

PHYSICS 1403

Stars & Galaxies

An Introduction to Stellar & Galactic Astronomy



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903-510-2887 (TJC office)
thooten@panola.edu (start subject line with PHYS 1403)
Best Method of Contact: in-course Inbox inside Canvas
Professor will normally respond within 24 hours or sooner Mon-Fri
Zoom Office Hours: Wednesday, 1PM-3PM
Zoom ID: 9035102887, Zoom Password: 7777777
(Message me in Canvas Inbox to arrange an appointment)

Required: Astronomy by Fraknoi, Morrison, Wolff, et al.
The textbook is freely available through OpenStax at the links below.
<http://cnx.org/content/col11992/latest/> (online access)
<https://openstax.org/details/books/astronomy> (downloadable versions)

Technology Requirements: PC or Mac computer with fast Internet access, webcam, and microphone
Ability to download, install, and run Stellarium (software is a free download)
Ability to view and understand online videos such as YouTube
Ability to use, enter data, manipulate graphs, and save files in MS Excel format
Ability to access and use MS Office 365, scientific calculator, pdf reader, VLC Player, Winzip, Printer, etc. (or equivalent programs)

IMPORTANT NOTES:

Chromebooks and Linux computers will not work for labs.
You must use proctoring software for the proctored exams.
Proctoring software requires the Chrome browser. Use Chrome!
MS Office 365 is a free download and must be used for Excel.
Non-Windows machines are not supported in labs.*

*Don't let this scare you off. Many Mac users have successfully completed this class. However, all lab instructions are written from the perspective of a Windows PC user. Mac users will need to translate the lab instructions from those for a PC into those useful on their machine. This is mostly straightforward but may require some Mac-savviness to accomplish. Again, many Mac users have successfully completed this class.

Very Tentative Class Schedule:

Week No.	Start Date	End Date	"Astronomy" Chapter No.	Description of Content	Lab
1	Aug 20	Aug 26		Introduction	Stellarium Lab
2	Aug 26	Sep 03	15 & 16	The Sun	Solar Rotation
3	Sep 02	Sep 09	17	Analyzing Starlight	Stellar Distances Lab
4	Sep 09	Sep 16	18 & 19	Star Characteristics and HRD	Wien's Law Lab
5	Sep 16	Sep 23	20	The ISM	HR Diagram Lab
6	Sep 23	Sep 30	21 & 22	Star Birth and Life	Planetary Nebulae Lab
7	Sep 30	Oct 07	23 & 24	Star Death & Black Holes	Midterm Prep Lab
8	Oct 10	Oct 14	--	MIDTERM EXAM	
9 & 10	Oct 07	Oct 14	25	The Milky Way Galaxy	Exploring MWG Lab
11	Oct 14	Oct 21	26	Galaxies	Hubble Tuning Fork
12	Oct 21	Oct 28	27	Active Galaxies	Dark Matter Lab
13	Oct 28	Nov 04	28	Galaxy Evolution	Hubble-Lemaitre Lab 1
14	Nov 04	Nov 11	29	The Big Bang	Hubble-Lemaitre Lab 2
15	Nov 11	Nov 18	30	Life in the Universe	Final Prep Lab
16	Nov 18	Dec 02		Finishing Up	
17	Dec 03	Dec 09		FINAL EXAM	

Grading: Mid-Term Exam 15%
 Final Exam 15%
 Weekly Quizzes 20%
 Weekly Discussions 25%
 Lab Assignments 25%
 (Each item is described below)

A = 100-90.0%
B = 89.9-80.0%
C = 79.9-70.0%
D = 69.9-60.0%
F = less than 60.0%

The Weekly Assignment Message:

This class is broken up by weeks, and there is one course module per week. At the top of each module, you will find a weekly assignment message in the form of a pdf document. It is usually named something highly imaginative like “Week 01 Assignment.” These assignment messages are vitally important things. Each assignment message contains activities related to both the lecture and the lab. You will receive a grade for the activities in these messages.

Your grade will be determined based upon your performance on the following items: 1) mid-term exam, 2) final exam, 3) weekly assignments, and 4) lab activities. Each of these items is described below.

Mid-Term and Final Exams (30%):

The mid-term and final are the two major **proctored** exams for the semester; they are both **highlighted** in the schedule above. Both exams are comprehensive in nature, meaning that all material covered is fair game for each exam. The percentage each exam counts is shown in the grading scheme above and is about average for exams in undergraduate-level courses. You may complete the exams at any time during the range of dates listed above in the class schedule. **Exams are proctored. Each exam is timed and delivered one question at a time. You must answer each question before proceeding to the next, and you will not be able to change answers once you proceed.**

Students who need special accommodations for testing need to contact the DSS Office located in the Student Success Center in the Charles C. Matthews Foundation Student Center. Accommodations can only be granted through this office. To make an appointment or for additional information please contact the DSS Office:

Telephone: (903) 693-2046

Fax: (903) 693-2031

Email: dss@panola.edu

TTY/TDD: use Texas Relay at 800-735-2989

Weekly Assignments (45% total):

First let's define “the week”. **Each class-week starts on Monday and goes to the next following Monday. The only exceptions to this are the weeks at the beginning and end of the semester, as well as some holidays.** The tentative class schedule above shows how the weeks are divided. Weekly assignments may include activities such as readings, quizzes, homework, discussion questions, lab reports, online activities, and other assignments. The weekly assignments will be made available online no later than Monday night of each class-week. For the most part, all the activities associated with the weekly assignments must be completed by the following Monday night of the next week. You are encouraged to carefully *read each weekly assignment message as early as possible so you can be aware of deadlines.* In fact, many students find it helpful to print out the assignment message each week and go through it using a highlighter to

highlight each of the week's activities. Please consider doing this. You are personally responsible for your learning.

PRO-TIP: Do not wait to start your assignments. You will not have enough time to complete all the assignments if you delay starting.

Quizzes (20%)

Part of your weekly assignments include chapter quizzes. Unless told otherwise, each quiz is due at the end of the class-week. The content of each quiz is the material covered during the week. The quizzes are not timed, and you may go into and out of them as many times as you wish to make changes before the deadline. You will usually be allowed a limited number of attempts to complete each quiz. However, once you submit a quiz, then you may not make changes to it. You may use any resources you wish to complete the quizzes; however, you should try to limit your use of resources since you may not be able to use such resources when you take the midterm and final exams. The material covered in the weekly quizzes is indicative of the material covered in the major exams. NOTE: Quizzes are not exams. Quizzes are of the same general format and cover similar, not identical, material as exams.

Discussions (25%)

Part of your weekly assignment will include postings to an online discussion each week. You will participate in weekly online discussions on science-related topics; many topics may span two-week periods. Your posts should reflect and integrate your understanding of the readings as well as your experiences. The topic of the week will be mentioned in the weekly assignment and will probably consist of one or more open-ended questions. You will need to address the topics and answer any questions by making a substantive post. **A substantive post is a well-written essay of at least 100 words in length showing critical understanding.** After others have posted their answers, you will then need to read the other responses and post a second substantive response to at least one or two other student's original answers. You will discover that the questions are often thought-provoking and may require some additional research on your part before you can make a meaningful substantive post. To receive full credit for discussions, you must participate each week and become involved in the discussion by making substantive posts.

PRO-TIP: Pay attention to the deadlines. Discussions usually last two weeks. Post sometime during both weeks. Don't think that posting multiple times right before the deadline gets you a good grade. It doesn't. You must participate during all weeks.

PRO-TIP: About half your discussion grade comes from the first post. If you don't make that first post by the first deadline, then the max you can earn is half credit.

Laboratory Activities (25%):

Lab activities will also be part of each week. The lab activities will be conducted online or utilize software you have downloaded. It is important that you have a computer

to which you can download and install programs with a fast and reliable Internet connection to complete these assignments. Also, at times, the week's lab activities may be combined with other weekly assignment activities. If such a combined assignment occurs be conscientious because the combined assignment counts more.

The lab activities may come from a variety of places online. Instructions for labs are written for users of PCs running Windows-based systems. Tech-savvy non-Windows (Mac or Linux) users may be able to figure out workaround solutions for labs, but Macs or Linux machines are not supported for labs in this class. Most Chromebook operating system and Windows: S-Mode systems will not run the lab software. A more detailed explanation of what this means can be read in the "Starting with Stellarium" lab template file. The bottom line is you will need to download, install, and run Stellarium from your computer. Any web-based or mobile versions of Stellarium are not sufficient for labs in this course.

When you submit your lab reports, questions, or templates it is a requirement that you upload them using the in-course assignment submission system. Lab reports or lab templates sent via other means or sent in the incorrect format will not be accepted. This is a set-in-stone rule, so make sure you know how to do this properly and do it before the deadline each week.

This course is a 4-semester hour lab course that requires the use of a few different programs that must be obtained online, including the Microsoft Office suite. You can access these programs for free through your college. If there is a link to these programs inside of Canvas, then use that to install the programs. If there is no link, then either ask your IT Services department or go to your college's website and search for Microsoft Office 365. Follow the instructions to create an account and download/install the programs. You must use the fully installed version of MS Excel in this class. The online version of Excel will not work for some labs.

Policies & Other Important Information:

This section of the syllabus contains online class policies and other important information for this course. You will find it extremely helpful to read it all. If there are questions you may ask your professor.

Late Assignments

Deadlines will be strictly enforced. No kidding! All assignments, exams, and projects must be completed on or before their deadlines. Late weekly assignments will *not* be accepted. There are *no* exceptions to this policy unless there is a legitimate technological failure on the part of the college. You have a week to finish most assignments. Stay on top of things so this will not be an issue for you. You will not be reminded of this policy.

At times in any Internet class, technological problems *will* arise. This is to be expected. However, with the proliferation of ubiquitous computing this is no excuse for late assignments. In other words, if you have computer or Internet problems, these are

not considered valid excuses for late assignments. If you have technical problems you cannot resolve, then you should immediately seek help through the help desk and then inform your professor at the earliest possible opportunity. You should also have a plan in place to use another computer in case this happens. Again, all assignments, exams, and projects must be completed on or before their deadlines. There are no exceptions to this policy unless it is a legitimate technological failure on the part of the college.

It is highly recommended that you save often, back up all important information, and formulate a contingency plan for what you will do when (not if) you suffer computer failure. Being prepared will greatly help and ease your pain when it is your turn for computer failure. And, yes, it happens to us all eventually. Remember: no late assignments allowed.

All work that must be submitted must be turned in through the course upload/submission system. Assignments submitted through any other means, including email or Inbox messaging will not be accepted. Submissions that are not uploaded through the course submission system before the deadline will be considered late and will not be graded for credit.

Time Allocation

This class will eat you alive if you do not plan your time carefully. Unlike most online classes, this class is a four-semester-hour science class that includes an online science lab. This means that part of the weekly assignments will include lab activities. The fact that this online class also has an online lab is unusual. Most online science classes do not have online labs. Instead, it is often the case that students taking science classes online are also required to attend a separate lab section at the college campus. So, the class you are taking is unusual in that the entire lab is included as part of the online course. Because of this, you should expect to spend a significant amount of time on this online class.

Think about it this way: In a typical face-to-face lab science class that you might take on campus, you would spend approximately 2.5 hours per week in lecture plus at least another 2-3 hours per week in lab. You would also spend a few extra hours per week outside of class studying and preparing for class. That amounts to about 6-12 hours per week for a face-to-face science class. For this online class you should expect to spend at least this amount of time and maybe more. Because you are not learning as part of a group in a lab with your peers, you may discover that things take longer to comprehend. Considering all this, it is my recommendation that you budget 6-12 hours per week for this class and its activities. Budget your time accordingly and you will be okay in this class. Get behind and you will likely fail. I am not your parent trying to give you loving encouragement. I am a professor who has taught this class many times. I have watched students fail or perform poorly, not because they are dumb, but because they do not devote the proper amount of time to this class. I am trying to give you some solid advice; please take it. The pace of this class is unrelenting, so you should make every effort possible to stay on top of your assignments and not get behind. You should expect to spend a few hours each week reading. You should not expect to complete the weekly assignment activities in only one session at your computer. Additionally, some

of the material may require time to download and assimilate. If you have a fast and reliable Internet connection this will be no problem. Remember, technical problems are no excuse for a late assignment.

Is There Math in This Class?

Yes, a little. It might seem like a lot to some, but it really is only a little. Typically, any math encountered requires no more than a high school algebra level of understanding. It is usually in the lab assignments that you will encounter math but not always. The math you will encounter does not count for a significant part of the overall grade for the course. However, you are in a college level physics class—there will be math.

Online Etiquette

Online discussions in this class sometimes get a little intense. This is not encouraged. It should not happen, but sometimes it does. Here are a few hints to help you deal with the class discussions.

- Be kind. Discussion topics are often volatile matters, but you should do your best to not become emotional in your posts. Keep things civil.
- Never get personal. Stick to the point of the discussion. Direct your comments to the argument and not to the person.
- Agree to disagree. Accept the fact that others will disagree with you. A tough lesson, and one of the most important you'll ever learn, is that being right is not a virtue...being kind is. When you can feel anger or emotions and still respond in a kind manner, then you are a mature, bipedal hominid worthy of respect.
- Some people are harder to get along with than others. Don't avoid these people. Speak up. When interacting, do your part, be kind, and be happy with yourself. Remember the golden rule and apply it.
- When posting, spell out everything as if you were in a college-level class. Do this because you *are* in a college-level class! Do not use shorthand or text-speak types of communications. Online communication occurs through the use of text only. Text on the screen does not have the ability to convey emotions, state of mind, body language, or other forms of prosody (*look it up*). This is why emoji were created, and emoji do a very poor job of this too. Don't use emoji or emoticons, ever! Use your words. You are judged on your ability to effectively communicate, not just in class but in all of life.
- Give the writer of comments the benefit of the doubt when something sounds inflammatory or snarky. Until you know otherwise, assume they didn't mean it that way or they were trying to be funny. I try to be funny quite often, and often I fail and get in trouble for it. Don't be like me, be better.
- Here's the bottom line: I want you to discuss, talk, use logic, use critical thinking, and even disagree. BUT the golden rule should apply to any interaction during class discussions with your peers or with your professor. Be kind. This is not a request, but a requirement for your continued participation in this class. Those who are not kind during discussions will be ejected from class with extreme prejudice.

- Those who are not familiar with the golden rule should have already looked it up by this point, but if you haven't done so already it essentially says treat others the way you would like to be treated yourself. It's often a good rule to live by, but some people abuse the rule by being rude. They might justify it by thinking, "Well if I said something as dumb as what that guy said, I'd want someone to point it out to me. I was doing him a favor." This might be true in the mind of some, but it doesn't excuse anyone from the requirement of being kind during class discussions. Here's a life lesson: if you are ever tempted to retort, "I was just being honest," then you are not displaying kindness. The golden rule is a general guideline, but displaying kindness is a requirement for your continued participation in this class. Please keep that in mind.

Plagiarism

All work submitted for this class must be your own original creation; otherwise, you are guilty of plagiarism, which is a very serious offense in the academic world. Don't know what plagiarism is? Wikipedia says this: "Plagiarism is the practice of claiming, or implying, original authorship or incorporating material from someone else's written or creative work, in whole or in part, into one's own without adequate acknowledgement. Within academia, plagiarism by students, professors, or researchers is considered academic dishonesty or academic fraud and offenders are subject to academic censure." To put it simply, plagiarism is using the words and ideas of others without giving them credit. The use of AI tools such as ChatGPT is considered academic dishonesty.

As a student you may often be tempted to commit plagiarism, especially when making Discussion posts and writing papers. Resist the temptation! Plagiarism in any form is not tolerated in this class. Penalties for violating this policy include failure for the assignment, failure for multiple assignments, failure in the course, expulsion from the college, and in extreme cases, federal prosecution for accepting financial aid to fund your education while obtaining college credit through fraudulent means. Yes, it is THAT serious.

Again, plagiarism in any form is not tolerated in this class. There is zero tolerance for plagiarism.

Hints to Being Successful in this Class

- Turn things in on time
- Formulate your backup plan early in case your computer dies
- Budget your time and stick to the budget
- Meet and study with your classmates in groups if possible
- Use quizzes as a guide for studying for the exams
- Don't get behind
- Ask your classmates for help
- Read, read, read everything
- Believe Dr. Hooten when he warns you!

Communicating with Your Professor

This is an online course. Throughout the semester I travel a lot, attend conferences, and visit other sites. Nevertheless, you will be able to communicate with me asynchronously online, just like in a normal online class. There are a number of ways to communicate with your instructor listed below, but they will not trigger an immediate response. A response can be expected within 24 hours during weekdays but may take a little longer on some days during the weekends. I pride myself on quickly answering all your questions, but I can usually only do that on weekdays. However, if you ask a question and do NOT receive a response within 24-48 hours, then something happened and I did not receive your message. In that case, please try again. I will never ignore you on purpose. If there happen to be any exceptions to the 24-48 hours response time, then I will let you know ahead of time. The quickest response will always be through the Canvas Inbox. Here are ways to communicate with me.

1. You may stop by my office at the Tyler Junior College main campus in Tyler, Texas. I am usually in the Genecov Science Building, G207, during normal office hours. Call/email if you want to meet face-to-face to make sure I'm in.
2. You may call my office anytime at 903-510-2887 to make arrangements for a meeting or to talk. If I am not there, you should leave a message.
3. You may email me at the email address shown at the top of this syllabus, but if you do send email be sure to start the subject line with PHYS1403 or else your email may become lost amid the literally hundreds (yes, hundreds) of emails received every week.
4. The very best way to communicate with me is through the in-course message system inside Canvas. This method utilizes your Canvas Inbox. This method of communication is also secure and allows for discussion of normally confidential things, like grades, etc. I cannot discuss grades and other confidential matters via the phone or outside-of-course email.

ADA Statement

Students with disabilities, whether physical, learning, or psychological, who believe that they may need accommodations in this class, are encouraged to contact the DSS Office located in the Student Success Center in the Charles C. Matthews Foundation Student Center. Accommodations can only be granted through this office. Your instructor cannot give permission for special accommodations. To make an appointment or for additional information please contact the DSS Office:

Telephone: (903) 693-2046

Fax: (903) 693-2031

Email: dss@panola.edu

TTY/TDD: use Texas Relay at 800-735-2989

A Few FAQs

Q: Can I get a hardcopy of the textbook?

A: Yes, but that costs a few bucks. The textbook for this class is free but only in electronic format. Go to the OpenStax website and find the link to get a hardcopy of the textbook. The website is here: <https://openstax.org/details/books/astronomy>. The cost for a hardcopy ordered through Amazon is probably going to be somewhere around \$60-\$80, or you could print it yourself and put it in a notebook.

Q: I wasn't able to submit my lab, or other assignment, on time; can I send it in now?

A: Nope. Late assignments are not accepted. It's also a good idea not to wait until the last minute to make submissions...just in case something goes awry.

Q: Why did I get a low grade on my discussion post?

A: The most common reason for this is because the first post wasn't posted by the deadline. Another common reason is that your post was only a sentence or two. Substantive posts should be 100 words or so and address the topic of discussion. Another common reason is because you were a slacker and posted everything at the last minute and didn't actually participate in the discussion. Remember...they are called discussions for a reason. There needs to be an exchange of ideas for there to be a discussion. Otherwise, it's just a rant. Ain't nobody got time for that!

Q: I really messed up my quiz, can I retake it?

A: If multiple attempts are allowed, then yes. Otherwise, no. Once you submit a quiz then it will be graded. You can however go back into and out of a quiz BEFORE you submit it as long as it is before the deadline. This does not apply to the midterm and final exams.

Q: I have a class trip coming up, can I turn an assignment in late?

A: Nope, but you can turn it in early. Late assignments are not accepted, and you are given 8 full days to complete your weekly assignments, 9 days if you count the fact that the assignment message is sometimes available early. AND this is an online class, you can complete it from anywhere in the world as long as you have an Internet connection. The "due" date is not the "do" date.

Q: Is there extra credit I can do to make up for the messed-up quiz I can't retake?

A: Maybe. If there is extra credit for this class, then it is usually announced in the form of an Inbox message from your Professor. Look for it sometime before the third week of class. If there is no message, then there is no extra credit.

Q: I completed an assignment, but it still shows a zero for my Canvas grade.

A: Sometimes grading must be done by hand. All assignments are not always automatically graded. When I have to grade an assignment by hand I start grading after the weekly deadline passes, and then there is usually a delay of a few days before you receive your grade. If you don't see a grade after a week or so after the deadline, then please let me know.

Q: I submitted my lab early, but it shows a zero for my Canvas grade.

A: Some of the labs must be graded individually by hand. The process of grading labs won't start until after the weekly deadline. And this process can take up to a week to finish. Don't worry. If you still have a zero after a couple of weeks, then send me a message.

Q: Can I write a paper to get some extra credit?

A: Nope. If there is extra credit for this class, then you will know about it somewhere around the third week of class. If you don't receive an Inbox message by then, then there is no extra credit opportunity.

Q: What should I study for the mid-term and the final exams?

A: Everything. The exam questions will look a lot like those in the weekly quizzes, but they will not be the exact same questions. Only the concept of the question is important for studying. Learn the concept behind the question, not the question itself. When you look at a question ask yourself, "What concepts are being addressed by this question?" That's a good way to study. Also, the lab questions are good sources for studying. Master the concepts and you will be well prepared for the exams. I will also give you a brief review the week before the exams.

What Others Have Said

Listed below are a number of comments from other students who have successfully completed at least one of my astronomy courses. At the end of every course I teach, I ask students to write future students a review of the class and address what was necessary to succeed in the course. I find such comments insightful. Some of these comments are listed below. They are uncensored and are the actual comments made by students (cursing, misspelling, and all). There are several comments below. You might find some interesting clues for what to expect in this class.

1. I would probably let them know about how time consuming it is, especially if they have a busy schedule. *(Hooten's comment: this is always mentioned by students so don't say you weren't warned!)*
2. I would definitely encourage students to take the online astronomy class, Professor Hooten's class in particular. I would say key elements to succeed in this class include time management skills, self motivation, and the want to know how astronomy works.
3. If you're going to take online anything make sure that you are self disciplined/motivated, and I mean seriously! A lot of people like to think that they are self disciplined/motivated and in actuality they are not.
4. Be consistent about checking the weekly assignments early and knowing when everything is due. Read the chapters carefully - don't skim through them. Self-discipline on these points are the critical factors, otherwise the course is clearly laid out and all the necessary information and resources are provided.
5. Once you have realized if you are self disciplined/motivated enough to take an online course, pick the best instructor... Dr. Hooten would be my choice. (Because I am totally biased) :-)
6. Read every last word in his message assignments even if you get irritated with all of the higher vocabulary, and scientific jokes.
7. Dr. Hooten is a great professor! He knows his stuff and is helpful. The class is well organized and pretty interesting. It very fast passed and time consuming. It's a hard class but you learn a lot.
8. I will admit I was very intimidated by this course and the instructor at the beginning of this semester but my views have since then changed. I am actually considering doing the physics 1404 class that will be offered in continuance of physics 1403 of course I will be requesting Dr. Hooten as my professor. The course alone can be successfully completed as long as you stay on top of your weekly assignments pace yourself but also understand that you have to move somewhat quickly.
9. DO NOT PROCASTINATE TILL THE LAST DAY. Also, doing an assignment a day keeps you ahead of the game and not as stressed.
10. This course was great and a lot of fun for even people who do not like science that much. I was nervous going into the course, because in high school I did poorly in science and math, but this course was not as scary as I thought. The professor was nice and helpful when I was confused on a lab, and messaged us weekly on what we had to do, so it was easy to get our weekly assignments done. Online courses are hard, but this one was better than most, and the teacher allowed people to meet with him face to face if needed.
11. I did not like the depth of the content. Going into it I thought I would be learning about stars and galaxies as in things I could apply to my classroom (kindergarten to 4th grade). It was presented well, and I learned a lot, but it is not information I will realistically be presenting to my students. I did not like the labs. It seemed almost pointless to have to go and figure out things such as temperature and distance of various stars.

(Hooten's comment: Having false expectations of what this class is leads many to disappointment. This is a college-level physics class.)

12. Be sure to set aside time to read your chapters and study the quizzes
13. I enjoy this course a great deal! Science has never been a strong subject for me, but Dr. Hooten was very laid back, if I had questions he answered them promptly. Discussions led by the students enable us to help each other if we struggled with certain concepts.
14. The professor did a great job with instructions and didn't make the class an easy A but still took time in explaining to the students his expectations for each assignment.
15. This astronomy course was actually **one of the easiest courses i've taken** so far. However, it was only easy because I genuinely enjoyed learning the content for this class. The assignments were manageable and easy to understand. We had an amazing professor that explained our assignments well and provided detailed explanations on how to complete each assignment which I greatly appreciated. Overall, I truly enjoyed this astronomy course and I would definitely recommend it. Get ahead. Stay persistent. Resist the urge to fall behind, because it will come back to haunt you.
16. The course was **one of the most difficult courses I have taken**. I think one must be prepared to spend an excessive amount of time to complete the assigned work, if one wants to achieve a good score. The course content is well worth learning, especially if an education major. The teacher was willing to hold open discussion at a set time each week and provided an open discussion board for students to communicate and learn from each other.
17. The course is semi fast paced but very manageable. The professor is very clear and methodical in his explanations in the course, and on what you need to be doing and when. He is very able to show his passion for the subject and at the same time be funny and witty to get you excited to get to learning!
18. This course is extremely informative and worth the struggle and time it takes. You will go into it feeling overwhelmed and come out of it much better for it. You will be challenged and will be forced to open your mind up to a new way of thinking but you will learn how truly small you are in this world. The teacher is amazing and very clear in his expectations. He is informative and also has a great sense of wit. It is totally worth the experience.
19. I would tell them it takes dedication and time. I would tell them that it requires a lot of thought and it is not a blow off course by any means. The reward of learning where we come from is worth it.
20. I would strongly recommend the course and the teacher. -It takes as much effort as any other classes on campus or off campus. -I think the subject is very interesting and attracting to the eye so it doesn't seem like overwhelming when looking at the book.
21. If you take the online astronomy class be prepared to spend a great amount of time dedicated solely to the class. A lot of new information can be gained, but you must be willing to put in the effort and not give up. The information is difficult to comprehend at times but can be grasped with the help of other students on the discussion board, the book, and research.
22. I recommend this class over any other class. It has endless possibilities to learn from. Always check on your assignments every day. Don't procrastinate!
23. The course was crazy busy and lots of work but enjoyable for a physics class. The teacher was great at giving instructions and giving advice to weekly mishaps, however, deadlines are deadlines. No "backsies."
24. Physics online was a great course for someone like me who is a full time student who works part time. I don't have a class to restrict what times I work, and I get to work on it at 2 a.m. if I need to.
25. Dr. Hooten is a "hoot", pun very much intended. His instructions also come with a side of humor and he is very helpful to his students. Once I emailed him at 8:30 one night about a project and he emailed me not long after. He also will take the time for office hours to talk with you about any questions you have, and will make sure you understand the concepts. It was a challenging, yet fun time, to take this course and I would recommend it to anyone needing physics hours.

26. You need to go in with an open mind, and you will actually learn a lot. Be prepared to participate in weekly discussions every week. Do not procrastinate... I should have taken my own advice....
27. I would love to recommend this course! You MUST give yourself enough time to succeed. Stay on top of your assignments, reading, and discussions. Try to get things done early, or dedicate an entire day, out of the week, to this class. I prefer to break it up, but sometimes I would take an entire Monday to focus on nothing but this class. Also, don't be afraid to ask for help! The virtual lounge is a great tool for helping others, and getting your own questions answered.
28. To succeed, you must stay with the flow of the class. This includes the weekly reading assignments and discussion boards. The reading is not very difficult to keep up with due to the high level of interest.
29. Online courses are inherently impersonal, but Dr. Hooten does a truly remarkable job of providing an approachable, personal atmosphere through both his written instructions/explanations and his accessibility for questions and concerns. The course itself is fascinating and full of interesting facts that everyone should have the opportunity to expose themselves to in order to round out their overall knowledge base and awareness of their universe.
30. Taking astronomy online is not so easy and not that hard. If you decide to take it online you will need to do everything the teacher has instructed for you to do each week. Also make sure that you take every test in the testing center.
31. Read the chapters, that is number one. Do your assignments on time. Also, when sending an email to the professor make sure it is not in your draft folder.
32. I would tell that person that it takes self-discipline in order to succeed with any online course. I would also tell them to ask questions as many times as you need to until you understand and take advantage of your professor's time as he or she has allocated if necessary. I would also encourage them to email other students taking the course because sometimes another student may have already encountered the same problem and have found a solution, especially if it is tech related.
33. I would tell them not to do it unless they had a good ten to fifteen hours a week to devote to the class. This class has taken more of my time than all of my other classes combined. I am very disappointed that I had to work so much more on my online class. I would Highly recommend them to either find a different class or try to take it as a regular class.
34. Time is a huge issue. If you have outside commitments, ie: family, work, other classes; then reconsider. The material and course is way too demanding.
35. I would tell them that they would be very interested in the material taught in this course. I also would tell them to make sure they keep up with their work, and their discussion questions, and make sure they do it weekly. I also would tell them don't wait to the last minute to do the lab.
36. Time and effort. Read your chapters ahead of time, take notes on what you read, and ask questions when you don't get it.
37. If you have the time to really focus on this course go for it. If you can set aside a good 10 hours a week to do the work it is an easy A. The instructor provides you with all the information and support you need to succeed. However, you have to be able to put in the time, and pay attention to details. The content is really deep, you won't be learning constellations, you will be figuring out luminosity, temperature, and distances of stars.
38. I would tell them that it is not a class to take if you are looking for a blow off online class. It is very time consuming and requires a lot of work. You need to have good time management in order to take this class and succeed. You also need to spend a valuable amount of time studying for the test because although they might be multiple choice they are application questions.
39. Like I mention in question one of the things I liked was they way the teacher type and made the subject and assignments sound interesting. He seem very fun compared to other on-line classes i have taken. My other teachers have seem just so bold on the assignments. Also the assignments are very self

explanatory and would just recommend to read and actually do some of the extra assignment as practice. You would be surprised how much that extra practice helps!!

40. Overall, I enjoyed the course. The teacher is a very easy going guy, and cares about his students. There were small things that I did not like about the class, such as participation/discussion forums, but that is not enough to write the course off all together. Take this course if you want to learn about our amazing universe.
41. This course was perfectly difficult. In other words: I was challenged, but not asked to do anything that wasn't achievable. I never got to meet the teacher, but he was very present through his assignments and emails. I think that a good sense of humor and a deep love for the subject, goes a long way. I am ready to take the next part to this course!
42. The course is pretty hard. Make sure to watch anything that the teacher assigned with the weekly assignments. This course was really interesting and I would suggest it to anyone that likes the galaxy. The teacher was really cool. If someone came and asked which teacher I thought would be the best for the subject I would say this teacher I have. He helped with anything that I needed help with and understood things.
43. The course was not as difficult as Biology. The teacher is very helpful and will actually send you an email back if you send him one. Politeness goes a long way. Do your work in a timely manner, don't be late, he doesn't tolerate it.
44. This has been one of the most rewarding courses that I have taken since returning to school in 2005 (yes it takes longer when you work full time and basically starting from scratch, but only 12 more SCH from A & M and I will have my Bachelor's in Applied Arts & Sciences). Professor Hooten is very passionate about the material he covers and makes an abundance of resources available to help you complete your assignments as well as a few resources that are just for grins. He responds to all of your emails in a timely manner, regardless of the priority of the email. I don't know who else teaches this course at TJC so it would be unfair for me to judge other's teaching abilities, but I know that someone that has to take this course will never regret taking it with Professor Hooten.
45. The material is interesting, but I think a student would benefit more if they took this course in a classroom environment. I don't know anything about the teacher, I had little interaction with him.
46. When I say I'm taking Astronomy to most people, they think it's a blow off class where you study star charts and memorize constellations; most people forget it's a PHYSICS class. You're studying cosmic make-up; it's not about where the stars are in the sky but what they're made of, why they shine at a particular lumination and how old they are. You study theories and light refraction and how scientists are looking back in time to study the beginning. If you're willing to put in the effort and set aside a good chunk of time every week to read your chapter and do the work, you can excel. The teacher makes himself available, but even when he's not, there's another excellent resource: fellow students. It's not an easy class, but it's a rewarding one.
47. The course is an eye opener. It is exciting and very informative. Science has its way of proving theories that have existed for many millions of years. I had the joy of sharing my gain of knowledge with my children and loved how they were fascinated by having a deeper understanding of our planets and how it all comes together. The course, the least to say is intriguing, and I overly enjoyed. The instructor for the course was perfect. I enjoyed the enthusiasm that he gave weekly through the lab assignments, made the long labs feel light. Communication was great. He highly encouraged class participation with discussions and to become involved with the course and classmates as well. He also made the course straight forward and to the point. For example, the lab is due xx date and this is what you need to complete the lab, go ..
48. I thought that the course was hard, but learned a lot and would take the class again. The teacher was GREAT!!! I got to talk to him in person the two times I needed to and he didn't act like I was

inconveniencing him. He actually acted glad that I came to him for help. Don't know if I would take the class again if Mr. Hooten wasn't the teacher.

49. I enjoyed this course very much. This course was a little on the difficult side. You really need to read the chapters and take very good notes. Make an attempt to do every lab even if you think they are wrong. The professor in the course is very fair. He enjoys helping others and enjoys reading good comments.
50. The teacher is an awesome and insightful person and I enjoyed the class immensely but the course wasn't quite for me.
51. The course is a good course for a science class that is different from the usual biology or chemistry. You have to have self-discipline to get it done, but there is a lot to be said about not having to go to classes. Mr. Hooten reminds me of how well Dr. Dykes supervised the on-line special education class I took with him. Mr. Hooten seemed to know what he was doing and was good about encouraging and waving the red flags when there was caution or extra focus needed. I would recommend this class as a science to fulfill requirements.
52. I think this class was very rewarding. I have not met the teacher, but reading the weekly assignments and post daily, the professor keeps you informed and lets you know ahead of time what to expect. There is so much to learn in this course and it takes a lot of time and dedication to learn and understand it. But in the long run it is very rewarding and I have enjoyed myself in this course. I plan on taking another course from this teacher.
53. The teacher was very knowledgeable over the subject. He was available for questions and help if ever necessary. Unlike any of the other online classes I have taken, this class was both a lecture and a lab, which made it different. The assignments were lengthy, but if you completed the assignments before your weekly quiz you were sure to do well on the quiz. The weekly quizzes offer an excellent study guide for the midterm and final. You only have two tests in the class so it is very important for you to stay on top of your work. Turn every assignment in on time and participate in weekly discussions.
54. The course was very challenging. It is very doable, however, if you put your mind to it and you study really hard. The professor is fair and will help you along when needed.
55. The course was everything I was wanting. And the teacher is a nice guy that knows his stuff and can explain it to you in a dummed down version.
56. This course is not a blow off class. You will have to give more to this class than many you have taken in the past, but with that being said do not let that scare you into not taking this course. There was much knowledge to learn from the discussions, lecture assignments, and labs.
57. -I really enjoyed the discussion I like to read what everyone was thinking about the subjects as well. - The teachers form of typing the assignments he made them sound interesting and fun. Like he was actually in front of us talking. -
58. Things I did not like about the course, is hard to choose because to be honest I don't believe there are any. I mean all the classes will be about the same assignments and homework and what not. Same was with this one except the teacher and subjects seemed interesting
59. There were times when I felt that the work would never end! I got used to it after a couple of weeks, though. It was very time consuming, but it helped tremendously on the tests. Some of the labs were extremely time consuming. However, I think that you gave us ample time to finish them. Week 13 was a difficult one! I was wishing that you had given us a couple of extra days to post the discussion, since it was so long. Also, for some reason, my computer decided to take an extra long time to load those videos.
60. Three things I did not like about this course are: 1) This course is time consuming. 2) Some of the labs were a bit confusing. 3) There wasn't a "study guide" per say, we were just told to go over what was on previous tests; that and we weren't able to go over our midterms in a class setting.

Mistakes Students Make, and How to Overcome Them

This section lists mistakes students often make, followed by ways in which students can mitigate the mistakes and get on track to graduate from college. (Adapted from “Studying Engineering” by R.B. Landis, Discovery Press)

Mistake: Assume college will be like high school

Mitigation: Some college classes are easy for some students, but most classes aren't easy. Students must adjust to college level education quickly.

Mistake: Program themselves for failure through too many commitments

Mitigation: This is tough for some students to learn. Don't try to *just* squeak by, instead create a life that enables you to devote time and energy to your studies.

Mistake: Spend little time on campus

Mitigation: Spend a lot of time in your academic environment. Learning happens in learning environments. If possible, spend lots of time in your learning environment. That could be on campus, in a library, at your desk, or around other students at Starbucks.

Mistake: Neglect studying

Mitigation: Schedule regular study times and devote yourself to keeping the scheduled times. If you wait for free time to study, then you won't study. You must *make* time to study otherwise it won't happen.

Mistake: Delay studying until the test is announced

Mitigation: Always keep up with materials from the previous class. Think of a test as a music recital. If someone wants to perform at a recital, then they practice. They don't sit down the night before and figure out how to pluck out the music. Practice for your tests so you won't be embarrassed at the recital.

Mistake: Study 100% alone

Mitigation: Don't do this for every study session. You learn from your peers. Even if you are an online student, you can still connect with others and talk about assignments, labs, and tests.

Mistake: Approach assignments unprepared

Mitigation: Review your notes, textbook, etc. and attempt any problems or assignments before your lab or lecture. Also, discuss the topics with other students.

Mistake: Avoid professors

Mitigation: Interact with them in and out of class. They may seem intimidating at first, but most are really cool. They almost always love their work and are usually willing to talk about it.

Mistake: Cut classes and/or don't get the most out of lectures

Mitigation: Attend class and practice good listening and asking skills. Most professors like to be asked questions during class because it shows students are listening. If there are assignments don't begrudgingly participate but buy-in and actively participate.

Mistake: Fail to take notes or take notes but fail to use the notes properly

Mitigation: Learning isn't an event; it's a process. Multiple exposures to the material will help. So, read the texts, take effective notes, and use a systematic method to study your notes after/before class.

Mistake: Skim material in a chapter to get to the assigned homework

Mitigation: In college there is a lot of reading, and it is tempting to skim material. But try to avoid it. Use your reading skills for comprehension. Understand the general concepts before attempting any quizzes, problems, or assignments.

Mistake: Fail to complete assignments

Mitigation: Complete everything before the deadlines, even if you know the answers are wrong. You might get lucky with an answer and submitting *something* is always better than submitting *nothing*. Approach assignments using a systematic method. Complete assignments and put in a little extra effort to learn beyond that. Don't just be intelligent; strive to be an intellectual.