

# Observation and Discovery: How Astronomy Shapes our Worldview



[figs.wisc.edu/2019fall55](http://figs.wisc.edu/2019fall55)

**FIG 55 • Fall 2019**

main class instructor: **James Lattis**

**9 credits**

**MAIN CLASS**

Interdisciplinary Courses (L&S) 107

## How Astronomy Shapes our Worldview

**LINKED CLASS**

History of Science 201

## The Origins of Scientific Thought

**LINKED CLASS**

Astronomy 103

## The Evolving Universe: Stars, Galaxies, and Cosmology

This FIG connects the science of modern astronomy with the history of scientific thought. We will use practical, interactive, astronomical experiences to explore how and why our modern understanding of the universe as a whole, and our place within it—our “world view”—takes its modern form. Where will you find the moon tomorrow? How do you measure the size of the Earth with a cell phone? What does a stellar spectrum really look like in the telescope? The skies of both night and day will be important parts of our classroom, and each student will emerge from the experience

with an enhanced awareness and feel for the celestial world. The planetarium and observatories on campus will be parts of our FIG. In addition to the regular class time, you will be required to participate in some out-of-class activities, both day and night, scheduled as weather permits.

You will achieve a deep understanding and appreciation of the modern science that shapes our world today by exploring the evolution of historical worldviews, and the experiences, observations, and theories on which they are founded. In the main FIG seminar, **Interdisciplinary Courses (L&S) 107: “How Astronomy Shapes our Worldview,”** you will also use hands-on, interactive astronomical observations, laboratory demonstrations, and guided activities to complement and contextualize what you are learning in the two linked classes. Together, these classes will help us understand the role observation and scientific discovery play in shaping the way we see ourselves and our place in the cosmos.

**History of Science 201: “The Origins of Scientific Thought”** — Emergence of scientific method and scientific modes of thought out of ancient philosophical and religious traditions; the impact of ancient science on medieval

Christendom; the origins and development of the Copernican-Newtonian world view.

**Astronomy 103: “The Evolving Universe”** — This class is designed to open a window for you to the cosmos, provoke your imagination, and address some fundamental and tantalizing questions: When did the Universe begin? Do black holes really exist? What makes stars shine? Do stars ever die? What is at the edge of the universe? Is there an edge? Why are the most distant objects in the universe so different from objects nearby? How do we know they are different? How do we know they are far away? An important fact is that astronomers have definitive answers to only some of these questions. However, the observable universe is a time machine—our only one—and in this class we will travel from the solar system to the event horizon, which is the edge of the observable universe. In so doing, we will venture back to the beginning of time. We will also try to understand our place in the universe, and how it is that we came to be made of star-matter, and why our galactic home is called the Milky Way. ●

[more on the other side](#)

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**FIG 55 • Fall 2019**

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00 am					
9:00 am					
10:00 am	<b>ASTRON 103</b> LEC 1 9:55–10:50 am		<b>ASTRON 103</b> LEC 1 9:55–10:50 am		<b>ASTRON 103</b> DIS 306 9:55–10:45 am
11:00 am					
12:00 pm					
1:00 pm		<b>HIST SCI 201</b> LEC 1 12:05–12:55 pm		<b>HIST SCI 201</b> LEC 1 12:05–12:55 pm	
2:00 pm					
3:00 pm		<b>INTER-LS 107</b> SEM 1 2:30–3:45 pm	<b>HIST SCI 201</b> DIS 303 2:25–3:15 pm	<b>INTER-LS 107</b> SEM 1 2:30–3:45 pm	
4:00 pm					
5:00 pm					
6:00 pm					

## Enrolled in a FIG and you change your mind?

FIG classes are designed to be taken together. When you enroll in a FIG, you are signed up for these classes as a whole group, not as separate classes.

**Dropping one FIG class means ending your enrollment in all of the classes in the FIG.**

So, here's what you should know if you want to drop the FIG:

- You can drop all the classes on your own at [enroll.wisc.edu](https://enroll.wisc.edu). Any non-FIG class will not be affected.
- After classes begin, if you need to drop a single class within the FIG, please contact Kari Fernholz (see below) to review your situation. If necessary, she will provide the required authorization to drop the class.
- Wednesday, September 11, 2019** is the last day to drop a class without it appearing on your college transcript.
- Friday, September 13, 2019** is the last day to add a class without first getting department permission.

## MAIN CLASS

Interdisciplinary Courses (L&S) 107

## How Astronomy Shapes our Worldview

SEM 1: TR 2:30–3:45

- Social Science or Natural Science
- Elementary

credits: 3

class number: **65534**

## LINKED CLASS

History of Science 201

## The Origins of Scientific Thought

LEC 1: TR 12:05–12:55 +  
DIS 303: W 2:25–3:15

- Humanities
- Elementary
- Honors Optional

credits: 3

class number: **60610**

## LINKED CLASS

Astronomy 103

## The Evolving Universe: Stars, Galaxies, and Cosmology

LEC 1: MW 9:55–10:50 +  
DIS 306: F 9:55–10:45

- Physical Science
- Elementary
- Honors Optional

credits: 3

class number: **46081**



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get help from **Kari Fernholz**, assistant director  
608-262-7375 • [kari.fernholz@wisc.edu](mailto:kari.fernholz@wisc.edu)

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