Course Description
This course is a study of stars, galaxies, and the universe. It is a descriptive survey of the universe beyond the solar system with emphasis on basic physical concepts and galactic and extragalactic objects. Related topics of current interest and new discovery are included. This is a course for non-science majors but it applies mathematics and requires students to understand the application of scientific method throughout the course for 3 hours of the General Education Natural Science Competencies requirement. Completing this course plus the separate 1 hour lab course ASTR 1040 satisfies the 4-hour Natural Science course plus laboratory requirement. ASTR 1010 is not a prerequisite for this course.

Value Statement:
Most of us probably have wondered what exists beyond our solar system, where we came from, what the future of our universe will be, etc. This course is not only to push the boundaries of our
understanding about the universe (from what astronomers have found to this date), we will also learn the process of scientific reasoning and the application of physical laws discovered in the our local universe to explain everything we observe in the universe.

**Course Overview/Objectives**
Upon successful completion of the course with exercises in critical thinking students are expected to have:

- the abilities to employ critical thinking skills in giving explanations to astronomy problems or hypothetical astronomical questions while simultaneously consistent with the materials we learn in class.
- the understanding of the fundamental methodology of science, including scientific inquiry, data gathering, analysis, generating hypothesis, testing predictions, and distinguishing between scientific theories, hypotheses, and observations.
- the understanding of basics astronomy (how telescopes work, methods to measure distances of celestial objects, what is a star or a galaxy, etc.)
- the understanding of the properties and evolution of stars with the applications of physics such as the gravitational force, the interactions between light and matter, energy transport and generations.
- the abilities to describe the position of our solar system in the Galaxy, the features of our galaxy, and the orbits of stars in the galaxy.
- the abilities to describe the primary constituents of the universe on scales from the solar system to observational frontiers.
- the abilities to describe the current accepted theories of star and galaxy formations and the origin of the universe.

**Required Materials**

- FlexEd account for online homework.
- Ancillary information (recorded lectures, lecture notes) is provided in the course site and through Internet links (in the “Files” section of Canvas).
- Acadly account for in-class quizzes.
- Laptop or desktop computer.
- Reliable internet service.
- WebBrowser either firefox, chrome, or safari.
- Adobe Reader, Java, QuickTime Player.

**Prerequisites**
Prerequisite or concurrent enrollment: none
Student Learning Outcomes
Upon successful completion of the course students can

- describe how astronomers use telescopes to record the light from stars and galaxies to determine their most fundamental properties.
- describe the basic properties of stars and to outline the entire evolution of stars (stages in a star’s life from birth to death).
- identify where the Sun lies in our galaxy and describe its orbital motion.
- describe the basic characteristics and contents of galaxies, from dust, clouds, and young stars in their spiral arms to very old stars in their halos, and supermassive black holes in their galactic centers.
- describe the properties and formation of white dwarfs, neutron stars, and black holes.
- can identify the types of galaxies, state the theories of galaxy formation, and recognize the dark matter problem.
- demonstrate the knowledge of the large scale structure of the universe to include chains and sheets of galaxies, galaxy clusters, and superclusters with voids in between.
- list the fundamental observations of cosmology that supports the Big Bang theory which imply the universe is very old, expanding and accelerating.
- describe the current status of the search of life in solar system and other stars and the search for extraterrestrial intelligence.

ASTR 1020 is a Clemson Thinks2 (CT2) course. It is designed to enhance students’ critical thinking skills. Astronomy course is a good course to practice critical thinking because in astronomy in order to understand many observational facts, they need to be interpreted with hypothesis or models and simultaneously be consistent with all established physical laws that we know. We will describe astronomical observations through scientific reasoning in order to acquire understanding of the phenomena. Students will be asked to participate in “Does It Make Sense” group discussions and should provide rational explanations to the group based on materials students learn in class. In addition, each student should provide critical assessments to at least one other student post in agreeing or disagreeing with the post.

Critical Thinking Student Learning Outcomes

- Explore the applications of reasoning, logic, and mathematics in providing explanations to astronomical observations or hypothetical (complex) questions that are supported by physics laws and principles.
- Analyze, explain, and interpret observational data and uncertainties in order to make meaningful conclusions.
- Extrapolate the principles we learn in class to astronomy hypothetical questions.
- Abilities to synthesize an interpretation for multi-dimension observational data based on established physical laws.
- Communicate effectively in discussion groups in agreeing or disagreeing with others’ opinions.
Critical Thinking in Class
In our lectures, we will apply scientific reasoning and critical thinking in describing and understanding astronomical observations. Most of the times, the explanations will start with hypothesis or models that are based on established physical laws and mathematical solutions. In class, we will have quiz to test whether students can tie the new concepts learn in the class to quiz problems and at the same time synthesize or extrapolate the new concepts to answer the quiz questions.

General Education Competencies:
Demonstrate mathematical literacy through solving problems, communicating concepts, reasoning mathematically, and applying mathematical or statistical methods, using multiple representations where applicable.
Demonstrate the process of scientific reasoning by performing an experiment and thoroughly discussing the results with reference to the scientific literature, or by studying a question through critical analysis of the evidence in the scientific literature.
Demonstrate the ability to assemble information relevant to a significant, complex issue, evaluate the quality and utility of the information, and use the outcome of the analysis to reach a logical conclusion about the issue.

Attendance Policy
Attendance is required. Because of the pace at which material is covered and because of the cumulative nature of the principals involved it is recommended that students not miss a class unless there is a compelling reason. Students are requested to wait 10 minutes in the unlikely event that your instructor is late for class.

For an absence to be considered an excused absence, a student must use the Notification of Absences form in Canvas or directly communicate with the instructor.

Policies on attendance are available in the Academic Regulations section of the Undergraduate Catalog. In the event of a regional or national emergency (e.g., pandemic, hurricane, etc.), students missing classes may not be charged with unexcused absences if the nature and extent of the emergency are defined and disseminated by the provost (or designee).

Any exam that was scheduled at the time of a class cancellation due to inclement weather, University power outage etc. will be given at the next class meeting unless contacted by the instructor. Any assignments due at the time of a class cancellation due to inclement weather will be due at the next class meeting unless the instructor contacts students. Any extension or postponement of assignments or exams must be granted by the instructor via email or Canvas within 24 hours of the weather-related cancellation.

Course instructors are obligated to honor exceptions to attendance policy for students covered by the Americans with Disabilities Act, as verified through paperwork issued by Student Accessibility Services.
Make-up Work Due to Missed Attendance:
- Students should speak with their course instructors regarding any scheduled absence as soon as possible and develop a plan for any make-up work.
- In the event of an emergency, the student should make direct contact with the course instructor, preferably before a class or an exam takes place. It is the student's responsibility to secure documentation of emergencies if required.
- Course instructors must implement fair grading procedures and provide an opportunity to make up missed assignments and examinations that does not unfairly penalize the student. Issuing specific dates by which make up work must be submitted without confirmation from the student could constitute unfair penalization, as students with illness or emergency may not always respond in a timely manner. Such make-up work shall be at the same level of difficulty with the missed assignment or examination. Course instructors shall hold all students to the same standard from making up missed assignments or examinations.
- While course instructors should seek to make reasonable accommodation for a student involved in university-sponsored activities, students should understand that not every course can accommodate absences and that absences do not lessen the need to meet all course objectives.

Notification of Absence:
- The Notification of Absence module in Canvas allows students to quickly notify instructors (via an email) of an absence from class and provides for the following categories: court attendance, death of a family member, illness, illness of family member, injury, military duty, religious observance, scheduled surgery, university function, unscheduled hospitalization, other anticipated absence, or other unanticipated absence. The notification form requires a brief explanation, dates, and times. Based on the dates and times indicated, instructors are automatically selected, but students may decide which instructors will receive the notification. This does not serve as an “excuse” from class, and students are encouraged to discuss the absence with their instructors.
- When needed, the Office of Advocacy and Success assists students in identifying various appropriate methods of documenting absences and assists families in using the electronic Notification of Absence system when students are unable to do so themselves.

Policies on Incompletes and Medical Withdrawals:
- Issuing an “Incomplete” grade (I) to a student is an option if a student is unable to complete make-up work in a timely manner due to illness or other issues. An Incomplete indicates that a relatively small part of the semester's work remains undone. It is not intended for students who are failing a course otherwise. In the event that an Incomplete is appropriate, students will contact instructors in a timely manner so that instructors can provide a reasonable opportunity to complete remaining work. Instructors and students will work together to resolve the Incomplete grade as soon as possible, not to exceed thirty days from the first day of classes in the next scheduled session (excluding summer sessions and regardless of the student’s enrollment status). More information on an Incomplete grade can be found in the Academic Regulations section of the Undergraduate Catalog.
Sometimes due to illness or other life circumstances, students may not be able to complete academic work for the term and will need to withdraw from all classes. The Division of Undergraduate Studies will process medical withdrawals. Students should contact the Division by sending an email from their Clemson email address to Lisa Traynham at lltrayn@clemson.edu.

### Required Technical Skills

Students are expected to have a minimum working knowledge of computers and a word processing program to be successful in an online class. You must be comfortable with your computer system and willing to deal with any problems that may arise. Lack of technical knowledge can greatly interfere with your learning a new subject. If you do not have these skills, consider taking a short computer course prior to enrolling in an online course.

- Get your password and login to your class before the semester begins (if available)
- Attach files to email messages
- Compose written documents in a Word processor such as Microsoft Word
- Word processing tasks (type, cut, paste, copy, name, save, rename, etc.)
- Download information from the Internet
- Use of a Web browser
- Completing online forms
- Backup your files
- Install and maintain anti-virus and other software

Students are expected to be comfortable accessing the online course site and downloading files such as Microsoft Office documents, YouTube videos, and PDFs. In addition, students should be able to use Microsoft Office to compose written documents.

For technical assistance with the online course site, students should contact ithelp@clemson.edu or visit CCIT's website: [http://www.clemson.edu/ccit/help_support/](http://www.clemson.edu/ccit/help_support/).

### Technical Support:

If you are experiencing technical difficulties with any element of the course, please contact me immediately. I will direct you to the appropriate IT support (for course site issue email ithelp@clemson.edu and for FlexEd site issue please contact support@junctioneducation.com) to fix the issue promptly.

### Faculty Response Time

**Communications Response Time:** Instructor response time is 36 hours for questions posted in the Learning Management System and sent via email. This response times excludes weekends, official University closures, and other times as noted by the instructor. Should you need live assistance, email me to arrange an office or phone consultation.

**Faculty Grading Expectations:** Most assignments will be graded within 72-hours. Some assignments may be graded by Canvas and will be available for review after the due date of the assignment. Larger assignments may take up to one-week to be graded. Late work will be graded within one-week of submission.
## Course Calendar:

### ASTR 1020 Fall 2022 Schedule

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>August 22</strong></td>
<td>23</td>
<td>No class</td>
<td>24</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>Ch.16</td>
<td>30</td>
<td>Intro, 15.1</td>
<td>31</td>
<td>September 1</td>
<td>2</td>
</tr>
<tr>
<td>Ch.17</td>
<td>6</td>
<td>Ch.16</td>
<td>7</td>
<td>Ch.17</td>
<td>8</td>
</tr>
<tr>
<td>Ch.18</td>
<td>13</td>
<td>Ch.20</td>
<td>14</td>
<td>Peer-rev Ch16</td>
<td>15 Peer-rev Ch19</td>
</tr>
<tr>
<td>Ch.19</td>
<td>20</td>
<td>Ch.21</td>
<td>21</td>
<td>Ch.20</td>
<td>22 Peer-rev Ch20</td>
</tr>
<tr>
<td>Ch.20</td>
<td>27</td>
<td>Ch.21</td>
<td>28</td>
<td>Disc Ch21</td>
<td>29 Disc Ch21</td>
</tr>
<tr>
<td>Ch.21</td>
<td>5</td>
<td>ch.22-23</td>
<td>6</td>
<td>HW Ch16</td>
<td>7</td>
</tr>
<tr>
<td>Ch.22</td>
<td>11</td>
<td>Ch.23</td>
<td>12</td>
<td>Ch.23</td>
<td>13</td>
</tr>
<tr>
<td>Ch.23</td>
<td>18</td>
<td>Exam 2</td>
<td>19</td>
<td>Ch.24</td>
<td>20</td>
</tr>
<tr>
<td>Ch.24</td>
<td>25</td>
<td>Peer-rev Ch24</td>
<td>26</td>
<td>Ch.25</td>
<td>27</td>
</tr>
<tr>
<td>Ch.25</td>
<td>Nov 1</td>
<td>2</td>
<td>3</td>
<td>Disc Ch26</td>
<td>4</td>
</tr>
<tr>
<td>Ch.26</td>
<td>Fall Break</td>
<td>9</td>
<td>10</td>
<td>HW Ch26</td>
<td>5</td>
</tr>
<tr>
<td>Ch.27</td>
<td>15 Peer-rev Ch27</td>
<td>16</td>
<td>Ch.28</td>
<td>17</td>
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<tr>
<td>Ch.28</td>
<td>22 Peer-rev Ch28</td>
<td>23 Thanksgiving</td>
<td>24 Thanksgiving</td>
<td>25 Thanksgiving</td>
<td></td>
</tr>
<tr>
<td>Ch.29</td>
<td>29</td>
<td>Ch.29</td>
<td>30</td>
<td>Dec 1</td>
<td>2</td>
</tr>
<tr>
<td>Ch.30</td>
<td>6</td>
<td>Ch.30</td>
<td>7</td>
<td>Ch.29</td>
<td>3 Disc Ch29</td>
</tr>
<tr>
<td>Ch.31</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>Ch.29</td>
<td>16</td>
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<tr>
<td>Ch.32</td>
<td></td>
<td>Final Exam</td>
<td></td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

**Sep. 6:** Last day to drop a class or withdraw from the University without a W grade  
**Oct. 14:** Last day for instructors to issue midterm evaluations  
**Oct. 28:** Last day to drop a class or withdraw from the University without final grades  
**Final Exam:** Thursday, Dec. 15th 11:30 – 14:00.
Assignments
Instructional content is organized in Chapters grouped with corresponding assessments.

Chapter 15: The Structure and Composition of the Sun
Chapter 16: The Sun: A Nuclear Powerhouse
Chapter 17: Analyzing Starlight
Chapter 18: The Stars: A Celestial Census
Chapter 19: Celestial Distances
Chapter 20: Between the Stars: Gas and Dust in Space
Chapter 21: The Birth of Stars and the Discovery of Planets Outside the Solar System
Chapter 22: Stars from Adolescence to Old Age
Chapter 23: The Death of Stars
Chapter 24: Black Holes and Curved Spacetime
Chapter 25: The Mikly Way Galaxy
Chapter 26: Galaxies
Chapter 27: Active Galaxies, Quasars, and Supermassive Black Holes
Chapter 28: The Evolution and Distribution of Galaxies
Chapter 29: The Big Bang
Chapter 30: Life in the Universe

In-Class Quiz
We will use Acadly audience response system in class. Every class, there will be several questions posted throughout class to which you will respond with Acadly app in your smartphone, tablets, or laptops. Students are required to sign-up and have a working account in Acadly.com. The account is free, no cost for us. Acadly app is available in Android and iOS. The course name at Acadly is ASTR1020FALL2022: Stellar Astronomy and the join code is XH23CC. Your Acadly account must be activated and registered as soon as possible. Concerning scoring, you will receive 2 raw points for every answer (regardless of the correctness) and 4 raw points for each correct answer (zero points are recorded for no answer/an absence). Your grade for this portion of the class is 10% of the total score in class. The lowest three daily Acadly scores (including zeroes) will be dropped near the end of the semester. Each Acadly-day score is worth the same amount of credit regardless the number of questions asked on that day.

Online Discussion
Students will participate in Canvas online discussions.

- For each chapter, each student chooses a topic of Canvas discussion from about 10-15 cases provided by the instructor in Canvas, then
1. Post the whole statement of the chosen discussion in Canvas discussion forum. (20 pts)
2. Write a judgment on whether the statement makes sense or not. (30 pts)
3. Write clearly the reasons for your judgment based on what we learn in this chapter:
   - Tie the concepts learned in this chapter to the case statement (30 pts)
   - Write in a clear manner and correct grammar with a good flow of reasoning (20 pts)

- After posting the task above, each student should peer-review and grade anonymously two posts selected randomly by Canvas LMS using the criteria above and the discussion rubric shown below. The score of the assignment is the average of the scores given by the two anonymous reviewers.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Full Marks</th>
<th>Partial Marks</th>
<th>No Marks</th>
<th>Pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>The chosen-discussion topic is clearly written</td>
<td>Complete (15 pts)</td>
<td>Partial (7 pts)</td>
<td>None (0 pts)</td>
<td>15</td>
</tr>
<tr>
<td>Accuracy of the post’s conclusion</td>
<td>Correct (20 pts)</td>
<td>Partially correct (10 pts)</td>
<td>Wrong (0 pts)</td>
<td>20</td>
</tr>
<tr>
<td>Writing Proficiency</td>
<td>Proper use of grammar, appropriate capitalization and punctuation (20 pts)</td>
<td>One or two inappropriate uses of grammar or typos (10 pts)</td>
<td>Post contains multiple inappropriate uses of grammar and typos (0 pts)</td>
<td>20</td>
</tr>
<tr>
<td>Line of Reasoning</td>
<td>Good flow of reasoning, points are thoughtfully analyzed, express reasoning in a clear manner with obvious connection to the topic (25 pts)</td>
<td>The post contains some connection or logic to the topic (12 pts)</td>
<td>Incoherence or irrelevant arguments to the topic (0 pts)</td>
<td>25</td>
</tr>
<tr>
<td>Peer review</td>
<td>Finish 2 reviews (20 pts)</td>
<td>Finish 1 review (10 pts)</td>
<td>No review (0 pts)</td>
<td>20</td>
</tr>
</tbody>
</table>

**Homework**

We will be using FlexEd as our interactive homework submission system. Homework must be submitted for each chapter in the textbook. Homework sets are posted on our Canvas course and on FlexEd.Xanedu.com website. Every student will have a free access to FlexEd in the first
two weeks of class. The cost for using FlexEd is $35.00/semester. Students purchase the access code using a credit card during the registration process at FlexEd.

FlexEd Homework consists of two parts: Question Set and Activity; they have the same total weights. Homework is intended to take you between 2 and 3 hours per chapter. The worth of homework total points is 20% of the total points in class. Homework is due at 11:59 pm on the day indicated in the schedule. There is a 1%/hour score reduction for a late homework with a maximum of 40% score reduction. All due dates are posted in FlexEd. Each homework is worth the same amount of credit (regardless of the number of raw homework points). The lowest homework score will be dropped at the end of the semester.

Log in to FlexEd
All students will have two-week grace period from the start date of the course to use FlexEd for free, after that period students have to pay for the access. To access your FlexEd account directly from Canvas, do the following steps:

- Log in to Canvas and click Assignments, then click “HW16: The Sun, A Nuclear Powerhouse” under FlexEd Homework Assignments. The step will automatically register you for FlexEd account. Our course name at FlexEd is ASTR 1020: Stellar Astronomy and its course enrollment code is 7e801d. Upon registration, you will be presented with a payment window. In this window, you can enter a credit card to purchase the FlexEd access.
  - If this is the first time you access FlexEd from Canvas, you will be ported into FlexEd immediately where you will have the option to pay with a credit card, bookstore access code, or choose a 14-day free trial. After the shopping card page, you can start to work on the assignment.

Examinations
Midterm Exams: There will be three exams during the course schedule. Each exam lasts 45 minutes and is worth 150 points. Each exam will be taken through the Canvas online system in our class room. It will be given on dates in the class schedule. Each exam is a multiple choice exam. There will be practice exams in Canvas for students to practice before the exam and to make sure student computers work with the system. If you miss an exam because of an excused absence you will be given a makeup exam. To obtain an excused absence from a test your reason must be serious and verified by University sources. Makeup exams will be given the following week at 7 pm online through the Respondus Lockdown browser. There are no dropped exams, exam grade replacements, or final exam exemptions.

Final Exam:
The final exam is comprehensive that it covers all materials of the course. It will be given on Thursday, December 15th from 11:30 to 14:00. It will be a multiple choice Canvas online exam to be taken in our classroom. No exemptions from this examination will be given. The final examination will be worth 150 points or 15% of your final grade.
Exam Aids:
During all of the exams, students are allowed to bring and to use the equation sheet, ASTR1020_Eqs.pdf that is available in the “Content” of our Canvas. This equation sheet can have no writing on it. You will also be allowed to bring in several blank scratch papers. You will need to bring your computer to your assigned testing room. Please make sure your computer is fully charged before entering the room as there may not be enough outlets for all. Note that Calculators are not allowed.

Grading
Assignments in this course are divided into these general categories, which carry the following weight in your final grade calculations:

<table>
<thead>
<tr>
<th>Assignment Group</th>
<th>Points per group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm exams</td>
<td>450 points</td>
</tr>
<tr>
<td>Final exams</td>
<td>150 points</td>
</tr>
<tr>
<td>Homework</td>
<td>200 points</td>
</tr>
<tr>
<td>Discussion</td>
<td>100 points</td>
</tr>
<tr>
<td>Quiz</td>
<td>100 points</td>
</tr>
<tr>
<td>Total points</td>
<td>1000 points</td>
</tr>
</tbody>
</table>

You are treated as a professional in the course. Accordingly, the grading is strict, but fair. Reading the directions and grading criteria provided for each assignment is the key to understanding how you will be graded. Following those directions is the key to doing well.

This course follows the typical grading guidelines:
- A = 90 to 100%
- B = 80 to 89%
- C = 70 to 79%
- D = 60 to 69%
- F = 0 to 59%

Contesting Grades
Grades will be updated typically daily on Canvas. You have one week to contest any grade after it is posted. Homework grades will be posted in FlexEd.xanedu.com and in Canvas. Any contesting of grades should be done within a week of completion of the assignment. Any requests for reexamination of scores more than one week after the grades are posted will not be granted. Quiz scores are typically posted daily so there should be plenty of time to contest a score within the allotted week. Requests for quiz make-ups must also be made within the week of the question and must be backed up by a written document validating the conflict.

Critical Thinking Artifacts
- Students explanations to “Does It Make Sense?” discussions are students’ practice of critical thinking.
- Students quiz and test problems including their scores will be available as artifacts.
• Pre and Post CCTST (California Critical Thinking Skills Test) scores taken online will be available as artifacts.

Academic Grievances
Academic grievances are handled by Dr. Jeffrey Appling in Undergraduate Studies or Dr. Frankie Felder for Graduate Studies. Students are advised to visit the Ombuds Office prior to filing a grievance.

Receiving Grades & Instructor Feedback
Assignment grades and feedback are provided generally 48 hours after the assignment is due and always before an assignment of the same type is due. Unless otherwise stated, grades and feedback will be available via the Grades area of the course site.

Course Navigation
The buttons in the course menu provide access to these content areas:

• Announcements: Includes updates and reminders for the course.
• Faculty: Describes the instructor's background and includes contact information.
• Syllabus: Explains the course objectives, grading criteria, student responsibilities, and final exam information for proctoring.
• Assignments: List all homework assignments and “Does It Make Sense?” discussions.
• Files: Includes many additional study materials such as Lecture Notes, Recorded Lectures, Old Exam Solutions, and Equation Sheets.
• Grades: Displays instructor feedback and grades. If you see an exclamation mark for an assignment, it means the assignment has been submitted and will be reviewed by the instructor. If you see a score for an assignment, you can click on it to read feedback from your instructor.
• Tools: Includes email and interactive features.

Course Content
This course contains modules, each consisting of some or all of the following components:

• Textbook Reading: Students will read a chapter, or several chapters, from the textbook and/or other course materials made available to you in the course site.
• Assignments and Exercises: In most modules, you will complete an assignment or assessment related to the reading. These assignments and assessments will help in your understanding of the material in the assigned chapters and related readings. The assignments include homework at FlexEd, midterm exams, and a final exam.
• In-Class Quiz: To assess whether students can synthesize or extrapolate the new concepts learn in class to answer quiz questions, students will participate in class quizzes. We are using Acadly audience response system in class.
• **CT2 Online Canvas Discussions**: Each student should post an opinion and explanation to one of the discussion statements provided by the instructor. Then, the student peer-review two other student posts following the provided discussion rubric.

**Accepting Late Work**
*Late work through FlexEd will be accepted with a 1%/hour reduction in credit as a penalty. An extension to a deadline can be given if there is a reasonable cause. All work must be submitted by the last day of the course; no extensions or late work will be accepted beyond that date. Please plan ahead.*

**Communicating with Your Instructor**
You have numerous ways of communicating with your instructor: phone, email, the *Ask the Instructor* forum, and live consultations by appointment with the Adobe Connect Meeting system.

- If you have a question about an assignment or class procedure, consider posting it in the *Ask the Instructor* forum so that other members of the class can benefit from it, too. A lot of learning can happen in this forum if you use it, so please do!
- If you have a personal concern (such as a question about a grade), send a message to your instructor through the course site or through your Clemson email account.
- I am here to help you, so please ask questions and seek clarification as early and as often as needed. Delay will only hinder your learning.

**Submitting Work**
Make sure you submit coursework according to the directions provided in the course. Here are general guidelines for assignment submission:

- Post discussions threads and replies to the appropriate forum in the Discussions area.
- Submit homework assignments in FlexEd before the deadlines.
- Participate in-class quizzes using Acadly app.
- Complete the midterm exam
- Complete the final exam
- Do not email coursework unless you have received prior approval from your instructor.

**Meeting Deadlines**
Assignments are due by **11:59 pm, Eastern Time** on the day specified unless otherwise stated. Plan ahead for the unexpected! You are accountable for staying on schedule should technological or other problems arise. You should immediately contact the instructor if an emergency may affect your ability to meet course deadlines.
ASTR 1020: Stellar Astronomy | 2022 - 2023

Many students juggle school, work, family, and other life responsibilities all at the same time. If a serious life issue prevents you from staying current in your coursework, contact your instructor as soon as possible to explain your circumstances. Do not let school or life responsibilities overwhelm you. The faculty and staff at Clemson are aware that students face challenges, and we are committed to your success. Often, we may be able to help you see a way to deal with your circumstances and still complete your courses. We have a lot of experience. Give us the chance to help you.

**Learning**
What matters most in any course is what you actually learn. This course allows you many different ways to learn, such as reading your textbook, following the hands-on practice in your assignments, discussing with your classmates and your instructor, and discovering other resources across the Internet. If you actively participate in your course, you will get constructive feedback to help you with your learning. Stay active in your course and focused on your learning to get the most out of it.

**Changes**
Occasionally, circumstances require the instructor to change the syllabus. Should the instructor find a change necessary, you will be notified as soon as possible. You might print this syllabus for ready referral.

**Agreement**
If you disagree with any of the policies or procedures spelled out above or cannot accept the demands of the course (i.e., the amount of time and work required), you need to drop the course as soon as possible. By staying in the course, you agree to comply with all the policies and procedures described in this syllabus.

**Reminder**
Your instructor should be your first point of contact and support for any questions or concerns you have about this course.

**General Policies & Procedures**
Students are expected to adhere to all policies and procedure outlined by Clemson University at: University Policies: http://www.clemson.edu/administration/student-affairs/student-handbook/universitypolicies/index.html.

**Academic Integrity**
Coursework must be documented appropriately in CSE or APA format, based on your major. Content from previous classes may not be submitted.

The Clemson University Academic Integrity Statement
As members of the Clemson University community, we have inherited Thomas Green Clemson’s vision of this institution as a “high seminary of learning.” Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

A simple definition of plagiarism is when someone presents another person’s words, visuals, or ideas as his or her own. The instructor will deal with plagiarism on a case-by-case basis. The most serious offense within this category occurs when a student copies text from the Internet or from a collective file. This type of academic dishonesty is a serious offense that will result in a failing grade for the course as well as the filing of a formal report to the University.

See the Undergraduate Academic Integrity Policy website for additional information about academic integrity and Clemson procedures and policies regarding scholastic dishonesty.

Email Communication
Because of privacy regulations, University faculty and staff may email students only through Clemson email. Therefore, you must use your Clemson email account in this course for all email communications. Check your Clemson account at least three times per week for important messages.

Student Disability Services
Student Disability Services coordinates the provision of accommodations for students with disabilities in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

Reasonable and specific accommodations are developed with each student based on current documentation from an appropriate licensed professional. All accommodations are individualized, flexible, and confidential based on the nature of the disability and the academic environment. Housing accommodations for a disability or medical condition are also coordinated through this office.

Visit the Student Disability Services website for location, contact information, as well as official policies and procedures. To learn more information or request accommodations contact Student Disability Services (SDS) at sds-l@clemson.edu or 864.656.6848 or visit SDS’s website: http://www.clemson.edu/campus-life/campus-services/sds/about.html.

Academic Support Services
Students may access a variety of academic support services to support your learning in the classroom. Here are links to services available:

- Academic Success Center http://www.clemson.edu/asc/staff.html
- The Writing Center http://www.clemson.edu/centers-institutes/writing/
- Online Library Resources http://www.clemson.edu/library/
The Clemson University Title IX (Sexual Harassment) Statement:
Clemson University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veteran’s status, genetic information or protected activity (e.g., opposition to prohibited discrimination or participation in any complaint process, etc.) in employment, educational programs and activities, admissions and financial aid. This includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Education Amendments of 1972. To locate information on the Title IX policy, visit http://www.clemson.edu/campus-life/campus-services/access/title-ix/. Mr. Jerry Knighton is the Clemson University Title IX Coordinator, and is also the Director of Access and Equity. His office is located at 111 Holtzendorff Hall, 864.656.3181 (voice) or 864.565.0899 (TDD).

Inclement Weather Statement:
University officials monitor local weather conditions before making decisions to cancel classes, close offices or delay openings. For updates on the status of Clemson classes and office closings:

- Check the Clemson University homepage (http://www.clemson.edu/) for messages about closings or delays;
- Check the CU Safety page (http://www.clemson.edu/cusafety/) for detailed messages and weather advisories;
- Check your Clemson University e-mail for CU Safe Alerts or Inside Clemson messages;
- Check your cell phone if you have signed up to receive CU Safe Alert text messages (See the CU Safety page for sign-up instructions);
- Call the Clemson University switchboard at 656-3311 for recorded updates between 8 p.m. and 8 a.m. Monday-Friday and on weekends (recorded messages provide closure information, not weather forecasts); and
- Tune in to local TV and radio stations or log on to their Web sites.
- When local county government offices are closed, local Clemson University campuses also are closed.

Accessibility
Clemson University values the diversity of our student body as a strength and a critical component of our dynamic community. Students with disabilities or temporary injuries/conditions may require accommodations due to barriers in the structure of facilities, course design, technology used for curricular purposes, or other campus resources. Students
who experience a barrier to full access to this class should let the professor know, and make an appointment to meet with a staff member in Student Accessibility Services as soon as possible. You can make an appointment by calling 864-656-6848, by emailing studentaccess@lists.clemson.edu, or by visiting Suite 239 in the Academic Success Center building. Appointments are strongly encouraged – drop-ins will be seen if at all possible, but there could be a significant wait due to scheduled appointments. Students who receive Academic Access Letters are strongly encouraged to request, obtain and present these to their professors as early in the semester as possible so that accommodations can be made in a timely manner. It is the student’s responsibility to follow this process each semester. You can access further information here: http://www.clemson.edu/campus-life/campus-services/sds/http://www.registrar.clemson.edu/html/indexStudents.htm

Copyright Notice
The materials found in this course are strictly for the use of students enrolled in this course and for purposes associated with this course; they may not be retained or further disseminated. Clemson students, faculty, and staff are expected to comply fully with institutional copyright policy as well as all other copyright laws.