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CAS FALL-2015  AS202  A1  .


PROFESSOR Paul Withers
NUMBER OF STUDENTS RESPONDING: 26
NUMBER OF STUDENTS ENROLLED: 27
PERCENT OF ENROLLED STUDENTS RESPONDING: 96.3


STATISTICS REFLECT FREQUENCY OF RESPONSES


I. SECTION A: COURSE EVALUATION
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		NR	1	2	3	4	5		MEAN	ST DEV
1. RELEVANCE OF ASSIGNED READINGS [(1) LOW TO (5) HIGH]	POOR	0	0	2	9	12	3	EXCELLENT	3.615	0.804
2. DIFFICULTY OF COURSE [(1) EASY TO (5) DIFFICULT]	POOR	0	0	6	12	8	0	EXCELLENT	3.077	0.744
3. WORKLOAD IN COURSE [(1) LIGHT TO (5) HEAVY]	POOR	0	2	3	13	5	3	EXCELLENT	3.154	1.047
4. OVERALL RATING OF DISCUSSION INSTRUCTOR (IF APPLICABLE)	POOR	17	0	0	2	2	5	EXCELLENT	4.333	0.866
5. OVERALL RATING OF LAB INSTRUCTOR (IF APPLICABLE)	POOR	17	0	0	3	3	3	EXCELLENT	4.000	0.866
6. USEFULNESS OF ASSIGNMENTS AND PAPERS	POOR	1	0	0	7	9	9	EXCELLENT	4.080	0.812
7. OVERALL COURSE RATING	POOR	1	0	1	5	5	14	EXCELLENT	4.280	0.936

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II. SECTION B: FACULTY EVALUATION
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		NR	1	2	3	4	5		MEAN	ST DEV
8. EFFECTIVENESS IN EXPLAINING CONCEPTS	POOR	0	0	2	4	10	10	EXCELLENT	4.077	0.935
9. ABILITY TO STIMULATE INTEREST IN SUBJECT	POOR	0	0	1	6	5	14	EXCELLENT	4.231	0.951
10. ENCOURAGEMENT OF CLASS PARTICIPATION	POOR	0	0	0	1	5	20	EXCELLENT	4.731	0.533
11. FAIRNESS IN GRADING	POOR	2	0	1	3	8	12	EXCELLENT	4.292	0.859
12. PROMPTNESS IN RETURNING ASSIGNMENTS	POOR	1	0	1	4	6	14	EXCELLENT	4.320	0.900
13. QUALITY OF FEEDBACK TO STUDENTS	POOR	1	0	3	5	6	11	EXCELLENT	4.000	1.080
14. AVAILABILITY OUTSIDE OF CLASS	POOR	2	0	0	3	7	14	EXCELLENT	4.458	0.721
15. OVERALL RATING OF INSTRUCTOR	POOR	0	0	0	4	6	16	EXCELLENT	4.462	0.761

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III. SECTION C: TF/TA EVALUATION
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		NR	1	2	3	4	5		MEAN	ST DEV
16. PREPARATION FOR CLASS	POOR	24	0	0	0	1	1	EXCELLENT	4.500	0.707
17. COMMAND OF THE SUBJECT	POOR	24	0	0	0	1	1	EXCELLENT	4.500	0.707
18. ABILITY TO CONVEY FACTS AND EXPLAIN KEY CONCEPTS IN A DIGESTIBLE MANNER	POOR	24	0	0	0	2	0	EXCELLENT	4.000	0.000
19. ENTHUSIASM FOR THE SUBJECT AND ABILITY TO STIMULATE STUDENT INTEREST	POOR	24	0	0	0	1	1	EXCELLENT	4.500	0.707
20. AVAILABILITY OUTSIDE CLASS TIME	POOR	24	0	0	0	1	1	EXCELLENT	4.500	0.707
21. QUALITY OF EVALUATION OF WORK	POOR	24	0	0	1	0	1	EXCELLENT	4.000	1.414
22. PROMPTNESS OF RETURN OF GRADED ASSIGNMENTS AND COMMUNICATION OF STANDING IN CLASS	POOR	25	0	0	0	1	0	EXCELLENT	4.000	N/A

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IV. SECTION D: OTHER
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		NR	1	2	3	4	5		MEAN	ST DEV
23. CLARITY AND ACHIEVEMENT OF COURSE OBJECTIVES	POOR	0	0	1	3	10	12	EXCELLENT	4.269	0.827
24. EFFECTIVENESS OF THE USE OF CLASS TIME	POOR	0	0	2	2	11	11	EXCELLENT	4.192	0.895
25. VALUE OF COURSE TOWARD DEVELOPMENT OF INTELLECTUAL SKILLS (CRITICAL ANALYSIS, WRITTEN/ORAL COMMUNICATION, RESEARCH)	POOR	1	1	1	7	9	7	EXCELLENT	3.800	1.041
26. LEVEL OF INTELLECTUAL STIMULATION OF THE COURSE	POOR	0	0	4	5	6	11	EXCELLENT	3.923	1.129
27. VALUE OF LAB/DISCUSSION AS A SUPPLEMENT TO THE LECTURE/READING	POOR	3	1	3	5	11	3	EXCELLENT	3.522	1.039
28. PROFESSOR'S PREPARATION FOR CLASS	POOR	0	0	0	1	8	17	EXCELLENT	4.615	0.571
29. PROFESSOR'S COMMAND OF THE SUBJECT	POOR	0	0	2	1	11	12	EXCELLENT	4.269	0.874
30. PROFESSOR'S ENTHUSIASM FOR SUBJECT OF THE COURSE	POOR	0	0	0	1	7	18	EXCELLENT	4.654	0.562
31. TO WHOM WOULD YOU RECOMMEND THIS COURSE? (SELECT ONE PLEASE) [1=NOBODY, 2=ONLY MAJORS/MINORS, 3=ONLY MAJORS/MINORS WITH GREAT INTEREST IN SUBJECT, 4=STUDENTS SEEKING DISTRIBUTION/DIVISIONAL STUDIES CREDIT, 5=STUDENTS SEEKING AN INTERESTING ELECTIVE]	POOR	2	1	11	5	3	4	EXCELLENT	2.917	1.213
32. HOW MUCH TIME PER WEEK OUTSIDE OF CLASS DID YOU SPEND ON THE COURSE? [1=LESS THAN 1 HR., 2=1-3 HRS., 3=3-5 HRS., 4=5-10 HRS., 5=MORE THAN 10 HRS.]	POOR	1	2	5	14	2	2	EXCELLENT	2.880	0.971
33. WHAT GRADE DO YOU EXPECT IN THE COURSE SOLELY BASED ON WORK COMPLETED THUS FAR? [1=F, 2=D, 3=C, 4=B, 5=A]	POOR	1	0	0	3	17	5	EXCELLENT	4.080	0.572

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STATISTICS REFLECT PERCENTAGE OF RESPONSES

I. SECTION A: COURSE EVALUATION

		NR	1	2	3	4	5		MEAN	ST DEV
1. RELEVANCE OF ASSIGNED READINGS [(1) LOW TO (5) HIGH]	POOR	0	0	8	35	46	12	EXCELLENT	3.615	0.804
2. DIFFICULTY OF COURSE [(1) EASY TO (5) DIFFICULT]	POOR	0	0	23	46	31	0	EXCELLENT	3.077	0.744
3. WORKLOAD IN COURSE [(1) LIGHT TO (5) HEAVY]	POOR	0	8	12	50	19	12	EXCELLENT	3.154	1.047
4. OVERALL RATING OF DISCUSSION INSTRUCTOR (IF APPLICABLE)	POOR	65	0	0	8	8	19	EXCELLENT	4.333	0.866
5. OVERALL RATING OF LAB INSTRUCTOR (IF APPLICABLE)	POOR	65	0	0	12	12	12	EXCELLENT	4.000	0.866
6. USEFULNESS OF ASSIGNMENTS AND PAPERS	POOR	4	0	0	27	35	35	EXCELLENT	4.080	0.812
7. OVERALL COURSE RATING	POOR	4	0	4	19	19	54	EXCELLENT	4.280	0.936

II. SECTION B: FACULTY EVALUATION

		NR	1	2	3	4	5		MEAN	ST DEV
8. EFFECTIVENESS IN EXPLAINING CONCEPTS	POOR	0	0	8	15	38	38	EXCELLENT	4.077	0.935
9. ABILITY TO STIMULATE INTEREST IN SUBJECT	POOR	0	0	4	23	19	54	EXCELLENT	4.231	0.951
10. ENCOURAGEMENT OF CLASS PARTICIPATION	POOR	0	0	0	4	19	77	EXCELLENT	4.731	0.533
11. FAIRNESS IN GRADING	POOR	8	0	4	12	31	46	EXCELLENT	4.292	0.859
12. PROMPTNESS IN RETURNING ASSIGNMENTS	POOR	4	0	4	15	23	54	EXCELLENT	4.320	0.900
13. QUALITY OF FEEDBACK TO STUDENTS	POOR	4	0	12	19	23	42	EXCELLENT	4.000	1.080
14. AVAILABILITY OUTSIDE OF CLASS	POOR	8	0	0	12	27	54	EXCELLENT	4.458	0.721
15. OVERALL RATING OF INSTRUCTOR	POOR	0	0	0	15	23	62	EXCELLENT	4.462	0.761

III. SECTION C: TF/TA EVALUATION

		NR	1	2	3	4	5		MEAN	ST DEV
16. PREPARATION FOR CLASS	POOR	92	0	0	0	4	4	EXCELLENT	4.500	0.707
17. COMMAND OF THE SUBJECT	POOR	92	0	0	0	4	4	EXCELLENT	4.500	0.707
18. ABILITY TO CONVEY FACTS AND EXPLAIN KEY CONCEPTS IN A DIGESTIBLE MANNER	POOR	92	0	0	0	8	0	EXCELLENT	4.000	0.000
19. ENTHUSIASM FOR THE SUBJECT AND ABILITY TO STIMULATE STUDENT INTEREST	POOR	92	0	0	0	4	4	EXCELLENT	4.500	0.707
20. AVAILABILITY OUTSIDE CLASS TIME	POOR	92	0	0	0	4	4	EXCELLENT	4.500	0.707
21. QUALITY OF EVALUATION OF WORK	POOR	92	0	0	4	0	4	EXCELLENT	4.000	1.414
22. PROMPTNESS OF RETURN OF GRADED ASSIGNMENTS AND COMMUNICATION OF STANDING IN CLASS	POOR	96	0	0	0	4	0	EXCELLENT	4.000	N/A

IV. SECTION D: OTHER

		NR	1	2	3	4	5		MEAN	ST DEV
23. CLARITY AND ACHIEVEMENT OF COURSE OBJECTIVES	POOR	0	0	4	12	38	46	EXCELLENT	4.269	0.827
24. EFFECTIVENESS OF THE USE OF CLASS TIME	POOR	0	0	8	8	42	42	EXCELLENT	4.192	0.895
25. VALUE OF COURSE TOWARD DEVELOPMENT OF INTELLECTUAL SKILLS (CRITICAL ANALYSIS, WRITTEN/ORAL COMMUNICATION, RESEARCH)	POOR	4	4	4	27	35	27	EXCELLENT	3.800	1.041
26. LEVEL OF INTELLECTUAL STIMULATION OF THE COURSE	POOR	0	0	15	19	23	42	EXCELLENT	3.923	1.129
27. VALUE OF LAB/DISCUSSION AS A SUPPLEMENT TO THE LECTURE/READING	POOR	12	4	12	19	42	12	EXCELLENT	3.522	1.039
28. PROFESSOR'S PREPARATION FOR CLASS	POOR	0	0	0	4	31	65	EXCELLENT	4.615	0.571
29. PROFESSOR'S COMMAND OF THE SUBJECT	POOR	0	0	8	4	42	46	EXCELLENT	4.269	0.874
30. PROFESSOR'S ENTHUSIASM FOR SUBJECT OF THE COURSE	POOR	0	0	0	4	27	69	EXCELLENT	4.654	0.562
31. TO WHOM WOULD YOU RECOMMEND THIS COURSE? (SELECT ONE PLEASE) [1=NOBODY, 2=ONLY MAJORS/MINORS, 3=ONLY MAJORS/MINORS WITH GREAT INTEREST IN SUBJECT, 4=STUDENTS SEEKING DISTRIBUTION/DIVISIONAL STUDIES CREDIT, 5=STUDENTS SEEKING AN INTERESTING ELECTIVE]	POOR	8	4	42	19	12	15	EXCELLENT	2.917	1.213
32. HOW MUCH TIME PER WEEK OUTSIDE OF CLASS DID YOU SPEND ON THE COURSE? [1=LESS THAN 1 HR., 2=1-3 HRS., 3=3-5 HRS., 4=5-10 HRS., 5=MORE THAN 10 HRS.]	POOR	4	8	19	54	8	8	EXCELLENT	2.880	0.971
33. WHAT GRADE DO YOU EXPECT IN THE COURSE SOLELY BASED ON WORK COMPLETED THUS FAR? [1=F, 2=D, 3=C, 4=B, 5=A]	POOR	4	0	0	12	65	19	EXCELLENT	4.080	0.572

AS 202 A1
Withers

Fall 2015
Course Evaluation Comments

Course: AS 202 A1, Principles of Astronomy I
Instructor: Paul Withers

1. What were the most positive aspects of the course?
- Really interesting subject matter. Very well taught and clear. Professor was great, super helpful.
- Interesting topic. Homework assignments useful.
- Enthusiasm of instructor helped retain interest in every aspect of course.
- Night labs with Phil
- The thought provoking questions usually asked at the beginning of class that we would discuss with our partners then share with the class
- Professor Withers is funny and entertaining and obviously knows what he was talking about
- The interesting concepts covered
- The curriculum was very interesting and the problem sets were fun. Night lab was very informative.
- Foundation for major, greater knowledge of subject.
- All the information about astronomy
- The lectures were good and the night labs were interesting
- The professor was always cheerful and enthusiastic, I enjoyed learning from him. The subjects were interesting and enjoyable.
- The classes in general were relatively interesting and the homework was not too heavy
- Fun class with small numbers, which allowed for personal contact with the professor.
- The course is very interesting
- Orbits: derivation of equations
- The material covered was all very useful and interesting
- Discussions during class were interesting.
- Interesting subject matter
- I liked that the professor was very enthusiastic. I like that there were notes as well as short movies and diagrams. They made the material easier to understand.
- Interesting Lecture
- The physical demonstrations
- The material

2. What, if any, changes would you recommend for the next offering of the course? Be as specific as possible.
- Please change the physic TF. Otherwise everything was great. I really liked this class. Maybe give us labs to design after we've learned the subject.
- Have day lab synced with lecture. It is hard to write labs on something I know nothing about.

Note: (?) indicates that the student's handwriting was illegible and the best effort was made to interpret what was written.

- Please align the lecture topics with the lab topics, that was terribly confusing. Including more about the interesting applications of what we're learning
- Duan + Making our own labs was annoying and didn't teach me anything
- Maybe spend less time on logistics (i.e. pre-lab) and more time with example problems or derivations
- More communication/integration of material covered between lecture and labs because the labs were not coordinated with lectures
- A better set up for day labs
- Better ways to express relevant reading materials – page numbers and passages rather than a medley of textbook chapters. Day labs were a disaster. My "Self-guided" day lab projects were terrible.
- More clarity, organization, and interaction with the lab periods. Relate lecture context to labs.
- More talk about optics
- None
- Professor and TA's need to <u>communicate</u>. Found ourselves out of our leagues with intense day lab topics we hadn't learned in lecture.
- Maybe something about discussing home problems or similar example problems. Also, the material taught sometimes seemed too difficult for an introductory course.
- I would strongly encourage the use of the textbook
- More topics on astronomy, not on physics
- Remove the need for weekly lab reports.
- Try and take more assignments from the textbook. They are more understandable.
- Have a textbook for the class, more unity between day, night labs and class
- Try to do more practice problems in class related to homework
- Make a more outlined syllabus, equation sheets unclear what was important during lecture

3. What, if any, adjustments would you recommend to the instructor's teaching method or style?
- Honestly nothing. Withers uses multiple ways of teaching. He summarizes at the end of each class, posts what he uses in class, and still tries to give visual representations when he can, he's great
- None
- Spend less time explain algebra and more time discussing the abstract ideas. Spend more time fully researching the topics so questions can be answered.
- Yes " talk to your neighbors" it never helped. I would rather have the concepts explained so I have all the correct information in my notes
- More things with the computer like simulations, less derivations
- Nothing
- A little more structure/organization/coherence would be nice
- None. Great professor.
- Everything is excellent except for the lack of structure in day lab.

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- More class time devoted to relevant content
- He's good
- Maybe post notes from lecture online
- Maybe more structured…layout of notes was a bit random, and I wish I could copy down more things.
- Go through some example problems in class rather than going through so many proofs.
- Use a textbook
- It's good
- The chalkboard always seemed inefficient
- Didn't seem to match well w/ hw or labs
- More problem sets

4. Comment on the feedback you received from the instructor of the course. Was it useful?
- Yes, though I never really got much feedback as I did well when I did(?) though it was very useful.
- Yes
- It's fine.
- Yes
- Didn't really receive any
- Yes
- Feedback was useful and relevant
- Most of the time, it was.
- My questions were always answered. Problem set solutions were posted – that's great.
- Not very, only useful on basic level
- It was fine
- It was useful. I found what I needed to study.
- Feedback from professor was good, and useful
- Yes it was
- Was helpful in office hours
- Didn't really receive any feedback from professor – leave(?) mostly from TA
- We didn't receive much feedback on homework assignments

5. Comment on the frequency and length of assignments, exams, and lab reports.
- The labs when we had to design over our were not very well(?). We did not know the concepts beforehand, and the TF was awful at creating(?) them. Exams were short and relatively easy. Assignment marks varied greatly depending on the tf marking them, almost to an unfair degree.
- Homework assignments were useful. Day lab reports were graded very harshly. Night labs were awesome
- They're fair.

Note: (?) indicates that the student's handwriting was illegible and the best effort was made to interpret what was written.

- Assignments weren't too difficult. Didn't spend too much extra time on assignments.
- Problem set every week, very manageable. Lab reports were not too frequent but are still had a good amount
- They were all fair
- Weekly homework was enough to make sure I understood the topics
- Assignments and exams were tolerable. Lab reports were usually very difficult.
- The create- your-own day lab experiments took hours and hours of inefficient learning. Everything else was fine. Some assignments had poorly spaced due dates.
- Very fair
- The weekly assignments were good exams was fine lab reports ended up being really long.
- The assignments were well-spaced, helpful to my educator, but not overly stressful – same with midterms and lab reports.
- Labs are far too tedious and require too much work. Assignments and exams are reasonable.
- Assignments were fair and good
- It's perfect
- It was useful to apply things we learned in lectures
- It was all very reasonable for the students
- 1 assignment/week, very manageable
- Assignment due almost every week and reasonable, labs one a month and reasonable, flexibility on due dates if conflicted w/ other due dates
- The frequency/length of homeworks and exams were good. However the lab reports were extremely long and took a long time.
- All assignments except for Day lab experiment design seemed appropriate
- Assignments were easy but sometimes vague
- The pre lab things were pointless and didn't help and wasted paper

6. Comment on the selection and amount of reading. Which readings were the most and which were the least valuable? Why?
- Ryerson was useful
- The readings were actually helpful, I almost wish they were assigned so we could know what topics are where.
- Recommended readings on Blackboard was useful when I needed clarification.
- No reading
- Of the readings I was aware of, they were useful (Ryen and Peterson)
- Very little reading but most of it was relevant
- Not much reading was done. Lecture was more important.
- I always ended-up reading the wrong things.
- The readings were too open ended with no quironce(?) on what was useful
- The readings on optics
- There was no required reading but the recommended textbooks were useful

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- No readings? Hmm.
- I didn't like the online reading and the fact that it came from multiple different books.
- It's perfect
- Ryden and Peterson
- Very little reading assignments
- Not enough actual assigned readings would have helped in the long run
- Hardly any readings available, didn't feel v relevant/helpful to hw or comprehension
- The three textbooks were all very useful.
- Reading as not mandatory but helpful and supplementary
- Didn't really use readings

7. Comment on the TA/TF or lab instructor for the course. What did he/she do well? What could he/she improve?
- See separate TA/TF comments if applicable.

8. What skills and understanding have you gained from this course?
- Learned spectroscopy, standard observation, telescope use, All super useful. Also how to write effective labs
- I honestly don't feel like I learned much, aside from plugging into formulas.
- I think I understand very basic astronomy now.
- Not really any skills just fact; memorization
- I have gained a lot of knowledge about measurements and facts as well as physical behaviors of objects in the universe. I also gained a lot of background in data collection and complement and using different pieces of equipment
- I was familiar with most of the material covered but gained a lot of field-specific knowledge
- I have been able to understand orbits and simple E& M better than ever before.
- So, so many
- Greater understanding of subject area
- I can use a telescope
- A general knowledge of basic astronomy and history of astronomy
- I understand… things about Astronomy. And I know somethings about lab now.
- I have learned the basics of astronomy in terms of the fundamental mathematics of it.
- Learned how to apply useful physics principles to universal problems
- General astronomy
- General astronomy
- Base astronomical knowledge that will be very useful in later courses.
- Foundational aspects for future astronomy classes
- Understanding that I probably shouldn't pursue astronomy major
- I have learned a lot about planetary motions and the night sky
- Competence about the fundamental principles of astronomy

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AS 202 A1
Withers

- Good foundation of astronomy

9. General Comments:
- Great course, had tons of fun, thank you!
- This course really should have a piazza and should be more organized in terms of what topics should be taught in what order. It was very uninteresting and could show more fun applications of what we're learning.
- I loved this class
- Lecture could get a little dry, but Withers is really nice and respectful. Phil = life. Duan = misery.
- Professor Withers is my favorite professor so far
- Overall, great course. Would definitely recommend to others. Hopefully the AS 203 professor will be as good as Withers.
- Thank you.
- MORE ORGANIZATION, also Piazza
- I like Withers a lot
- None
- Great class, thanks!
- The course is too difficult for an intro course.
- I really enjoyed the class and the instructor, I just didn't like the fact that we had no real textbook.
- This is the best course so far.
- Prof. Withers has a great lecture style- very entertaining, informative, and clear!
- Great class, would recommend to majors, minors or anyone looking for a couple credits
- Not a fan of the structure of day lab <u>at all</u>
- I liked this course, it was very interesting.
- Weight of assignments is counterintuitive and awkward, exams are based to heavily on memorization of random facts and examples mentioned in lecture and not on your understanding of course material

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