PHYS 1104 881 – Solar System Lab (ONLINE)

Course Syllabus: Summer I 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 Hours	Monday	Tuesday	Wednesday	Thursday	Friday
	Online	Online	Online	Online	Online

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 1304, The Solar System. 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, buy 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:

1104.1) Recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry used in modern astrophysics.
1104.2) Communicate observations and interpretations clearly through written communication
1104.3) Use basic laws of astronomy to solve assigned tasks.
1104.4) The ability to translate, interpret, and extrapolate scientific theory governing the formation and motion of solar system bodies.

Evaluation/Grading Policy: All lab assignments have equal weight. Final grade will be assigned by the average of all lab assignments according to the following letter scale. There will be quizzes that review each chapter's labs. These quizzes will be counted with equal weight to the labs. 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: Blackboard Messages will have responses within 24 hours during the week (Monday – Friday). All official correspondence will be handled through Blackboard Messages and 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.

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.

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. (A**dapted from the Stanford University Office of Community Standards-- accessed August 31, 2023)**

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):
****NOTE: If you are taking PHYS 1304 concurrently, you will notice some assignments are the same. Because the courses are listed as separate classes, you will need to do the assignment for PHYS 1304 and this class (PHYS 1104)**

Week	Assignments
Week 1	• **Syllabus Quiz (Do This First!)** • **Tutorial: Astronomy Simulator Basics** • **Pre-Lab: Measuring Size and Scale** • **Lab: Measuring Size and Scale** • **Pre-Lab: Measuring the Mass of Jupiter** • **Lab: Measuring the Mass of Jupiter**
Week 2	• **Chapter 4 Lab – Constellations of the Seasons** • **Chapter 5 Lab – Analyzing Spectral Lines**
Week 3	• **Chapter 7 Lab – Exploring Our Solar System** • **7.1.1 Exercise: Size and Scale of the Solar System** • **Chapter 9 Lab – Investigating Tectonic Activity**
Week 4	• **11.2.2 Exercise: Orbital Characteristics of Jupiter** • **Chapter 12 Lab – Moons and Rings**
Week 5	• **No assignments**

**** Additional assignments may be posted during the semester.****