College of Arts and Sciences

Course: ECON 5253-001

Section Title: Data Science for Economists

Instructor: Tyler Ransom

Course Level: Graduate 5000 and up Section Size: Small 16-25

Total Enrollment: 16

Question	Level	Mean Response	Median Response	Standard Deviation	ZScore	Responses	Percent #1	Percent #2	Percent #3	Percent #4	Percent #5	Dept Rank	College Rank
Extent to which the instructor contributed to your learning	INDIVIDUAL	4.00000	5	1.41421		11	9.09	9.09	9.09	18.18	54.55	100.00	28.95
	DEPARTMENT	4.00000	5	1.41421		11	9.09	9.09	9.09	18.18	54.55		
	SIMILAR_COL	4.25362	5	0.98396	-0.26	276	1.81	5.43	11.59	27.90	53.26		
	COLLEGE	4.00821	4	0.98850	-0.01	18,511	2.02	5.13	20.94	33.83	38.08		
Ability of the instructor to respond to a wide range of questions about the material in this course	INDIVIDUAL	4.27273	5	1.27208		11	9.09	0.00	9.09	18.18	63.64	100.00	26.32
	DEPARTMENT	4.27273	5	1.27208		11	9.09	0.00	9.09	18.18	63.64		
	SIMILAR_COL	4.45487	5	0.91423	-0.20	277	1.81	3.25	8.66	20.22	66.06		
	COLLEGE	4.24700	5	1.02323	0.03	18,498	2.38	5.14	13.37	23.64	55.48		
Instructor's promptness in returning exams and assignments so they could be useful for learning	INDIVIDUAL	4.36364	5	1.28629		11	9.09	0.00	9.09	9.09	72.73	100.00	55.26
	DEPARTMENT	4.36364	5	1.28629		11	9.09	0.00	9.09	9.09	72.73		
	SIMILAR_COL	4.13043	5	1.15885	0.20	276	4.71	6.52	13.41	21.74	53.62		
	COLLEGE	4.06908	4	1.11592	0.26	18,486	3.46	7.08	17.08	23.88	48.51		
4. Instructor's ability to encourage critical and independent thinking	INDIVIDUAL	3.81818	5	1.53741		11	18.18	0.00	9.09	27.27	45.45	100.00	13.16
	DEPARTMENT	3.81818	5	1.53741		11	18.18	0.00	9.09	27.27	45.45		
	SIMILAR_COL	4.37455	5	0.97116	-0.57	275	2.55	3.64	9.09	23.27	61.45		
	COLLEGE	4.14679	4	1.04013	-0.32	18,489	2.40	5.63	16.56	25.72	49.69		
5. Instructor's ability to stimulate continuing interest in the subject matter	INDIVIDUAL	4.18182	5	1.40130		11	9.09	9.09	0.00	18.18	63.64	100.00	23.68
	DEPARTMENT	4.18182	5	1.40130		11	9.09	9.09	0.00	18.18	63.64		
	SIMILAR_COL	4.30435	5	1.08617	-0.11	276	3.62	5.80	9.06	19.57	61.96		
	COLLEGE	3.99091	4	1.16781	0.16	18,472	4.57	7.83	17.70	23.72	46.18		
6. Overall instructor's teaching effectiveness was	INDIVIDUAL	4.18182	5	1.40130		11	9.09	9.09	0.00	18.18	63.64	100.00	26.32
	DEPARTMENT	4.18182	5	1.40130		11	9.09	9.09	0.00	18.18	63.64		
	SIMILAR_COL	4.30325	5	1.09764	-0.11	277	5.05	3.25	9.39	20.94	61.37		
	COLLEGE	4.05263	4	1.13450	0.11	18,486	4.17	6.80	16.43	24.79	47.81		
7. Instructor's management of the course was	INDIVIDUAL	4.27273	5	1.42063		11	9.09	9.09	0.00	9.09	72.73	100.00	34.21
	DEPARTMENT	4.27273	5	1.42063		11	9.09	9.09	0.00	9.09	72.73		
	SIMILAR COL	4.27536	5	1.12342	0.00	276	4.71	4.71	10.51	18.48	61.59		
	COLLEGE	4.11701	5	1.10383	0.14	18,460	3.53	6.15	16.10	23.51	50.70		
8. Amount you learned in this class	INDIVIDUAL	3.90909	5	1.37510		11	9.09	9.09	9.09	27.27	45.45	100.00	36.84
	DEPARTMENT	3.90909	5	1.37510		11	9.09	9.09	9.09	27.27	45.45		
	SIMILAR_COL	4.04364	4	0.97688	-0.14	275	1.45	6.55	17.09	36.00	38.91		
	COLLEGE	3.87218	4	0.97400	0.04	18,009	2.07	5.56	25.55	36.72	30.10		
9. Workload of this course compared to others a similar level	INDIVIDUAL	3.09091	4	1.04447		11	9.09	18.18	27.27	45.45	0.00	100.00	13.16
	DEPARTMENT	3.09091	4	1.04447		11	9.09	18.18	27.27	45.45	0.00		
	SIMILAR COL	3.51264	3	0.87063	-0.48	277	1.08	6.14	49.10	27.80	15.88		
	COLLEGE	3.41767	3	0.84057	-0.39	18,019	0.84	6.64	56.42	22.10	14.00		
10. Quality of readings and/or assigned course materials	INDIVIDUAL	3.45455	4	1.50756	0.00	11	18.18	9.09	9.09	36.36	27.27	100.00	10.53
	DEPARTMENT	3.45455	4	1.50756		11	18.18	9.09	9.09	36.36	27.27	100.00	10.55
	SIMILAR COL	4.14079	4	1.01351	-0.68	277	1.81	6.14	15.88	28.52	47.65		
	COLLEGE	3.81572	4	1.03458	-0.35	17,994	2.29	7.80	27.28	31.30	31.33		
11. Overall, this course was	INDIVIDUAL	4.00000	5	1.34164	-0.55	17,994	9.09	9.09	0.00	36.36	45.45	100.00	31.58
	DEPARTMENT	4.00000	5	1.34164		11	9.09	9.09	0.00	36.36	45.45	100.00	31.36
		4.00000	5 5	1.10585	-0.14	276	3.99	5.43	14.13	23.91	52.54		
	SIMILAR_COL												
12. This course was graded fairly	COLLEGE	3.94737	4	1.10884	0.05	18,013	3.53	7.61	20.24	27.84	40.78	400.00	400.00
	INDIVIDUAL	5.00000	5	0.00000		11	0.00	0.00	0.00	0.00	100.00	100.00	100.00
	DEPARTMENT	5.00000	5	0.00000	0.00	11	0.00	0.00	0.00	0.00	100.00		
	SIMILAR_COL	4.76173	5	0.62053	0.38	277	1.44	0.00	1.44	15.16	81.95		
	COLLEGE	4.59765	5	0.74190	0.54	17,972	0.64	2.04	5.53	20.49	71.30		

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Question

- 1. What were the strong points of the course?
- 2. What were the weak points of the course?
- 3. What should the instructor do to improve their teaching?
- 4. What is your overall opinion of this course?

Comment

1. Feedback from assignments

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- 2. weekly assignments due
- 3. n/a
- 4. definitely necessary for this pursuing data science or in econ MA programs!
- 1. being able to try but possibly fail without being a detriment to your grade

inclusion and collaboration to encourage learning

- 2. n/a
- 3. nothing he's great
- 4. appropriately challenged me in the best way
- 1. The class had a low-stress environment from a grades perspective which made it much easier to tolerate the initial newness of the material and learn by working with it. I learned a lot more than I expected to, and much more than I have in the past in high-stress environments (other grad-level econ courses). Also I think that we as a class (and myself personally) produced a significant amount of good quality work
- 2. I can't think of any!
- 3. Sometimes I needed a little more explaining as if I were 5 years old to understand some concepts. Overall I learned and understood way more than I expected to though.
- 4. This class should be required for the BA+MA program. I can't imagine graduating and trying to get a job without it. I truly believe that it decreases the chances of being unemployed by like 50%. The content is perfect and the teaching is wonderful.
- 1. Dr. Ransom was the strong point of the course, he was always available and could answer any question that was thrown his way. He also seemed to care a lot about us as students and was willing to do whatever he could to help us learn.
- 2. There were no weak points in the course, using github and the Latex applications were difficult but I think it will help us students have more success in our careers in the end.
- 3. Dr. Ransom just needs to keep doing what he is doing, he is one of my favorite teachers that I have ever had and has impacted my schooling and life in a positive way. He needs to make sure and tell other teachers how he does things because if every teacher was like Dr. Ransom school would be enjoyable for everyone.
- 4. It was great. I would recommend it to anyone.
- 1. I really enjoyed learning about how this class related to the real world (ie: Econometrics vs Machine Learning)
- I felt I learned a lot about different programming languages and I feel comfortable using them
- 2. The subject matter was sometimes confusing, but Data Science methods usually aren't the most stimulating.
- 3. NA
- 4. I really enjoyed the course, overall.
- 1. Dr. Ransom is one of the best! He is so knowledgeable, kind, and is willing to lend guidance to students who have questions about the course or the subject matter more generally.
- 2. 3.
- 4. Really enjoyed it!
- 1. Covered a very broad range of useful topics, as a Student I learned a variety of things that might be helpful in the field of data science.
- 2. It's strength might also be considered its weakness, many topics were covered in the course, but none of them really felt like they were covered as thoroughly as they could be. For instance, SQL was covered in the course. I happen to have SQL and Microsoft SQL studio set up and I am familiar with them. I already know SQL, but to me it seemed that the lesson on it didn't really cover it well or in depth, and if I was just hearing about SQL for the first time, I wouldn't really understand it. This held true for a lot of topics covered. Scraping is another instance where I felt like the topic only got a fraction of the time that could be spent on just learning the basics. I've since been trying to learn more about web scraping from someone else I know who understands it well, and after spending more time with it it is another thing where there is far more to it than is covered in class. It seems to me that in many topics like this, only the bare bones are ever covered, leaving a lot unexplored.

This was a lot of writing, but the summary of it all is I have to wonder if this class is maybe too ambitious, or could be solit into a data science 1&2, or something along those lines. It was hard for me to stay engaged when hopping around to many different topics, and I felt I dign't get as much from them as I could have while in class. I think tweaking the syllabus to cover less, but with more depth, or extending the class into multiple courses, could make the course feel more rewarding, and improve the amount learned on the subject.

3. I've already laid out what I thought was an issue with the course overly thoroughly in question 2, but just to go on a little further, I think the teaching could benefit from a more bottom-up approach. That's a little vague, but to try and give an example of what I mean: Frequently we use complex packages and methods in R, but it occurs to me I don't even know how to write a loop in R. It seems that code is given showing how to complete a certain task, but I'd like a more thorough understanding of what and how the code does what it does. I suppose it feels like I just copy code without really understanding it, and it leaves me feeling there are gaps in my knowledge. To again attempt to pull a specific example to try and make myself comprehensible, I remember learning the %>% mutate method/function in R to change datasets. It was

mostly just something that I copied in an in class lab, and didn't understand. I now know that the %>% is part the the magrittr package, and is used as a pipe and to nest/chain methods. Most of the code learned in class feels the same, I just copy chunks of it knowing what the goal is, and not how it works.

For me, at least, I think that taking more time to discuss exactly what the code was doing would be helpful.

- 4. Overall, despite my ramblings and notes, I thought the course was a good one and am generally glad I took it. Learned a variety of interesting things I look forward to building on in the future.
- 1. (1) Really provides a good start at coding in different packages
- (2) A good headstart to learning more about ML and Data Science
- (3) Course material was well designed.
- 2. (1) Too many problem sets, leaves little room to work on the final project
- 3. (1) Maybe dedicate both the PS10 and PS11 to the research project rather than only PS11, that would be helpful.
- 4. Overall, the instructor was really good at teaching this course. The course material was well designed and gives a good introduction to the Data Science field and its applications to Economics.
- 1. Organization of the course was impeccable and the material covered was recent and relevant
- 2. I personally think a little of a lot of things was covered. It would be better if more of specific topics are covered.
- 3. I think the delivery style can be improved a bit otherwise not much. being a little louder would be better.
- 4. I liked the course.

1.

- 2. Class management.
- 4

Response Key

- 1. Extent to which the instructor contributed to your learning
- 2. Ability of the instructor to respond to a wide range of questions about the material in this course
- 3. Instructor's promptness in returning exams and assignments so they could be useful for learning
- 4. Instructor's ability to encourage critical and independent thinking
- 5. Instructor's ability to stimulate continuing interest in the subject matter
- 6. Overall instructor's teaching effectiveness was
- 7. Instructor's management of the course was
- 8. Amount you learned in this class
- 9. Workload of this course compared to others a similar level
- 10. Quality of readings and/or assigned course materials
- 11. Overall, this course was
- 12. This course was graded fairly

- 1 = Far Below Average, 2 = Below Average, 3 = Average, 4 = Above Average, 5 = Far Above Average
- 1 = Poor, 2 = Fair, 3 = Good, 4 = Very Good, 5 = Excellent
- 1 = Poor, 2 = Fair, 3 = Good, 4 = Very Good, 5 = Excellent
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- 1 = Poor, 2 = Fair, 3 = Good, 4 = Very Good, 5 = Excellent
- 1 = Poor, 2 = Fair, 3 = Good, 4 = Very Good, 5 = Excellent
- 1 = Never, 2 = Seldom, 3 = Occasionally, 4 = Usually, 5 = Always