

NOTE: This syllabus is subject to change.

# PATHWAY TO SPACE ASEN 1969: COVID-19 VERSION



SYLLABUS - SPRING 2020

## 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 Chris Koehler: rocket-launching, NASA-award-winning, out-of-this world, amazing space mastermind. 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](mailto:Ashleigh.Bailey@Colorado.edu) with minor-related questions.

## INSTRUCTOR

Chris Koehler, [pathway2space@gmail.com](mailto:pathway2space@gmail.com), [Discovery Learning Center](#) (DLC) 270A, 303-492-4750.

## COURSE ASSISTANTS (CAs)

Alvin Angeles, Tim Bauer, Sarah Bordiuk, Jessica Clarke, Olivia Epstein, Marisa Exnicious, Caleigh Hutchins, Julia Kincaid,, Max Morgan, and Tom Morgan.

## 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:

- Learn about space and the active role CU and the State of Colorado plays in the space industry.
- Listen to stories to further connect with the course material.
- Discover alternative paths that professionals have taken and see how a career path meanders over the years.
- Create new and original interpretations of concepts from class and actively seek out Aha! moments.
- Envision your pathway to space and create your own ePortfolio.
- Have fun.

## COURSE SCHEDULE

See the [course schedule](#) for topics, learning goals, assignments, and all due dates and deadlines.

## 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.

## CLASS TIME, LOCATION, AND FORMAT

Tuesdays and Thursdays from 3:30 - 4:45 PM in [Muenzinger E050](#) via [Zoom](#). All Zoom links and passwords can be found on Canvas and the [Schedule](#).

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 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 Chris. A copy of the Prime Directives is in your Guidebook.

## REQUIRED MATERIAL - CLICKER

CUClickers are used each day for attendance and to assist with your learning in the classroom. You must purchase one, [register](#) it, and bring it to class each day. The required textbook for *Pathway to Space Astrophysics for People in a Hurry* by Neil deGrasse Tyson.

## 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.

## GETTING HELP

If you have specific questions about the class:

- **Review** the syllabus, the schedule, class assignment descriptions, and Canvas for the answers.
- **Post** to the general "Got a Question" Canvas Discussion forum with course-related questions the entire class could benefit from hearing.
- **Email** [pathway2space@gmail.com](mailto:pathway2space@gmail.com) with "HELP" in the subject line so your email will get routed to the top of Chris's email inbox.



- **Visit** office hours Tuesday, Wednesday, and Thursday from 10:30 to 11:30 AM in the [Discovery Learning Center \(DLC\)](#)—270A via Zoom or call/text Chris at 303-378-4765 during this time. <https://cuboulder.zoom.us/j/863286438> Meeting ID: 863 286 438 One tap mobile +13462487799,,863286438# US (Houston) or +16699006833,,863286438# US (San Jose). Stay after class via Zoom to chat with Chris or a CA if you have a quick question or need something clarified.
- **Meet** with a CA during their office hours which are posted on Canvas > Modules > Course Overview and Admin.
- **Schedule** an appointment with Chris if you can't make his office hours.

## ATTENDANCE POLICY

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

- **If you are sick**, please stay home and 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. If you miss more than two days of class due to illness, a note from a medical provider is required for your absences to be excused. Include the medical provider's contact info in the note. Give this note to Chris or a CA on the first day you return to class.
- **Absences related to official CU programs** (athletics, clubs, marching band, ROTC, etc.) will be excused as long as you provide Chris 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 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 two days for each day of class that is excused as long as the assignment was due during the absence. 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.

## 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 register your Clicker the first week of class. **Zoom polls will now be used.**

### VIDEO CAPSULES ([INFO VIDEO](#))

*Pathway to Space* is a flipped course, meaning that 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 either Chrome or Firefox to access the Video Capsules through Canvas. The average video length is

30 minutes (a few are longer) but you will need additional time to complete the included quiz questions. The MAPs and 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.**

### COSMOS ([INFO VIDEO](#))

Neil DeGrasse-Tyson's series, *Cosmos: A Spacetime Odyssey*, will provide additional context for the topics covered in the course. Watch the assigned 10 episodes and complete the in-video quiz for credit. Access each *Cosmos* episode in Canvas > Modules. We recommend you use either Chrome or Firefox to access Cosmos.

### PATHWAY TEAMS ([INFO VIDEO](#))

All *Pathway* students are randomly assigned to a team of approximately 5 to 7 students each. In addition to completing the MAPs and STARS assignments together, [**special assignment**] each team is required to have a meal together (picture required - post on the Canvas Discussion forum by January 21, 2020). 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.

#### *MAPs - MATERIAL APPLICATION PERFORMANCES*

The MAPs in-class activity is a time for your team to provide an original interpretation or elaboration of something of interest from the Video Capsule assigned for that day. See the [MAPs Guidelines](#) for additional information.

#### *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 to 5 structured homeworks 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, 5 to 9 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 *Pathway to Space 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. After attending the event, answer the Post-Event questions (Content > Modules > Events) and submit a document with your responses in Canvas > Modules > Events.

Due to COVID-19, events can be pretty much anything. Watching several TED talks related to space. Attending virtual events being put on by NASA or other space organizations, watching Season 2 of Cosmos, etc. Just pick two space-related events to "attend" that are at least 1 hour each. If you attend two space-related events and then attend

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the 3rd Annual Moonwalk, you will receive extra credit for attending the Moonwalk. See the [Space Minor Google Calendar](#) 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](mailto: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 (3) - NOTE these are not used in your final ePortfolio
- Community Service Idea, Reflection and Photo ([Info Video](#))
- Space Minor Program Manager Meeting and Reaction
- Career Counselor Meeting and Reaction

### TEXTBOOK

The 2017 book *Astrophysics for People in a Hurry* written by Neil deGrasse Tyson is the Pathway to Space textbook. This 244 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.

### FINAL EXAM

There is a final exam for ASEN 1969, which is the only exam in the course. The final is multiple choice and includes content covered in class, the Video Capsules, homework, pop quizzes, and the Cosmos assignments. The final exam will take place Monday, May 4, 2020 from 1:30 - 4:00 PM in Muenzinger E050 remotely but details are still being worked out.



## 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 (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
Attendance/Clickers	20%	37.5	0
Video Capsules	20%	0	15
Cosmos	8%	0	8
STARS and MAPs	8%	0.5	6
Homework and Pop Quizzes	5%	1	4
Event Attendance	4%	0	5
Textbook	5%	0	8
Final Exam	5%	2.5	5
ePortfolio	25%	0	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
<b>Total</b>	<b>100%</b>	<b>43.5 hrs</b>	<b>82 hrs</b>
<b>Estimated per week (15 weeks)</b>		<b>2.9 hrs/wk</b>	<b>5.5 hrs/wk</b>

## 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

*Pathway to Space* uses a variety of technologies including Canvas, Clickers, PlayPosit, and Digication. To help provide the best experience possible, we recommend using Chrome or Firefox when accessing course materials, completing Video Capsules or Cosmos videos, 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 Chris in a timely manner (preferably the first week of classes) 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 or injury, see [Temporary Medical Conditions](#) under the Students tab on the Disability Services website.

### 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 OBSERVANCES

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. ***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 have the responsibility to maintain an appropriate learning environment. This environment is "self-governed" through the course Prime Directives, which are posted in the classroom and each student is given a copy on the first day of class.

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail 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. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. For more information, see the policies on [classroom behavior](#) and the [Student Code of Conduct](#).

## SEXUAL MISCONDUCT, DISCRIMINATION, HARASSMENT AND/OR RELATED RETALIATION

The University of Colorado Boulder (CU Boulder) is committed to fostering a positive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct, intimate partner abuse (including dating or domestic violence), stalking, or protected-class discrimination or harassment by members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or [cureport@colorado.edu](mailto:cureport@colorado.edu). Information about the OIEC, university policies [anonymous reporting](#), and the campus resources can be found on the [OIEC website](#).

Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.

## 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 policy may include: plagiarism, 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 the Honor Code ([honor@colorado.edu](mailto:honor@colorado.edu)); 303-492-5550). Students who are found responsible for violating the academic integrity policy will be subject to non academic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found at the [Honor Code Office website](#).