Duke University - Course Evaluations
Graduate Course Evaluations - Fall 2023

Course:	IDS-720-01: PRACTICING DATA SCIENCE: TOOLS.IDS-720-01.
Instructor:	Nicholas Eubank *
Response Rate:	32/41 (78.05 %)

1 - Your personal level of engagement with the course was:

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Very low	(1)	0	0.00%		
Low	(2)	0	0.00%		
Medium	(3)	6	18.75%		4.16 / 3.69 / 4.02
High	(4)	15	46.88%		
Very high	(5)	11	34.38%		

				Question	Dept/Program (GRAD)	GRAD Overall

Response Rate	Mean	STD	Median	Dept/Program (GRAD)	Mean	STD	Median	GRAD Overall	Mean	STD	Median
32/41 (78.05%)	4.16	0.72	4.00	285	3.69	0.95	4.00	3584	4.02	0.92	4.00

2 - What knowledge, methods, skills, insights, or ways of thinking did you develop in this course? Please describe three specific things you learned.

Response Rate	27/41 (65.85%)

• Numpy, Pandas, Sklearn, plot.

• This course helped me understand how python works on a much deeper level, and how to perform most python can be used. It helped me think of coding and problem solving using python data structures, instead of C/C++ or SQL, the way I normally used to approach any problem.

• Problem solving, time management, answer seeking/research.

• Numpy, How to think about data science in a scientific way, Scikit learn

• I've learned Python Pandas and Numpy kind of tools for data analysis. Nick prepared the step-by-step content and exercise for practicing the coding and analysis. I think this is really helpful to me as a newcomer to pandas.

• Python has a hierarchical structure for objects. Everything is my choice in the data world, but not in this class.

• How to effectively write a code in python, operations within pandas dataframes and series, how to deal with big data

• I learned how to work with data with pandas, numpy. I learned how to work with others with github. I learned about how to merge and combine data.

• I learned a lot about how to think like a data scientist, get comfortable with fundamental data science libraries, and get better at creating professional report findings.

• What didn't I learn. Learned how to properly think about missing data, learned how to properly utilize pandas/numpy to explore data, and I learned how to properly use visualization libraries.

• I learned how to really code. I always thought coders do not need to read, they just code. But this class gave me another great insight: coders must read to understand the logic behind. I will start reading more about codes if I want to code well, and think like a coder.

• Programming for cleaning datasets and using large datasets, teamwork, and a hint of policy evaluation methods.

• - How to use common data science tools such as the command line and github - Solid foundation for Python - Having a good setup for VSCode to help with workflow

• It teaches some fundamental knowledge and skills used by NLP course.

• 1. Fundamental approach to solving computational problems. 2. Developing an advanced skill set suitable for the ML class, including but not limited to Pandas and NumPy. 3. Boost ability to navigate the data science working environment. 4. Enhancing collaboration skills within and across teams and regions.

• I love the readings. It looks like it would have required for us several years to get all of the provided knowledge in Professor Eubank's amazing github. I learned commands in terminal, pandas, numpy, github, dealing with large dataset, writing code for plotting the graphs.

• new ways of thinking , collaboration , big data analysis

• I learnt about all the different ways I could be put in a team, adapt to the team dynamic in a really short span of time, and develop a clear understanding of how to apply all the concepts learnt in a really short of time.

• This course stands out as exceptionally well-structured compared to others I've taken this semester. Through its comprehensive curriculum, I've gained invaluable skills and knowledge, notably: 1. Proficiency in efficient and effective use of the Python programming language, particularly in leveraging the pandas and numpy libraries, which I've come to understand are indispensable tools for any data scientist. 2. The competency to meticulously plan and execute a data science project, encompassing everything from its initial conceptualization to the final presentation of results. 3. Enhanced collaborative skills, especially in the context of team-based projects, allowing me to effectively contribute to and participate in group endeavors.

• I learnt so many things in this class, some of them being: foundations of data science, how to use essential python libraries, mastering vscode, how to effectively work with a team using github, important concepts to keep in mind while dealing with different data.

• python skills, including some useful packages like lumpy and panda

• I learned how to approach social science research questions. I have no experience in this area so I enjoyed exploring the different research questions and datasets. I also reinforced my EDA skills. EDA used to take me twice as long but I think I have a very good understanding of what summarization details I need to extract from a dataset to get an baseline understanding of the data.

• My skills pertaining to this course material going into the course was pretty minimal and this course did a great job of leveling the data science playing field for all students. Learning how to appropriately take data, clean it appropriately, and analyze it effectively was very usefull. My levels of confidence in both the breadth of my toolbox and my understanding of where to find relevant information is very high after this course.

• -How to set up my computer from scratch to start programming -Understanding Python programming -Practicing Python step by step

• Coding

• I learned about kernels, about handling large datasets and about git.

• As someone with no background in coding before coming to MIDS, this class pretty much taught me everything. I learned how to use python (pandas, numpy, seaborn, matplotlib etc). I learned how to look at data and understand it at a glance and also rip it apart and figure out what's going on. I finally learned how to work with big data as well, something that motivated me to join MIDS.

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3 - Reflecting on the overall learning environment of this class, in what ways did the instructor(s) and the structure or components of the course facilitate your learning? Are there specific course components or methods of instruction you'd keep for future years?	
Response Rate	27/41 (65.85%)

• self - study

• Professor Nick's prepared readings and class structure was really helpful - I found the material easy to follow, good for comprehension, and the in-class discussions were really helpful as well. The assignments would make you think deeper about how each function or code worked, and helped develop a functional knowledge about all aspects of python required atleast for Data Science

• A well documented website which was up to date and had all the resources we needed was more than ideal.

• I'd keep the partner exercises as it forces preparation.

• Nick applies a flipped classroom which means we do the readings and exercises before the class and he will do the Q&A concretely during his lecture. This works for me well. And also we do the small group and individual work during the semester. I learned from my peers a lot. I enjoy Nick's lesson at this point.

• The final project's use of github is nice. This should be done throughout the course.

• I liked that each class started with a discussion and ability to ask questions. Required pre-class readings also helped a lot.

• The instructor designed group assignments and assign partners for assignments. The reading and clear structure helps me in learning, and would keep for future years.

• I enjoyed how non-judgmental I felt Professor Nick was. I never felt like I was asking a dumb question and he would go out of his way to make sure that I understood concepts.

• Nick entirely facilitated my learning, and was always open to any questions that was asked. I truly think I will utilize everything in this course.

• I like how extensive the exercises were in this class. Although sometimes it was a bit overwhelming.

• I loved the materials, it was a very structured course with a lot of materials I could go back into. In programing the only way of learning and perfecting methods is by applying them, and Nick's homework were perfect for that.

• I love having the specific instructions on how to install and setup things like VSCode, the command line, etc. so that our lives are easier down the road as things we are asked to do get more complicated.

• It fills the knowledge gap that I have in numpy and panda.

• 1.Emphasizing teamwork and collaboration with others. 2.Stressing the importance of pre-reading and coming to class prepared. 3.Encouraging students to ask questions and consistently attending to their needs with care. 4.Maintaining transparent communication and showing respect in every interaction.

• I loved the practical assignments in this course. You read something and get the exercises done, so after you have a lot of insights in your head.

• The corner cases in python coding and learning about nuisance of a messy data helped.

• I like how Nick takes a solid amount of time before class to go over the doubts, questions, and address key concepts in detail before giving us the assignments.

• I am particularly impressed by the professor's skill in engaging students during question-and-answer sessions. His approach, marked by a distinct humility in service delivery, was both refreshing and inspiring, differing from what I have previously experienced. The course itself was highly engaging, and the strategic rotation in group-based assignments played an important role in ensuring active participation from all students. This approach not only enriched our learning experience but also fostered a collaborative environment essential for our collective growth.

• I would keep the group exercises and the overall structure of the course. It is excellent.

• overall is pretty good. materials given in the lecture is well-structured and informative

• I would keep the open discussions at the beginning of class. Sometimes this discussion is long, but I enjoyed the open ended Q/A, and the safe space to ask good (or bad) questions at all skill levels. You were also exceptionally thoughtful in your responses as well, which I really appreciated.

• Professor Eubank's class structure made it readily apparent that he has put a very significant amount of time and effort into making his material as excellent as possible. The course layout and the sheer volume of curated material was staggering. This was backed up by his seemingly limitless knowledge and mastery of the subject matter. Where many professors might referenced developed class materials, Nick developed those for consumption by the student and augmented that base material with an inexhaustible depth of knowledge. It truly seemed that, no matter how many niche edge cases and complex questions we asked in class, he had an answer or was able to quickly work through the solution with the class. I cannot say this strongly enough, Dr. Nick Eubank is an extremely impressive educator.

• The structure of the course is very well delimited, and the timing of the course helps a lot to look ahead. It is also appreciated that the assignments are very well detailed in what has to be done.

• I like the readings a lot

• Structure and the materials. Having the class in a website, and all the notebooks was really helpful. The pace was good at the beginning and speed up at the ending. Also the class provided feedback!!! Something really important.

• I think the assignments given to us really helped me learn in PDS. They were very engaging and helped me understand all the stuff that we would need to read before class. I would keep these in-person assignments as part of methods of instruction for future years, but would make sure to give more time in class to do them as they were usually pair assignments which were easier to get done while in class.

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4 - What might improve the course? Are there specific course components or methods of instruction you'd change for future years? Did anything in particular impede a positive learning environment?

Response Rate	27/41 (65.85%)

• no

• There were too many assignments - at some point in the semester it felt like we couldn't keep track of which assignments are due when and who to do them with

• not at all.

• I'd flesh out all the write ups instead of redirecting to external links on the last bit of the readings, but those readings were awesome too.

• I may say about readings. It would be better to arrange the readings more durable from workload aspects and also may apply some differentiation so that may have videos or other resources.

• I felt like the class became too tedious with readings, assignments, and a final project. The material made me feel like I was checking a block rather than learning anything really. I think the assignments are too wordy and really do not stimulate a deeper understanding of python.

• The exercises assigned got very long and time-consuming by the end. I would appreciate more time during class spent on doing the exercises so not everything has to be done outside the class

• I think the assignments are somehow too dense (especially in the period near the end of the semester) and it prevents me from having time to digest the knowledge fully.

• A more designed discussion to make all students participate and engaged in class could let the class time become more meaningful.

• I think that if after an assignment was due the next day if we could go over tough concepts. Biggest thing for me is to understand visually what is happening under the hood. I want to understand how the code flows from line to line of code. Also, before the assignment if there are some potential problems before starting that you would like us to look out for. Also, having a notebook model that has the formatting that you would like to see so that we can keep the formatting correct. Finally, I would love to learn more about what we should do as data scientists on our downtime. What do you recommend skills, certifications, what time of work we can do to continue to improve as a data scientist over winter break or time off.

• I think what will improve this course is having set partners, so that one can be used to working with someone similar to them

• Although the homework was very complete and thoroughly thought, they could beneficiate of more succint instructions.

• I do not think the group assignments are helpful. I think it would be better to allow collaboration between students on assignments (if the students want) but then everything is individual submission. Being paired with a random partner every class creates a lot of extra logistic work to coordinate a time and place to meet, which is even tougher if we don't all have the same classes.

• The workload is high and the scoring of the assignments focuses a lot on formatting, which can be a bit demotivating.

• 1. add a little more business world related cases.

• To be honest, I stopped learning from PDS after Fall break because overall - all the courses started being heavily project-intensive. After fall break, I would suggest that there would be more individual assignments than group assignments and just once a week. It is because my learning curve stopped after Fall break and I lost my focus. My only aim was - just get with the assignments done. So I think, after the Fall break, the course reading workload should remain at the same level as of now, but course assignments, especially team projects, should slow down.

• The instructions in the assignments sometimes become difficult to follow. Hence, making the instructions a bit clear and to the point.

• Could have more quizzes?

• I believe the course is well-structured, but if there were any necessary changes, it may be the course duration that needs to be increased.

• One small suggestion (which was suggested before), is that maybe the paired group assignments should be made depending on which program the students are in (perhaps later in the semester) as matching the different schedules is quite hard especially moving forward in the semester.

• team work arrangement. I feel like we can do most work individually. If we dont know how to do, we can always ask classmates.

• The readings were sometimes verbose and too long. There is useful content in the readings, but the content is often hidden in colloquial speak. This can impede reading comprehension for people whose first language is not English. In some cases, reading may also not be the best method for teaching a concept. There are many videos and other online resources available for each of the concepts taught in this class and those can be leveraged for quick, concise concept introductions. The course structure is well thought out to cover a lot of material (thank you). But I thought it was overwhelming. Not because there is too much content, but the way it was spread out and delivered in ~2 assignments per week made it more exhausting than it should have been. A proposed alternate structure: One assignment per week. First class allows for questions about reading and partner work. Second class is an in-class demonstration of one of the more difficult concepts for the week (i.e. plotting, groupby, merging, melt/pivot, etc). Personally, this would help me engage with the content and better understand the concepts individually before working with a partner. We may also be able to answer questions about a common bottleneck that the many groups experienced for the assignment.

• This is a tough question because the course is exceedingly polished and well considered. Working in pairs on the assignments was productive and challenging. I think, because of the density of assignments, the value of working with new people became eclipsed by a desire to complete the assignments. This pair method certainly highlighted different professional idiosyncrasies within the class with respect to timeliness of work and desire to learn vs. complete the requirements. Getting paired with individuals who are comfortable starting assignments very close to deadlines normally resulted in my completing of the assignment individually since delaying that work was not in line with the way I liked to do assignments. There exists a mechanism to address this which is the partner feedback system which, I must admit, I did not use as honestly as I should have for the benefit of my peers.

• Sometimes the readings were extremely detailed, or sometimes when book chapters were used they were not very well structured.

• The readings are great but can be too long and overwhelming. Also, it can become easy to not give your best when there are two assigments each week. Just one assigment each week would have allowed the student to engage with it more.

• not to improve but to encourage the continuous improvement of the material.

• I think having less time for questions and answers would improve the class. People (myself included) would often ask really niche questions that could be kind of boring or irrelevant for others. This also impeded on the assignment time which then created a problem outside of class to coordinate with partners and get the work done in time.

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Response Rate: 32/41 (78.05 %)

5 - The course was intellectually stimulating. It made me think in new ways, encouraged me to adopt different points of view, or challenged me to develop new skills.

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Poor	(1)	1	3.23%		4.52
Marginal	(2)	0	0.00%		
Average	(3)	3	9.68%		3.67
Very Good	(4)	5	16.13%		4.19
Excellent	(5)	22	70.97%		

Response Rate	Mean	STD	Median	Dept/Program (GRAD)	Mean	STD	Median	GRAD Overall	Mean	STD	Median
31/41 (75.61%)	4.52	0.93	5.00	282	3.67	1.11	4.00	3526	4.19	0.91	4.00

6 - What made this class stimulating or how could it be more intellectually stimulating if it wasn't?

Response Rate	22/41 (53.66%)

• The challenges in the real world made me learn a lot of useful knowledge

• The assignments were stimulating and made me think of different ways of solving problems

• the exercise and how we did some in pairs and continued to learn from my peers made the experience worthwhile.

• n/a

• This is really beneficial for beginners in data science and definitely useful.

• I feel like this class itself is challenging to make stimulating but it would benefit more from a seminar structure with the coding assignments taking a back seat. It also sucked having all the in class assignments becoming homework.

• Exercises that were assigned after each class helped with practicing the necessary skills that are needed while working as a data scientist

• The reading before class, the in class discussion, and the assignments following the class made the class stimulating.

• The problems we worked on made me question not only the data science and coding but also the domain knowledge and context behind each question.

• This class was simulating with the exercises. Sometimes the reading was a bit mundane, but the material was straight to the point.

• Having application exercises for the concepts we were learning.

• Maybe the language of the assignment can be more formal writing. The most challenging part I met when working on assignments was trying to understand what it expect me to do.

• 1. Maintaining diverse course sections ensures there are always new things to learn and discuss. 2. The materials and lectures are not limited to specific courses but extend to the entire data science field to keep pace with the real world.

• Final group project hits different in this course. It requires to develop several skills and characteristics as: accountability, communication and innovation.

• The professor.

• What made the class stimulating was that nature and number of assignments.

• informative materials

• The content for each of the exercises was interesting and the social science questions posed were thought-provoking. The class could be more stimulating by offering more freedom with the exercises. I think the intent is to walk us through the correct process for answering the research questions, but this takes a lot of the critical thinking out of the exercises.

• While the class discussions sometimes took on the flavor of horizontal exploration vice vertical progression through a concept, I found these discussions really valuable. Quite frankly, if the entire content of the lecture was just Nick monologuing about his experience and opinions it would have been worth it, but I guess we needed some structure provided through questions. All too often in an academic setting, things are sterile and lacking real-world context. Nick was adept at tying concepts into the real-world.

• Nick is an amazing teacher! I wish we had more time with him teaching rather than flipped. Flipped is great, but a little more teaching would be awesome as well.

• it was challenging but not frustrating. And feedback was provided.

• The material itself made this class stimulating and Nick was a great instructor for the same. He knows his material really well and could field every question thrown at him which made going to class very important. Stuff like even setting up VSCode was taught in this class and it just made every other subject much easier to deal with.

7 - Considering all components of the course (lectures, discussions, sections/labs, assessments, projects, course environment, etc), overall the course was

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Poor	(1)	0	0.00%		4.47
Marginal	(2)	1	3.33%		
Average	(3)	2	6.67%		3.68
Very Good	(4)	9	30.00%		4.13
Excellent	(5)	18	60.00%		

Response Rate	Mean	STD	Median	Dept/Program (GRAD)	Mean	STD	Median	GRAD Overall	Mean	STD	Median
30/41 (73.17%)	4.47	0.78	5.00	281	3.68	1.03	4.00	3533	4.13	0.91	4.00

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8 - Based on the effectiveness of instruction (clarity, expertise, enthusiasm, rigor, support, inspiration, etc), overall the instructor, Nicholas Eubank, was -

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Poor	(1)	0	0.00%		
Marginal	(2)	0	0.00%		
Average	(3)	0	0.00%		
Very Good	(4)	8	25.81%		
Excellent	(5)	23	74.19%		

Means: Question 4.74 | Dept/Program (GRAD) 3.86 | GRAD Overall 4.30

Response Rate	Mean	STD	Median	Dept/Program (GRAD)	Mean	STD	Median	GRAD Overall	Mean	STD	Median
31/41 (75.61%)	4.74	0.44	5.00	280	3.86	1.08	4.00	3976	4.30	0.90	5.00

9 - Based on the effectiveness of instruction (clarity, expertise, enthusiasm, rigor, support, inspiration, etc), overall the teaching assistant, , was

Response Option	Weight	Frequency	Percent	Percent Responses	Means
Poor	(1)	0	0.00%		
Marginal	(2)	0	0.00%		
Average	(3)	0	0.00%		
Very good	(4)	0	0.00%		
Excellent	(5)	0	0.00%		
N/A	(6)	0	0.00%		

Means: Question 0.00 | Dept/Program (GRAD) 0.00 | GRAD Overall 4.33

Response Rate	Mean	STD	Median	Dept/Program (GRAD)	Mean	STD	Median	GRAD Overall	Mean	STD	Median
0/41 (0.00%)	0.00	0.00	0.00	0	0.00	0.00	0.00	438	4.33	1.04	5.00

10 - In what ways did the teaching assistant(s) facilitate your learning and what might have helped even more? Include any constructive comments you'd like to share with here.

Response Rate	0/41 (0%)

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Response Rate: 32/41 (78.05 %)

11 - What would you like to say about this course to a student who is considering taking it in the future?
Response Rate | 25/41 (60.98%)

• useful class

• Nick is an excellent teacher - you will learn a lot about how python works and also how it does compared to other languages and platforms. If you have doubts on your python skills (or like me - if you think of the solution in SQL/C and then replicate it in python) - you will learn a lot from this coutse

• go for it. for someone like me with no experience i learnt soo much very fast.

• Very rarely will you come across a course that not only bridges the gap between problem solving and engineering but also keeps you highly motivated, that's Nick Eubank's class!

• It is a must for those who want to start a journey in data analysis in Python.

• Ask to take it without credit or a grade, it will be more about learning for you rather than trying to maintain a B.

• This is a really good course for people who already have some experience with coding but need more practice and systemize the basics. However, the course gets very time-consuming by the end of the semester

• Do the reading before class and come up with questions.

• The assignments are so so helpful to gain a good coding foundation and learning about data science. Make sure to take advantage of office hours and Professor Nicks expertise.

• Unless you are 100% confident that everything they will teach is something you know+have done before, take the class.

• Nick is a very involved professor, he is not just very involved in your understanding of the course material but is also a person willing to have a conversation with you about academic and off-academic topics. He is an excellent mentor.

• Workload is high.

• don't forget the readings.

• Take this course, even if you have IT background.

• Always do the readings before class and ask doubts.

• I'd recommend it very much if they are looking to get a firm foot in the door of the fundamentals of data science.

• This course is essential for anyone aspiring to excel in this program. It not only bolsters your confidence as you progress but also equips you with relevant skills that will prove invaluable in your long-term professional development. Its comprehensive curriculum is designed to lay a solid foundation for future success

• Definitely take it, it went beyond my expectations. The readings are a bit demanding but if you stay on top of it, there is so much to learn and benefit from them.

• definitely take it

• This is a foundational class that will be useful to people of with minimal exposure to python and data analysis.

• I think that MIDS allows this course to be optional. Having taken this course, I find it hard to believe that anyone entering this program would already have all the skills that Nick taught us. Even if you feel proficient, this course as an absolute value add for any student. I don't think it should be optional, I feel like I have peers who are now behind because they did not take this course.

• It is an essential course to learn Python from the beginning in a step-by-step way.

• It gets kinda freaky after November

• It requires time, the student will learn a lot, and most importantly the student will be able to return to the material in the future through the website

• I would say that for someone that doesn't have a strong coding or data science background, please take this class. And for someone that wants to learn about the trajectory of data science or the pitfalls of dealing with data, please take this class. You will learn so much with Nick and it will make your entire MIDS career much smoother because you'll learn the basic skills required to excel in other subjects.

12 - The course was difficult.										
Response Option	**Weight**	**Frequency**	**Percent**	**Percent Responses**	**Means**					
Strongly disagree	(1)	1	3.33%							
Disagree	(2)	4	13.33%							
Neither agree nor disagree	(3)	14	46.67%		3.23	2.82	3.38			
Agree	(4)	9	30.00%							
Strongly agree	(5)	2	6.67%		Question	Dept/Program (GRAD)	GRAD Overall			

Response Rate	**Mean**	**STD**	**Median**	**Dept/Program (GRAD)**	**Mean**	**STD**	**Median**	**GRAD Overall**	**Mean**	**STD**	**Median**
30/41 (73.17%)	3.23	0.90	3.00	282	2.82	1.12	3.00	3552	3.38	1.07	3.00

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13 - How many hours in a typical week did you spend on this course (outside of class meetings)?

Response Option	Weight	Frequency	Percent
1	(1)	0	0.00%
2	(2)	3	10.00%
3	(3)	0	0.00%
4	(4)	7	23.33%
5	(5)	5	16.67%
6	(6)	5	16.67%
7	(7)	2	6.67%
8	(8)	6	20.00%
9	(9)	0	0.00%
10+	(10)	2	6.67%

Means: Question 5.70, Dept/Program (GRAD) 4.50, GRAD Overall 5.75

Response Rate	Mean	STD	Median	Dept/Program (GRAD)	Mean	STD	Median	GRAD Overall	Mean	STD	Median
30/41 (73.17%)	5.70	2.17	5.50	280	4.50	2.80	4.00	3530	5.75	2.76	6.00

14 - I felt comfortable expressing my opinions and asking questions in this course.

Response Option	Weight	Frequency	Percent
Strongly disagree	(1)	0	0.00%
Disagree	(2)	0	0.00%
Neither agree nor disagree	(3)	1	3.23%
Agree	(4)	7	22.58%
Strongly Agree	(5)	23	74.19%

Means: Question 4.71, Dept/Program (GRAD) 4.71, GRAD Overall 4.71

Response Rate	Mean	STD	Median	Dept/Program (GRAD)	Mean	STD	Median	GRAD Overall	Mean	STD	Median
31/41 (75.61%)	4.71	0.53	5.00	31	4.71	0.53	5.00	31	4.71	0.53	5.00

15 - Would you like to provide any other comments about this course?

Response Rate	
13/41 (31.71%)	

• no

• amazing course no need to.

• Like this course.

• The class was not necessarily difficult just annoying. It felt like an online Python bootcamp with a bit more 'critical thinking.' I would recommend the critical thinking/learning to be a data scientist takes more of a front seat throughout the course rather than saved for the final project. The final project core requirements are enjoyable and see the purpose there but I feel like there should be more choice or individuality on it because it makes the project severely less interactive. This is supposed to support 1st year MIDS students to fill in gaps, but it became more of a hassle then our other more content heavy classes. The class itself is catered towards teaching social scientists to begin to handle data in python rather than address issues and find them ourselves. I would have liked to see more applications of data science and less hand holding assignments. For people with coding backgrounds it should be more expressed how much the 'how to code' part will take up.

• The division of students into groups for the final project was not ideal, and I think mixing MIDS and non-MIDS students together would be more beneficial.

• Overall great course

• The timeline when the final group project was assigned was the same as my burn out and panic attacks. I was trying to understand what caused me feel this way and I realized that one of the team members was toxic. I think I would suggest an option to change the groups before it's too late.

• None

• great class

• This was a great fundamentals course and I could see the level of effort that was put into the exercise structure and readings. Thank you!

• The teaching award question is interesting and I hope that our feedback here is weighted into selection for those awards. I want to take this space to make it clear that I marked that section very intentionally. I have never met an educator who made it so clear how passionate they were about the subject they are teaching. I understand Duke to be a high quality academic institution and, with that in mind, I think Duke would be hard pressed to find educators as dedicated and proficient as Dr. Nick Eubank. The class materials he has created stand on their own merit and would constitute a course worthy of an award by themselves. The added input in-person was exceptional and makes Duke tuition money well spent.

• This comment is not directly related to this class, but thinking that many MIDS students do not have a background in programming it is very contrasting how in this course we go step by step to learn the basics of Python, but at the same time we are taking NLP. What would happen if, as with this course advanced students do not take it, students who are not going to seek an internship in NLP during the summer would be allowed to choose in which semester they want to take the class (first or third semester) and offer instead in their first semester some other programming or matrix algebra or calculus class that will help them in general for Machine Learning and NLP.

• Nick, keep what you are doing! it follows all the best practices to learn. Material updated, hands on assingments, challenging but not frustrating, proper feedback, good attitude.