Astronomy 3: Stellar Astronomy
Section 6061 – Course Syllabus

Instructor

Dr. Anne Metevier

- Office hours:
  - Weekly check-ins (optional) via Zoom: Wednesdays at 11am using this link (Meeting ID 922 1546 6596)
  - Please contact me to schedule a Zoom appointment at another time
- Email: ametevier@santarosa.edu (or message me on Canvas)
  I aim to respond to students within a day or two. If you do not receive a response from me within 48 hours, please re-send your message, as it is possible I did not see it in my inbox.

Course Description

A description of the universe, concentrating on celestial bodies and phenomena beyond the Solar System. Topics will include electromagnetic radiation, observed properties of stars, variable and binary stars, stellar evolution, black holes, relativity, the interstellar medium, star clusters, the Milky Way and other galaxies, cosmology, and the possibility of other life forms in the universe.

Student Learning Outcomes

Upon completion of this course, students will be able to:

1. Evaluate astronomical hypotheses using evidence-based reasoning and the scientific method.
2. Recognize and describe the various astronomical bodies, concentrating on the celestial bodies beyond the Solar System.
3. Summarize the processes which govern the evolution of a star and use this knowledge to predict when and how stars of varying color and mass will die.

Recommended Preparation

Completion or concurrent enrollment in Math 150A and English 100 or ESL 100

Textbook

OpenStax Astronomy by Franknoi, Morrison, and Wolff
The course textbook is free and can be downloaded at https://openstax.org/details/astronomy

If you prefer a paper copy of the book, you may be able to rent or buy one at Amazon, or at the link noted above.

Canvas Site and Announcements

This course will rely on the Canvas course website and modules for lectures, assignments, discussions, exams, sharing resources, and viewing grades. Please familiarize yourself with Canvas, and note that this site is a helpful resource if you have any Canvas-related questions.

Any important messages about the course (such as changes to the course schedule) will be made via email and/or Canvas announcements. Please be sure to check both regularly.

Special Needs

Students with disabilities who may need accommodations in this class are strongly encouraged to contact Disability Resources as soon as possible to better ensure such accommodations are made in a timely fashion. It is important to me that every student has a fair opportunity to learn.

Important Dates

Date Class Begins: 2/1/2021 Date Class Ends: 5/16/2021
Last Day to Add without add code: 2/5/2021 Last Day to Add with add code: 2/23/2021
Last Day to Drop and be eligible for refund: 2/10/2021
Last Day to opt for Pass/No Pass option: 5/16/2021
Last Day to Drop without a 'W' symbol: 2/23/2021
Last Day to Drop with a 'W' symbol: 4/22/2021
Date/time of Final Exam: two hour timed exam, must be taken between Weds 5/12/2021 at noon and Thursi 5/13/2021 at 10pm

Dropping the Class

If you decide to discontinue this course, it is your responsibility to officially drop it to avoid getting no refund, a 'W' symbol, or a grade.

Pass–No Pass (P/NP)

You may take this class P/NP. If you choose to do this, you must file for the P/NP option by 5/16/2021. You can add the option online with TLC or file the P/NP form with Admissions and Records. With a grade of C or better, you will get a P.

Once you decide to go for P/NP, you cannot change back to a letter grade. If you are taking this course as part of a certificate program, check with a counselor to be sure that you can take the class P/NP and still get the credit you need toward your certificate.

Online Etiquette and Standards of Conduct

Students who register in SRJC classes are required to abide by the SRJC Student Conduct Standards. Violation of the Standards is basis for referral to the Vice President of Student Services or dismissal from class or from the College. For more information, see the Student Code of Conduct.

Students in this course are expected to treat each other and the instructor respectfully, including in all online interactions. Students are encouraged to adopt the following good habits for Zoom check-ins and other Zoom meetings in this course:

- Remember that Zoom meetings may be recorded at any time
- Be on time
- Do your coursework and join Zoom meetings from a dedicated workspace if possible
- Keep your camera on during Zoom meetings
- Mute your microphone unless you have a question or comment
- Use your preferred, real first and last name

Academic Honesty

Collaborating on or copying of tests or homework in whole or in part will be considered an act of academic dishonesty and result in a grade of 0 for that test or assignment. I encourage students to share information and ideas, but not their work. Please refer to the SRJC Student Conduct Standards (see link above) for more information on how to avoid plagiarism.

Some examples of cheating or plagiarism that will not be tolerated are:

- Copying work from another student, or giving work to another student to copy
- Copying and pasting text from internet sources into homework assignments or projects
- Viewing, comparing, or copying the work of another student during an exam
- Intentionally allowing another student to view your work during an exam
- Using a phone or “cheat sheet” during an exam

Grading Policy – General Notes

Visit "Grades" in Canvas to keep track of your grades. If you have questions about grades, please check with me during office hours or schedule a meeting with me (I do not provide grade information over email out of concern for your privacy).

Overall grade policy:

A	90-100%
B	80-89%
C	70-79%
D	60-69%

Course components:

Participation in discussions	15% of total course grade
Weekly assignments	24% of total course grade
Midterm Exams 1, 2	each worth 18% of total course grade
Final Exam	25% of total course grade

If you are taking this course Pass/No Pass, you will need at least a 70% to pass the class.

Grading Policy – Details

Each week (except for exam weeks) students will be expected to participate in 1-2 discussions and complete a "weekly assignment", such as a quiz or written assignment, on Canvas. Discussion posts will be due on Fridays, and replies will be due on Sundays. Weekly assignments will be due on Sundays.

Midterms and the final exam will take place on Canvas and will consist of multiple choice, short answer, and written questions. They will be timed exams that must be taken within a specific window of time:

- Midterm 1 is a 90 minute exam that will cover material from weeks 2-6 and must be taken between Wednesday 3/10 at noon and Thursday 3/11 at 10pm
- Midterm 2 is a 90 minute exam that will cover material from weeks 7-11 and must be taken between Wednesday 4/14 at noon and Thursday 4/15 at 10pm
- The Final Exam is a two-hour exam that will be cumulative and must be taken between Wednesday 5/12 at noon and Thursday 5/13 at 10pm

Extra credit is available for watching astronomy-related videos (a list will be provided) and submitting write-ups of what you learned. Specific instructions will be provided on Canvas. Students may submit up to two extra credit assignments, each worth up to 2.5% of the course grade, or up to 5% total. Extra credit assignments are accepted until the Sunday before the final exam, May 9.

Feedback on your work

I aim to provide feedback on your submitted work within one week. Please note: I have high expectations and can be a tough grader, but will only give you assignments that I know you can succeed with. If you have any questions along the way, please do not hesitate to contact me. I am here to help you learn.

Late policy

- **Exams:** the Midterms and Final Exam must be taken within the designated time window noted above (and in the schedule below). Late exams are not accepted, unless arranged with Dr. Metevier prior to the exam date, and only under very serious circumstances.
- **Weekly assignments and discussions:** Credit for any late weekly assignments or discussions will be reduced by 10% for each day the work is late. For instance, if an assignment is submitted 3 days late, the maximum credit possible for the assignment is 70%.

Approximate Course Schedule

If any major changes are made to the class schedule during the semester, I will update this schedule and post an announcement on Canvas.

Week / Module	Dates	Chapter Reading	Topic, Assignments, Tests
1	Feb 1-7		**Getting Started** Discussion: post due 2/5, response due 2/7 Weekly assignment: due 2/7
2	Feb 8-14	1, 2.4	**The Scale of the Cosmos** Discussion: post due 2/12, response due 2/14 Weekly assignment: due 2/14
3	Feb 15-21	5	**Learning from Light** Discussion: post due 2/19, response due 2/21 Weekly assignment: due 2/21
4	Feb 22-28	6.1, 15.1-15.3, 16.1, 16.3, 17.1-17.2	**Telescopes and the Sun** Discussion: post due 2/26, response due 2/28 Weekly assignment: due 2/28
5	March 1-7	17.3-17.4, 18	**Characterizing the Stars** Discussion: post due 3/5, response due 3/7 Weekly assignment: due 3/7
6	March 8-14	20.1-3	**The Interstellar Medium** **Midterm 1** opens 3/10 at noon, due by 3/11 at 10pm
7	March 15-21	21.1-21.3, 22.1-22.3	**Star Formation and Evolution** Discussion: post due 3/19, response due 3/21 Weekly assignment: due 3/21
--	March 22-28	--	**Spring Break – enjoy!**
8	March 29-April 4	22.4-22.5, 23	**Stellar Deaths** Discussion: post due 4/2, response due 4/4 Weekly assignment: due 4/4
9	April 5-11	24	**Black Holes and Relativity** Discussion: post due 4/9, response due 4/11 Weekly assignment: due 4/11
10	April 12-18	19.1-19.2	**Distances to Stars** **Midterm 2** opens 4/14 at noon, due by 4/15 at 10pm
11	April 19-25	19.2-19.4, 25	**Mapping Stars and the Milky Way** Discussion: post due 4/23, response due 4/25 Weekly assignment: due 4/25
12	April 26-May 2	26, 27.1, 28.1-28.2	**Galaxies** Discussion: post due 4/30, response due 5/2 Weekly assignment: due 5/2

13	May 3-9	28.3-28.5, 29.1-29.4, 29.7	**Origins of the Universe** Discussion: post due 5/7, response due 5/9 Weekly assignment: due 5/9 Extra credit: due 5/9
14	May 10-14	30.1, 30.4	**Life in the Universe** **Final Exam** opens 5/12 at noon, due by 5/13 at 10pm

SRJC Resources for Students

Many important resources are available to SRJC students, even online. These include:

- **Student Resource Center** provides support for basic needs (food, housing support, emergency grants, etc.) as well as for academics
- **SRJC Online Student Academic Resources**
- **Disability Resources**
- **Resources for Undocumented Students**
- **Student Health Services** offers remote physical and mental health support
- **Online Academic Counseling Services**
- **Transfer Center**
- **Academic Tutoring**
- **Student Success Coaches** are fellow students provide support for navigating technology and college requirements, improving study skills, and staying on track with your educational goals