that you believe would be useful:</li> </ul>
1.00	Everything is objective in assessing course work so no input.
2.00	I think Professor assessed assessments very fairly
3.00	More specific feedback on approaches to homework/quality of proofs (for the proof-based questions) could have been helpful.
4.00	N/A
5.00	None
6.00	Nothing that I can think of.
7.00	Perfect.
8.00	Very friendly and kind!! Available to the students
9.00	none
10.00	X

COURSE ASSESSMENT REPORTS - Student Initiated Comments Course: MATH 020 Probability Term: 202209 - Fall Term 2022 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: 1.00 7 weekly homework sets that took 1-2 hours 1 midterm 1 final participation grade based on whether you presented a solution to a homework/exam problem 2.00 Everything was fair, I thought the group work was nice because I could get help if I didn't understand a problem. 3.00 Fair workload, mix of psets and exams 4.00 I thought it was fair 5.00 I thought the midterm exam and the final were more than fair, and that we got enough time to complete them without rushing through 6.00 Love the assessment structure. Though midterm one of week1-3 only seems not that much material. 7.00 No complaints, evaluation was all very fair and reflected student preparation very well 8.00 Perfect. 9.00 Tests were very uncorrelated to examples covered in lectures, and the review sessions absolutely saved me. 10.00 The exams being weighted so highly wasn't inherently a problem, but I found it strange that there was a sudden jump in difficulty between the midterm and the final exam. It felt like the difficulty of problems could have been much more consistent across the midterm, problem sets, and final. The workload felt pretty reasonable, no issues there. 11.00 The methods of evaluation were effective and the workload expected for this class was manageable. 12.00 Weekly homeworks and 1 midterm and 1 final 13.00 workload not bad, weekly group homeworks were pretty fair and relevant usually, a few tricky questions. the midterm was very fair and the exam was similar, if more proof-based and overall harder. the presentation/participation requirement was weird and got a lot of people in trouble because there were only so many opportunities to present 14.00 x MATH 020 Probability Course: Term: 202209 - Fall Term 2022 Question: Comment on the structure of the class, for example the mix between Instructor: Jan Glaubitz lecture and discussion: 1.00 Lecture based, not much discussion except for during tutorials or HW answer presentations 2.00 Lecture only 3.00 Not much discussion other than X hours which makes sense since it's a math class. 4.00 Only lecture based, but homework discussions during x-hour as a form of participation were useful and appreciated. 5.00 Optimal 6.00 Perfect. 7.00 The class was lecture based but was helpful in allowing me to understand the content. 8.00 The lectures were good, but maybe some class time could've been dedicated to solving challenging problems in a collaborative/group-based environment. That seems like it could be a much more effective way to add a collaborative element to the class (as opposed to the problem sets, where I thought this element was more of a hindrance than helpful), and also a way to get students to think critically about the material. 9.00 The structure of the class is very good. 10.00 The structure was a great balance between lecture and participation 11.00 all lecture 12.00 great mix, the prof encouraged us to think out loud 13.00 X

Course: MATH 020 Probability Term: 202209 - Fall Term 2022 Instructor: Jan Glaubitz Question: How did this course influence your academic experience at Dartmouth? 1.00 Enhanced it; made me want to keep studying mathematics 2.00 Great class, great prof! 3.00 I am not sure what I want to do with math (major or minor) but it made me want to continue on that path. 4.00 I'm really glad I took it and I learned a lot about different probability distributions which is helpful going forward. 5.00 It influenced it positively 6.00 Loved this class. Solidified my math major track. 7.00 Not much to say here. I am probably less likely to take courses where I know the problem sets are exclusively group-based. It seems to me like solo problem sets + a strong support structure for students to get help >> group-based problem sets. 8.00 Really enjoyed this class! Would recommend 9.00 The course made me want to take more math classes. 10.00 Very interesting and enjoyable class. 11.00 Very interesting class that I enjoyed. 12.00 definitely more interested in more probability theory and applications, cool course! 13.00 good to add some probability to the math major, wish it were a little more rigorous 14.00 x

### Institutional Reporting and Analysis (IRA)

Report ID: CA410 v2.0.0

### Dartmouth College Course Comparison Report

12/12/2022 4:00:02 PM

This report compares course responses to the department/program, division and college responses.

Term 202209 - Fall Term 2022 Subject MATH-Mathematics Course 020-Probability Section 01 Question I think the overall quality of the course was

Course Deta	Course Details												
	т	he following report w	ill only include	courses th	at have five o	r more students	enrolled.						
Department	Subject	Term	Course	Section	Instructor	Total Enrollment	Completed Course Assessment	Did Not Complete					
MATH- Mathematics	MATH- Mathematics	202209 - Fall Term 2022	020- Probability	01	Jan Glaubitz	34	30						



### Institutional Reporting and Analysis (IRA)

Report ID: CA410 v2.0.0

#### Dartmouth College Course Comparison Report

12/12/2022 4:01:46 PM

This report compares course responses to the department/program, division and college responses.

Term 202209 - Fall Term 2022 Subject MATH-Mathematics Course 020-Probability Section 01 Question I think the overall effectiveness of the teaching was

#### **Course Details** The following report will only include courses that have five or more students enrolled. Total **Completed Course** Did Not Department Subject Term Course Section Instructor Enrollment Assessment Complete MATH-MATH-202209 - Fall Term 020-34 30 4 01 Jan Glaubitz Mathematics Probability Mathematics 2022



### Institutional Reporting and Analysis (IRA)

Report ID: CA410 v2.0.0

### Dartmouth College Course Comparison Report

12/12/2022 4:01:28 PM

This report compares course responses to the department/program, division and college responses.

Term 202209 - Fall Term 2022 Subject MATH-Mathematics Course 020-Probability Section 01 Question I found the course to be well organized

Course Deta	ails							
		The following report w	ill only include	courses th	at have five o	or more students	enrolled.	
Department	Subject	Term	Course	Section	Instructor	Total Enrollment	Completed Course Assessment	Did Not Complete
MATH- Mathematics	MATH- Mathematics	202209 - Fall Term 2022	020- Probability	01	Jan Glaubitz	34	30	



## Institutional Reporting and Analysis (IRA)

Report ID: CA410 v2.0.0

### Dartmouth College Course Comparison Report

12/12/2022 4:01:11 PM

This report compares course responses to the department/program, division and college responses.

Term 202209 - Fall Term 2022 Subject MATH-Mathematics Course 020-Probability Section 01 Question The objectives of the course were clear to me.

Course Deta	Course Details												
	1	he following report w	ill only include	courses th	at have five o	r more students	enrolled.						
Department	Subject	Term	Course	Section	Instructor	Total Enrollment	Completed Course Assessment	Did Not Complete					
MATH- Mathematics	MATH- Mathematics	202209 - Fall Term 2022	020- Probability	01	Jan Glaubitz	34	30		4				



### Institutional Reporting and Analysis (IRA)

Report ID: CA410 v2.0.0

### Dartmouth College Course Comparison Report

12/12/2022 4:02:07 PM

This report compares course responses to the department/program, division and college responses.

Term 202209 - Fall Term 2022 Subject MATH-Mathematics Course 020-Probability Section 01 Question The professor explained central concepts clearly

Course Detai	ls						Course Details												
	Th	e following report wi	ill only include	courses th	at have five o	r more students	enrolled.												
Department	Subject	Term	Course	Section	Instructor	Total Enrollment	Completed Course Assessment	Did Not Complete											
MATH- Mathematics	MATH- Mathematics	202209 - Fall Term 2022	020- Probability	01	Jan Glaubitz	34	30		4										



## Institutional Reporting and Analysis (IRA)

Report ID: CA410 v2.0.0

### Dartmouth College Course Comparison Report

12/12/2022 4:00:32 PM

This report compares course responses to the department/program, division and college responses.

Term 202209 - Fall Term 2022 Subject MATH-Mathematics Course 020-Probability Section 01 Question I learned a lot in the course.

	-	The following report w	ill only include	courses th	at have five o	or more students	enrolled.		
Department	Subject	Term	Course	Section	Instructor	Total Enrollment	Completed Course Assessment	Did Not Complete	
MATH- Mathematics	MATH- Mathematics	202209 - Fall Term 2022	020- Probability	01	Jan Glaubitz	34	30		
Results									
	(i) Your co	ourse data is not ir	ncluded in t	he Depar	tment/Pro	gram, Division	and College %.		
Name		Jan Glau	bitz						

202209 - Fall Term 2022 MATH 020 01 Probability I learned a lot in the course.



### Institutional Reporting and Analysis (IRA)

Report ID: CA410 v2.0.0

# Dartmouth College Course Comparison

12/12/2022 4:02:23 PM

Report This report compares course responses to the department/program, division and college responses.

Term 202209 - Fall Term	Subject MATH-	Course 020-	Section 01 Question The professor challenged me to think critically about the course
2022	Mathematics	Probability	material

Course Details											
The following report will only include courses that have five or more students enrolled.											
Department	Subject	Term	Course	Section	Instructor	Total Enrollment	Completed Course Assessment	Did Not Complete			
MATH- Mathematics	MATH- Mathematics	202209 - Fall Term 2022	020- Probability	01	Jan Glaubitz	34	30		4		

Name Jan Glaubitz									
02209 - Fall Term 2022 he professor challenged me to think	critically about the cou	MATH rse material	020 01 Probability						
	My% Dept%	Div% ■Coll	%						
70 60					Response	Му %	Dept %	Div %	Coll %
й 50 40					Strongly Agree	71.4%	38.9%	59.3%	64.2%
S 30					Agree	21.4%	30.8%	26.5%	23.9%
¥ 20					Neutral	3.6%	17.6%	9.1%	7.6%
					Disagree	3.6%	8.2%	2.5%	1.8%
Strole Por	Heur	01539	Storade"	47/1	Strongly Disagree	0.0%	3.5%	1.3%	1.1%
					N/A	0.0%	1.0%	1.4%	1.4%
	Re	sponse							