Spring 2020 Course Report FAS-GOV 1005-Data 001 David Kane

Project Title: **2020 Spring Harvard FAS Course Evaluation**

Course Audience: **119**
Responses Received: **91**
Response Ratio: **76%**

Report Comments

Note:
The order that the questions appear on this report is not the same as the way the questions were displayed to students.
The order has been changed to make the report more readable.

Creation Date: **Tuesday, May 26, 2020**

Course Questions

Considering only the first half of the course (on campus), what were the strengths of this course? Please be specific and use concrete examples where possible.

Comments
fantastic professor who wants those without experience to succeed.
Lecture, study hall, Kane's personality
It was the first and only time in my life as a student that I found a lecture to be worthwhile. Instead of the lecturer reading more or less the content of his ppt, you solved tasks yourself.   The lecturer put an incredible amount of time into preparing the materials for the course. All exams, PSets, and even a book (which is available online for free!) are provided especially for this course.   The course had a much more personal atmosphere. Although there were over 100 people in the course, the instructor knew the names of all the students, and I also got to know the majority of the students. The lecturer took the time to invite groups of students for dinner almost every week, so that we got to know each other better.
A very strong emphasis was placed on getting to know my classmates and fostering community. We started every class by filling out a spreadsheet of the names of those in our circle, and it was a definite strength to have that community throughout the semester.
The course sets clear expectations for passing. There are many rules that can be accessed on the course website. You will learn how to code in R.
The strengths of this course were the study hall hours and the data camp. That's where I did most of my learning. The student staff of this course are amazing. They have all been very helpful and great tutors and mentors.
The community created both in class and through study halls.
This class was incredible. I've never felt more comfortable with a programming language before, likely because we focus on it through out the semester instead of spreading ourselves too thin with too broad material. Well taught.
Strong collaborative opportunities and a fantastic introduction to the world of data and programming. Eye–opening regardless of how much data analysis experience one may have. Truly the most useful course I have ever taken.
The in–class partner exercises were particularly effective when working in person with someone else. Additionally, I found Preceptor's pedagogical style to be much more effective when in a classroom with the rest of the class (not that it wasn't effective off campus).
This course is incredibly in–depth and, if you want to be a data scientist, it gives you all the tools you need to use R effectively. The problem sets we received were really effective at exercising our skills, and the collaborative atmosphere of the class made it really unique.
Interactive learning during class.
lecture socialization, ca's study halls
This course covered a lot of material and provided constant, hands–off training in data science.
IT was taught in workshop style, so we truly learned the material during class.
The resources offered by the course, from study halls to Piazza, were really helpful and allowed me to get the most out of this class. This course is way easier than advertised if you have some relevant experience (Stat 104 and CS 50 for me.)
Really enjoyed Preceptor Kane, the cold calls kept me engaged, you could tell the TFs were so heavily engaged with the class too, you got to know so many people (probably top 2 biggest draws of the class). Also Preceptor Kane really gives you so many life skills. The guest lectures were great too. I feel like we went through so much and learned so much in the first half of the course (and I do feel like that did kind of stagnate a bit once we moved towards the online setting).
Free snacks sometimes. That's about the only strength of this course to be honest.
Great community! The problemsets were really helpful. I also think the textbook was useful.
When the preceptor tells you that you will learn the names of all of the people in your house/area, he's not joking. I talked to more of my peers in this class than any other and found class time really fulfilling for that reason. It was also easy to find p–set groups, since I was interacting with everyone already anyway. This class was also great at supporting students. There were opportunities to meet with a TF, CA, or the Preceptor on almost every day of the week.
assignments did a great job of teaching and implementing coding techniques in a way that made me internalize them; house neighborhood–based seating helped develop a smaller community within a challenging class, which was helpful throughout the semester.   sections were also very helpful and a good way to keep us focused on the final project.
This is truly one of the courses where you get what you put into it. At first, some of Preceptor's strange habits and traditions (eg.

Comments

write a thank you note to a Harvard affiliate, or repeat how to create a github repo every class) might seem like a waste of time or irrelevant, but if you play along, you'll eventually see the carefully considered value in each activity. Preceptor cares deeply about the long–term success of each student in his class, and all students should take advantage of that. I enjoyed the lectures and guest lectures, and the study halls were very helpful to getting the p–sets done. I certainly met and got to know more people in this class than any other class. The course staff, both CAs and TFs, are incredibly dedicated and go above and beyond their responsibilities.

Being lectured! It was great having the professor explain concepts as opposed to being confined to breakout rooms when it came to learning.

Super super useful course material. Everything felt immediately applicable. Preceptor did a great job showing how all the material could be used to pursue our own interests and goals.

Loved study halls. Got to meet a ton of amazing people. Lectures were interactive, and therefore great.

1. Learned more than I did in any of my other classes. Probably more than any class I've ever taken.

2. Teacher is very clear about the expectations of the course from the very beginning.

3. Strong support system with lots of TFs and CAs on hand to help (notable examples: Shivani Aggarwal (TF) and Yao Yu (CA) were huge helps).

4. I got to know all the other freshmen in the class because the preceptor emphasized collaboration and name–learning.

On hands learning, everyone was fun and welcoming, you get to meet so many people, the pace of the course is just right. One of the best courses I have taken during y time at Harvard.

Hands–on learning, fast–paced but mindful of the different capabilities and experience in the room.

This course makes good on its promise. Preceptor will make you work hard, but if you're taking the course to make progress then he will make sure you do.

lots of datacamps to stay accountable, lots of in–person help to review code together

The strengths of the course were preceptors' engagement with students. He made sure to get everyone's name and engage with them personally. I thought the pedagogical approach was more refreshing than any other class I have been in, and I thought it conveyed difficult topics in the best ways possible. The guest lectures were very engaging and showed the relevancy of the course material, and the resources were definitely A1 as they were bountiful.

Preceptor is a wonderful professor that fosters a strong sense of community between students. Cold–calling, though initially intimidating, ensures that you are on your game. More important, there is no penalty for not knowing the answer.
Study Halls were extremely helpful and allowed students to interactively solve problems. Though the CAs varied in their structure and/or helpfulness, the large majority of Study Halls were great resources.
Guest lecturers were a joy.

This course is super transparent in its aims to teach students how to use R, and I think it absolutely delivers on those ends. I feel so much more confident in my abilities to both use R and translate these skills over to other languages! It really inspired a love for gaining technical skills, and I hope I can continue to improve them!

Psets are helpful in consolidating the key concepts of the week.

Felt like I was learning new and exciting material, was motivated to be in class, was meeting new people and having an experience different than those I usually do in classes

David Kane is an absolute legend. Cold calling, his mini–lessons on networking and life in general, and his overall teaching style were a highlight of second semester.

Did a great jobs of teaching R, encouraging us to step outside of our comfort zone (and make new friends in the class), and making connections to the real world.

Really interactive, lots of cool speakers, got to work closely with other students in the class

Preceptor is incredibly invested in his students. Content is meaningful and very useful in the workplace. The pace is not too fast. I had no coding experience before this class, and I had no problems keeping up.

Very engaging classes, great preceptor and TFs, fun problem sets and exams

The course was very engaging and always highlighted the relevance of the skills learned in the real world. Preceptor was very funny, and genuinely cared about the students.

Strengths: This class uses a lot of self–directed and peer–to–peer learning strategies.

The class structure was really helpful to learning how to use R and develop data science skills. I really benefited from the partner structure and the very interactive nature of the class.

The course had so many virtual forms of support (textbook, Datacamp, Piazza) as well as in person forms of support (TFs, Study Halls, etc.) to help students feel supported in a timely fashion. I had never done programming before and was extremely intimidated but the course does an amazing job at hand holding while letting you move autonomously if you are comfortable doing so. What you

Comments
put in is what you get out, and it's actually very difficult to do unwell or do badly in this course.
The course really made a point of teaching students R Studio, which I really enjoyed.
The readings were fascinating. Great dynamic between Professor and Teaching Fellow.
I loved the interactive, extremely engaging nature of the course. This is the only course of this size I've taken at Harvard in which learning classmates' names is not just encouraged, but required. Lectures are participation–based and the CA study halls (office hours) were helpful.
I really appreciated all the opportunities to engage with the other students, as well as the teachers, outside the class.
I found working with our peers to be very helpful as I learned a lot from them. In addition, I really enjoyed that we had to sit in different locations at every class because I was able to meet so many new people.
close collaboration, hands–on learning, and the overall environment that the teaching staff (including the undergrad CAs!) tried to foster were wonderful
I loved the way Preceptor enforces his policy of having students get to know each other and interact with one another in class. Not a lot of classes recognize the importance of this and I really appreciated it throughout the rest of the semester!
Collaboration during lectures and study halls. Openness and availability of course staff during OHs. Interactive lecture format.
My favorite class at Harvard. The preceptor truly cares about everyone in the class and made an effort to encourage all the first years to get to know each other. His wife makes us delicious treats. R is a very practical skill in the real world and everything from take–home exams, to partnered coding in class, to Datacamp, to study halls was helpful in making us all familiar with the content. The final project is something we can add to our professional portfolios.
Great to work with partners. great snacks, great class vibe
Very good interactive element. Good TF and class study groups
Good community, plenty of study halls, supportive preceptor.
The problem sets were always incredibly informative and instructive. Despite the amount of time I spent on them, I completed them with a sense of accomplishment.
lots of teamwork and discussion among students, wide variety of resources
Strong support structure that enhances learning experience (study halls, TF sessions, etc.). Large class yet preceptor makes a significant effort to keep a feeling of warmth (snacks!).
A great course that teaches data science without assuming any prior knowledge and/or computer skills! I enjoyed the social aspect of the course as well as the snacks!
the in–class interaction with peers
Preceptor is quirky, whimsical, and sometimes just odd. But the course meetings were tremendous, and I truly got to know the community in the course (there's office hours and study halls literally ever day, and you will know all the people in your grade in the course by the end of the course). Preceptor had lunches with students, made himself accessible, and taught a lot more about what it means to be a professional outside of just data science itself.
The class makes you think outside of the box and admit when you do not know something.
–Sitting with your house –Meeting new people –Working in class –Study halls!!!!!!
Great collaboration! Very fun and helpful!
Very engaging classroom environment; hands–on learning; good explanations of core concepts; collaborative atmosphere.
Definitely the community! I also liked the cold calling, because it kept us on our toes and kids paying attention. I also liked the partner work that we had to do. I liked the snacks of course. The study halls were also incredibly useful.
Great class, truly a beginner class for an intro to R
Very collaborative, well–taught course. You can go in with no programming experience whatsoever & emerge proficient in R.
I liked the collaboration that was encouraged among the students as well as the study halls that helped us complete the psets.
The course is really interesting and definitely useful.
It was a course that really encouraged participation and classroom enthusiasm, which are hard to generate and, in my mind, important. It also offered me a chance to meet fellow students more than any of my other classes.
The course is super hands on so it makes the hour and fifteen minutes go by so far. the skill you learn in the course are also super valuable and have made me much more confident in my data analytics abilities.
This course supported a wide range of students from various backgrounds in learning data science and provided support through the teaching staff and class structure tailored to allowing students to meet and learn from one another.

Comments
I liked that class time was used for problem solving and the close–knit structure of section/TF meetings.
The preceptor is highly understanding of people who have never coded in their lives, and does a great job of onboarding those folks to the world of R. He also forces students to talk and work with each other, which is really refreshing. You NEVER feel bored during this class, which quite frankly was a first for me at the college. Also, snacks.
GOV 1005 is the best coding class, in terms of structure and learning objectives, that I have taken in both undergraduate and masters. The in–person first–half of the course taught me a tremendous amount about how to co–code, co–learn, and even teach my fellow students. Ultimately, this made me a better data scientist. Additionally, Preceptor runs a tight ship – the class is incredibly organized and students are forced to participate – which leads to a positive learning experience.
– You can't fake it. To do Gov 1005, you actually have to learn and engage with the material – I found a lot of the miscellany incredibly annoying (know your neighbors, send an email to someone in the alumni network, etc), but I understand why Preceptor does it – I'm very grateful we only used DataCamp for the first few weeks. I found DataCamp to be an effective learning tool, but I don't think I could have sustained the amount of "dead" time necessary to complete it throughout the semester. – I loved the guest speakers and snacks
The course was exceptional. Preceptor is an expert at managing a large classroom, and utilized group work well to make sure everyone was engaged and learning.
Interesting content with invested teaching staff and Preceptor. Great emphasis on real–life skills and meeting fellow students.
That it fosters a great sense of community in the class and that the preceptor is incredibly hands–on and involved in your learning. There were always opportunities to get help if you needed it.
Very data–driven and used R every day, which Preceptor promised.

Considering only the first half of the course (on campus), how could this course be improved? Please use concrete examples where possible and provide constructive suggestions.
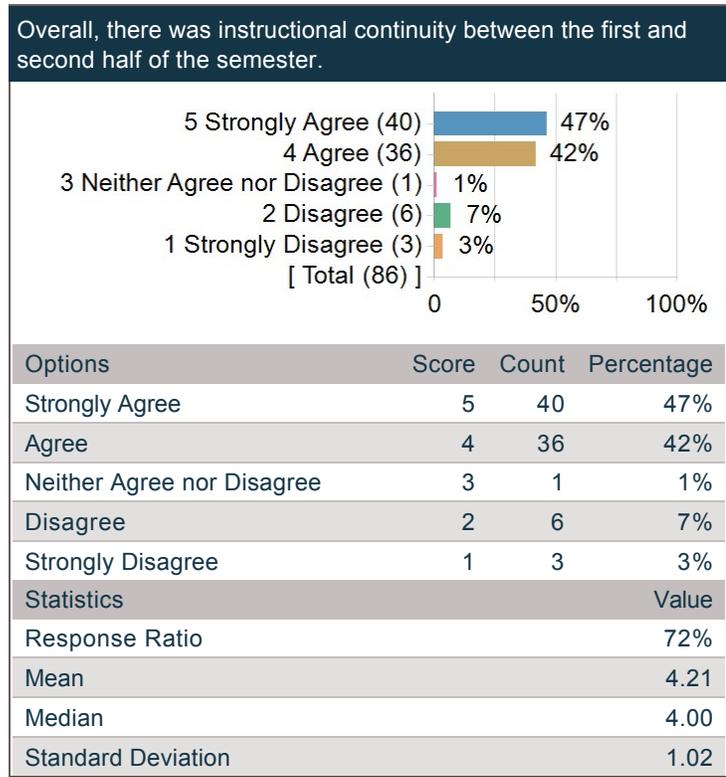
Comments
No comment
data camp initially was kind of a pain
I see no way to make this course any better.
I think the TF meetings could be held in groups more often than they were this semester.
This course is for anyone who has never coded before and really wants to invest the time in learning R. If you have ever coded before, SKIP IT. The style guides provided are not suggested and do not resemble conventions I've seen in data science roles. This will result in you either undoing your entire coding style or becoming immensely frustrated, spending more time digging through the many rules (some very helpful, many incredibly arbitrary) of the course to complete the psets and exams. Deductions are punitive and the course staff is not helpful in many cases. Gov 1005 is a great example of a course that was probably very good for its original, smaller audience, but has grown too fast for course staff to keep up. Grading has been automated this year (which is frankly unacceptable for the number of TFs hied) and TFs are not willing to regrade. Personally, I never received a response to any emails I sent to my TF, and the course has such a weirdly hierarchical feel to it that that is a major problem.
The teaching staff were very helpful throughout the course, but personally my TF was never present. I felt like our weekly meetings were wasted time. The lectures were also less than stellar. I think it's great to do examples together and practice as a class but at times it was chaos and we did the same thing for three weeks just committing things to github. The pace of the class suddenly ramped up in the middle and I wish it was more evenly paced. Also I wish we switched seats earlier.
More clarity on goals of each class, what we are attempting to accomplish before we start.
I thought the cold–calling was absolutely terrible, and it doesn't increase engagement nor awareness.
It would be nice if there were greater incentives to attend study halls – I didn't often need to attend them because I had already done most of the work on the problem sets, but I enjoyed the times I spent there (could be more of a problem of self–motivation).
The class moves way too fast for beginners and has an overwhelming amount of work. I had no time for any other class.
Less cold calls!
This course could be improved by allowing a little more time for groups to work on the assigned tasks while in class.
Nothing,
The pedological approach for taking points off for every small thing is nonsense, but whatever. Translate the scripts part of the course from the second half to the first half. Made the classes way better. Also, I do not know if this would make sense in person,

Comments

but I really liked the groups that we kept together throughout the year.

Less DataCamp. Less overall assignments, having three to four different assignments a week is really hectic and demands a lot of attention from the students that I do think is fairly unreasonable / could be improved on by making things due all on one day.

This class is a sham. Way overhyped. As someone who is CS–experienced, this class teaches you nothing about actual data science. It's just about data visualization and really non–technical things. Also, psets and exams are graded strictly for no reason – putting not enough spaces between comments, for example. It's just really nitpicky for no reason. No value on technical learning but just a surface level class. Also even on campus, going to class was a complete waste. Didn't learn anything and just spent class typing code as a class.

The structure was so hard to keep on top of. There was no single source of information so I kept going on searches through the syllabus, piazza, email, and canvas. There were also so many deadlines every week. I think it might be easier if you made all the assignments due on a single day each week (ie. everything due on wednesday). Then, students can choose when to work on which assignments as long as everything is in on time.

There were errors & ambiguities in many of the psets and exams. This lead to unnecessary confusion. There were also too many communication platforms. All messages should have been sent via Canvas OR Gmail OR Piazza... not a mix of all three.

problem sets were *really* difficult at the beginning of the semester, and could have probably been just as effective at teaching topics if they were closer in difficulty to the last few assignments.
more emphasis on shiny earlier in the semester!

My TF meetings did not feel very helpful on campus or once we left it. Mine didn't really have a structure, so it was mostly time for individual questions on the final project, but because mine took place the day before a p–set was due, I was always focused on that and didn't have time to make any progress on the final project in order to ask questions during my TF meetings. I probably could have done just as well in the class without the TF meetings, and they seemed to be a lot of work for the TFs to run. I would recommend having TF meetings be by appointment instead of regularly scheduled, but still a requirement. Students could choose, for example, four dates throughout the semester (evenly spaced out), when they have updates/questions on their final project to share with their TF. This would allow students to take more advantage of the time with TFs — because I had no updates on my final project during most of the meetings, I ended up filling it with questions that weren't that relevant or helpful.

In addition, I could tell a lot of time has been put into the textbook and some parts are helpful, but I think it needs some work before it can truly be a complement to the class. For one thing, it is very long and difficult to navigate — I usually ended up googling my questions because I could not locate the answers in the textbook, even if I knew they were in there. More succinct text and clearer section headings would be immensely helpful.

Didn't really understand the point of being told to cold–email people. Felt very geared towards freshmen and it made a lot of upperclassmen super uncomfortable.

The TF meetings were not very useful. They would have been more useful if we covered the key R concepts and been encouraged to ask questions. The open–ended structure often lent itself to wasting time.

The cold calling method is NOT effective. Please stop using it. It doesn't encourage students to prepare; it just makes them feel unhappy with the course and its approach. I don't have a problem speaking in class at all – I'm a very vocal participant, and I don't mind being wrong. That said, I want to be able to choose when I speak in class and not feel like I'm being treated like a child to contribute.

Datacamp was not that helpful.

For when we go back to in person teaching, the TF meetings should be in a group for the first half and one or one for the second half, as you start to focus on your final project. This was something that was really helpful when we moved to remote learning

The class time felt overwhelming sometimes, there was a lot to do before, during, and after. Maybe adding 15 minutes or so to the schedule will be beneficial.

Dont expect to feel like you are always on a structured path. Sometimes it feels like none of us know where class is going next.

integrate the one–on–one office hour style help in the second half of the semester to provide more tailored assistance, maybe have longer sections? they were incredibly helpful, I wish I had more opportunities to do them. Also, changing due dates for datacamps to be before class

I wasn't a big fan of the last two DataCamps and felt that it started off at a very fast pace. There is a lack of lectures on certain concepts (for me, mainly sampling), and I did feel as if the pace was dictated at some points by technical issues in the class.

I wish that we spent more time learning statistical techniques (hypothesis testing for one) and the logic behind them, as I feel like we quickly were introduced to a lot of techniques (random forests etc) without knowing what was really going on behind them. Also, I feel like it would be beneficial to get to know more base R.

Could have covered more materials and go more in–depth about stats

I think toning back the amount of DataCamp we're assigned is a good idea, but I'm not sure I agree that getting rid of it entirely is the right move; I definitely learned a lot from it, as tedious as it often was
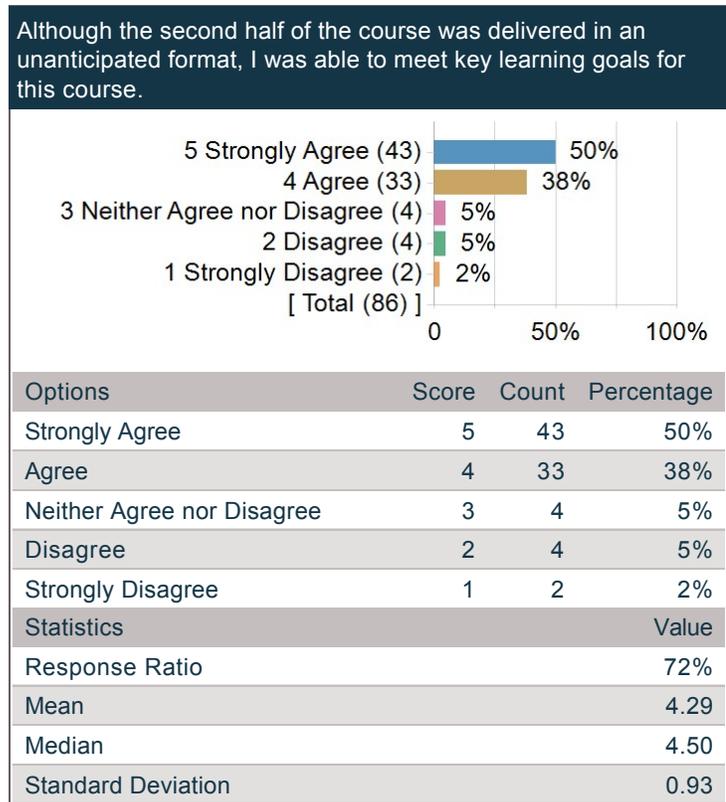
Comments

Honestly, no comments here. I consider Gov 1005 to be a near–perfect course in its current form.

Sometimes instruction moved very slowly. Repeated same topics that were already discussed/understood

Sometimes the TF meetings weren't that productive in the first half of the course, but that also might have been due to lack of preparation on my end

Lectures, especially the first few, had little structure, and sometimes I felt like I didn't come away with any new knowledge after a lecture. Also, there is some wasted time with constantly going over how to clone/download a new repo at the beginning of each class. Preceptor could definitely streamline some of his in–class tangents, and class might be more productive.

There could have been less data camp

The workload is very considerable, and perhaps this could be lightened a bit as it made the material much less enjoyable.

Second semester definitely did better in terms of accounting for the pace differences between those with more experience and the "poets and philosophers". Having all of the prompts available in each of the class files was really helpful.

I think Preceptor should do actual lectures (sans exercises) for some of the topics so that people can do Q&A about foundational concepts. A lot of times I read the textbook but still didn't find in–class exercises to be that helpful in improving my understanding.

More emphasis on basic statistics, even if it means explaining what a p–value is. Regression models were used at random, it seemed, even if they were entirely insignificant.

More structure in section. We didn't always get to all of the readings.

I didn't like how early we had to start making decisions about our final project – I certainly didn't feel prepared in the first few weeks of the course, especially without having learned enough data science to know what would be feasible. I also would've liked to hear more from the preceptor in lecture (a little more lecturing, basically), as opposed to having the bulk of the class be partner programming.

Although I appreciate the efforts of all the CAs, sometimes it seemed like they were not sure about what the problem sets were asking and how best to solve them.

This course could be improved by possibly having video demos related to course content students can view in their free time.

CAs in different study halls sometimes offered different suggestions (which the Preceptor had warned), information sometimes conflicted between Piazza/Canvas/etc when it was specifically noted that Piazza was supposed to be optional — strive for more uniformity

More availability of OHs. More applicable problem sets connected to course material with purpose.

I didn't feel like TF meetings were always helpful. Perhaps people would take one–on–one meetings more seriously? That said, I loved everyone in my TF group and we became friends. It would be valuable to have some group meetings, but alternating between group and one–on–one meetings would have been helpful.

nothing really

Keeping track of deadlines could have been made easier.

I thought lectures were incredibly ineffective in person. I never felt like I was taking anything away from lecture, and even on the weeks when I could not attend lecture, I did fine on the problem sets. The turn and talk to your neighbor method always felt like a waste of time, as we typically finished the problem in under a minute. Lastly, datacamp was a pain to complete, but I actually felt like I learned a lot from it, and I wish we would have continued to complete them.

there were too many competing sources of information and too many on–the–fly changes to problem sets and exams. The class used Piazza and Canvas, which contained overlapping information but sometimes improtant information appeared in only one or the other. Also, the syllabus is helpful, but Professor Kane also maintains his own personal site which has relevant information. Sometimes announcements/assignments were given through email. Keeping up with so many sources was stressful, especially since important information was mixed in with other less important posts (esp. on Piazza and email)

More lectures? More chances for preceptor to talk would be useful in instilling the information learned. Was NOT. A fan of datacamp (so many bugs and glitches that really interrupted the learning experience), however, it was helpful in learning quickly and efficiently.

Much of the time early on is spent on minutiae like the details of visualization that are tedious yet conceptually simple. Instead, I would prefer if some of the more complicated material (models) was introduced earlier in the semester

Sometimes, the lectures seemed to be a bit chaotic, or the technology wouldn't work correctly. However, this seems to be more so from the fact that the course is still in its early stages and wasn't something that bothered me tremendously.

I think having sections with the TFs would be really helpful for working through PSets and coding issues. study halls are hard to attend and lack structure. Working in a small group to figure out problems would be really helpful.

–Have an option to opt out of cold calling (for example, anxiety disorders).

I wish there were more support for understanding concepts like using the map function beyond what exists in the textbook. While eventually I understood it, I do think I could have used some more practice.

Perhaps having clearer problem set grading guidelines

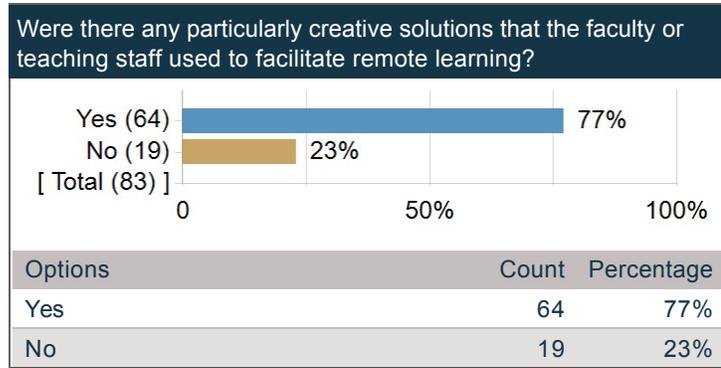| Comments |
| --- |
| I wish there could have been more direct connection between class problems and the things we did in the textbook. I also wish we didn't have to do repetitive thing so many times (like cloning a repo): maybe the first week or two, but after that, I wish we could have spent more time on learning more R. I also don't think we needed so many TF meetings. I think having one every other week at the beginning would be helpful, and then increasing the amount of times we meet as the final project gets closer. A lesson on Shiny could also be helpful. I would also like slightly fewer speakers, since some speakers I didn't get much out of. |
| More interaction with TFs |
| Since there are people of so many skill–levels, it would help if we had sections and partners assigned based on skill level (which they did in the 2nd half of the course) |
| Not much could be improved –– maybe less Datacamp because it was kind of unnecessarily stressful? |
| Professor Kane is just irritating as a professor. I hate calling him "preceptor" for starters, as it feels like some passive aggressive jab at H administration, and I don't think students need to be getting involved with that. Secondly, his teaching strategies are frustrating and annoying, and none of them helped enhance my learning. The cold call system is irritating, his constant sarcasm to students wouldn't be funny even if he was our age, and his metaphor for the class is irritating and egocentric. This course could be improved with a new professor or if someone finally gives Professor Kane an ego check. |
| This class moved slowly for people with a quantitative background, and it didn't really provide satisfying mathematical or statistical explanations for many of the concepts used. I know Preceptor talks about how this is for the "poets and philosophers", but it seemed like there were enough students with a stronger programming or quantitative background to provide resources for this population, too. |
| The psets are sometimes unclear. |
| The textbook sections could have been more linked to classwork; I feel like I didn't have much motivation to read textbook even though I could have likely benefitted from reading it more. |
| Have more study halls by the quad! Having a quad study hall was so so helpful in making coding help more accessible. |
| There is still extreme disparity between students who have coded before and people who have not. For the latter, it can be difficult to reach out, especially because the TFs and CAs are not well–equipped to teach students who have never coded before. There are gaps in a beginner's learning that the instructors are so far removed from that they have a hard time filling them in. Preceptor's office hours are also hard to access. You have to book a 10 minute slot well in advance. Not only are there few of them, but they are often inaccessible for people who have class during that time. A shame because the preceptor is great at explaining R to beginners. |
| I felt it was easier in–person to rely upon classmates versus using the course textbook or piazza. It was nice to have those additional resources, but in the first half of class I did not really use them. Could be good to consider how some students might free–ride through the class while it's in person. |
| – I got points off on the first several psets for little things even though I thought I had read the rubric. Particularly when it comes to style (like how to format comments), it would be helpful to review this during lecture (and make a point of sticking to the style during lecture)

 – I was pretty nervous about posting to Piazza before we went remote (and had no other choice), maybe make it a requirement that we all do a post at some point in the first quarter of the semester? |
| More emphasis on individual–driven projects and data collection would be helpful – instead of doing analysis on staff–provided and cleaned datasets, doing data science WITH data collection more than just the final project would be really interesting! |
| I think the first two weeks should go a bit slower because it's really easy to get lost and frustrated/confused during that period. |

Overall, there was instructional continuity between the first and second half of the semester.

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5 Strongly Agree (40) 47%
4 Agree (36) 42%
3 Neither Agree nor Disagree (1) 1%
2 Disagree (6) 7%
1 Strongly Disagree (3) 3%
[Total (86)]

Options	Score	Count	Percentage
Strongly Agree	5	40	47%
Agree	4	36	42%
Neither Agree nor Disagree	3	1	1%
Disagree	2	6	7%
Strongly Disagree	1	3	3%
Statistics			Value
Response Ratio			72%
Mean			4.21
Median			4.00
Standard Deviation			1.02

Although the second half of the course was delivered in an unanticipated format, I was able to meet key learning goals for this course.

Although the second half of the course was delivered in an unanticipated format, I was able to meet key learning goals for this course.			

5 Strongly Agree (43) 50%
4 Agree (33) 38%
3 Neither Agree nor Disagree (4) 5%
2 Disagree (4) 5%
1 Strongly Disagree (2) 2%
[Total (86)]

Options	Score	Count	Percentage
Strongly Agree	5	43	50%
Agree	4	33	38%
Neither Agree nor Disagree	3	4	5%
Disagree	2	4	5%
Strongly Disagree	1	2	2%
Statistics			Value
Response Ratio			72%
Mean			4.29
Median			4.50
Standard Deviation			0.93

Were there any particularly creative solutions that the faculty or teaching staff used to facilitate remote learning?

Were there any particularly creative solutions that the faculty or teaching staff used to facilitate remote learning?		
Yes (64)		77%
No (19)		23%
[Total (83)]		

Options	Count	Percentage
Yes	64	77%
No	19	23%

If so, please describe.

Comments
Created static study groups
creative employment of break out rooms
We spent most of the time during the lectures in breakout rooms on zoom to solve the exercises mentioned before. However, in the second half of the semester, we did not change our partners every week anymore, i.e. we spent 6 weeks with the same group of 4 people in a breakout room to solve exercises. This made the whole thing much easier because you could overcome the impersonality of a zoom call and get to know a small group of people much better. It was the highlight of my week.
Lecturers ceased entirely in online format. Preceptor declared lecturing to his laptop "awkward" and the entire lecture time was spent in breakout rooms. Implemented as a supplement to lecture, this could have been very effective, but was not an adequate replacement (particularly since groups did not rotate).
I think this class had the best use of breakout groups. Coding in general is easier to do on an online format with sharing a screen.
Creating scripts, using breakout rooms that were consistent, basically changing the way the course was taught so it worked online without sacrificing community or much content.
Really creative and effective use of breakout rooms; TFs, CAs, and preceptor did a fantastic job in preparing class materials
Breakout rooms were used to great effect, and the study halls were especially well organized and helped me get through the semester.
The use of Breakout rooms for group work help mirror the in–class group work we did during the first half of the semester.
Using breakout rooms in zoom was an effective manner to keep students engaged and working together.
I loved loved loved the scripts you guys used for the class. I almost learned more. Pretty much the best transition between class and in–person learning out of the courses I took.
Of all my classes, Gov 1005 definitely tried the hardest to make the transition from physical to remote setting with the inclusion of the breakout groups. But because of the unique nature of the class, I don't think it was nearly the same experience being online. No fault of Preceptor, it's just unfortunate. You could tell he tried hard too.
TF meetings online I suppose that's creative
Breakout rooms with the "scenes"
The staff implemented weekly, one–on–one TF meetings. These made me feel like I was still a part of the course and was up–to–date on everything that was going on. They also provided a place for me to voice any concerns and ask questions. The teaching staff also assigned all students to small break–out rooms that stayed the same week to week. This introduced some much needed regularity to the transition and helped me get to know & interact with classmates, despite the virtual setting.
specific breakout rooms, which like the house neighborhood–based seating earlier on helped develop some community, which was very helpful and made us more productive.
The virtual study halls were helpful.
The breakout room strategy was super helpful. I wouldn't be able to pay attention if class was kept in lecture format. The small breakout rooms took the best parts of the first semester (collaboration and experimentation) and made them an even bigger part of the course.
Breakout rooms were cool.
Preceptor made an Asia section which greatly benefitted the students in that section in terms of time zone accommodation.
Everything was moved online incredibly fast, including office hours, TF meetings, etc. One of the best responses to this whole

Comments

situation out of all the classes I have heard of or been a part of.

The use of Zoom's breakout rooms was creative, useful, well–planned and smoothly implemented.

the teaching class was wonderful with making accommodations, which were incredibly thoughtful and helpful. That said, the accommodations were focused on diluting the amount learned / applied, which while less stressful, is a poor reflection of remote learning overall.

Breakout rooms in which student groups learned the topics together before applying what they learned to certain objectives the class was doing in these small groups together. These also allowed for us to be instructed well as we had CAs coming around and guiding us through these topics and objectives too.

Our final project presentations are typically done in a "fair" format, but they got super creative with Zoom to make everyone co–hosts so folks could 'wander' around pretty much as they normally would!

Breakout rooms to replicate partners and groups in class settings were good. Flexibility by the course staff in modifying the amount of time in breakout rooms and the amount of time "lecturing" was also helpful

Gov 1005 provided exemplary use of breakout rooms. The organization of teaching staff and reformatting of lectures to a virtual format went as well as they possibly could have.

breakout rooms that were the same every single class so we could still learn from and with others

Lots of use of breakout rooms, changing the TF meeting format, study halls, restructuring the problem sets and exams

Doing class in small breakout rooms worked better than I expected.

Fantasic and effective use of break out rooms and TF meetings

Breakout rooms and sharing screen were very nice ways of working in small groups and showing the whole class the correct answers.

Really great use of breakout rooms

Taking full advantage of the breakout rooms and screen share function on zoom

I loved the 1:1 sessions with our TF every week. I also liked having a consistent breakout room of our choice as it allowed us to develop rapport and a learning cadence / culture specific to our breakout room.

The class format changed a lot, with students entering breakout rooms and working on planned worksheets together, then reviewing as a class.

The adaptation of the project demo day to a virtual format using Zoom breakout rooms was very well executed.

I found the 10 minute section meetings on Zoom to be highly effective.

The learning team, notably Preceptor, created an Asia class for the few students that were living in an inconvenient time zone and I'm so so grateful he did so! This was the highlight of my semester for sure!

Using breakout rooms for interaction with other students was a plus.

I loved my breakout room, and that's where we did most of the learning during the remote portion of the course. I liked the Preceptor's rule that someone had to be sharing their screen at all times. It keeps the group focused.

significant use of breakout rooms and partner work made class feel way more meaningful

The preceptor went out of his way to conduct an "Asia class" before the regular class for students from Asia in a significantly different timezone. Much appreciated.

Breakout rooms. Although it came to be a bit of an overdose towards the end.

Extensive usage of breakout rooms

They transitioned to Zoom rooms and having a set group that you work with

GOV 1005 was the only class that expected the students to learn something. Every other class seemed to cut out major chunks of the curriculum or coddled students so that there was not even a reason to try. But Gov 1005 allowed me to continue to learn and have a level of normalcy that was refreshing.

Breakout rooms

Breakout Rooms!

breakout rooms worked well during class

They typed out the entire lecture script in advance so students could get ahead if the pace of the lecture was too slow & even incorporated challenge problems

Piazza!

Online demo days were good.

Continued to foster a communal work environment by assigning students to groups of 4–5 for the rest of semester, who you would work through assignments with during class, and then Preceptor would explain the solution after a given amount of time.

Comments
Set breakout rooms
I thought being in the same breakout rooms for classes was a good and creative solution to not being able to pair program as well remotely. I enjoyed learning from and getting to know my breakout room. I also liked the one–on–one TF meetings, especially closer to the final project due date.
Breakout rooms were so so helpful. I feel that study halls were better too because remote required more one–on–one help.
Breakout rooms, organized RMarkdown files with prompts and code, restructured 1:1 sessions with TAs.
We establish permanent breakout groups, with which we worked on mini–problem sets in each class.
Being assigned to the same breakout group each lecture helped me build a smaller community within the course.
I thought the course staff did a great job at adapting to remote learning. I enjoyed working with my break–out group each lecture and getting to know them better.
Lectures became more group–problem solving oriented, which was conducive to remote learning since Preceptor couldn't share his screen on the large board.

What was/were your reason(s) for enrolling in this course? (Please check all that apply)

Options	Count
Elective	60
Concentration or Department Requirement	29
Secondary Field or Language Citation Requirement	12
Undergraduate General Education Requirement	1
Expository Writing Requirement	0
Foreign Language Requirement	0
Pre-Med Requirement	0
Divisional Distribution Requirement	2
Quantitative Reasoning with Data Requirement	10

Transition to remote instruction

In this course, what aspects of remote learning worked well?

Comments
Zoom lecture in breakout rooms was handled extremely well
Everything, actually. I learned just as much, had just as much fun, and continued to meet new people from the course.
It was extremely simple to share screens and view each other's computer code, where it wasn't as streamlined in person.
Honestly, I expected this course would transition well, given how "techy" it bills itself to be. It did not go well. This was the worst of any of my classes.
I'm really glad that the course made the course assistance available for one–on–one help for final projects. I contacted one of them and they walked me through leaflet and it was really helpful.
The scripts and breakout rooms.
The course actually improved when we switched to remote learning. The class became slower–paced, the work became more manageable, and I was able to devote more time to my other classes. The breakout rooms were used to a great effect, and I was still able to work with the other students, which kept me engaged. Having virtual study halls were also incredibly effective, and I quite enjoyed them.
course remained largely the same as before.
piazza, zoom, ca study halls
I think this course translated well to remote learning so I'd say all aspects.
Preceptor really did his best to accommodate students and keep the learning effective.
The scripts and entire in–class experience was great. I also liked our permanent small groups.
I'm kind of conflicted about the Breakout Group because I do like some aspects of having continuity, but at the same time you do kind of lose out on that uniquely Gov 1005 quality of getting to know new people. At the same time meeting new people over Zoom

Comments
can definitely be incredibly awkward at times so I'm not really sure how that's supposed to work.
Had frequent breakout rooms in class which made remote learnign more fun. not necessarily more effective.
breakout rooms were surprisingly productive
breakout rooms and ten–minute TF meetings to focus on project issues
The lectures were still helpful and I appreciated that Preceptor provided more of his code so we could compare our answers. I also found the virtual study halls to be very helpful still. I also thought Demo Day was a huge success although I would have appreciated more accommodation for students on other time zones besides ET.
Not much
The breakout rooms were super helpful.
The class is largely on computers anyway, so in terms of actual learning capability there was minimal dropoff.
office hours, assignments, lectures, TF meetings
The use of Zoom
Following the book to give more structure
Coding directly and having guidelines to help us in the process – I feel like this applied guidance instead of the lecture format was more helpful than seeing code and listening and then doing it.
In my opinion, the aspects of remote learning that worked well were the breakout rooms and normal lectures as they found ways to teach everyone equitably while also conveying the course material that was necessary in the class.
I think the use of breakout rooms was really well–done, and I still got to know new folks pretty well even from afar! The "scenes" were really helpful to spark conversation and jumpstart learning, and I enjoyed the incorporation of the challenge problems.
breakout rooms
I thought it was done very, very well. It took a bit of time to get our feet under us when we started doing breakout rooms and following scripts during class time, but I thought it ended up working great
Breakout rooms. Additionally, having Piazza and virtual study halls allowed for incredible accessibility and flexibility.
Breakout rooms and then coming back to see how to solve the problem from Preceptor.
TF Meetings were good, lecture was pretty good!
Final project worked well remotely.
Breakout rooms and classes felt very similar to in person
Having assigned breakout rooms allowed us to get to know a small set of classmates on which we could rely for help during class.
Breakout rooms were a really nice way of working in small groups, and it was nice when the preceptor shared his screen as it was much easier to see correct answers than when it was not remote.
Honestly, this class probably had one of the strongest transitions to remote learning. Great use of Zoom features to engage students
The screen share function and breakout rooms
Class kept students engaged.
Piazza was great for remote learning
The course transitioned to an all–Zoom extremely well, actually. Lectures, TF meetings, weekly deadlines, etc. continued basically as they did before. I did appreciate the slightly more simplified problem sets and exams and the course–wide extension on the final project.
I thought everything went smoothly.
the collaborative spirit that we had offline was still there online thanks to the passion from the teaching staff, and they were more than willing to be flexible with personal circumstances
Breakout rooms during lecture.
It's basically study by myself.
Study halls were very accessible, the preceptor's office hours were super accessible (he had a great sign–up system), and I still felt pressure to do all my work. Inviting someone I cared about to Demo Day (which the Preceptor encouraged everyone to do) pushed me to work hard on the final project even though it didn't count for my grade.
All done in R so easy to continue with class work. TF meetings very useful for final project.
——
The lectures improved by a lot once we transitioned to remote learning. I could also tell that the number of errors per problem set decreased even if the errors were not eliminated.

Comments
compared to on–campus instruction, nothing.
Breakout rooms with stable groups of people, clear communication, easier problems sets and exams
We were able to work on problem sets in groups, which meant that the learning experience wasn't too different. Preceptor recorded lectures but also had an earlier lecture for international students, so he went above and beyond!
The lectures and breakout rooms were great. I really liked working with the same group throughout. You really got to learn and helped make class engaging.
Basically nothing.
I thought everything was smooth.
Using the breakout rooms somewhat recreated the collaborative environment in class.
I liked that the classwork was more aligned with the textbook. I also liked that there was less cold calling because I don't think it would've worked well in this format. I also want to say that I think Shivi is an incredible CA! She was really sweet and patient and very helpful. Josh was also helpful in that he would walk around constantly and actively ask us if we had questions even if no one did at the time.
the class structure worked well on zoom
Piazza, lectures, breakout rooms, demo day... basically everything
Given the circumstances, the course handled the transition well. Staff was very accommodating with deadlines and assignments. The breakout rooms worked well.
The problem sets were still straightforward in distance learning. I also liked having a breakout group that I got to know well.
This was by far the best online class I took, and they do a good job of keeping you connected to students and engaged in the class so you aren't just staring blankly at a lecturer for over an hour.
Since it's coding based, most of it was already online.
I thought the breakout rooms worked well and I enjoyed getting to know my classmates.
I think it streamlined a lot of the work so that we hit the most important concepts/tasks first, while cutting out extraneous stuff. (ie: in class, we just get straight to the practice problems)
Luckily, coding is already done on your computer, so you can still do all of the work and show people your code or look at theirs during times of confusion.
Breakout Rooms and restructuring TA sessions to be 1:1 instead of group format. Additionally, restructuring problem sets and exams so that we learned directly from the book.
The difficulty adjusted so that I never really felt like I got left behind. This was particularly helpful with the tests.   The ten minute 1:1s were helpful.
Breakout Rooms and working with people at similar levels.
Group–baed problem solving.

In this course, what aspects of remote learning didn't work well?

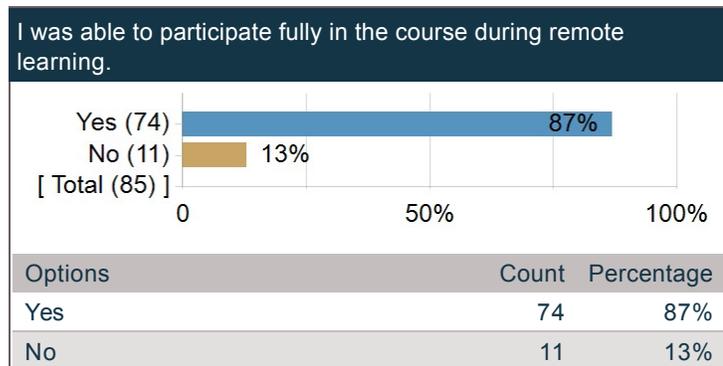| Comments |
| --- |
| Nothing. The only thing that was missing was the feeling of really sitting in the lecture hall – but nobody can change that. |
| That said, constantly switching back and forth to view their code and your code can get a bit tedious. |
| Preceptor said lecturing in front of a laptop was "awkward" so he wasn't going to do it. My TF never answered an email, which was annoying before virtual instruction, but basically unforgivable in the current situation. Some students (myself included) were P/F before the change, and there was no clarity on if the grading standards for SEM/UEM were different from P/F or the same (only letter graded to SEM/UEM was addressed). We only did work in breakout rooms, which were assigned and never rotated (meaning if your group was weaker at coding there was no chance to learn from other students). |
| It was so hard to learn shiny and I wish that there was more guided learning towards that rather than all the students remotely trying to struggle to learn it separately. I stopped attending the virtual study hall hours because I didn't think that the format was really one of the best places for me to learn and I wish there was more facilitation of just students getting together and working on it together. Also I would have liked if the breakout groups during lectures would have changed because I ended up having a group where all of us felt the giving up from each other and weren't really helpful and I knew that if I came to lecture and I spend most of my time with this breaker group, I wouldn't get a lot done. honestly it felt like I could have gotten everything out of lecture by just reading the notes and seeing the code that was written than having actually attended. |
| The study halls, easier to just have study groups but also lining up times was more difficult than anticipated. |
| Preceptor should have lectured us more. The breakout rooms were really ineffective and I didn't learn much as we were either |

Comments
distracted or powering through too quickly (which isn't the students' fault, its a structural issue); consequently, I didn't feel like my time was used well in the second semester.
It honestly improved, so I don't have criticisms. They did a great job.
tf meetings
None.
Nothing apart from rare technology issues.
The TF meetings weren't really helpful.
See breakout room comments above. Also not having cold calling kind of had me lose incentive to attend the live lectures even though I realistically could have (ended up skipping 3–4 classes).
already didn't learn much in class. moving remote made class time feel even less useful.
It was hard to get the collaborative help needed for psets
study halls weren't quite so collaborative in the second half of the semester, which made problem sets harder to complete. and of course, lack of baked goods!
I did not feel that the breakout rooms during lecture were anywhere near as conducive to learning as the lecture parts. Far less time should be spent in the breakout rooms than in the lecture, or at least the breakout rooms should be returned to the main session more often. One of the most underrated aspects of the classroom experience in Gov 1005 was the ability to turn to a neighbor outside of your partner group when you were stuck on code or had a question. Whenever my breakout room got stuck or had a question, there was no other students to turn to, and the only option was to press "Ask for Help" which always feels strange. Even though it might be painful for Preceptor to make his class more of a lecture course, I truly believe this is the only way to recreate the same pedagogical experience online.
Breakout rooms were incredibly unhelpful and redundant. Highly discourage for future remote semesters.
The TF meetings became even less useful.
Though there was one study hall a week at night time EST, I do think that being an international student for this class just made me unlucky because I was unable to work in study halls the way I did on campus. I genuinely missed it.
1. Harder to work on psets in groups 2. Much less fun
Wish TF meetings were 5 minutes longer, meaning 15 minutes instead of 10 minutes
It was hard to follow the class, success was too dependent on the breakout room, classes became slower.
The intensity of class work dropped too sharply
The fact that it's remote learning and we can't easily collaborate on assignments really took away one of the best parts of the class – namely, getting to know others and make friends.
I missed the mandatory TF meetings in which groups of three would come together as it provided an opportunity for group learning and social interactions that were missing once we went online. I also felt as if the study halls were definitely more daunting online than in person as it wasn't as personal, and I definitely missed the personal interactions that came from being in person.
I wish there had been a way to create new breakout groups every class to simulate the real–life course. I further wish that guest lectures would have continued, though it's understandable that this was not possible.
However, I do think that the reliance on breakout rooms really did diminish the amount of lecturing that happened to almost zero — I like how there was a bit more solidification of concepts by Preceptor in in–person lecture, and I wish there were more time dedicated to that.
None– this course was an example for others to follow.
meeting others
Obviously, we couldn't have guest speakers which was a part of the class that I enjoyed. Also sometimes it felt like we spent too much time in breakout rooms during lecture and could have benefitted more from going over solutions as a whole class.
Demo days could have been better in–person
everything worked well I think
It was a little harder to collaborate on psets, which was quite an important aspect and which enabled me to get the psets done a lot easier when it was not remote.
The class lacked the collaborative nature it had before and was hard to recreate virtually
Study Hall was not as effective naturally due to screen share as opposed to pair–programming. I liked the idea of separate breakout rooms for each HW question / portion of the homework.
The staff really backed off on the workload, which was fine for some, but I definitely learned less because of it.

Comments
Zoom lecture experience wasn't the same
I personally wasn't a fan of the breakout–room component of lectures. I would've preferred more continuity in lecture, perhaps with more of Preceptor teaching and walking us through the code himself, rather than switching back and forth unpredictably between the main room and the breakout rooms. Partner programming doesn't really work over Zoom.
I thought everything went smoothly.
while I am thankful that they reduced the difficulty of different problem sets and exams, part of me did wish that we were able to retain the same level of difficulty because it really pushed me to learn more. I often don't take self initiatives and require someone else to push for me to start, and GOV1005 offered that push — and I think that greatly dissipated after remote learning started
Study halls did not work as well.
Everything.
I loved the remote learning portion of the course, but I suppose the experience is super dependent on how much the student likes their breakout group. My breakout group was made exclusively of people from my blocking and linking group, so we had a blast.
——
I found TF meetings to be pretty useless towards the end of the semester. I also found working with the shiny to be so difficult without the help of my peers.
syncronous lectures weren't terrible, but I definitely struggled more with engagement than I did on campus. The presentation of material was much better in person than on Zoom trying to switch between multiple windows to code, collaborate, and watch lecture material at the same time.
Study halls were SO TOUGH! Completely lost collaborative feeling.
Study halls didn't really work
Remote learning didn't work in the fact that it was sometimes hard to keep up, but I think that's across the board.
TF meetings were not very helpful.
Study halls, final project, class (it was so hard to focus)
I wish we spent more time together as a class and less as separate breakout rooms. Sometimes I felt behind because some of my breakout room–mates knew a lot more than I did because of their past experiences with coding.
It is much harder to work through a problem set with the classroom assistants via zoom.
I wish the breakout rooms didn't last so long. I also would've liked if preceptor finished an explanation first before letting us out on time. Although I appreciate that he did that, sometimes I left feeling confused since some ideas weren't explained thoroughly because of the time limit. Given that we don't have to physically go to the next class, I think running over time a little is reasonable. Study halls were still helpful, but it was really difficult attending them because only one person could talk at a time, instead of having every collaborating at all times.
problem sets and exams without in–person collaboration
No guest speakers :(couldn't they just give their talks over Zoom?
The whole mood of the class – snacks being passed around, sitting down and meeting everyone around you, the terror of being cold–called – was disrupted, but there was really no way to maintain this.
Demo day just seemed really strange? Hard for me to compare since I didn't see what it was like on campus, but the online method just didn't work out.
It was harder to pay attention online
I wasn't very motivated to attend study halls and did not get to collaborate with many people after the switch to remote learning.
No person–to–person interaction and harder to keep up with classmates.
Not all breakout rooms are equal. People within a group may be at vastly different levels, which is bad for everyone in the group for several reasons. Some people don't like to work with other people, which means getting stuck in the same group the whole semester is not good. It's also much harder to learn the statistical concepts through R over Zoom, and the textbook is only alright in helping with that. Large lectures over Zoom are generally ineffective, and this course was unfortunately no exception. It's also a lot harder to go to a CA study hall just to work with some of peers who you may not reach out to otherwise, which can you feel isolated in the course.
Sometimes we weren't very productive in our breakout rooms during class. We used a lot of the time to just chat. I learned the most by doing the problem sets and the exams.
Although I understand why it was necessary to scale back the difficulty, I do feel like I learned less – and was "pushed" less post–going remote. I think during lecture, we could have done things a bit more challenging if we did them in the whole group, rather than during breakouts.
Although I liked the breakout groups on the hole, it would have been nice to have some variation in course pace. Perhaps we could

Comments
have done a class all together to go over a more challenging topic. Also, I missed our guest lectures!
Breakout groups were nice, but I think the lecture component of the course should have been maintained remotely. Since we often taught ourselves the material in breakout groups and then did not review together in lecture, it felt a little like "the blind leading the blind."
Going back to the class and sorta having to continue previous class' work in new Github Repos (just make one repo and tell us to continue with the previous class' one the next class!)

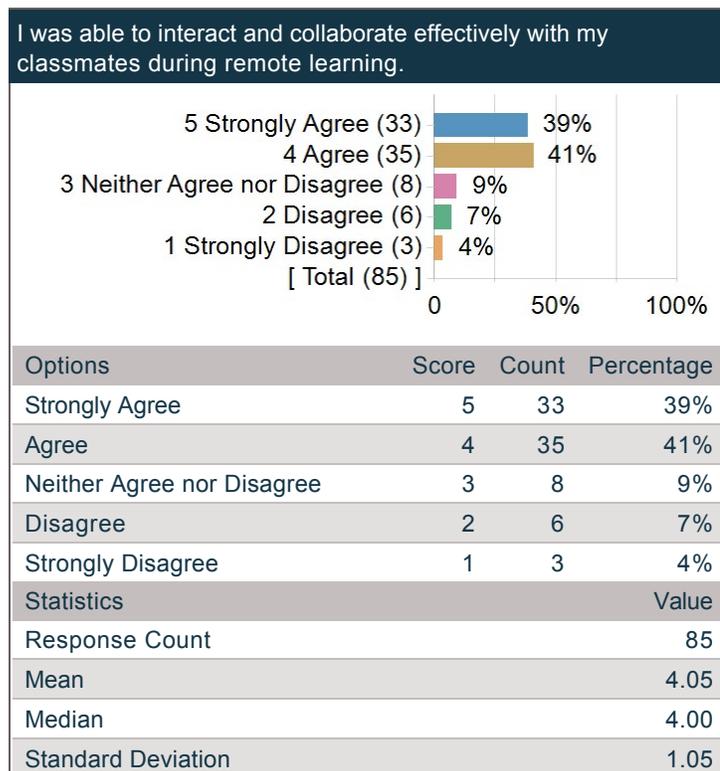## I was able to participate fully in the course during remote learning.

I was able to participate fully in the course during remote learning.

Yes (74) — 87%
No (11) — 13%
[Total (85)]

Options	Count	Percentage
Yes	74	87%
No	11	13%

Please Explain:

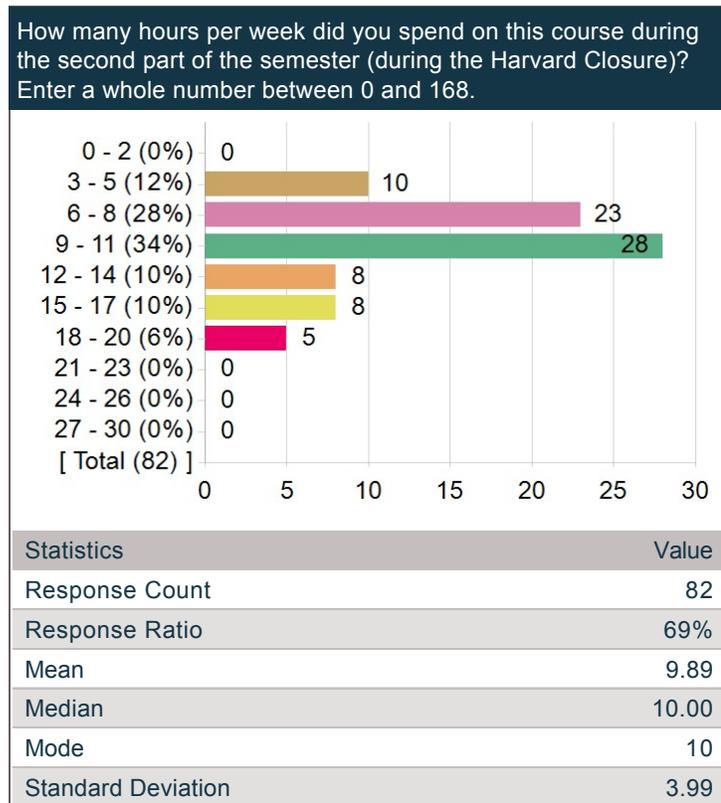| Comments |
|---|
| I love this class |
| The preceptor was very considerate of individual problems of the student, so that really everybody could participate in the course. For example, in the second half of the semester the number of lectures doubled: one at normal times for North America and Europe, and one much earlier for the students in Asia. |
| Nothing was really barred from me in the transition, so my full participation did not change. |
| I live in Alaska and have unstable wifi. I would regularly get dropped from the class, but since "lectures" were conducted in small group breakouts I had to be reassigned to my small group every time it happened, which was mortifying. |
| I was able to participate fully, but it was so hard for this class to do so. It just seems a little ridiculous to come to class prepared having read the textbook when it's so hard to concentrate and learn that way. I wish the course stuff could have provided alternative learning materials than just the textbook at a time when working from home is just working against constant distraction and learning data analytic concepts over a long text book is not the best. Despite this, the course did an amazing job with changing the problem sets in exams to be more accommodating and that helped me stay engaged for the rest of the course. |
| Course load was reasonable for being at home, classes even on Zoom somehow went by quickly and were engaging. |
| They did well making the course work online and were very accomodating. |
| Internet difficulties |
| I showed still went to all class and did all the required work. |
| Skipped 3–4 classes, just cause I felt like a lot of the Gov 1005 qualities of the class were lost and I could gain what we did in class from the GitHub repo and class note recaps on Piazza. To be completely honest, I only showed up as frequently as I did to lecture out of loyalty / responsibility to my breakout room group. |
| My computer often overheated by how much I overloaded it (R Studio and camera/mic on Zoom). Also, received very little help on my final project. |
| Given my at–home conditions I tried my best to attend all lectures and meetings |
| Preceptor held a second session of each class to allow for time differences. |
| accessibility, health, extraneous factors |
| Full props to the course staff! The transition to remote learning was done openly and flexibly, and I felt little was lost. |
| Despite the course being remote, I could still participate in lecture, asking questions and sharing my thoughts when called upon. |
| Being grouped in pace–similar break–outs was really helpful in pushing myself and motivating each other, as well as offering help |

Comments
and support to each other.
The format was intended to keep students engaged, with TFs checking in on breakout rooms regularly.
I remained in contact with Preceptor and my TF much as before and went to Zoom study halls (there were MANY of them available, thanks to the virtual format) to finish the problem sets. My final project was a group project, so I interacted with three other students via Slack, email, and Zoom calls on a weekly basis and much more frequently as we got closer to the deadline.
I found the breakout groups to be an excellent source of participation.
Yes – I don't think my learning outcome would've been very different had the class remained in–person. If anything, the highly motivated and super smart people in my breakout room pushed me to learn more during the second half.
All psets, exams and final projects done.
Study halls were a very nice part of the course, but it is not the same with remote learning. I was not communicating with other students as much after the transition.
The classes remained engaging and the materials provided were clear enough
little interaction with peers and little name–calling :(
Because I was a student with special circumstances (ie, could not go home after the relocation), I didn't have to do all of the assignments at the same rate/pace as normal students. I ended up working with a partner on final projects, I skipped a pset, and in general, just didn't get much out of the course after we transitioned to remote learning.
N/A
Lots of collaboration during class in the breakout room
This was one of the only classes where I was able to remain fully engaged in almost every class! I really liked our breakout groups.
I completed all the assignments and still got to interact with classmates in breakout rooms and study halls.
little incentive to fully learn
I learned how I learn data science best. For me that was reading and experimenting, and iterating on this. Additionally, in trying to gather and organize data where I could find it.
Some Zoom audio problems initially but I figured it out (had to connect using my phone instead of computer)

I was able to interact and collaborate effectively with my classmates during remote learning.

I was able to interact and collaborate effectively with my classmates during remote learning.

5 Strongly Agree (33)		39%
4 Agree (35)		41%
3 Neither Agree nor Disagree (8)		9%
2 Disagree (6)		7%
1 Strongly Disagree (3)		4%
[Total (85)]		

Options	Score	Count	Percentage
Strongly Agree	5	33	39%
Agree	4	35	41%
Neither Agree nor Disagree	3	8	9%
Disagree	2	6	7%
Strongly Disagree	1	3	4%
Statistics			Value
Response Count			85
Mean			4.05
Median			4.00
Standard Deviation			1.05

How many hours per week did you spend on this course during the second part of the semester (during the Harvard Closure)? Enter a whole number between 0 and 168.

Frequency chart and mean excludes students who answered 31 or more hours.

How many hours per week did you spend on this course during the second part of the semester (during the Harvard Closure)? Enter a whole number between 0 and 168.

Range	Count
0 - 2 (0%)	0
3 - 5 (12%)	10
6 - 8 (28%)	23
9 - 11 (34%)	28
12 - 14 (10%)	8
15 - 17 (10%)	8
18 - 20 (6%)	5
21 - 23 (0%)	0
24 - 26 (0%)	0
27 - 30 (0%)	0
[Total (82)]	

Statistics	Value
Response Count	82
Response Ratio	69%
Mean	9.89
Median	10.00
Mode	10
Standard Deviation	3.99

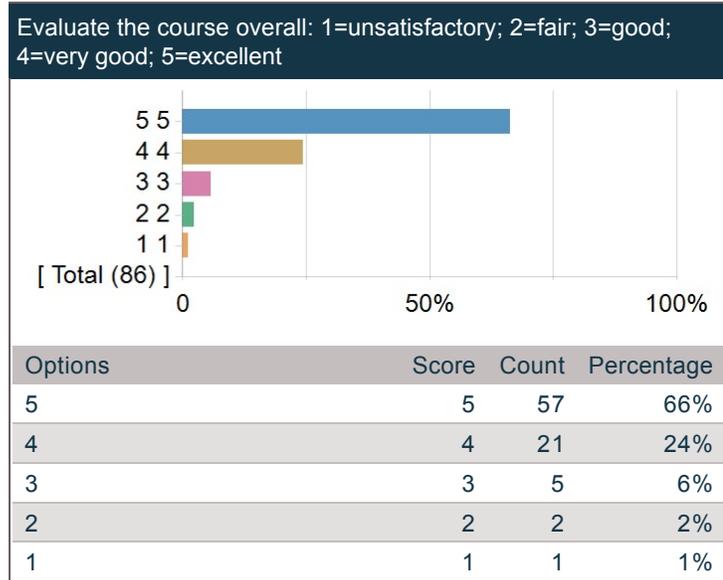**What did you have to do differently as a learner to adapt to remote instruction?**

Comments
I first had to get my workplace set up better at home and get used to the new time rhythm. I come from Europe, so my lectures were in the evening instead of at the beginning of the day.
I had to look programming questions up a lot more as it was difficult to get help from people during study halls.
Attended zoom office hours. Sought resources outside of the textbook online.
I had to be more proactive reaching out to my classmates to do problem sets with them and to ask them questions. I had to rely much more on outside sources like looking up questions on Google and stack overflow. I basically just had to do a lot more solo.
Break up work into smaller more manageable chunks, it was harder to stay focused for long periods of time when not in a study hall/with other people.
I had to keep myself motivated in order to complete all my work, and it became easier when the class was more accommodating.
I designated two areas of my living space for doing school work so that I could have a "work" and "life" balance while doing social distancing.
Nothing
Not much. This course was pretty similar.
Get more used to 1 on 1 zoom work sessions? Didn't attend any office hours though.
not much, because most of learning in this class is on your own anyway
I had to learn most things myself by googling or using the textbook more.
harder to complete the problem sets at home, as TF study halls weren't quite as collaborative after the break. but this was improved with easier/more targeted problem sets.
I had to figure out more of my questions through googling and self–research because I had less opportunity to attend study halls (they just didn't match up well with my daily schedule in a different time zone). I think this ultimately made me a better coder.
Eliminate breakout rooms completely.
My at–home conditions were not the best. I had to find ways to work despite these conditions by working longer hours and finding

Comments

new schedules as needed

Be more engaged in group participation and read all the material on time, even additional resources.

Read the text book thoroughly

I don't think there were many adaptations to make; I just believe that remote school and the sudden adjustment diluted the quality overall

I had to figure out how to do a lot more on my own which made learning slower as a result of remote instructions. I also had periods in which my wifi/computer were having issues which was troublesome as this class is entirely based on access to a computer.

In order to collaborate with my friends as I would on campus, we needed to arrange calls across timezones to work on problem sets. I also needed to rely on the textbook a whole lot more than I did on campus.

The psets became less interesting in the second half, because most of them were just following the textbook

Be slightly more active in seeking help.

I was in a breakout group with students who it seemed were more advanced than I was so I had to learn to ask them lots of questions and tell them to slow down when necessary. It sort of ruined the breakout group experience though

I had to be more active in reaching out to classmates when collaborating on psets.

Nothing much for this class. It was still incredibly engaging.

I had to schedule extra time to work with my classmates (outside of Study Hall) on the homework problems as Study Hall was not always conducive to getting work done (too many people on the Zoom call at once).

I had to self–teach a lot more (especially with regards to R).

Special circumstances

Not much. I had always relied heavily on the Internet (stackoverflow, etc.) for help figuring out R even before we went virtual, so this didn't change at all. I did find it more difficult to find the motivation to stay on top of the readings and the course material.

I went to office hours more frequently in the remote setting as I found it helpful to share my screen with the course assistant.

nothing much, except that since this class required a good load of your schedule, I had to figure out how I would dedicate time to this class in a different time zone while meeting deadlines/getting different resources

Resorted to reading course material more closely.

I had to be more independent when it came to problem sets. Generally, problem sets are designed for collaboration. However, it's hard to look at someone else's screen with remote instruction since everyone wants to pset at a different time. I did all of the problem sets on my own and gained a lot more confidence in R as a result.

for this class, not much

I had to rely on myself a lot more per problem set.

a lot more time on Google and Stack Overflow instead of asking course staff/classmates

Adapt to working and learning on my own.

Used the course textbook more, relied less on working with friends

I had to focus a lot more on time management as I wasn't surrounded by the same type of community.

I had to come up with a plan of how I was going to move forward with each subject and not allow myself to become overwhelmed by the chaos

Everything. I basically didn't learn anything once we were online. I had such a hard time focusing on anything, I barely slept, and I really didn't do my best work academically.

Learn to read the textbook effectively!

I didn't really have to adapt, as much of this course is done virtually, such as through piazza and github.

take more time to do problem sets without the help of classmates

Nothing

Really, the big difference was the shift in high–energy classroom environment to the more laid back structure of Zoom class.

For this class, really not much. Just be comfortable with group work, but you need to work well in a team for this class whether it's online or in person.

I was more independent with my school work due to remote instruction.

I had to be more proactive in going to study halls, reaching out to CAs/TFs, and scheduling my time to get help on the work.

Learn R primarily through Google, which I suppose is what you have to do in real life anyway.

Used the textbook, used piazza, and sent many emails to my TF in order to better understand specific problems.
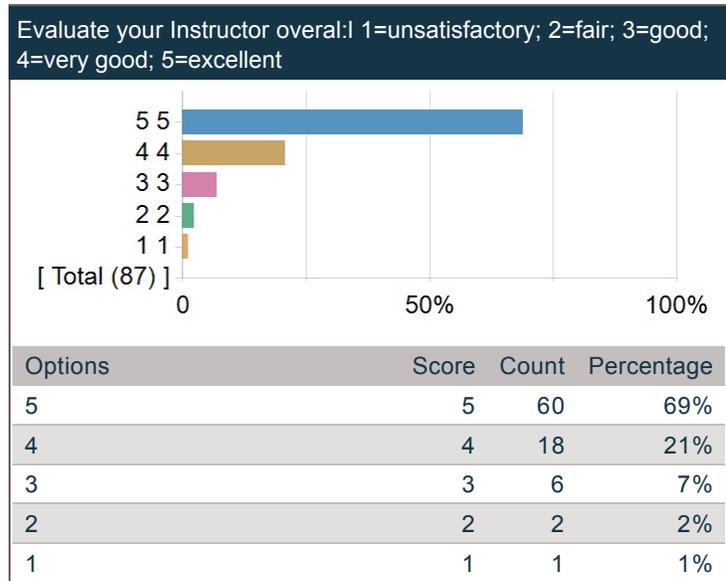
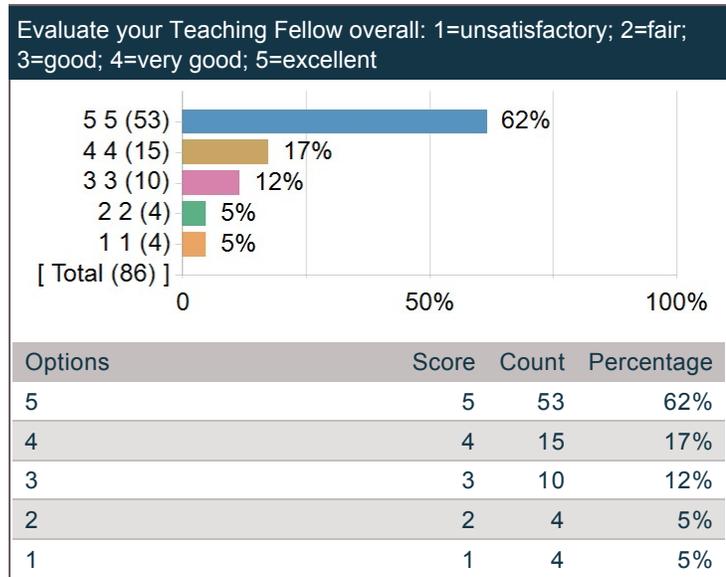| Comments |
|---|
| I had to rely more on Piazza posts, rather than on peers in study groups. I had to become better at vocalizing the things I needed help with, particularly to maximize my TF 1:1s. |
| Doing problem sets alone instead of at study halls/with friends. |
| Nothing much. |

Custom Questions

Evaluate the course overall: 1=unsatisfactory; 2=fair; 3=good; 4=very good; 5=excellent

Evaluate the course overall: 1=unsatisfactory; 2=fair; 3=good; 4=very good; 5=excellent

Options	Score	Count	Percentage
5	5	57	66%
4	4	21	24%
3	3	5	6%
2	2	2	2%
1	1	1	1%

Evaluate your Instructor overal:l 1=unsatisfactory; 2=fair; 3=good; 4=very good; 5=excellent

Evaluate your Instructor overal:l 1=unsatisfactory; 2=fair; 3=good; 4=very good; 5=excellent

Options	Score	Count	Percentage
5	5	60	69%
4	4	18	21%
3	3	6	7%
2	2	2	2%
1	1	1	1%

Evaluate your Teaching Fellow overall: 1=unsatisfactory; 2=fair; 3=good; 4=very good; 5=excellent

Evaluate your Teaching Fellow overall: 1=unsatisfactory; 3=good; 4=very good; 5=excellent

```
5 5 (53)    ████████████████ 62%
4 4 (15)    ████ 17%
3 3 (10)    ██ 12%
2 2 (4)     █ 5%
1 1 (4)     █ 5%
[ Total (86) ]
         0          50%        100%
```

Options	Score	Count	Percentage
5	5	53	62%
4	4	15	17%
3	3	10	12%
2	2	4	5%
1	1	4	5%

What would you like to tell future students about this class?

Comments
Tons of work and great course
This class is extremely challenging. I am a humanities guy 100%, but this class was certainly exactly what I needed to round out my education at Harvard. I learned many skills for quantitative analysis, and wish I had taken it sooner.
No matter what you study, take this course if you want to get ahead in life. I will soon have finished my degree and I can say without a doubt that I have never learned so many useful things in such a short time. There are 10 other courses whose knowledge I immediately trade in for what Preceptor has taught me. The course is about the statistical programming language R, which is used for Data Science. It is not necessary to have any kind of prior knowledge – no matter what your concentration is. Within 4 months you will go from being a completely ignorant poet and philosopher to an alpha–chad who can import, clean, and visualize messy datasets from the internet in their sleep. Granted, the course takes a lot of time. But it didn't feel like work for a minute if you have even half an interest in "data" (and data is everything and everywhere). There is no subject or company that does not use some form of data. Whatever you want to do later, this course will help you to achieve it.
Don't take this class if you're a frequentist, and study halls are your best friend (they nearly halve the time it takes to complete a p–set).
You will learn to code in R. More accurately, the most valuable thing you will learn is to make a shiny app. Which is great, but if you've ever coded before taking this course, prepare for insane rules, unconventional style requirements, and punitive deductions. The organization seems very straight forwards online, but the execution is incredibly chaotic. Hired course staff (TFs) are not invested in student success and farm out all their work to the CAs. Grading is automated, which was not the case in previous years, which is shocking given the sheer number of people supposedly dedicated to running this course.
disclosure: I am not a stem major I'm a humanities major who has never imagined that she could call herself anything remotely close to a data scientist. That being said, this class is a monster. There's a lot that you're going to have to do on your own like your final project and a lot of it will be frustrating in the beginning when you're just starting to learn language. But I encourage you even if you don't like being social as much, but there's a lot that you don't have to do on your own. Study hall hours are where the learning happens, not really in lecture. I wish that lectures could be more helpful, but prioritize study hall hours as your main learning Time rather than lecture. Your final project will be something that you get out what you put in, so be prepared to prioritize this class if you choose to take it.
The more you actually buy into the community part of the class, the easier it is to work through problem sets, ask questions and get good feedback on final project, and just meet good people on campus you otherwise might not know.
The class is a lot in the beginning, but you will ease into it and hit your groove soon.
THIS IS THE BEST CLASS EVER. You will not only be exposed to basic data analysis skills that are extremely useful in any field you want to step into, but you will also be pushed to network and collaborate with others. I personally came to college with little data analysis experience except for Excel, but this course opened doors for me.
I took this class at the recommendation of a friend, and it's 100% the best class I've taken at Harvard. If you have the opportunity, I cannot recommend it highly enough.
If you want to be a data scientist, take this class. It gives you everything you need to get your start in the field, and the material is really interesting. It will be more than worth your while. If you are not going to be a data scientist, or are on the fence about trying coding, I don't know if I would recommend this class to you. It moves insanely fast, so if you have never used R before, you will be lost. The workload is also overwhelming – I was barely able to get through the work for this class, and I suffered in my other classes because of this. This is especially true if you are involved in student organizations on campus. If you want to take this class, take it with a lighter load with your other classes/outside of classes. The preceptor also has a weird sense of humor – but I don't know how to prepare you for that.
Super fun, interactive way to get hands on experience in data science!
This class provides constant, hands–on training to start becoming a junior data scientist. Be prepared to spend 10–12 hours per week on the class if you want to learn as much as possible.
Amazing course if you're ready to do the work. Dont be afraid of going to office hours. Preceptor warns you of all the reasons not to take the course. So you cant be mad at him if he delivers on his promises.
Ooooh, these are what Kane likes to show to scare his students during shopping week. Ok, a couple of things: 1) Overall, a valuable course. Took it as an elective, and although some parts of it were pretty annoying, I learned valuable skills. 2) This course is easier than people say, especially if you have any CS or Stat experience (Stat 104 and CS50 for me). I didn't go to any study halls and I was fine. It is difficult to tell what grade I would have gotten if we hadn't gone remote but probably would've been fine.

Comments

3) Preceptor Kane, please teach Shiny better. Overall Kane is a good teacher, although his strong personality can be a little grating at times. Super nice guy though.

TAKE THIS CLASS! Especially if we're back in the physical learning space, there were so many cool draws of this class that really make it one of the most unique classes at Harvard. You'll basically be forced to get to know at least thirty other people in the class (which is crazy unique since it's a massive lecture format) and you'll get to know them pretty well too. I've grown a lot closer to a pretty large handful of people in my house. Would also recommend this for any first–years out there (I took it as an upperclassmen, and it was great too). Nothing in the class is super mentally challenging imo (although I'm coming from a programming/CS background), but it's definitely a fair bit of work as a 8ish hour a week class. There are also a ton of guest lectures too, which are great to hear from industry experts about the field.

This class is a sham. Way overhyped. As someone who is CS–experienced, this class teaches you nothing about actual data science. It's just about data visualization and really non–technical things. Also, psets and exams are graded strictly for no reason – putting not enough spaces between comments, for example. It's just really nitpicky for no reason. No value on technical learning but just a surface level class. Also even on campus, going to class was a complete waste. Didn't learn anything and just spent class typing code as a class.

The only benefit of this class is the final project if you have a good idea, or if you join team project and do something cool. But you can get by putting minimal effort in, in which case this class really becomes a waste of time.

Preceptor is eccentric though, maybe you'll enjoy it. But you won't learn very much if you are good at coding, and if you are not experienced in coding, the class will always be too fast–paced to really process what is going on.

This course was a great intro data science class for those with no experience, but warning: it does take a ton of time and you will not get a lot out of it if you don't dedicate the 10–15 hours needed.

Yes, this course is time–consuming, and the Preceptor is exactly as crazy as he makes himself out to be. Take it anyway! I am a humanities concentrator through and through, but taking this course as a senior made me wish I had concentrated in stats or CS. The stuff you will learn here is POWERFUL. I had never taken a CS course in my life, and I hadn't done quant since high school, but this course catered to students like me who were trying something miles out of their comfort zone. Just do it.

Everything, exciting and frightening, you've read about this class is spot on. You will work a ton and be lost a good amount of the time, especially if you're one of Preceptor's "poets and philosophers" like I was, but you'll come out of it having had fun and having learned a TON about R. I think it was probably the single most useful class I took at Harvard—another way it lives up to its reputation.

This is truly one of the courses where you get what you put into it. At first, some of Preceptor's strange habits and traditions (eg. write a thank you note to a Harvard affiliate, or repeat how to create a github repo every class) might seem like a waste of time or irrelevant, but if you play along, you'll eventually see the carefully considered value in each activity. Preceptor cares deeply about the long–term success of each student in his class, and all students should take advantage of that. One other note, it truly does require 10–15 hours a week to take full advantage of the resources of the class, so only take it if you're willing to put in that time.

Very freshman–oriented. You will learn a lot, but get ready to get frustrated at times by a) how little attention is given to upperclassmen, and b) how much work is expected of you.

This course made me re–discover a deep interest in computer science and coding in general. Ironically a course in the Gov department pushed me closer to a CS concentration (I was not considering a Gov concentration; if you are considering a concentration in Gov, then this course will be a great way to determine if the data science track is for you. If I were personally considering Gov, I would certainly do the data science track after having taken this course. I am positive about taking other methods–based Gov courses though and getting a secondary.). It showed me all the ways in which data and political science intersect and how both can be used meaningfully to answer questions in a more robust way than either could alone.

Preceptor Kane is a really interesting personality. He cares more than most other instructors at Harvard. That will be evident from the first day and will continue to be true for the entire semester (and my guess is that he continues to care even after the class). He is very atypical in his pedagogical approach. For some that's great. Shop the class and see if you'll be comfortable with a full semester in his course. If you are, get ready for a course that will reshape how you approach sociail science questions!

Class landed me a job AND an internship. Props to Preceptor Kane. Class is fun, even if you know nothing about coding. I was incredibly scared of what it'll be like, having no CS background. Gov 1005 is a community of incredibly helpful people that want to help you learn how to use R, as long as you want to too. First 2–3 weeks might seem hard, but you get the hang of stuff.

DO NOT BE DISCOURAGED BY THE NUMBER OF HOURS people say they committed to this class. I committed ~11 hours a week, and half of that was spent with friends at study halls. It's an amazing experience overall.

Take it! It's a lot of work but an incredible time.

Also, if he's still CAing next term, go to Yao Yu '23's office hours! He is immensely helpful and a very cool guy.

Comments
GOV1005 is one of the best classes I have ever taken. I learned so much, so fast. TRUST THE PROCESS! Preceptor knows what he is doing. It can be time consuming but you get so many incredible skills out of it, even outside of coding and R.
Absolutely worth the time and effort. The preceptor makes data learning fun and engaging.
You will work hard. You will make a lot of progress. If this is what you want then there is almost no limit to what you can get out of this course. Preceptor will go above and beyond to help students succeed.
I think this is a course that you should take to have a final deliverable that you can take pride in and to get a concrete sense of if you want to do data science. It is a commitment, but I think there are many takeaways, and Preceptor is absolutely wonderful.
It is a worthwhile class to take for anyone interested in dabbling in cs/data science. It provides real–life applications and benefits of data science to students who have not had exposure to the field or its benefits in a way that I believe no other Harvard course does. It has a great community in which I have made many friends that I have kept in touch with since and will continue to do so. Preceptor is among the top Harvard teachers you have in the way he cultivates relationships. His focus on trying to teach CS to "poets and writers" makes this class the only STEM class with a humanities feel in that it is a very personable class.
Please take this course. You will not regret it.
This class is a hoot and a half. I had so much fun learning to work with R and really fell in love with it; that being said, you won't necessarily be learning all that much statistical methodology, but you'll definitely be up to snuff in data cleaning, transformation, visualization, and regression. The learning environment is really engaging and keeps you on your toes, Preceptor and Dr. Kane even take students out to meals in the Square/bake snacks for class! I shopped this class thrice before taking it, and I'm so glad I finally did.
Helpful for getting the basics of R and get started with data science. But you still have a long way to go to become a better data analyst. It'd be helpful if more statistical interpretations were included. A relatively easy class if you do your reading and participate in class.
If you're looking for someone to teach you quantitative/computer/data science skills that you want to learn but were afraid to try, this is the class for you. Definitely feel like I learned a lot and my skill set grew in a very tangible way. Preceptor really cares about his students and wants to help us succeed, both in his class and (more importantly) outside of it in the real world. SOOO so glad I took the class, it was a great capstone on my Harvard experience – only wish I'd taken it earlier, it might've steered me more toward data science as a study specialty and potential career option
TAKE THIS COURSE. If you have any interest at all in doing anything in life that involves data, you need to know the basics of finding, cleaning, and analyzing said data. And spoiler alert: nearly everything in life involves data.
Take this class !! It is a decent amount of work but will really teach you a lot about R, working with data, and how to use Github. Only con is that sometimes it feels like a brute force attack to solve problems... not really elegant solutions are discussed.
Worth taking! I didn't know anything about R when I came in and I now feel comfortable importing, cleaning, and visualizing data, as well as trying to problem–solve errors on my own. There is less learning about statistics/theory, although the class does have units on bayesian probability and regressions.
This class is ideal if you have no coding experience, like me. It's definitely fast at first, and you'll be putting in around 10 hours/week for the first few weeks, but you learn so much in such a short period of time. Just get started on problem sets the minute they're released, and you'll be fine. Also, work together with others. Preceptor cares so much about his students, and he is funny as well. Lectures sometimes take an interesting turn though, so be prepared for that. The cold–calling is not bad at all.
Take this class! You work hard but it is definitely worth it. It made me want to study data science in college and completely reevaluate my course of study. Also, June is a great TF and Preceptor works really hard to get to know and help his students any way he can.
Honestly, this class is not as hard a preceptor attempts to scare you into believing. Yes, preceptor has his quirks and is specific, but following the rules (not matter how seemingly arbitrary) will result in a good grade and a start to your professional portfolio. That being said, although the class is not technically too difficult (compared to a traditional CS or statistics course) it does require approximately ten hours of work per week.
This course is a really great course. The skills you learn are useful no matter what you end up doing, and the preceptor makes this very clear throughout the course. Preceptor is also pretty funny and quite a character, which makes lecture engaging and fun. I would say that the workload is a lot, so I'd bear this in mind if choosing other work–heavy classes.
Take this course when you have a lighter semester. You will learn a lot, but you will need to dedicate a lot of time to your learning.
This class was incredible to gain basic data science skills with no prior experience. Beyond data science, the class teaches you so many career skills that I think will help me for years beyond this semester.
Do not be afraid. It is a lot of work in the first half, but even if you feel like you are struggling, I promise you will not fail. By the second half, your grasp of R is strong enough that you feel more confident in doing things quickly and on your own. It is very difficult to do badly in this class if you are sincere. Even if you don't have ANY programming experience and think you are bad at that domain of work. You have so many resources, access to all kinds of support, and the exams are very fair (read: not meant for you to do badly on). The homeworks are definitely challenging but they are meant to be completed in groups. It's a very rewarding and fun experience to work friends in Study Hall, late at night. Also, save the Late Days for the latter half of the semester when you are more likely to need them.

Comments

Preceptor is a little crazy, most of the time in a good way. However, sometimes he can be a bit cold.

This course is the most thoughtful one you'll take at Harvard.

Data is quite unlike any other course at Harvard. You learn names and make friends in lecture (unusual for a class of this size)! There are snacks! David Kane is an engaging and funny instructor, even if I don't quite understand how quickly we all adapted to calling him "Preceptor" without question lol. Problem sets and exams are lengthy but not unreasonable and there's plenty of class infrastructure set up for you to get the help you need. Datacamp in the first few weeks was annoyingly time–consuming but necessary for getting a basic understanding of R, though I wish they'd spread it out a bit more evenly over the course. Getting to work on a final project is quite satisfying – you really do come out of the course with applicable skills and a nice Github profile to match. Be aware that the course may be a bit frustrating for you if you already have programming experience or little patience for rather arbitrary and sometimes overly elaborate class rules/style – shopping this course gives you a pretty clear idea of how it'll go (with Ulysses metaphor and "this is a class for poets and philosophers" and all). That being said, I truly learned a lot and feel fairly confident with data analysis in R now, and have never had a more fulfilling social experience in any other course. If Preceptor's textbook is still around next semester, I'd recommend reading it closely and keeping up with it throughout the course – it teaches you a lot about data science and statistics that you won't get just by doing the programming.

This was the best class I have taken at Harvard so far. I would compare it to CS50 in the sense that it is more of an experience than just a class, but it's also much more personal than CS50, and the skills you develop go beyond just coding. Preceptor is intense and sarcastic (and you should expect to be roasted at least once over the course of the semester), but he clearly cares a lot about maximizing the educational experience of his class while also making it entertaining and enjoyable.

Gov 1005 might honestly be the course where I have learned the most at Harvard. While the whole interactive setup of the class seemed daunting initially, it was truly amazing. I learned so much not just from the teaching staff, but also from my friends and Piazza. I highly recommend taking this course!

Great class, learned a lot; I usually shy away from classes with a lot of workload but I think this class was worth it. Looking back, I wish I took this course as a freshman

An absolute gem of a class! Definitely not an easy work load, a tough work load in fact. But the lessons that you will take away from this class are beyond simply learning data science — you will also learn how to communicate better and have great work ethic, and Preceptor is so fun to be around!

This course is a great introduction to programming in R. The workload is not insignificant (about 10 hours/week if you are a beginner), but ideal for become an adept programmer. The final project is a large portion of the course and therefore, it will be of greater benefit for you if you come into the course with some ideas regarding this. Would definitely recommend this course for anyone without prior programming experience looking for a solid introduction/immersion into one coding language.

TF really matters.

Definitely worth taking. A very practical skill. Even as someone with little coding background, I felt like the course offered enough resources for me to feel comfortable the whole way through. It's convinced me that I want to do more data science work in the future.

Take it sooner rather than later in college

A lot of work but very useful/rewarding

Believe the Preceptor about the workload for this class. I was a CS student who thought it wouldn't take me that long. It did. The class isn't hard, but there is no way to avoid the work. Make use of the study halls. Get to know the Preceptor — he's a nice guy. He held a separate Asia Class for those of us in a significant different timezone — it was super helpful. He was also responsive about modifying the workload to make things easier for us. Take the class — it's useful stuff.

Walking into this course, I expected it to be incredibly difficult with over 15 hours of work each week. In actuality, the course was not super difficult, I only spent about 10 hours per week on it, and I still feel like I learned everything that Preceptor said I would learn. I highly recommend this course if you want to learn R for research/academic purposes, but if you have no interest in R, this is not the course for you.

it's more work than you think it will be, even if you think it will be a LOT of work. be ready

Hang in there. It's tough, but the support system is great, and you learn SO MUCH!

Possibly the best course I've taken at Harvard so far. The Preceptor is great at teaching but also tries very hard to get to know hi students as people. He also frequently shares hilarious hot takes. Be warned, this class can be a lot of work, but it assumes absolutely no knowledge and yet leaves you with a tangible skill applicable in almost any discipline. If you take the class, use the texbook, find a pset group, and get a lunch with the Preceptor and his wife – you won't regret it.

If you're here deciding between Ec 50 and Gov 50 (I guess this is what it's called now), DO NOT HESITATE TO TAKE GOV 1005/50!! I was in this boat last year, chose to take 1005, and will never regret it. My friends from Ec 50 learned how to use R in the context of using Raj Chetty's data, which is nice if you want to listen to what he's done. But Gov 1005 really gives you the tools to succeed in data as an individual, plus has an amazing community and great instructors!

It is a ton of work but challenges you in ways that will really help you mature and grow as a student.

TAKE THIS CLASS!!! It is a lot of work, but I went in never coding before and left with a near fluent understanding of R. It is HARD but the payoff is worth it.

Comments
Super helpful and made me feel much more comfortable as an introductory coder.
This class is a lot of work but you get a lot out of it. Knowing how to use R will be a huge asset in job hunting.
This class is incredibly fun and you learn a lot. There's a great community here, and you really get to meet a lot of people. I actually met a couple of friends from this class that lived in the same house, so I'll definitely be getting meals with them in the future. The staff really care about you. The PSETs and exams actually are not that difficult, but you do have to put in a lot of time to get through them. Definitely go to study halls and do homework with others. Overall, the class is great and I learned a lot of practical data science.
Expect heavy workload. Lots of new things to be learned. Great class overall.
Easily my favorite class at Harvard thus far. Take this class, whether you're a STEM person or not. The skills are easily transferrable to any field.
First, know that the professor of this course is a lot and makes this course less appealing. . Professor Kane is just irritating as a professor. I hate calling him "preceptor" for starters, as it feels like some passive aggressive jab at H administration, and I don't think students need to be getting involved with that. Secondly, his teaching strategies are frustrating and annoying, and none of them helped enhance my learning. The cold call system is irritating, his constant sarcasm to students wouldn't be funny even if he was our age, and his metaphor for the class is irritating and egocentric. This course could be improved with a new professor or if someone give Professor Kane an ego check.   As far as the course content goes, this course is really interesting and helpful and is a key reason I decided to take it. The course is not too difficult but does take a good amount of time each week, but most of the work doesn't feel tedious and actually enhances learning. Besides the online modules at the beginning, there is little busy work, and by the end of the course, the final project shows you how far you have come throughout the semester and how much your skills have developed. If you can get past the professor's habits and just tune him out a little bit, this course is definitely a good use of time and a good investment, especially if you're interested in data science.
This class is definitely geared at humanities students. As a STEM concentrator, this is definitely not a class you would take for statistical rigor or deep knowledge of R, but the other benefits – having a really engaged teacher, getting to know many other students (especially for first years), studying generally interesting material – make it worth it. If you have some background in CS, it is really quite manageable.
This class is type 2 fun to the highest degree. If you, like me, are not a STEM major, you will probably hate R and the psets/exams while you're taking the class. But once you're done, you'll be able to see how much you've learned and all the great things that have come out of this class.
This an amazing class!! Everyone should take this class before they graduate. The things that I have learned in this class have made me so much more confident in applying for jobs and internships.
I think this was a great introductory data science class for students of all different backgrounds and I would definitely recommend taking it!
Gov1005 is a pretty good intro to coding – unlike classes like CS50 and EC50, you actually leave the class knowing how to code and more importantly, how to keep improving with coding. There's a lot of support in the class and the teaching staff does a lot to promote comraderie. Overall, would recommend for a nice, rewarding challenge. I'm actually inspired to do more data science projects over the summer and wish I had taken this earlier.
Don't be afraid to take this class if you've never coded before! It's a great class for beginners. Just know that you may not be as advanced as some of your peers who have coded before, and you may have to put in more work to get what feels like less out, so you may lose motivation at times. Don't let any of that deter you. When you look back at where you were at the beginning of this course, you will realize you have improved SO MUCH. Lectures are some of the most fun and engaging you will find at Harvard. Only take this class if it's going to be in person, or if you're a first–year in the fall looking to make some friends through classes.
Take this course! This is one of the most valuable courses at Harvard. You'll be forced to work, but by the end you'll be able to gather, organize, and navigate data all in your own terminal.
This course is excellent and incredibly annoying. I learned a ton and felt supported throughout. It sometimes tries to be like a pseudo CS–50 and is kind of obsessed with itself, but it almost always is in service of learning. Anyone in social sciences who has a quant requirement should try to take this instead of Stat 104 or other intro stat courses. You learn so much more in the same time span (and it's a lot more fun). First–Years and non–STEM folks shouldn't be scared since there are so many supports (and the workload decreases significantly after the first few weeks).
This is an exceptional course, one with the potential to change your perspective on the world through an applied understanding of data and statistics. Preceptor has a very distinctive teaching style, so be sure to shop the course and make sure it is compatible with your learning style. Best course I've taken at Harvard.
This class is a great introduction to Data Science and R specifically. I would say I had some coding and statistics experience (took CS50/CS51/Stat 110 previously, took concurrently with CS124), and I think the class was still useful for learning the syntax of R and how to utilize R for data science and analysis. Also, this class is *ACTUALLY FUN*. You get to meet the other students in the class (Dr. Kane makes sure you sit next to different people each class and there is class time set aside for you to introduce yourselves), plus there are TONS of study halls/OHs for you to work with course assistants and peers on problem sets. It's a fun environment

Comments
and pretty chill if you have some quantitative background, but it's definitely tailored towards people without any quantitative background (which is great, cuz you meet all types of people in the class!)
This class requires a lot of time, but you will learn how to work with datasets in R from it! If that's a skill you'd like to have, I would encourage you to take it. The class is engaging as well, and the preceptor is very involved. Get to know him!
It is an interesting class! If you have some coding experience/background, the class shouldn't be too hard, ~2–5 hours a week for problem sets and exams. The learning curve is pretty steep so as long as you keep up with the textbook, it should be fun and not too stressful!

Tell us the name of your Teaching Fellow, and provide some comments if you like.

Comments
Alyssa Huberts. She is an amazing TA.
Kaneesha was my TF, and she was helpful and nice!
Mitchell Kilborn – fantastic TF. He corrects the assignments very quickly, is friendly and helpful, and even now, after the actual semester is over, he regularly holds office hours to support us for the Final Project.
Alyssa Huberts
June Hwang. June failed to answer a single email I sent him the entire semester. He also reported comments that were shared in our section in confidence to the course instructor with our names attached to them. This resulted in the instructor singling me out punitively to discuss feedback I gave (supposedly anonymously) to my TF.
June is a great guy when you can get a hold of him. I don't think that June has ever replied to a single email that I sent him and I also sent him emails which he told me we're better format for him over canvas but he never replied to those either. So there was a time when I became very frustrated and I didn't even know that we were continuing to have our TF office hours when we switched to the virtual format. but, when I got a hold of June he was extremely helpful and walked me through a lot of challenges I was having. He was understanding and we made a plan for how I should think about my final project and finish it and made me feel very good about the class.
Mitchell – Incredibly helpful throughout the entire semester. One of the best TF's I've ever had in any class at Harvard.
Mitchell is amazing and super smart and helpful. Best TF ever, he could be preceptor right now.
Mitchell Kilborn was so kind and so helpful. He was extremely willing to lend his time and expertise every week and has very quick email responses.
June – he needs to be easier to reach. Nice guy, and a great help when I can get in contact with him.
June Hwang, awesome awesome person. Very smart, and a valuable helper during times of crises.
Mitchell Kilborn
Mitchell Kilbron – very professional and helpful.
June was a helpful teaching fellow in terms of walking us through problem sets and questions. However at times he was little unprofessional and would make uncomfortable comments around students.
Kaneesha Johnson.
Kaneesha Johnson! Super cool TF, the early TF meetings with her were incredibly useful and fun just to get to know everyone and get to work in a smaller group setting. Was always there for advice when needed too.
Kaneesha – amazing. loved my TF. best part of this class.
June
Mitchell Kilborn is one of the best TF's I've had the pleasure of learning from. I cannot say enough good things about his commitment to his students and knowledge of the subject material. He was extremely supportive throughout the transition to remote learning.
my TF was Kaneesha, who was fantastic throughout the semester. she was very willing to offer coding and methodological help, and was extremely understanding and helpful during the difficult transition period. thank you Kaneesha!
June was overall a very helpful and kind TF. Overall, I thought the structure of the TF meetings made it more difficult to take advantage of his help. Most of the meetings consisted of time to ask individual questions about our final projects, but because mine took place the day before a p–set was due, I was always focused on that and didn't have time to make any progress on the final project in order to ask questions during my TF meetings. As a result, I tended to have a lot of questions outside of meeting times, and June wasn't very responsive to emails. During reading period, I emailed him a bunch of times to ask for a meeting but he never responded — eventually, I emailed Alyssa and she helped answer my question right away. That being said, I don't blame June because I was asking him to put in extra work outside of the hours and hours he spent meeting with students each week. I would recommend having TF meetings be by appointment instead of regularly scheduled, but still a requirement. Students could choose, for example, four dates throughout the semester (evenly spaced out), when they have updates/questions on their final project to share with their TF. This would allow students to take more advantage of the time with TFs — because I had no updates on my final project during most of the meetings, I ended up filling it with questions that weren't that relevant or helpful.
June Hwang – pretty helpful in Office Hours, but literally never responds to emails (before and during pandemic). It made it very hard to ask him for help.
June; he was nice but couldn't answer most of my questions and also was unprofessional (called me a nerd and vaped in section???).
Kaneesha is great!
Mitchell Kilborn. Very helpful.

Comments
Mitchell was one of the best teaching fellows I have ever had. He was always so willing to help and he really cared about your learning and also about you doing well on your project. He would always go above and beyond to help you learn new concepts or help with your final project.
Mitchell – what a great balance between encouragement, support and general good humor
June always tried very hard. I think that he was on a slightly different page than say Alyssa and Mitchell, but I don't think that it was a bad thing at all. I just wish he was more responsive; he was always super accessible and helpful in person but he wouldn't respond to emails.
Mitchell. Extremely helpful and willing to look into data sources/bug fixes for final projects. Aided in revising my final project and gave instructive feedback on the first draft that vastly improved my final project.
Mitchell Kilborn — Mitchell was an absolute godsend in this class. He has an incredible command of the material and knowledge of R and statistics. I have never met someone who so quickly turns my descriptions, visions, and imaginings into actionable, programmable steps. I'm so fortunate I had him as a TF and so appreciate all the help and guidance he gave m!
Alyssa
Mitchell was awesome. I was very impressed by his ability to remember nearly everything about me and my project that we'd discussed together, even though he was working with lots of other students on very different projects and it must've been hard sometimes to keep them all straight.
June– you are a legend. You were always receptive, helpful, and funny!
June Hwang – didn't meet with me at all after teaching went remote. Grading was quite unfair and very inconsistent.
Kaneesha was amazing. She was so willing to help out and patient with questions and creative with solutions.
Kaneesha Johnson. Good TF, not amazing, but checked all the boxes. Would recommend her to others.
June Hwang, incredibly helpful and entertaining. I looked forward to my. meetings with him every night.
June Hwang – it was a little bit disconcerting when June would leave our meetings to go vape. As we had a limited amount of time each week with the teaching fellows, it was somewhat inconvenient to have that time further restricted due to the habits of the Teaching Fellow.
Mitchell Kilborn. Mitchell was a really good TF and always available for help. The discussions we had really helped to further the final project.
Mitchell was incredible to providing support throughout the semester. I don't think I would have gotten as much out of the class without his help and thoughtful suggestions.
Mitchell is so patient and supportive. Also knew how to answer my questions of all levels. I couldn't recommend him more!!!
Mitchell was awesome. Really knowledgeable about R and various packages for my project; he's very bright and personable.
Mitchell Kilborn is extremely knowledgeable and was always ready to help, whether in TF meetings, via detailed email responses, or with extra office hour slots when it came to finishing up final projects.
June is a fantastic TF. He was so knowledgeable about the material and always provided useful feedback.
Kaneesha Johnson. Kaneesha is an excellent teaching fellow. She is so helpful, and always there to help. She also gives great feedback on coursework. She also teaches material very effectively, especially concepts that are hard to understand but were needed for the final project.
My TF was Kaneesha, and while she was lovely in person, it was horrible trying to contact her through emails. I thankfully was able to solve most of my problems in person, but at times when I needed to send her emails, it was terrible.
Mitchell is the absolute best and most caring TF I've met! He works really hard to provide individual feedback for every student and really goes above and beyond with this!
Kaneesha Johnson. She was very helpful in recommending resources for continued learning and readily available to answer questions.
June Huang is not responsive at all.
June Hwang – very patient and helpful. Is willing to go overtime to answer questions.
Kaneesha – she was phenomenal. Super helpful and very chill
Mitchell – hero
Mitchell was great. Super helpful and understanding. Nice guy.
June– although June was never super helpful regarding my coding, he always gave me really great feedback on my project. He is also such a character that he made weekly meetings fun and enjoyable.
Kaneesha – she was very helpful. 10/10 but I didn't really communicate with her after transition to remote
June Hwang – he's a libertarian :(

Comments
June Hwang
June Hwang. Great TF!
June
Alyssa Huberts– wonderful human and so incredibly helpful always!
Kaneesha She was very helpful and helped clarify some of the more confusing aspects of the course.
Kaneesha– AMAZING TF, very helpful during breakout rooms
June – thanks for being extremely helpful while providing some comic relief at the end of the course when students made memes about your somewhat questionable health habits
Alyssa — Alyssa saved this course for me. She was so kind and helpful and always made me less stressed about the course. She is one of the BEST things about this course and for the sake of this class, I hope she continues to TF it. She was always willing to take time out of her schedule to meet with me one on one and help me with concepts, psets, or the final project, and I know she was doing that for many students. I cannot attest to how great of a TF she is, and I know the evaluation system is different this semester in light of COVID, but she deserves some recognition or at least this comment that rambles on too long about how wonderful of a TF she was. Further, she was really good at explaining things; I felt at times that others struggled to help students actually understand concepts, but Alyssa always explained concepts in ways that actually helped and made sense for students less familiar with coding.
My teaching fellow was Mitchell Kilborn. He was helpful in everything that was required of him, and was the right mix of making sure students were staying on schedule and letting them make their own choices.
Alyssa Huberts. She is an excellent TF, and without her I would not have passed the class. Provided not just education, but emotional support when I needed it the most.
Alyssa is amazing! She was always willing to help me when I was stuck and really cares about students.
Kaneesha was very supportive, especially after the switch to remote learning, and provided lots of useful feedback for my final project.
Kaneesha – Kaneesha was super understanding and gave good feedback!
Kaneesha Johnson; she is really nice and patient.
Mitchell is thoughtful and intelligent. He takes the time to do his job well.
Kaneesha was awesome! I felt incredibly supported by her and she went out of her way to support students when we transitioned to remote learning (not just with Gov 1005 things). Her work also seems really cool – she might have been a cool guest lecturer!
My teaching fellow was Alyssa. She is incredible — the best TF I've had at Harvard! She provides detailed feedback, is generous with her time, and went above and beyond to make sure I understood the material.
June Hwang – he's a meme.
Alyssa was really great, and I really appreciated how understanding she was of challenges that students were facing after the transition to remote learning. She worked with me throughout the rest of the semester to make the class work for me, which I was incredibly thankful for.
Mitchell was very helpful and fun during TF meetings.