



# Solar System – PHYS 1304.881

Course Syllabus: Summer 2020

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

**Instructor:** Mr. Mark Ellermann II

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| Office | Monday          | Tuesday         | Wednesday       | Thursday        | Friday             |
|--------|-----------------|-----------------|-----------------|-----------------|--------------------|
| Hours  | 1 – 3 pm online | 1 – 3 pm online | 1 – 3 pm online | 1 – 3 pm online | 1 – 3 pm<br>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:**

This course is the study of the Sun and other bodies in our solar system, including the origin of our solar system.

3 credit hours

Lecture/Lab/Clinical: Three hours of lecture each week.

**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:

- 1304.1) Recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry used in modern astrophysics.
- 1304.2) Communicate observations and interpretations clearly through written communication
- 1304.3) Use basic laws of astronomy to solve assigned tasks.
- 1304.4) The ability to translate, interpret, and extrapolate scientific theory governing the formation and evolution of the solar system

## **College Student Learning Outcomes:**

### Critical Thinking Skills

**CT.1** Students will demonstrate the ability to 1) analyze complex issues, 2) synthesize information, and 3) evaluate the logic, validity, and relevance of data.

### Communication Skills

**CS.1** Students will effectively develop, interpret and express ideas through written communication.

### Empirical and Quantitative Skills

**EQS.1** Students will manipulate numerical data or observable facts by organizing and converting relevant information into mathematical or empirical form

**EQS.2** Students will analyze numerical data or observable facts by processing information with correct calculations, explicit notations, and appropriate technology.

**EQS.3** Students will draw informed conclusions from numerical data or observable facts that are accurate, complete, and relevant to the investigation.

### Teamwork

**TW.2** Students will work with others to support and accomplish a shared goal.

### **Evaluation/Grading Policy:**

Quizzes will represent 15% of your grade and class participation (Discussions) will count another 20%. There will be one Mid-Term Exam and a Final Exam. The average of all tests will represent 65% of your grade. The letter grading system is:

|          |              |
|----------|--------------|
| <b>A</b> | (90% - 100%) |
| <b>B</b> | (80% - 89%)  |
| <b>C</b> | (70% - 79%)  |
| <b>D</b> | (60% - 69%)  |
| <b>F</b> | (< 60%)      |

### **Tests / Exams:**

There will be a Mid-Term Exam and a Final Exam. The Mid-Term Exam will cover Chapters 1-7 and the Final Exam will cover Chapters 8-12. These will be exams that will require using Respondus Browser.

**Assignments:** Each chapter will have a reading review, homework assignments, as well as a process of science and exploration assignment. A web exploration assignment will be submitted each chapter from which you will have a choice of at least three different topics. A chapter quiz will also be taken each week.

**Required Instructional Materials:**

Kay, Palen, and Blumenthal. *21<sup>st</sup> Century Astronomy: The Solar System*, 6<sup>th</sup> Ed. W.W. Norton & Company, New York, 2019.

**Publisher:** W. W. Norton & Company

**ISBN Number:** 978-0-393-67552-8

**Optional Instructional Materials:** None

**Minimum Technology Requirements:** Computer and Internet access

**Required Computer Literacy Skills:**

You will need to be able to navigate Blackboard and WebAssign to access your online work.

**Course Structure and Overview:**

Students will work through several assignments designed to round out the knowledge required for assessments. It is recommended that the student read through the text as well.

**Communications:**

Email will be responded to within 24 hours Monday-Friday. I will NOT email sensitive information to any non-NTCC email.

**Institutional/Course Policy:**

Late work will not be accepted without prior approval by the instructor. Students and instructor are expected to treat each other with respect in all communications.

**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):**

**Course Outline:**

|               |                                   |
|---------------|-----------------------------------|
| <b>Week 1</b> | Chapters 1-3                      |
| <b>Week 2</b> | Chapters 4-6                      |
| <b>Week 3</b> | Chapter 7, <b>Midterm Exam</b>    |
| <b>Week 4</b> | Chapters 8-10                     |
| <b>Week 5</b> | Chapters 11-12, <b>Final Exam</b> |