

James Clemens High School

11306 County Line Road
Madison, AL 35756



Phone: 256-216-5313

Extension: 95153

Email: kakennedy@madisoncity.k12.al.us

Course Syllabus

Astronomy Fall 2024 & Spring 2025

Instructor: K. Kennedy

Dear Parent/Guardian,

I am excited to join your child on our journey this semester into astronomy. Astronomy is an upper-level science class in which we apply concepts learned in chemistry and physical science to space science. There is an emphasis on research, application, and creation, so students are expected to independently engage in all learning activities. I encourage you and your student to contact me with any concerns as soon as possible. I am available to answer questions and address concerns about the progress of your student by email and phone. Please review the syllabus and submit your acknowledgement of the syllabus by signing below and returning.

**Thank you,
Kelsey Kennedy**

My child and I have read and discussed the classroom syllabus.

Student Name (Print) _____ Date _____

Student Signature _____ Date _____

Parent/Guardian Name (Print) _____ Date _____

Parent/Guardian Signature _____ Date _____

Email Address(es) _____

Phone number(s) _____
Cell Home Work



Course Syllabus
Astronomy Fall 2024 & Spring 2025
Instructor: K. Kennedy

Course Description:

Astronomy is the science of the observation of the Universe and all that is in it. In this course, we will learn about life cycles of stars; the formation of the solar system; what other planets and moons are like; physical laws and how they affect orbits of planets; how to detect exoplanets; and how we explore the solar system and the rest of the Universe.

Course Objectives:

The objectives of this course are: 1) to learn how to sky-watch our night skies; 2) to understand the Earth and its place in the Universe; 3) to learn how astronomers observe the things we can't see with our eyes; 4) to understand light, energy, and gravity; and how those are used in measuring stars, black holes, and galaxies; 5) to explain observed phenomena using the natural laws of the universe.

Classroom Rules and Expectations:

1. **Respect your classmates. Be a good classroom citizen in the classroom and through all interactions on Schoology. The classroom and laboratory are to be regarded as a safe and supportive learning environment.**
2. **Attend class and be on time.**
3. **Independently engage in learning activities during lecture and participate in collaborative discussions.**
4. **Participate and act in a professional manner. During interactive activities, collaborate meaningfully with your classmates during group assignments.**
5. **Utilize lab materials and astronomical tools in a safe, responsible manner.**
6. **Students will follow all school rules and policies for James Clemens and Madison City Schools.**

Accommodations: Requests for accommodations for this course are welcomed from students and parents.

Concerning Laptop Utilization: Student laptops should not be hard-wired to the network or have print capabilities. 2. Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers. 3. Neither the teacher, nor the school is responsible for broken, stolen, or lost laptops. **4. Electronic devices will be used at the individual discretion of the teacher.**

Classroom Management Plan/ Discipline

- Verbal reprimand
- Conference with student with parent contact
- Withdrawal of privilege(s) with parent contact
- Other consequences determined to be reasonable and appropriate by the school administration.

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Grading Policy:

Test grades will account for 70% of the 9-weeks grade, with the remaining 30% being determined by quiz/daily grades. The grading scale is as follows: A (90-100%), B (80-89), C (70-79), D (65-69), and F (below 65). Grades will be a reflection of mastery of the standards. Make sure all absences are excused as class work can be made up and graded for excused absences only. The final exam counts for 20% of the final grade.

Make-Up Work Policy:

Students must provide an excuse for missed tests and assignments, as is Madison City School policy. Because students will have home access to course content and assignments at all times, my expectations about deadlines for weekly assignments are high. **Late assignments will be accepted for two weeks after the due date. Anything submitted after two weeks will remain a zero.**

**** Zeros will be placed in the grade book until assignments are made up. This is to ensure a student's grades do not reflect an average higher than they actually have. This is a schoolwide policy at JCHS.**

**** If students do not turn in work, they will fill out a google form request to have the assignment graded. This includes absent work. This allows me to have a list of assignments to look at and gives the students a record showing they've notified me of last or excused absence work.**

Course Materials:

- School-issued Chromebook is **required**, as we use many online resources.
- notebook paper in a binder
 - OR Notebooks (1-2) with a folder for loose-leaf handouts.
- Pencils/Pens
- supplies that are not required but will be helpful:
 - Highlighters
 - Index cards
 - Scissors
 - 3 ring hole punch

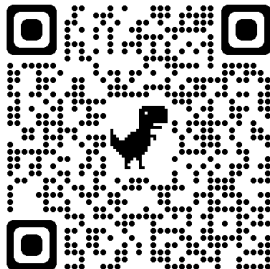
Texts/Required Readings:

Explorations, An Introduction to Astronomy, 8th edition, Arny and Schneider, McGraw-Hill, 2017.
(Students will not take books home, we utilize a class copy. Checked out books will be available upon request)

Technology in the Classroom:

Technological advances present many new opportunities, but also create some problems. Please use the following two resources as a guide to effectively use technology within Madison City Schools.

[MCS AI Acceptable Use Policy:](#)



[JCHS Chromebook Troubleshooting:](#)



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Cell Phone and Personal Device Policy:

Cell phones and earbuds/headphones will not be allowed to be used during classroom instruction time. Phones and earbuds/headphones will be put away in a location designated by the teacher and placed in silent mode. In secondary schools, students will have access to their phones and earbuds/headphones outside of classroom instruction time such as between classes and lunch. **Failure to follow these procedures will result in a disciplinary referral to the office.**

18 – WEEK PLAN*	
Week 1	Unit 1 – Introduction to Astronomy Learning Schoology, procedures, routines, and classroom expectations
Week 2	History of Astronomy Cycles, Seasons, and Motion
Week 3	Kepler's Laws and Newton's Laws of Motion Gravity and Spaceflight
Week 4	Unit 2 - Light and Telescopes Duality of Light and its Historical Importance The Electromagnetic Spectrum (EMS)
Week 5	What Can We Learn from Starlight? Stellar Spectra and HR Diagrams
Week 6	Refracting versus Reflecting Telescopes Ground versus Space Based Telescopes Important Telescopes and Satellites
Week 7	Unit 3 - Life and Death of Stars Getting to know our Sun Nuclear Fusion
Week 8	Life Cycle of Low Mass & High Mass Stars Nebula
Week 9	Midterm Project (2 TEST GRADES)
	** End of the Grading period**
Week 10	Unit 4 - Earth and Moon Earth Science Review Magnetism and the Dynamo Model Coriolis Effect
Week 11	Violent Birth Theory Features of the Moon Lunar Phases and Tides
Week 12	Unit 5 - Solar Systems Solar Nebula Hypothesis Regions of the Solar System
Week 13	Exploration of the Inner Planets Comets, Meteors, and Asteroids
Week 14	Exploration of the Outer Planets Our Solar System's Moons
Week 15	Exoplanets

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	Astrobiology
Week 16	Unit 6 - Cosmology Cosmology and the "Big Bang" The Milky Way Galaxy
Week 17	Final Exam Review and Project
Week 18	Final Exams

* The syllabus serves as a guide for both the teacher and student; however, during the term it may become necessary to make additions, deletions, or substitutions. Adequate notice will be provided to students of any necessary changes. More detailed information about classroom resources will be provided through Schoology throughout the course term.