



# PHYS 1103 882 – Stars & Galaxies Lab (ONLINE)

Course Syllabus: Spring 2024

---

*“Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed.”*

**Instructor: Mr. Mark Ellermann**

**Office:** MS117

**Phone:** (903) 434-8297

**Email:** mellermann@ntcc.edu

Office	Monday	Tuesday	Wednesday	Thursday	Friday
Hours	Online/Teams	Online/Teams	Online/Teams	Online/Teams	Online/Teams

***This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.***

*Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.*

**Course Description:** 1 credit hour. Three hours of lab each week. This laboratory-based course accompanies PHYS 1303, Stars & Galaxies. Laboratory activities will reinforce the study of the Sun and other bodies in our solar system, including the origin of our solar system. This course will not satisfy a core curriculum requirement, but may satisfy a degree requirement.

**Prerequisite(s):** None.

## **Student Learning Outcomes:**

Upon successful completion of this course, students will be able to demonstrate understanding of qualitative concepts relating to the following learning outcomes:

- 1103.1) Recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry used in modern astrophysics.
- 1103.2) Communicate observations and interpretations clearly through written communication
- 1103.3) Use basic laws of astronomy to solve assigned tasks.
- 1103.4) The ability to translate, interpret, and extrapolate scientific theory governing the formation and motion of stars.
- 1103.5) The ability to translate, interpret, and extrapolate scientific theory governing the formation and evolution of galaxies and the universe.

**Evaluation/Grading Policy:** All lab assignments have equal weight. The final grade will be assigned by the average of all lab assignments according to the following letter scale. There will not be any major test.

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

**Required Instructional Materials:**

P. Braganca. *Starry Night College Textbook Edition*. Simulation Curriculum.

**Publisher:** Simulation Curriculum

**ISBN Number:** 978-1-7330225-6-9

**Optional Instructional Materials:** None.

**Minimum Technology Requirements:** Given the online nature of this course, it is assumed the student has access to a computer with the ability to install software to that computer, as well as access to the Internet.

**Required Computer Literacy Skills:** All students are expected to have sufficient computer literacy skills to install software, navigate simulation software, and navigate the Internet.

**Course Structure and Overview:** Students are expected to complete the assigned tasks by the due dates listed in Blackboard. Late assignments will not be considered for grading. All assignments and due dates are available from the beginning of the semester.

**Communications:** Emails will have responses within 24 hours during the week (Monday – Friday). All official correspondence will be handled through your NTCC email.

**Institutional/Course Policy:** Students are expected to complete the syllabus quiz by Wednesday of the first week as evidence of attendance. All correspondence is expected to be respectful and courteous to everyone involved. Late submissions will not be accepted without prior acceptance by the instructor. If something comes up that will delay your work, please contact the instructor IMMEDIATELY. Sudden loss of power or Internet connection on the night of the due date will *not* be counted as a suitable reason to extend due dates.

**Alternate Operations During Campus Closure and/or Alternate Course Delivery Requirements**

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Northeast Texas Community College to move to altered operations. During this time, Northeast Texas Community College may opt to continue delivery of instruction through methods that include, but are not limited to, online through the Blackboard Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor NTCC's website (<http://www.ntcc.edu/>) for instructions about continuing courses remotely, Blackboard for each class for coursespecific communication, and NTCC email for important general information.

Additionally, there may be instances where a course may not be able to be continued in the same delivery format as it originates (face-to-face, fully online, live remote, or hybrid). Should this be the case, every effort will be made to continue instruction in an alternative delivery format. Students will be informed of any changes of this nature through email messaging and/or the Blackboard course site.

### **Statement Regarding the Use of Artificial Intelligence (AI) Technology:**

Absent a clear statement from a course instructor, use of or consultation with generative AI shall be treated analogously to assistance from another person (collusion). Generative AI is a subset of AI that utilizes machine learning models to create new, original content, such as images, text, or music, based on patterns and structures learned from existing data (Cornell, Center for Teaching Innovation).

Unauthorized use of generative AI tools to complete an assignment or exam is not permitted. Students should acknowledge the use of generative AI and default to disclosing such assistance when in doubt. Individual course instructors may set their own policies regulating the use of generative AI tools in their courses, including allowing or disallowing some or all uses of such tools. Students who are unsure of policies regarding generative AI tools are encouraged to ask their instructors for clarification. **(Adapted from the Stanford University Office of Community Standards-- accessed August 31, 2023)**

### **NTCC Academic Honesty/Ethics Statement:**

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information on these subjects.

### **ADA Statement:**

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

### **Family Educational Rights and Privacy Act (FERPA):**

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

### **Tentative Course Timeline (\*note\* instructor reserves the right to make adjustments to this timeline at any point in the term):**

<b>Week</b>	<b>Assignments</b>
<b>Week 1-3</b>	<b>Tutorial: Astronomy Simulator Basics, Pre-Lab: Measuring Size and Scale, Lab: Measuring Size and Scale</b>
<b>Week 4-6</b>	<b>Ch 15 Lab, The Motion of Stars, Classifying Stars</b>
<b>Week 7-9</b>	<b>Exercise: Interstellar Gas, Exercise: Interstellar Dust,</b>

	<b>Exercise: The Trappist-1 Exoplanet System, Chapter 18 Lab, Chapter 19 Lab</b>
<b>Week 10-12</b>	<b>Lab 22 (Star Clusters)</b>
<b>Week 13-15</b>	<b>None</b>