AS 203 (A3): Prin of Astro 2

Spring18 | Benjamin Roulston

Quantitative

9 | Students Enrolled9 | Students Responded100% | Response Rate

	(1) Low	(2)		(3)		(4)		(5) High		N	DNA	<u>SD</u>	M
Relevance of assigned readings	0% (0)	0% (0)		33.33% (3)		33.33% (3)		33.33% (3)		9	0	0.82	4
	Easy	Moderate Easy	ly	Neither nor Diff		Mode Diffic	rately ult	Difficult		N	DNA	SD	M
Difficulty of course	0% (0)	0% (0)		66.67% (6)	33.33	% (3)	0%	(0)	9	0	0.47	3.33
	Light	Moderate Light	ly Neither Light no Heavy				rately ⁄	Heavy		N	DNA	SD	M
Workload in course	0% (0)	55.56% (5)		33.33% (3)	11.11	% (1)	0%	(0)	9	0	0.68	2.56
Course Evaluation	Poor	Fair	God	od	Very 0	Good Excelle		nt N/A		N	DNA	SD	M
Overall rating of discussion instructor (if applicable)	0% (0)	0% (0)	0%	0% (0) 0		22.229		2)	77.78% (7)	9	0	0	5
Overall rating of lab instructor (if applicable)	0% (0)	0% (0)	0%	(0)	33.339	6 (3)	55.56% (5)	11.11% (1)	9	0	0.48	4.63
Usefulness of assignments and papers	0% (0)	0% (0)	11.1	11% (1)	33.339	6 (3)	55.56% (5)	0% (0)	9	0	0.68	4.44
Overall course rating	0% (0)	0% (0)	0%	(0)	44.44%	6 (4)	55.56% (5)	0% (0)	9	0	0.5	4.56
Faculty Evaluation	Poor	Fair	God	od	Very 0	Good	Exceller	ıt		Ņ	DNA	SD	M
Effectiveness in explaining concepts	0% (0)	0% (0)	11.1	11% (1)	33.339	6 (3)	55.56% (5)		9	0	0.68	4.44
Ability to stimulate interest in subject	0% (0)	0% (0)	22.2	22% (2)	44.449	6 (4)	33.33% (3)		9	0	0.74	4.11
Encouragement of class participation	0% (0)	0% (0)	11.1	11% (1)	33.33%	6 (3)	55.56% (5)		9	0	0.68	4.44
Fairness in grading	0% (0)	0% (0)	11.1	11% (1)	33.33%	6 (3)	55.56% (5)		9	0	0.68	4.44
Promptness in returning assignments	0% (0)	0% (0)	11.1	11% (1)	33.33%	% (3)	55.56% (5)		9	0	0.68	4.44
Quality of feedback to students	0% (0)	0% (0)	22.2	22% (2)	44.449	6 (4)	33.33% (3)		9	0	0.74	4.11
Availability outside of class	0% (0)	0% (0)	0%	(0)	44.449	6 (4)	55.56% (5)		9	0	0.5	4.56
Overall rating of instructor	0% (0)	0% (0)	0%	(0)	44.449	% (4)	55.56% (5)		9	0	0.5	4.56
TF/TA Evaluation	Poor	Fair	God	od	Very 0	Good	Exceller	ıt		N	DNA	SD	M
Preparation for class	0% (0)	0% (0)	0%	(0)	44.449	6 (4)	55.56% (5)		9	0	0.5	4.56
Command of the subject	0% (0)	0% (0)	0%	(0)	33.339	6 (3)	66.67% (6)		9	0	0.47	4.67
Ability to convey facts and explain key concepts in a digestible manner	0% (0)	0% (0)	11.1	11% (1)	11.119	6 (1)	77.78% (7)			9	0	0.67	4.67
Enthusiasm for the subject and ability to stimulate student interest	0% (0)	0% (0)	11.1	11% (1)	22.229	6 (2)	66.67% (6)		9	0	0.68	4.56
Availability outside of class time	0% (0)	0% (0)	0%	(0)	22.229	6 (2)	77.78% (7)		9	0	0.42	4.78
Quality of evaluation of work	0% (0)	0% (0)	0%	(0)	55.569	6 (5)	44.44% (4)		9	0	0.5	4.44
Promptness of return or graded assignments and communication of standing in class	0% (0)	0% (0)	0%	(0)	33.33%	6 (3)	66.67% (6)		9	0	0.47	4.67

Other	Poor	Fair	Go	od	Very	Good	Exceller	nt		Ņ	DNA	<u>SD</u>	<u>M</u>
Clarity and achievement of course objectives	0% (0)	0% (0)	11.	11% (1)	44.44	% (4)	44.44% (4)			9	0	0.67	4.33
Effectiveness of the use of class time	0% (0)	0% (0)	33.	33% (3)	0% (0)	0% (0) 66.67%		7% (6)		9	0	0.94	4.33
Value of course toward development of intellectual skills (critical analysis, written/oral communication, research)	0% (0)	0% (0)	0%	(0)	44.44	% (4)	55.56%	(5)		9	0	0.5	4.56
Level of intellectual stimulation of the course	0% (0)	0% (0)	11.	11% (1)	44.44	% (4)	44.44%	(4)		9	0	0.67	4.33
Value of lab/discussion as a supplement to lecture/reading	0% (0)	11.11% (1)	0%	(0)	33.33	% (3)	55.56%	(5)		9	0	0.94	4.33
Professor	Poor	Fair	Go	od	Very	Good	Exceller	nt		N	DNA	SD	М
Professor's preparation for class	0% (0)	0% (0)	0%	(0)	22.22	% (2)	77.78%	(7)		9	0	0.42	4.78
Professor's command of the subject	0% (0)	0% (0)	0%	(0)	11.11	% (1)	88.89%	(8)		9	0	0.31	4.89
Professor's enthusiasm for subject of the course	0% (0)	0% (0)	0%	(0)	22.22	% (2)	77.78%	(7)		9	0	0.42	4.78
	Nobody	Only majors/m rs	iino	Only majors rs with interes subject	great t in	Stude seeki distri divisi studi credi	ing ibution/ ional es	Students seeking an interesting elective		Ņ	DNA	<u>SD</u>	M
To whom would you recommend this course?	0% (0)	55.56% (5))	22.22%	(2)	11.11	% (1)	11.11% (1)		9	0	-	-
	Less than 1 hr.	1 -3 hrs.		3 - 5 hrs	5.	5 - 10	hrs.	More than 10 hours		Ņ	DNA	<u>SD</u>	M
How much time per week outside class did you spend on the course?	11.11% (1)	66.67% (6))	22.22%	(2)	0% (0)	0% (0)		9	0	-	-
	F	D		c		В		Α		N	DNA	SD	м

Qualitative

STRENGTHS of the course and of the Instructor: -

What grade do you expect in the course

solely based on work completed so far?

• The instructor is good at explaining concepts. Including astronomy concepts and the usage of Python in our lab. Very nice person.

0% (0)

• Ben is excellent at explaining topics and his practical approach to astronomy teaching is refreshing. The fact that he let us use python instead of IDL just made my life so much better

0% (0)

88.89% (8)

11.11% (1)

• He explains concepts and procedure before doing labs very well

0% (0)

- Great at helping out and being available outside of class.
- Ben makes them boring labs fun
- Very good at explaining concepts and always ready to help out with anything you need. Even though we couldn't observe during labs, Ben was able to come up with fairly interesting Night Labs that didn't involve direct observation. I loved the integration of programming with astronomy!
- He takes interest in teaching and makes the class interesting
- availability helpfulness / answering questions

WEAKNESSES of the course and of the Instructor: -

- Nothing that significant really
- There was pretty much no night-lab, but that was mostly because the skies were pretty much always cloudy. I also wish we were able to use the 14-inch telescope, since the 10-inch is not very exciting.
- His only weakness is that he's so cool
- Tends to move quite fast through the material.
- rarely
- Ben is an excellent lab instructor, I can't think of any weaknesses
- IDL is not up to date and difficult to use. We switched to use Python instead.

General Comments: -

- · Pretty good, it was fun.
- The coding experience I've gotten in this lab has been very valuable. Definitely keep the coding-intensive syllabus
- Glad to have Ben as TA for both AS202 and AS203. He is very helpful.
- Asparagus
- · I enjoyed the lab
- · Had lots of fun:)

What were the most positive aspects of the course? -

- Topics are easy to understand.
- Integration of CS and Astronomy.
- Ben explain labs very well.
- The great practical coding knowledge I gained and the use of real data from instruments rather than some simplified data just to demonstrate the concept
- · How much help Ben is.
- · loved learning python
- · It is the observational part of astronomy
- It was life

What, if any, changes would you recommend for the next offering of the course? Be as specific as possible. -

- · Don't have clouds
- The weather during spring is not good for this course
- - IDL is cool, but perhaps more time on python would be more usefull
- · Possible changing the times the labs occur.
- Change the star from zeta gem to anything brighter please, or just change that night lab. It seems like there are better night labs we could do. Instead, as Ben did, make this cepheid distance exercise a coding day lab.
- Maybe more time to do night labs. Unfortunately we rarely went through night labs.
- More interesting Night labs, since our second night lab was very similar to the third day lab. Being allowed to use the 14-inch telescope when possible.
- · Make night labs not last as long.

What, if any, adjustments would you recommend to the instructor's teaching method or style? -

- When referring the index number in Python, it is okay to use the phrase "zeroth".
- Maybe Ben would rather teach on the projector. I sometimes do not understand his handwriting.
- None
- Go slower, and make sure everybody understands the material. Students probably have questions, but are just afraid to speak up.
- · Nothing much really
- · No adjustment necessary

Comment on the feedback you received from the instructor of the course. Was it useful? -

- Yea
- Yeah, i learnt new stuff
- yes
- Yes. His feedback helped me make my future labs better.
- Being a lab, this isn't necessarily a course that offers a lot of feedback, but I feel what I have received to have been useful.
- · Moderately yes.
- Yes, very useful
- · Yes, it was useful.

Comment on the frequency and length of assignments, exams, and lab reports. -

- They are all good in length and frequency.
- There are 3-4 lab reports, which is a good number
- Good. Ben is quite flexible with lab reports.
- It's been great! It's a nice supplement to lecture without adding disproportionate amounts of extra work. The workload was generally fairly light and I don't see anything wrong with that since we accomplished what we hoped we would
- Good frequency and length. Some labs were more difficult than others, but they all felt necessary.
- good
- They were at regular intervals which is nice
- mile

Comment on the selection and amount of reading. Which readings were the most and which were the least valuable? Why? -

- all of them because there were none
- The textbook is useful
- N/A
- nope this is not a reading class
- The lab assignment is quite long by the way. It would be helpful if he brief the assignment before labs.
- No readings required

Comment on the TA/TF or lab instructor for the course. What did he/she do well? What could he/she improve? - TA/TF name:

- TA/TF name: N/A
- TA/TF name: Benjamin Roulston
- TA/TF name: Ben
- TA/TF name: Ben Roulston
- TA/TF name: Benjamin Roulston
- TA/TF name: BENNNNNNNN!
- TA/TF name: -
- TA/TF name: Benjamin Roulston
- TA/TF name: Benjamin Roulston
- Comments: His planing is good. His programming skill is great.
- Comments: -
- · Comments: You did everything great
- Comments: He is the lab tf
- · Comments: Ben did a wonderful job. The only thing I think he could improve on is moving a tad bit slower with the material.
- Comments: I wrote about this earlier
- Comments: Overall good. Would like to have TA like him.
- Comments: N/A

What skills and understanding have you gained from this course? -

- Combining CS and Astronomy for data analysis, which is something I was very interested in.
- · Python and IDL skill are very useful. I glad he went through that instead of leaving students struggling.
- Great practical coding experience and a better understanding of the form of spectra and how we use them
- IDL Coding
- Be more concise and accurate
- How to use Python
- - IDL Python fits files spectra
- Some techniques to analyze data from observation using computer programming.

AS 203 (A4): Prin of Astro 2

Spring18 | Benjamin Roulston

9 | Students Enrolled

9 | Students Responded **100%** | Response Rate

Quantitative

	(1) Low	(2)	(2) (3)			(4)		(5) High		N	DNA	<u>SD</u>	M
Relevance of assigned readings	0% (0)	0% (0)		11.11%	(1)	33.33	% (3)	55.	56% (5)	9	0	0.68	4.44
	Easy	Moderate Easy	ly	Neither nor Diff		Mode Diffic	rately ult	Dif	ficult	Ņ	DNA	<u>SD</u>	M
Difficulty of course	0% (0)	22.22% (2)		66.67% (6)		11.11% (1)		0% (0)		9	0	0.57	2.89
	Light	Moderate Light	ly	Neither Light no Heavy			rately y	Hea	avy	N	DNA	SD	M
Workload in course	11.11% (1)	33.33% (3)		55.56%	(5) 0% ()	0% (0)		9	0	0.68	2.44
Course Evaluation	Poor	Fair	God	od	Very (Good	Exceller	nt	N/A	N	DNA	SD	M
Overall rating of discussion instructor (if applicable)	0% (0)	0% (0)	11.	11% (1)	0% (0)		11.11% ([1)	77.78% (7)	9	0	1	4
Overall rating of lab instructor (if applicable)	0% (0)	0% (0)	11.	11% (1)	0% (0)		88.89% ((8)	0% (0)	9	0	0.63	4.78
Usefulness of assignments and papers	0% (0)	0% (0)	22.2	22% (2)	33.33	% (3)	44.44% ((4)	0% (0)	9	0	0.79	4.22
Overall course rating	0% (0)	0% (0)	11.	11% (1)	33.33	% (3)	55.56% ([5)	0% (0)	9	0	0.68	4.44
Faculty Evaluation	Poor	Fair	God	od	Very (Good	Exceller	ıt		N	DNA	SD	M
Effectiveness in explaining concepts	0% (0)	0% (0)	22.2	22% (2)	33.33	% (3)	44.44% ((4)		9	0	0.79	4.22
Ability to stimulate interest in subject	0% (0)	0% (0)	11.	11% (1)	22.22	% (2)	66.67% ((6)		9	0	0.68	4.56
Encouragement of class participation	0% (0)	0% (0)	22.2	22% (2)	22.22	% (2)) 55.56% (9	0	0.82	4.33
Fairness in grading	0% (0)	0% (0)	11.	11% (1)	33.33	% (3)	55.56% ([5)		9	0	0.68	4.44
Promptness in returning assignments	0% (0)	11.11% (1)	22.2	22% (2)	33.33	% (3)	33.33% ((3)		9	0	0.99	3.89
Quality of feedback to students	0% (0)	11.11% (1)	11.	11% (1)	33.33	% (3)	44.44% ((4)		9	0	0.99	4.11
Availability outside of class	0% (0)	0% (0)	11.	11% (1)	33.33	% (3)	55.56% ([5)		9	0	0.68	4.44
Overall rating of instructor	0% (0)	0% (0)	11.	11% (1)	22.22	% (2)	66.67% ((6)		9	0	0.68	4.56
TF/TA Evaluation	Poor	Fair	God	od	Very (Good	Exceller	ıt		N	DNA	SD	M
Preparation for class	0% (0)	0% (0)	22.2	22% (2)	11.119	% (1)	66.67% ((6)		9	0	0.83	4.44
Command of the subject	0% (0)	0% (0)	22.2	22% (2)	11.119	% (1)	66.67% ((6)		9	0	0.83	4.44
Ability to convey facts and explain key concepts in a digestible manner	0% (0)	0% (0)	22.2	22% (2)	11.119	% (1)	66.67% ((6)		9	0	0.83	4.44
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Availability outside of class time	0% (0)	0% (0)	22.2	22% (2)	11.119	% (1)	66.67% (6)			9	0	0.83	4.44
Quality of evaluation of work	0% (0)	0% (0)	22.2	22% (2)	22.22	% (2)	55.56% ((5)		9	0	0.82	4.33
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Other	Poor	Fair	God	od	Very	Good	Exceller	nt	<u>N</u>	DNA	<u>SD</u>	M
Clarity and achievement of course objectives	0% (0)	0% (0)	22.2	22% (2)	22.22	% (2)	55.56%	(5)	9	0	0.82	4.33
Effectiveness of the use of class time	0% (0)	0% (0)	0% (0) 22.2		44.44	% (4) 33.33% (3)		(3)	9	0	0.74	4.11
Value of course toward development of intellectual skills (critical analysis, written/oral communication, research)	0% (0)	0% (0)	22.2	22% (2)	33.33	% (3)	44.44%	(4)	9	0	0.79	4.22
Level of intellectual stimulation of the course	0% (0)	0% (0)	22.2	22% (2)	44.44	% (4)	33.33%	(3)	9	0	0.74	4.11
Value of lab/discussion as a supplement to lecture/reading	0% (0)	0% (0)	22.2	22% (2)	44.44	% (4)	33.33%	(3)	9	0	0.74	4.11
Professor	Poor	Fair	God	od	Very	Good	Exceller	nt	<u>N</u>	DNA	SD	M
Professor's preparation for class	0% (0)	0% (0)	11.	11% (1)	11.11	% (1)	77.78%	(7)	9	0	0.67	4.67
Professor's command of the subject	0% (0)	0% (0)	11.	11% (1)	22.22	% (2)	66.67%	(6)	9	0	0.68	4.56
Professor's enthusiasm for subject of the course	0% (0)	0% (0)	11.	11% (1)	11.11	% (1)	77.78%	(7)	9	0	0.67	4.67
	Nobody	Only majors/mi rs	ino	Only majors/ rs with interest subject	great : in		ng bution/ onal es	Students seeking an interesting elective	<u>N</u>	DNA	SD	M
To whom would you recommend this course?	0% (0)	11.11% (1)		44.44% ((4)	22.22	% (2)	22.22% (2)	9	0	-	-
	Less than 1 hr.	1 -3 hrs.		3 - 5 hrs	i .	5 - 10	hrs.	More than 10 hours	Ņ	DNA	SD	M
How much time per week outside class did you spend on the course?	11.11% (1)	77.78% (7)		11.11%	(1)	0% (0)	0% (0)	9	0	-	-

Qualitative

STRENGTHS of the course and of the Instructor: -

What grade do you expect in the course

solely based on work completed so far?

• Ben is a natural professor. He shows a passion for the course material and engages students in a way that exposes our passion for the material, while still teaching in an understanding way. He is so sweet and understanding to us and really makes us feel heard in lab.

11.11% (1)

22.22% (2)

66.67% (6)

- Ben was fantastic! Made lab easy to understand, explained concepts well, available outside class. Ben made astronomy exciting and attainable, and cannot imagine a better TF for this course. Lab itself was simple enough but also still engaging.
- He's a good teacher and keeps the material fresh. On top of this, he is very personable and engaging.

0%(0)

- Benjamin is extremely approachable and a quality instructor who knows the material assigned. He genuinely cares about his students and it is very refreshing to see this in a lab instructor. Very knowledgeable.
- good at explaining concepts, fair grading and helpful feedback made labs fun
- Ben is the man. Had him for both AS202 and AS203 and 10/10 recommend. Always helpful outside of class, emails back quickly.

0% (0)

- amazing. an angel.
- He is very good at explaining things in lab. He helps people to understand things very well.

WEAKNESSES of the course and of the Instructor: -

- His feedback is not as full as I was used to.
- only a tf
- NA
- Some of the labs were not optimized for the period of time that we had; however, Ben did his best to work around this and always found something else that is useful and equally interesting.
- Can't really think of any at the moment.
- Night lab was basically non existent due to weather the lab needs to be adjusted to accommodate winter. Also, I would have appreciated a lesson on IDL instead of being given example code and figuring it out alone.
- The only weakness i would point out about ben is that i wish we could get our lab reports back a bit sooner.

General Comments: -

- I honestly cannot imagine taking Astronomy next semester without Ben. He has made the course really engaging and fun while still teaching us the necessary information to excel in Astronomy. Not only is he a great instructor, but a genuinely nice person who always has a smile on Wednesday nights. Thanks for a great 2 semesters Ben!!
- I cannot stress enough how much I appreciated Ben!
- · Thanks, Ben!
- Wish there had been more time to use telescope
- :)
- He was a very good instructor

What were the most positive aspects of the course? -

- I like the use of real-world data and the observational labs
- Really engaging class that stimulates the mind in a fascinating way. Loved the course and the professors.
- · Really enjoyed Ben's teaching style, practicing IDL and python, and learning about more advanced astronomy.
- Learning different computation methods used in astronomy research was very helpful (i.e. astropy, numpy)
- The subject matter and the professor.

What, if any, changes would you recommend for the next offering of the course? Be as specific as possible. -

- · More night labs
- Could Skip over learning IDL since it took lots of time we could have used for more labs
- Regarding night lab either needs to be a course substitution or removed from lab as we actually only had night lab two or three times this semester.
- Would not change a thing honestly i cannot think of any way to make the course better.
- I would cut down on the IDL assignments they were not really things that you should be doing in a lab course.

What, if any, adjustments would you recommend to the instructor's teaching method or style? -

- Less IDL but otherwise not really
- Really engaging already i cannot think of any adjustments to suggest
- None!
- NA
- N/A

Comment on the feedback you received from the instructor of the course. Was it useful? -

- · It was very useful
- · feedback was helpful
- Feedback on lab reports was clear, fair, and helpful.
- · Really useful feedback that i quickly changed
- It was useful, it was sometimes hard to see where I lost points though.

Comment on the frequency and length of assignments, exams, and lab reports. -

- Big assignments are infrequent but sometimes occur at inopportune times.
- really good frequency and good difficulty level
- Frequency/length of lab reports correlated well with intensity of class.
- good balance of work, I never felt overwhelmed
- The frequency was good`

Comment on the selection and amount of reading. Which readings were the most and which were the least valuable? Why? -

- We did not do much reading for this class
- NA
- no readings
- amount of readings is pretty light and very interesting
- · we did not have much reading

Comment on the TA/TF or lab instructor for the course. What did he/she do well? What could he/she improve? - TA/TF name:

- TA/TF name: We did not have a TA/TF
- TA/TF name: Benjamin Roulston
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- TA/TF name: Ben Roulston
- TA/TF name: Ben
- TA/TF name: Ben Roulston
- TA/TF name: Ben Roulston
- TA/TF name: N/A
- Comments: -
- Comments: good at inspiring enthusiasm about the labs
- Comments: See previous comments, Ben is amazing
- · Comments: Amazing guy and instructor
- Comments: Very knowledgable and approachable TA.
- Comments: terrific
- Comments: We had none

What skills and understanding have you gained from this course? -

- I learned more about astronomy and how to use python to interpret data
- Overall better cosmological understanding and coding
- I have better understood both IDL and Python, and been able to practice my coding skills with "real world" applications. I was able to work with data that we were learning about in class, which helped me better understand the material.
- skills for astronomy research
- -