

Space Exploration Syllabus Spring 2025

Order of topics is subject to change.

	Topic	Details
1	What's Hidden Inside	gather information about items you cannot see using limited senses
2	Food for Space Flight	select and compare foods for spaceflight suitability and package them for spaceflight
3	Cleaning Water	create and test a water filtering system
4	Robot Arm Challenge	design and create a pepsicle arm that can grab objects at a distance
5	End Effector	build and use a model of the Canadarm effector
6	Making Regolith	make simulated regolith (moon dust) and observe its properties
7	Soda Straw Rocket Design	build, test, and modify rockets designs
8	Mars Helicopter	Create a model of the Mars helicopter, Perseverance
9	Solar Sails	Design and test a solar sail
10	Cool Suit	measure temperature in black and white "suits" to understand the relationship between energy reflection/absorption and color
11	Leg Up	simulate the fluid shift felt by astronauts upon entering space
12	Astronaut Lander	design and build a lander to safely land astronauts