NOTE: This syllabus is subject to change.

Pathway to Space ASEN 1969

Syllabus - Spring 2026

Welcome to the CU Space Show!

Welcome to *Pathway to Space ASEN 1969*, CU Boulder's first and only Space Show! Your host for the show is Barbra Sobhani: payload-launching, NASA-award-winning, out-of-this world, amazing space mastermind and artist. Each class will feature a special guest, a renowned specialist in a field of study involved with space. They will introduce you to an exciting aspect of space, its influence on our world, and will describe how you can play a role. We're excited for you to join the show!

ASEN 1969 is currently the only required course for the Space Minor. Contact the Space Minor Program Manager, Ashleigh Bailey at Ashleigh.Bailey@Colorado.edu with Space Minor related questions.

Instructor

Barbra Sobhani, pathway2space@gmail.com, Colorado Space Grant Consortium (DLC) 270

Course Assistants (CAs)

Sam Kleiner, Lauren Ward, Kayla Gill, Madi Ferraro, Jackson Gabbard, Dylan Bernier, Betsy Haworth, Kimberly Reyes, January Geisick, Sophia Ibarra

Course Goals (Info Video)

Pathway to Space will introduce you to various aspects of space and will then apply your learning to create connections with your own major field of study and interests. This will allow you to start shaping your future to further inform your career and illuminate your own pathway to space.

Throughout the course we will have fun achieving these goals:

- Describe the cosmos and your place in it
- Distinguish the diverse ways we explore space, from humans in spaceships to radio telescopes and satellites
- Recognize the ways politics, people, and policy drive what you might be able to do in space
- Talk about how space influences all aspects of your life from art to music to movies and more … and vice versa
- Identify your pathway to being involved in space exploration

Course Schedule

See the course schedule for topics, learning objectives, assignments, and all due dates and deadlines.

Class Time, Location, and Format

Tuesdays and Thursdays from 3:30 - 4:45 PM in Muenzinger E050. This course has a unique talk show format to engage students and special guests with the content through interviews, visuals, performance art, and student involvement. Each class is divided into ~10 to 15 minute segments (see graphic or the breakdown of the class structure). Please have an open mind as you contribute to and participate in this course. We welcome your constructive feedback to inform future improvements.

Prime Directives (Info Video)

As in *Star Trek*, each member of *Pathway to Space* shall abide by the Prime Directives created with the intention of supporting each student's ability to learn and engage in class. Included in the Prime Directives is a challenge to each and every student to agree to a classroom that is "distraction-free" from phones, laptops, tablets, and other devices. Any student who requires a computer or another device for an accommodation is exempt from this Prime Directive after presenting their accommodation form to Barb. A copy of the Prime Directives is in your Guidebook.

Guidebook (Info Video)

Each student enrolled in the course will receive their own *Pathway to Space* Guidebook. Use the Guidebook to record your observations and connections to the material in the classroom and outside. You will be able to refer to **your** Guidebook during the pop quizzes but not the final exam.

Required Materials - Clickers and Book

CUClickers are used each day for attendance and to assist with your learning in the classroom as well as part of your grade. **First**, you must have a physical clicker remote. If you don't have one, you must purchase one or check one out from Norlin library (west entrance). **Second**, you must create an account (free) here. **Third**, you need to link that remote to your account. Instructions can be found here. **Fourth**, you need to set the frequency for our classroom, which is BB. A video on how to do this can be found here. And finally, bring it to class each day starting no later than JAN 15th. Here is another video from OIT that might be helpful. The required textbook for *Pathway to Space is Space 2.0* by Rod Pyle. There are weekly quizzes on Canvas for this book.

Canvas

All assignments and activities for this course are available on Canvas https://canvas.colorado.edu/. Check Canvas and your **@colorado.edu email** regularly for updates and reminders about deadlines and other course information.

Expectations

"Clear is kind" is a phrase Barb believes is integral to this course. She has expectations of each student and she wants each student to understand what they can expect from her. Those expectations can be found here and a copy is in your Guidebook.

Getting Help

If you have specific questions about the class:

- **Review** the syllabus, the schedule, class assignment descriptions, and Canvas for the answers.
- **Email** pathway2space@gmail.com with "**HELP**" in the subject line so your email will get routed to the top of Barb's email inbox.
- **Visit** Barb's office hours Wednesdays 3:30 to 4:30 PM Mountain Time via Zoom at https://cuboulder.zoom.us/j/91592158089 OR stay after class to chat with Barb or a Classroom Assistant if you have a quick question or need something clarified.
- **Meet** with a CA during their office hours which will be posted mid semester on Canvas > Modules > Course Overview and Admin.
- **Schedule** an appointment with Barb via a HELP email described above if you can't make her office hours.

- **Post** to the general "Got a Question" Canvas Discussion forum with course-related questions the entire class could benefit from hearing.
- **DO NOT** wait until it is too late. Barb wishes to help all students be successful but he can only help so much depending on when the student reaches out for help.

Attendance Policy

Attendance is required and will be tracked via Clicker use. The Clicker activity will be posted in Canvas > Grades on a regular basis. Any correspondence concerning attendance shall be sent to pathway2space@gmail.com. If you have questions or concerns about the attendance policy, please come to office hours.

- **If you are sick** and are unable to attend class, send an email stating that you are sick ***before class time*** in order to be excused. Emails about sick absences received 8 or more hours after the missed class will not be accepted. *DO NOT include personal details about your illness as they are not required. Simply say, I am sick.*
- **Absences related to official CU programs** (athletics, clubs, marching band, ROTC, etc.) will be excused as long as you provide Barb a letter from that organization, including your name and class dates that will be missed, **two weeks** prior to the absence.
- **If you miss an in-class pop quiz** and your absence is excused, you may make up the quiz during office hours within one week of your return to class.
- **Due dates for other assignments** (e.g. Video Capsules, Reflection Reports, etc.) will be extended for two days for each day of class that is excused as long as the assignment was due during the absence. Please note, most assignments are not due on class days. There will be no extension of due dates for unexcused absences.
- **Other absences** (e.g. family emergency, jury duty, car accidents, etc.) will be excused on a case-by-case basis as long as we receive an email with sufficient information within 8 hours of the missed class.

After communicating your absence per guidelines above, **in order to receive full credit for any excused absence**, each student shall; **one,** complete the assignments due for that day, **two,** watch the classroom video on Canvas via Lecture Capture, **three,** send your answers to the Clicker questions for that lecture to pathway2space@gmail.com, **four**, include at least one Aha moment for the lecture, and **five**, complete all five items by the agreed upon due date, which in most cases is two days after the missed lecture.

Course Components

Attendance/Clickers

Attendance is an important component of *Pathway to Space*. Since each day features a different special guest, it is important that each student is present and fully engaged. Attendance will be taken using Clickers so be sure to follow the instructions to set up your Clicker account by following the instructions above. Clicker fraud (sharing clickers, clicking in for someone else, or otherwise cheating using a clicker) is a violation of CU Boulder's honor code.

Video Capsules (Info Video)

Pathway to Space is a flipped course, meaning that a portion of the course content is provided through videos viewed outside of the classroom. Prior to each class, be sure to review the custom video lesson from our upcoming special faculty, industry, and government guests and complete the in-video quiz for credit. Access these videos in Canvas >

Modules. We recommend you use **Chrome** to access the Video Capsules through Canvas. The average video length is 30 minutes (a few are shorter but some are longer) and you will need additional time to complete the included quiz questions. The STARS assignments are based on these Video Capsules. **TIP: Plan ahead so you can review the Video Capsules in a quiet environment that allows you to pay close attention to the content.**

Pathway Teams (Info Video)

All *Pathway* students are randomly assigned to a team of approximately 5 to 8 students each. In addition to completing the STARS assignments together, **[special assignment]** each team is required to have a meal together (picture required - one team member shall upload it to Canvas before January 31st, 2026 at 11:59 PM). View your team as a resource and support system for the class. We'd love to see your team pictures! Request permission from your teammates, then tag pictures on Instagram *@pathway2space*. Periodically we'll show student names in class to remind everyone who is on which team. Let us know via email if you prefer to use another name or gender pronoun.

STARS - Student Teams Asking Renowned Specialists

The STARS in-class activity is a time for teams to gain a deeper understanding of the day's topic from your perspective by asking questions to our special guest. See the STARS Guidelines for additional information.

Homework and Pop Quizzes (Info Video)

There are 4 homework assignments throughout the semester. The first will get you up and running in the course, walk you through important to-dos, and clarify important components of the course. You can find all the homework in Canvas > Modules.

Throughout the semester, 0 to 5 random, 10-minute pop quizzes will be done in class that will review material that has been covered to date in class. You will be able to use your notes from your guidebook on these assessments.

Event Attendance (Info Video)

Each student is required to participate in two space-related events outside of class to better enrich your connection with the material. One event must be live and in person while the other may be remote. Both can be live and in person. After attending the event, answer the Post-Event questions (Content > Modules > Events) and submit a document with your responses in Canvas > Modules > Events. If you attend two space-related events **AND** then attend the 8th Annual Moonwalk, you will receive extra credit for attending that event. See the Space Minor Google Calendar or the Space Minor Website for events that we will accept. If you would like to attend another event for credit not listed on the Space Minor Google Calendar, please send an email 4 business days before the event to pathway2space@gmail.com with a brief description of the event, time, date, and place of the event, and why you feel it should count as an event. We will evaluate your request and send you a decision on whether it will count before the event.

ePortfolio (Info Video)

Over the semester, you will create the components that will lead to a complete ePortfolio which will show "the world" your "pathway to space." The ePortfolio is your platform to envision the future role you could play in space and how you plan to get there. The ePortfolio Guidelines contain additional information, but here is a summary of the various steps you'll complete as you build out the ePortfolio by the end of the semester:

- Personalize ePortfolio template, Welcome message

- Resume, Vision Statement, Sample of Work
- Reflection Reports - NOTE only the last one is used in your final ePortfolio
- Community Service Idea, Reflection and Photo (Info Video)
- Space Minor Exploration and Planning
- Career Services Workshop(s)

TEXTBOOK

The 2019 book ***Space 2.0*** written by Rod Pyle is the Pathway to Space textbook. This 336 page book will provide additional context to the course. Each student is expected to read the book and complete the Canvas quizzes throughout the semester. Due dates of these quizzes and the associated reading assignments are found on the course schedule.

EXAMS/FINAL EXAM

There will be one exam during the semester. There is no final exam for ASEN 1969, but the ePortfolio is your final project submission.

EXTRA CREDIT

There are multiple ways to earn some extra credit in this course. The following list is accurate as JAN 5, 2026.

- Meeting with Ashleigh in person as part of Space Minor Exploration and Planning Assignment
- Engage K-12 students in your Community Service Activity
- Attending the Moonwalk if you complete two events prior
- Complete the end of semester survey

Grade Breakdown and Estimated Time Commitment

The table below shows the grade breakdown for *Pathway to Space*. It also provides an estimate on the average number of hours required in and out of class. These time estimates are just that and will vary based on the individual. Campus has an expectation of 2-3 hours of outside work each week for each credit hour of a class (a 3 credit hour course equates to ~6 to 9 hours per week or ~90 to 135 hours per semester).

Grade Breakdown and Estimated Time Commitment (hours)				
Component	***% of Grade***	***In Class***	***Outside Class***	***Total***
Attendance/Clickers	**20%**	40	0	40
Video Capsules	**22%**	0	15	15
STARS + Special Assignment	**8%**	0.5	3	3.5
Homework and Pop Quizzes	**7%**	1	4	5
Event Attendance	**5%**	0	5	5
Textbook	**5%**	0	8	8
Exam	**8%**	2.5	5	7.5
ePortfolio	**25%**	0	31	31
- Welcome + Resume	*1%*	0	1	
- Vision Statement	*1%*	0	1	
- Sample of Work	*5%*	0	6	
- Reflection Reports (3)	*4%*	0	6	
- Community Service Activity	*5%*	0	5	
- Space/Career Meeting Reactions (2)	*3%*	0	4	
- Final ePortfolio & Resume	*6%*	0	8	
Total	**100%**	**44 hrs**	**79 hrs**	**123**
Estimated per week (15 weeks)		**2.7 hrs/wk**	**4.9 hrs/wk**	**7.6 hrs/wk**

Grading Scale

Your grade will be calculated out of 100 points. Grades will regularly be posted in Canvas, but your final/cumulative grade won't be released until the end of the semester. There is no grading curve in this course.

A	93-100%	C	73-76%
A-	90-92%	C-	70-72%
B+	87-89%	D+	67-69%
B	83-86%	D	63-66%
B-	80-82%	D-	60-62%
C+	77-79%	F	0-59%

University-wide Syllabus Statements

Accommodation for Disabilities, Temporary Medical Conditions, and Medical Isolation

Pathway to Space uses a variety of technologies including Canvas, Clickers, PlayPosit, and others. To help provide the best experience possible, we recommend using Chrome when accessing course materials, completing Video Capsules, and creating your ePortfolio. We are happy to sit down with you and test out any course technologies or answer any questions. If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the Disability Services website. Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition, see Temporary Medical Conditions on the Disability Services website. If you have a required medical isolation for which you require adjustment, please follow the guidelines stated in the Attendance Policy above.

Preferred Student Names and Pronouns

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

Religious Accommodations

Campus policy requires faculty to provide reasonable accommodations for students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Please communicate the need for a religious accommodation in a timely manner. ***In this class, if you have a religious obligation, please notify me via email of your schedule conflict at least two weeks before the obligation.*** See the campus policy regarding religious observances for full details.

Classroom Behavior

Pathway to Space seeks to create a large lecture experience that is engaging and welcoming to all students from all majors. Given that this is an introductory class, it is important to remember that each student will have varying levels of knowledge related to each day's topic. Students, CAs, visiting guests and your course instructor each are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation, or political philosophy. For more information, see the classroom behavior policy, the Student Code of Conduct, and the Office of Institutional Equity and Compliance each have the responsibility to maintain an appropriate learning environment. Additionally our classroom environment is "self-governed" through our Prime Directives, which are posted in the classroom and each student is given a copy on the first day of class.

Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the Honor Code may include but are not limited to: plagiarism (including use of paper writing services or technology [such as generative AI or essay bots]), cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: honor@colorado.edu, 303-492-5550. Students found responsible for violating the Honor Code will be assigned resolution outcomes from the Student Conduct & Conflict Resolution as well as be subject to academic sanctions from the faculty member. Visit Honor Code for more information on the academic integrity policy. ***Clicker fraud (sharing clickers, clicking in for someone else, or otherwise cheating using a clicker) is a violation of CU Boulder's honor code.***

Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits protected-class discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. These behaviors harm individuals and our community. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who have been subjected to misconduct can contact OIEC at 303-492-2127 or email cureport@colorado.edu. Information about university policies, reporting options, and support resources can be found on the OIEC website.

Please know that faculty and graduate instructors must inform OIEC when they are made aware of incidents related to these policies regardless of when or where something occurred. This is to ensure that individuals impacted receive outreach from OIEC about resolution options and support resources. To learn more about reporting and support for a variety of concerns, visit the Don't Ignore It page.

Requirements for Infectious Disease

Members of the CU Boulder community and visitors to campus must follow university, department, and building health and safety requirements and all applicable campus policies and public health guidelines to reduce the risk of spreading infectious diseases. If public health conditions require, the university may also invoke related requirements for student conduct and disability accommodation that will apply to this class.

Mental Health and Wellness

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health or substance use concerns that are impacting academic or daily life, please contact Counseling and Psychiatric Services (CAPS) located in C4C or call (303) 492-2277, 24/7.

Free and unlimited telehealth is also available through Academic Live Care. The Academic Live Care site also provides information about additional wellness services on campus that are available to students.