

# Terraforming Mars

## Coordinators

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## Summary

Mars and its potential habitability have intrigued humanity for centuries. Since 1965, when the Mariner 4 spacecraft found Mars to be a lifeless, barren world, our imagination has taken a new turn--that of terraforming Mars and making it habitable for humans. Students will be guided through a multidisciplinary approach to the terraforming problem: they will review scientific and science fiction literature, build a self-contained ecosystem in which plants are grown in simulated Martian soil, attend active learning sessions about Mars, and use fishbowl discussions and worldbuilding tools to visually explore possibilities of a terraformed Mars of their own design. Students will also explore the social, political, geological, and environmental impacts of a terraformed Mars.

## Proposed Schedule

Bimonthly meetings on Tuesdays from 3:30pm to 5:30pm (tentative). If Tuesdays don't work for everyone, Friday afternoons are also a possible meet-up time.

Students will also be attending polymathic workshops and events during the year.

### Fall Semester Meetings

Meeting 1: Meet and greet, introduction to the program, active learning session on how to ask questions, framing of student questions about Mars, introduction to ecosystem lab.

Meeting 2: Setup and launch of ecosystem lab, active learning session on Mars

Meeting 3: IMRAD and prepping to collect and organize data using TIER protocol

Meeting 4: "Terraform Mars" board game

Meeting 5: Discussion of reading material, wrapup of ecosystem project.

### Spring Semester Meetings

Meeting 1: Discussion of reading material, Fishbowl simulation

Meeting 2: Discussion of reading material, presentation of ecozone project reports

Meeting 4: Worldbuilding exercise

Meeting 5: Presentation of final projects



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