

ASTR/PHYS Professional Development

Careers in Education and Outreach

Join a panel of alums and other experts
working in these fields, learning about
career options and on-campus
opportunities

Wednesday February 28, 2024

5:00-6:00pm

DUANE G130

FREE PIZZA!

Careers in Education & Outreach
28 February 2024, 5-6pm

Opening remarks: Nick Schneider & John Keller

Panelists

- Jackson Avery, APS alum & CU Teach Grad Student (*MA+ Science Licensure*)
- Ryan O'Block, PHYS alum and Boulder HS science teacher

APS/PHYS Professional Development

Nick.Schneider@lasp.colorado.edu, Michael.Dubson@colorado.edu

Astrophysical & Planetary Sciences

COLLEGE OF ARTS AND SCIENCES



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Professional Development

APS/PHYS Professional Development is a resource for undergrads in fields related to physics and astronomy at CU Boulder. This website includes resources and information designed to help undergraduates in APS/Physics develop successful longterm careers. This website is designed to offer resources and advice that will help you succeed in your career after graduating CU Boulder. Navigate with the following main sections:

Events for Academic Year 2023-2024

9 October, Grad school: [recording](#), [slides](#), [flyer](#)

30 October, Getting involved in Physics research: [recording](#), [flyer](#)

13 November, Careers in Heliophysics: [recording](#), [slides](#), [flyer](#)

5 December, Undergraduate Research Opportunities Symposium [recording](#), [slides](#), [flyer](#)

7 February, Careers in Telescopes, Optics and Observatories: [recording](#), [slides](#)

Note: All recordings can also be found [here](#)



Upcoming ASTR/PHYS Professional Development Events

All in G130, 5-6pm, Wednesdays – with pizza!

- 28 Feb: Careers in Education and Outreach *with John Keller*
- 13 March: Careers in Industry & Aerospace
- 3 April: Careers in Startups
- 17 April: Applying for Jobs

ASTR/PHYS students: read your weekly emails!

Everyone: check our departmental websites:

<https://www.colorado.edu/aps>

<https://www.colorado.edu/physics>



APS/PHYS Graduates - where are they now?

(Education & Outreach positions)

- Public/Private School Teaching: Denver Public Schools, Boulder Valley public schools, many others
- Planetariums: Fiske Planetarium, SkyScan Corporation, Salt Lake City Planetarium
- Education & Public Outreach: Jet Propulsion Lab, LASP
- Informal Education: Wow Children's Museum, AstroTours

Jackson Avery (he/him)



Robert Noyce
Teacher Scholarships/Stipends Program

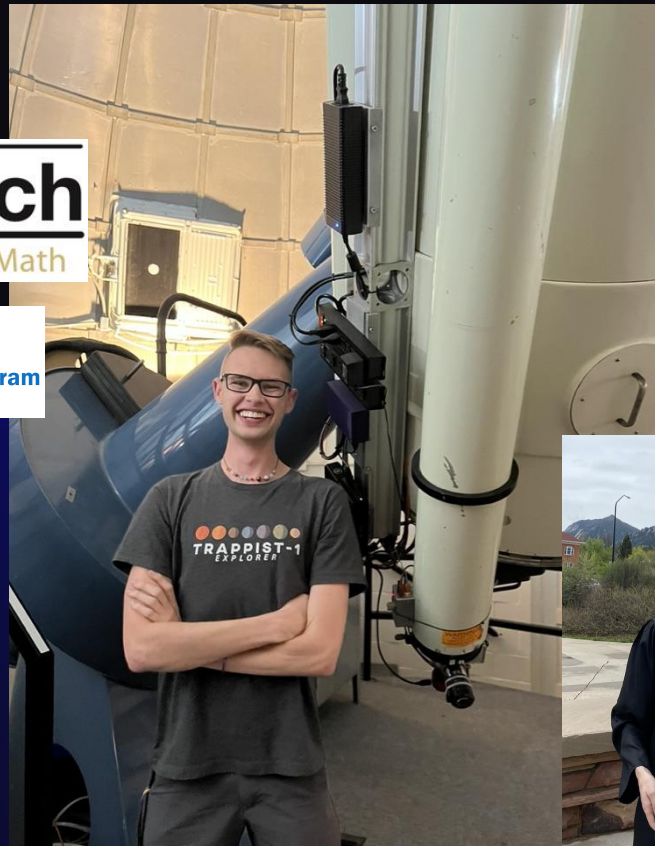
2023-present

- ❖ **MA: Education in Curriculum and Instruction**
 - Colorado Teaching License with Science Endorsement
 - Noyce Scholar

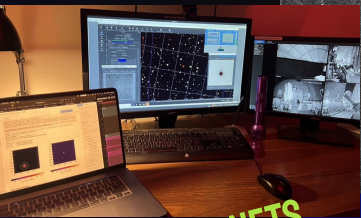
2018-2023

- ❖ **BA: Astronomy (Astrophysics & Planetary Sciences)**
 - Minors in Education and Space
 - STEM Education Certificate

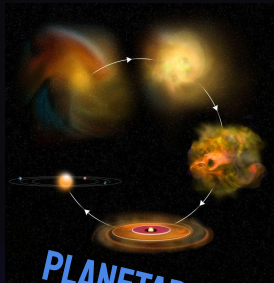
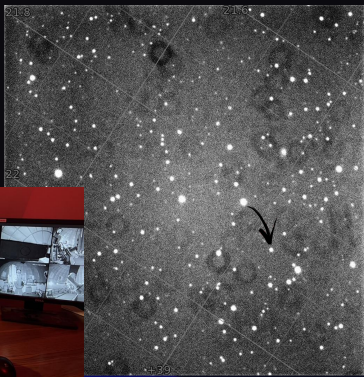
jaav8878@colorado.edu



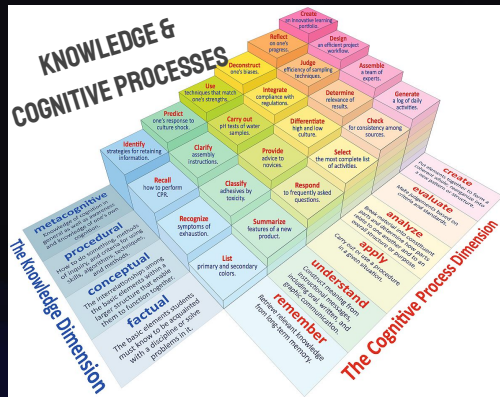
Who am I in Astronomy & Science Education?



EXOPLANETS



PLANETARY
FORMATION



STUDENT TEACHER



APS LA & TA

SCIENCE
IDENTITY

Congrats LA Grads!



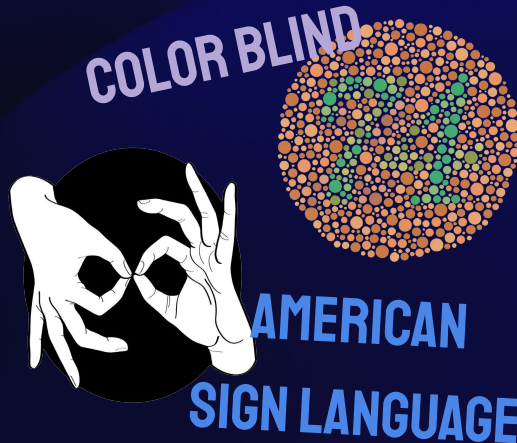
CURRICULUM
DEVELOPER



Who am I Outside of the Classroom?

BOARD GAMES

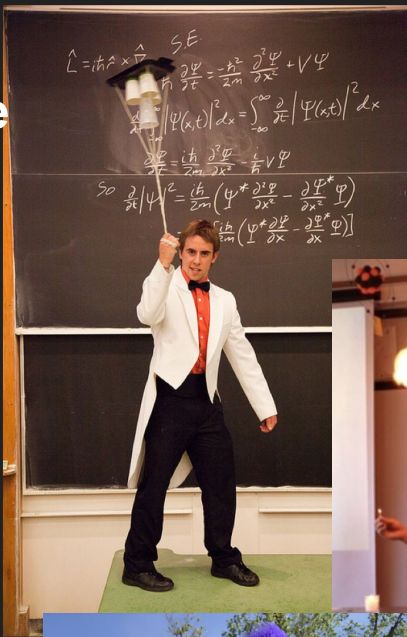
167 & COUNTING!



Ryan O'Block - Ryan.OBlock@BVSD.org

- L.A. Program, CUTeach, and Noyce Alumni
- P.I.S.E.C. Instructor (3 years)
- Graduated from CU with B.A. in Physics and M.A. in Curriculum and Instruction
- Science Teacher at Overland H.S. (1yr) Boulder H.S. (11 yrs)
- Instructor at Dawson Summer Initiative (11 years)
- Courses taught:

Physics (AP, Honors, and grade-level), 9th grade physical science (Honors and grade-level), Science Research Seminar, Earth Science, Robotics, BVSD 360 leadership.





Outside of the Classroom





<http://colorado.edu/cuteach>

Dr. Ian Her Many Horses

Dr. Will Lindsay

Jackson Avery

Did you know

- There are scholarships and student loan forgiveness programs for math and science teachers?
- Most teaching jobs have better retirement and vacation benefits than private industry?
- You can get a job almost anywhere in the U.S. or abroad as a science or math teacher?
- Mid-career teacher salaries typically range between \$60,000 and \$130,000?
- ***Teachers rate their lives better than all other occupation groups, trailing only physicians?***

What does the licensure process look like?

Undergraduate Licensure

PREREQUISITES: 26 credits of college coursework, 2.75 GPA, Designing STEM Learning Environments and Experiences

PATHWAY: Complete STEM degree, 25 credits of education coursework, semester of student teaching

Master's + Licensure (MA+)

PREREQUISITES: Bachelor's degree, 3.00 GPA, 25 hours of working with youth

PATHWAY: 11-month program starting in the summer



If you enjoy STEM, want to teach and empower youth, and would like \$37,000 in scholarship funding, ***become a CU Teach Noyce Scholar!***

Financial Support - \$18,500 each during junior and senior years

Make a Difference - Become a STEM teacher for equity & justice

Job Opportunities - 100% of CU Teach graduates have found a job

Preference is given to recruiting students interested in returning to their local communities.

(visit the CU Teach website for more information about applications)

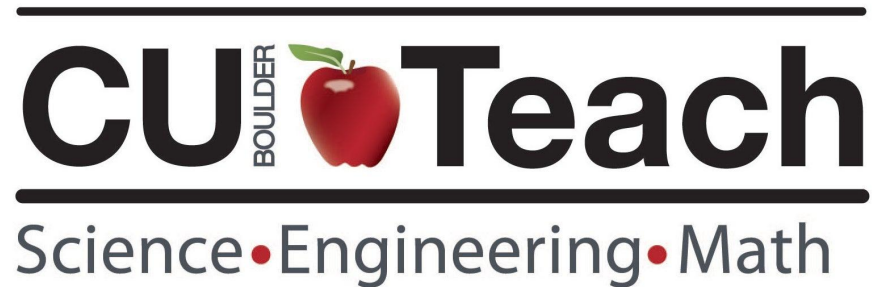
Learn More!



colorado.edu/cuteach

STEM Education Certificate ([here](#))

Course Title	Course Number	Credits
Designing STEM Learning Environments and Experiences	EDUC 2035	3
Knowing and Learning in Mathematics and Science	EDUC 4050	3
<i>(any two below, additional courses will be added as necessary)</i>		
Teaching and Learning Biology	EDUC 4811/6811 MCDB 4811/5811	3
Teaching and Learning Chemistry	EDUC 4822	3
Teaching and Learning Earth Systems	EDUC 4833	3
Teaching and Learning Physics	EDUC/PHYS 4460/5460	3
Teaching Design	GEEN 4400	3
Teaching K-12 Mathematics: Number Sense	EDUC 4815/5815	3
Teaching K-12 Mathematics: Algebraic Reasoning	EDUC 4821/5820	3
Teaching K-12 Mathematics: Geometry and Measurement	EDUC 5831	3
Teaching K-12 Mathematics: Probability and Statistics	EDUC 4850/5840	3
Teaching & Learning Math: Topics in Calculus, Trig & Analysis	EDUC 4xxx	3
Perspectives on Mathematics	EDUC 4317/5317	3
Assessment in STEM Education	EDUC 4706/5706	3
Total		12 credits



In addition to the required courses listed above, students must also complete a total of 15-hours volunteering with youth in select STEM education/outreach organizations.

(Sites include CU Science Discovery, **CU Fiske Planetarium**, WOW! Children's Museum, Destination Imagination, Butterfly Pavilion, Thorne Nature Experience, Rocky Mountain Arsenal National Wildlife Refuge - Environmental Education Assistant or Leader, and Science Fair judging.)

How can you learn more?

Take EDUC 2035: Designing STEM Learning Environments and Experiences

This is a 3-credit introductory course. It embeds university students into a middle school classroom, where they design and teach science, engineering, or math lessons.

Fill out our contact form on colorado.edu/cuteach

Browse the CU Teach website

Reach out to Will, Ian, or Sam Long (advisor)

william.lindsay@colorado.edu

ian.hermanyhorses@colorado.edu

Samantha.Long-1@colorado.edu



Questions?

“There were so many things that I enjoyed about this class. However, it always boils down to the students. I love working with kids. Their excitement and passion for life and learning are inspiring. It is a friendly reminder to all of us of how we should approach our work and how we live our own lives. It is very rewarding to see the students grow through the semester and develop meaningful relationships with them.”

- Former CU Teach student

Dr. Ian Her Many Horses, ian.hermanyhorses@colorado.edu

Dr. Will Lindsay, william.lindsay@colorado.edu

Jackson Avery, jaav8878@colorado.edu

colorado.edu/cuteach ← Great list of resources, application information, and contacts!



Learning Assistant (LA) Program

<https://www.learningassistantalliance.org/>



As an undergraduate LA, you'll grow through interactions with faculty in weekly preparation meetings, the 2-credit course "Becoming a Learning Assistant," and working with your students.



Undergrads, join our community!

Apply to be a Learning Assistant (LA) in Fall 2024

Get paid to collaborate with faculty to support in-class student learning and success!

Engage in training and support to help you do this important, fun, and challenging work!

Applications open:

March 15, 2024

Priority application deadline:

April 3, 2024
for full consideration

Hiring Departments:

APPM
ASEN
ASTR
BCHM
CHEM
COMM

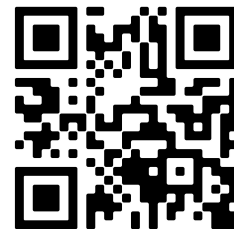
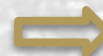
CSCI
ENGL
ENVS
GRMN
HIST
INFO

MATH
MCDB
NRSC
PHYS
PSYC
RUSS
WRTG



**Some appointments in Continuing Education Online Learning*

Scan me to learn more!



Learning Assistant Program
UNIVERSITY OF COLORADO **BOULDER**

<https://www.colorado.edu/program/learningassistant/>