

**North Carolina State University - ClassEval Report**

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Term: 2022 Sprg	ST 705 001 Courses surveyed - ST 705 001
<b>Question</b>	<b>Response</b>
Comment on strengths and weaknesses of the instructor	I thought I was able to understand the course material based on the lectures. At times I thought the presentation of the material was held back by odd choices in the Monahan textbook that maybe make sense from some perspective but don't really help in actually presenting the material. One small comment I would have on Dr. Williams' presentation of material is sometimes he would skip explicitly presenting all assumptions, etc for a theorem, since it had been listed in a previous result we had discussed and were kind of continuing on from. Personally I thought this made it harder to follow some of the arguments since the assumptions were not listed right alongside them all. However this is a pretty minor comment.
Comment on strengths and weaknesses of the course	The Monahan textbook has a lot of typos, and the errata page appears in a google search, but the links goes to a deactivated NCSU page. Maybe someone can contact John Monahan and rehost that page? Although there are so many typos, including in problems, that I would be a little surprised if the list he has is even exhaustive. I thought this was a bit of a problem. I thought the assignments were too many and too lengthy for it to really feel like I was gaining a lot from them. It felt more like they were assigned more for the sake of giving us a lot of work than to actually help us learn the material. With the peer grading system, we don't really get amazing feedback on our work most of the time, and there's no answer key. At past courses at this level I've found they typically either give detailed feedback on the assignments, which is very helpful to improve, or else they treated the assignments as extra practice as desired and didn't really put major emphasis on them. To me this course's approach seemed sort of like the worst of both worlds, where there is a ton of work required but we don't get great feedback out of it to help us improve. In addition, it was relatively frequent that the assignments would reference material that we would not cover until after the homework was due. For example, in HW1, I believe one of the questions relied on a definition of norm that ended up not even being compatible with the one we discussed in class (after it was due), in that the problem (IIRC) did not make sense if using the definition given in lecture. Personally, I think I would have gotten more out of eg biweekly assignments where the questions were chosen more carefully and where either the TA or Dr. Williams graded them or the answer key is released.
Comment on strengths and weaknesses of the lab (if applicable)	They were fine, Yukun did a good job, I wouldn't say I felt the labs were critical but they were typically helpful.
Give suggestions on how the course or how the instruction could be improved.	The course material was fine and the lectures were fine, I did not think the approach the course takes to homework makes sense as I discussed in more detail above.
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Comment on strengths and weaknesses of the instructor	Great instructor. Very responsive to emails.
Comment on strengths and weaknesses of the course	Course notes were very helpful.

Comment on strengths and weaknesses of the lab (if applicable)	The problems were interesting and reasonable to solve. Was nice they were uploaded prior to lab.
Give suggestions on how the course or how the instruction could be improved.	Maybe more time focused on distributional theory and less on linear algebra review? Not sure though, linear algebra was also interesting...
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Comment on strengths and weaknesses of the instructor	He is really a great teacher. Just keep going. I wish you all the best. and I really appreciate you for your motivational words.
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Comment on strengths and weaknesses of the instructor	Dr. Williams prepares the lecture notes carefully, which helps accomplish the HW. Sometimes, he will pause between steps so you have time to catch up. Some proofs were cut into separate lectures, it would be really hard to recall what happened at the end of the last lecture. I have to say the HWs are a nightmare for me. But they expand my horizons, though.
Comment on strengths and weaknesses of the course	The strength and weakness are both the HW assignments.
Give suggestions on how the course or how the instruction could be improved.	The time schedule needs some improvement so we cover important theory proofs in one lecture.
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Comment on strengths and weaknesses of the course	The lectures worked the best when the professor taught on the board. The couple of lectures where the notes were displayed on the screen did not go as well. I found it more difficult to follow along if most of the work was already provided on the screen.
Comment on strengths and weaknesses of the lab (if applicable)	I believe the structure of the lab could potentially change. I am not sure if many of the students who went to lab could finish the lab questions under 20 mins. What ended up happening would be students would wait for the TA to start going over the questions since they were a tad too difficult at the time.
Give suggestions on how the course or how the instruction could be improved.	I understand that the weekly homeworks are meant to help practice the material, and I did find myself improving my proof skills. However, I do think by the end of the semester the work was catching up to myself and some other students. The weekly assignments caused some fatigue and burn out. Maybe one or two weeks off from the weekly homeworks would allow for some students to catch up.
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Comment on strengths and weaknesses of the instructor	Instructor was well prepared each class and thoroughly explained the steps for each proof of the theorems covered. This gave us ideas on how to start homework questions and proof questions in general. Instructor also responded quickly to emails about homework questions and gave detailed hints.
Comment on strengths and weaknesses of the course	Course gave a good review of linear algebra and gave us the mathematical foundation needed to understand many more modern statistical models.
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<p>Comment on strengths and weaknesses of the instructor</p>	<p>Dr. Williams clearly cares about our academic development. Throughout the semester, beyond the course material, he gave guidance, mentorship, and reassurance to the class. I appreciated his ability to entertain student strategies to try to solve problems, even when it was obvious that the strategy would fail. Rather than simply say "it would fail", he would try to show where and how it would fail. One thing that I think he could do better is re-orient the class to the material at the beginning of a session. If we left off in the middle of a proof or particular sequence of ideas from the previous class, we would often trudge along without a quick summary of what we had done before. The first 10-15 mins sometimes felt as if I was trying to scramble to catch up. A obvious solution to this would be to review the prior lesson's note before class, but we had labs immediately before class both days and another course before the labs, leaving little opportunity to do this.</p>
<p>Comment on strengths and weaknesses of the course</p>	<p>Maybe front loads too much on linear algebra. We spent a lot of time talking about some really basic ideas but other super important ideas felt glossed over (especially something like SVD). SVD was critical in many aspects of the course. I'm surprised we never talked about it. I wish we spent more time on the distributional theory and following chapters. I also wish we were given solutions for HW assignments. I get that there are 'no solutions' in original research, and perhaps no solution is given initially. The homework assignment load at times felt unreasonable. Perhaps this was due to my own inadequacy or slowness in solving problems. . . but I did confer with classmates who seemed to feel the same. I'll admit that it did help me build confidence with the material, since I needed to work with it so much. When combined with other courses and obligations it left very little personal time available. I liked the peer-review grading for the HWs.</p>
<p>Comment on strengths and weaknesses of the lab (if applicable)</p>	<p>The TA was definitely knowledgeable and very ready to help. His presentation style was difficult to follow, however. Certain facts critical to solving a problem were often scribbled hastily as an aside and quickly erased. Information written on the board was "modified" so that a line of thought was difficult to follow, i.e. instead of writing steps to solving a particular equation in subsequent lines, a single line was modified (erased, rearranged, etc.) as each step was explained. If we lost track of the argument it was practically impossible to pick it back up. Lab notes would have been nice to have after each session.</p>
<p>Give suggestions on how the course or how the instruction could be improved.</p>	<p>Overall less front load on linear algebra. Spend more time on the later chapters on Monahan. Less assigned HW. Some problems felt largely irrelevant and only there to "be hard" or fill space. Better presentations in lab. Uploaded lab notes.</p>