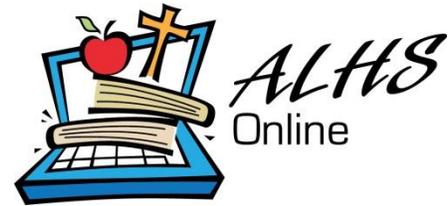


# Astronomy

## Course Syllabus 2019-20



<b>Instructor:</b>	Dan Fenske, <a href="mailto:fenskedj@mlc-wels.edu">fenskedj@mlc-wels.edu</a>
<b>Title:</b>	Astronomy
<b>Grade Level:</b>	10 - 12
<b>Course Length:</b>	1 semester
<b>Credit:</b>	0.5 credit
<b>Prerequisites:</b>	none

### Description

This course explores the wonders of the heavens above us. Students will gain an appreciation for God's majesty as revealed in His universe. Students will learn what an astronomer studies. Students will finally learn to navigate the night sky for personal enjoyment. The course lasts approximately 16 weeks.

### Prerequisites

- Desire to learn
- Ability to self-motivate
- Ability to manage time and stay organized
- A willingness to do one's best out of gratitude to Christ!

### Thoughts Regarding Learning Online

Learning online has several distinct advantages:

- You can enroll in courses not offered by your school.
- You are (usually) able to see the entire course laid out for you.
- You customize your work times to meet your schedule.
- You have flexibility to "attend" class when it works for you.
- Some students are much more likely to participate online than among a traditional class.

There are tradeoffs, however:

- Since you don't see your teacher each day, getting help and feedback is more challenging.
- Some students miss the group dynamics of the traditional classroom.
- The greater flexibility also demands the self-discipline to stay on track. Procrastination has no place in an online course!

There may be the misconception that "online" equates with "I can do the work when I want." **Not true.** You still have due dates which must be met. However, you have a time frame in which to meet the deadlines. You have the flexibility to work within that time frame.

Your willingness to take an online course indicates that you are motivated to try something new. You are motivated to continue learning in an area of interest. You understand the implications of online learning. Congratulations and God bless your efforts!

## Philosophy Statement

The Bible clearly states that God is a God of creation. Through His creation, we may know some things about Him. Through the study of astronomy, students should discover that God is a God of wisdom, majesty and greatness.

## General Objectives

The student will:

1. discover how the universe is studied
2. apply the use of an atlas to navigate the night sky
3. recognize the objects beyond Earth
4. discover the patterns and progressions in the night sky
5. trace history of astronomy
6. praise our God's power in creating the universe
7. apply Christian principles to the study of Astronomy

## Course Content

Week 1:	Scale of the Universe
Week 2:	Electromagnetic Radiation & Spectroscopy
Week 3:	The Sun
Week 4:	The Moon
Week 5:	The Planets
Week 6:	Stars and Galaxies
Week 7:	Cycles of the Sky
Week 8:	Beyond the Solar System
Week 9:	Measuring Distances
Week 10:	The Celestial Sphere
Week 11:	Measuring Time
Week 12:	Stargazing
Week 13:	History of Astronomy
Week 14:	Space Exploration & Research
Week 15:	Origins & Cosmology

## GRADING

The grading system used for this course is:

<i>Grade</i>	<i>Percentage</i>
A	94.5 - 100
A-	92.5 – 94.5
B+	89.5 – 92.5
B	86.5 – 89.5
B-	84.5 – 86.5
C+	82.5 – 84.5
C	78.5 – 82.5
C-	76.5 – 78.5
D+	74.5 – 76.5

D	71.5 – 74.5
D-	69.5 – 71.5
F	0 – 69.5

In general, a grade of I (incomplete) is not given. If there is outstanding work when the semester ends, an F will be given. An incomplete will only be given in extenuating circumstances and at the recommendation of the school's proctor or principal.

### **Late Work**

Due dates are posted in Moodle. In general, quizzes and assignments are due by the Tuesday of the next week. Exceptions include the off line labs and observation activities. Due dates are given in the assignment and on the Moodle calendar.

**Late work receives a zero.** I will not open up missed work to be completed after the due date has expired.

If there is an unusual or extenuating circumstance that requires additional time, the student should approach the school's proctor to advocate for the student.

Most grades must be completed within the scheduled week. At-home (or at-school) labs will be given 2 weeks to complete. Outdoor observations will be given 4 weeks.

The entire course will be open at the start of the semester so that students may work ahead and be proactive in completing work. Students are encouraged to check the Moodle calendar often.

### **Instructor-Provided Materials**

Mind maps and handouts posted on Moodle.

### **Student-Provided Materials**

Internet access. Star chart or atlas (optional). Note that optics such as telescopes or binoculars are not required, but may be used to enhance the observation experience. Students will need access to Stellarium, a free download which simulates the nighttime sky.

### **Outside Reading Required**

As specified by the instructor

### **Required Essays, Papers, and/or Projects**

Personal stargazing sessions will be required. Simple at-home labs will also be assigned. Students will be required to complete online quizzes, wikis, forums and other online assignments.

### **Instructor Policies**

The course is presented via Moodle, the popular open-source course management system. The week generally runs from Tuesday to Tuesday. Students will access lessons, track grades, download materials, take quizzes, respond in journals and forums and submit assignments through Moodle.

Check in on the course on a daily basis, Monday through Friday. Generally, students have been scheduled by their school to work on this course at a specific time each school day. Be faithful in using this time to work on this course.

Expectations for this course are high, but reasonable. Everyone is very busy with their other courses, activities, and responsibilities, yet you are expected to complete all work on time.

Communicate! If you have questions or concerns on a particular assignment or activity, please send me a private email or make a public posting in the Instructor's Office Forum. Good two-way communication is very important to having a successful experience!

### **ALHS Online Policies:**

Current ALHS Online policies are listed in the *Handbook for ALHS Online Students and Parents*, available on the [ALHSO.org](http://ALHSO.org) website. This includes policies on non-discrimination, anti-harassment, student expectations, attendance, academic honesty, student discipline, student grades, course add/drop, etc.

Please note the policy on **class attendance** which states in part:

***“Even if a student’s local school does not have school on a particular day (snow day, teacher’s conference, quarter break, choral fest, class trip, etc.) ALHS Online courses will continue to meet and students are expected to complete required work on time.”***

Students also fall under the policies of the school were they attend as a full-time student. When applicable, these same local school policies will be applied to enrollment in this ALHSO course.