

History 387 — History of the Space Age

Spring 2026 • In Person

Course Description

This course surveys the history of the **Space Age** over the past century, focusing on:

- **Rockets and ballistic missiles**
- **Origins and challenges of space exploration**
- **Cold War competition** among the United States, the Soviet Union, and the People's Republic of China
- **Scientific, technological, political, and cultural forces** shaping the first human ventures into space

Students will examine:

- The Nazi rocket program
- The Sputnik crisis
- Astronauts and cosmonauts
- Apollo and Moon missions
- Space disasters
- Space stations
- The US Space Shuttle
- The Strategic Defense Initiative ("Star Wars")
- "New Space" entrepreneurship
- Human adaptation and "enhancement" technologies in space

This course satisfies Purdue University's **Science, Technology, and Society** core curriculum requirement.

Required Readings

Main Text

- **Michael G. Smith**, *The Spacefaring Earth: A History of the Space Age* (Routledge, 2025)

Additional Readings

Available via **Brightspace**. Examples include:

- Michael Neufeld, "Wernher von Braun, the SS, and Concentration Camp Labor," *German Studies Review* 25/1 (2002): 57–78
- Stephen Johnson, "Organizing the Manned Space Program," in *The Secret of Apollo* (2002), 115–153
- Paul Edwards, "Thinking Globally," in *A Vast Machine* (2010), 1–25

Additional articles will be listed in the weekly schedule.

Grading

Your final grade is the **average** of the **six handwritten, in-class assignments**:

- **3 in-class essays**
- **3 in-class examinations**

These assessments draw directly from class lectures, discussions, multimedia materials, and readings. To succeed:

- Attend and engage actively
 - Take careful notes
 - Read closely and critically
 - Write clearly, precisely, and persuasively
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Course Structure and Learning Goals

The course is divided into **three major parts**.

Part I: Early Spaceflight and Cultural Foundations

Students will:

- Explore how invention occurs within social and cultural systems
- Identify national contexts influencing early astronautics
- Evaluate early scientific and technological developments
- Assess costs and benefits of emerging space technologies

Class sessions integrate:

- Songs and film clips
- Art, poetry
- Propaganda and advertising
- Discussion of emerging technological aesthetics

Students develop:

- Listening skills
 - Critical reading
 - In-class writing abilities
 - Comparative analytical methods
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Part II: The Cold War in Space

Focus:

- US–USSR competition in the Space Race
- Developments in space technology for peace and war
- Human costs and moral implications of rockets (as both weapons and launch vehicles)

Students will:

- Distinguish research and development contexts
 - Evaluate dual-use technologies
 - Compare aesthetic patterns in spaceflight cultures
 - Build on skills from Part I to improve written work
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Part III: Modern Space Technologies and Human Futures

Topics include:

- Orbital technologies
- Interplanetary craft
- Space station programs (US, Russian, Chinese)
- Space Shuttle
- Commercial “New Space” ventures
- Human adaptation and transhumanism in space
- Ethical implications of cybernetics and enhancement technologies

Students will:

- Evaluate benefits and risks of space technologies
 - Identify historical patterns and departures
 - Critically assess how space technologies shape life on Earth
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Course Success Tips

To excel in this course:

- **Look, listen, and remember.**
- Take thorough notes—lecture content matters greatly for exams.
- Be attentive to **patterns, themes, and aesthetic materials** presented in class.
- Apply instructor feedback carefully to improve written assignments.