

## Midland College Syllabus

2017 - 2018

PHYS 1404

Solar System (Astronomy Part 1) Lecture

4 Semester Credit Hours

(3 Lecture/3 Lab)

*Core Curriculum Course*

### Instructor Information:

Instructor: [Click here to enter text.](#)

Office: [Click here to enter text.](#)

Phone: [Click here to enter text.](#)

Email: [Click here to enter text.](#)

Office Hours: [Click here to enter text.](#)

**Notice:** Students **MUST** actively participate by completing an academic assignment required by the instructor by the official census date. Students who do not actively participate in an academically-related activity may be reported as never attended and dropped from the course.

### Course Description:

This course will expose students to our modern astronomical understanding of the sun and its solar system. Because observation is a critical component of any science, students will have the opportunity to use telescopes to study the universe. The course is suitable as a required lab science for someone who is not majoring in science. Pre-requisite: TSI complete in Reading and Math.

### Core Objectives:

This course fulfills four hours of the Life and Physical Science requirement in the Midland College **Core Curriculum**. The Core Curriculum is a set of courses that provide students with a foundation of knowledge, skills and educational experiences that are essential for all learning. The URL for the Core Curriculum is available in the [Midland College Catalog](#). As part of the core, this course addresses the following four objectives:

**Critical Thinking Skills** – Students will demonstrate critical thinking skills by analyzing problems and applying the principles and concepts listed in the learning outcomes. They will do this in course assignments and exams including a departmental final exam. They will perform at least one lab related to each subject area listed in the first eight learning outcomes.

**Communication Skills** – Students will demonstrate communication skills in written, oral, and visual form within the classroom setting through instructor posed questions, collaborative peer assignments, exams and individual and group lab reports.

**Empirical and Quantitative Skills** – Students will demonstrate empirical and quantitative skills by analyzing problems and applying the principles and concepts listed in the learning outcomes. They will do this in course

assignments and exams including a departmental final exam. They will perform at least one lab in each of the areas listed in the first eight learning outcomes.

**Teamwork** – Students will demonstrate their ability to perform in teams during the laboratories as they work effectively to perform experiments, manipulate equipment, take and record data, and analyze that data toward drawing conclusions relevant to the subject of each lab. They will perform at least one lab in each of the areas listed in the first eight learning outcomes performing these labs in small groups of two, three or four members. They will be judged on teamwork using a scale where

- 4 = Full and effective participation with other members of the group.
- 2 = Minimal or ineffective participation in group activities.
- 0 = No contribution or participation.

#### Text Reference and Supplies:

Textbook: [Online Astronomy book](http://www.teachastronomy.com) (www.teachastronomy.com) (Free On-line Book)

Supplies: Regular pencils, millimeter ruler, and calculator with trig and log.

#### Student Learning Outcomes:

This course is organized around 9 major topics, each of which will be explored in an appropriate level of detail:

1. Science and the scientific method.
2. Celestial and planetary motions.
3. History of astronomy.
4. Light, telescopes, and other instruments.
5. Earth moon system.
6. Planets and moons.
7. Other solar system bodies.
8. Origin and evolution of the solar system.
9. Sun.

Moreover, each topic will serve as a vehicle for teaching how the scientific method was used to arrive at our understanding of the universe.

#### Student Contributions and Class Policies:

Students are expected to:

1. Spend at least 1 hour per week for each classroom hour in preparation for class.
2. Make-up work is considered the ultimate responsibility of the student. You can miss up to three class periods during the semester, without it negatively affecting your grade, provided that you make up the labs in order to receive credit for the work. Beyond that, you will receive zeroes for missed work.
3. Please do not use cell phones during class time.

4. Provide your own Scan-Tron forms (the skinny, half-page kind) for exams.
5. Make-up exams will only be given to those students who have valid excuses and only within one-week's time of the originally scheduled exam. Make-up exams will be given at the convenience of the instructor. No grades will be dropped.

#### Attendance Policy:

It is the responsibility of the students to know the policies and procedures associated with absences. These policies are set by instructors. Excused absences may include, but are not limited to, illness, severe weather, and death in the family. Instructors will determine whether or not an absence is excused. Please visit the [Midland College Catalog](#)

#### Withdrawal Policy:

Students who have enrolled in a Texas public institution of higher education as a first-time freshman in fall 2007 or later are permitted to drop no more than six courses during the entire undergraduate career. This limit includes all transfer work taken at a Texas institution of higher education and to second baccalaureate degrees. This statute was enacted by the State of Texas in spring 2007 (Texas Education Code 51.907). Any course that a student drops after Census Day is counted toward the six-course limit if "(1) the student was able to drop the course without receiving a grade or incurring an academic penalty; (2) the student's transcript indicates or will indicate that the student was enrolled in the course; and (3) the student is not dropping the course in order to withdraw from the institution." Please visit the [Midland College Catalog](#)

#### Scholastic Dishonesty:

Midland College does not tolerate scholastic dishonesty or academic misconduct in any form. Please read the MC Student Handbook on this subject. Please visit the [Midland College Catalog](#)

#### Evaluation of Students:

Grading scheme:  
Test 1: 20%  
Four 1-2 page papers: 20%  
Final exam: 20%  
Planetarium show: 20%  
Llab: 20%

Letter grades will be determined with no exceptions using the traditional grading ranges as follows:

A=90-100; B=80-89; C=70-79; D=60-69; F below 60.

#### Course Schedule:

See Attached Schedule.

## ADA Statement:

Any student who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact the instructor as soon as possible. These conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations.

## Math/Science Division Information:

Division Dean:	Dr. Margaret Wade	125 AHSF	432-685-4615
Program Chair:	Dr. Sonia Ford	110 AHSF	432-685-4525
Division Clerk:	Ms. Nicola Peat	124 AHSF	432-685-4561

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