

# MATTHEW RHODE

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Aerospace Engineering Sciences Building  
3775 Discovery Dr. Room 155A  
Boulder, CO 80303

## ACADEMIC APPOINTMENTS

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*University of Colorado at Boulder, Ann & H.J Smead Aerospace Engineering Sciences:*

<b>Instructional Laboratory and Fabrication Coordinator</b>	2019-Present
<b>Facilities &amp; Education Support Manager</b>	2017-2019
<b>Laboratory Coordinator III: Facilities Coordinator</b>	2006-2017
<b>Laboratory Coordinator II: Facilities Coordinator</b>	2005-2006
<b>Machining Trades III: Machine Shop Manager</b>	2001-2005

*Jefferson County Public Schools:*

<b>High School Mathematics Teacher</b>	1997-2000
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## HONORS AND AWARDS

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<b>Pebbles Innovator-in-Education Award Nomination</b>	2022
College of Engineering, University of Colorado at Boulder	
<b>College of Engineering, Service Award, 20 years</b>	2021
<b>College of Engineering, Service Award, 15 years</b>	2016
<b>College of Engineering, Employee of the Month</b>	2016, 2019
<b>University of Colorado at Boulder, Chancellor's Employee of the Year</b>	2009

## EDUCATION

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<b>BA</b>	University of Colorado at Boulder, Mathematics K-12 Teaching Certification	May 1997
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## TEACHING EXPERIENCE

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### Courses Taught

*University of Colorado at Boulder* *March 2001-Present*

- **ASEN 4018/4028 Senior Projects** (>200 students, 36 advised)
  - PAB Member, Mechanical Design, Manufacturing, Hazardous Testing **Mar 2001 – Present**
  - Faculty Advisor **AY 2019/20, 2020/21, 2021/22, 2022/23**
- **ASEN 1400: Gateway to Space** (75 students)
  - Instructor of record **Spring 2020,2021,2022**
- **ASEN 1403: Introduction to Rocket Engineering** (75 students)
  - Instructor of record **Fall 2020, 2021, 2022**
- **ASEN 2519: CAD/CAM Basics** (30 students)
  - Instructor of record **Maymester 2014, 2015**

### Curriculum Developed

- **Machine/Wood/Composites Online Skills Workshop Course** **Summer 2022**
  - PI, Co-created with Nate Coyle
- **ASEN 1400: Gateway to Space**
  - Redesigned for remote learning (Covid-19 response) **Spring 2020**
  - Added predictive modelling through individual project **Spring 2021**

- Added stratospheric model Spring 2022
- **ASEN 1403: Introduction to Rocket Engineering**
  - Created entire curriculum Spring/Summer 2020
- **ASEN 4018/4028 Senior Projects**
  - Complete overhaul, assistant to Dr.'s Argrow & Peterson AY 2002/03
- **ASEN 2519: CAD/CAM Basics**
  - PI, co-created with Bobby Hodgkinson Spring 2014

## RESEARCH SUPPORT

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Hardware support including consultation on mechanical design & manufacturing, generation of CAD models, manufacture of hardware, integration and testing support for the following research groups:

Aerospace Mechanics Research Center (AMReC)  
 BioServe Space Technologies (BioServe)  
 Colorado Center for Astroynamics Research (CCAR)  
 Research and Engineering Center for Unmanned Vehicles (RECUV)  
 Integrated Remote & In-situ Sensing (IRISS)

## PATENTS

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“Hybrid Transmission Using Planetary Gearset for Multiple Sources of Torque for Aeronautical Vehicles”, 2012, Unites States Patent, No. US 20120149516 A1

## PROFESSIONAL LICENSES/CERTIFICATIONS

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**State of Colorado, Professional Teacher’s License**  
 Mathematics, grades 7-12 Expires 7/10/2025

**University of Colorado Certified UAS (drone) Pilot**  
 FAA COA 2021-WSA-9632-COA

**FCC Amateur Radio Technician License: KE0ZJV** Expires 2/18/30

**Lab Safety and Hazardous Waste Generator Training (CU EH&S)** renewed Feb, 2023

## PROFESSIONAL SERVICE

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**Design Curriculum Committee, member** 2022/2023

**Department Liaison, Aerospace Engineering Sciences Building Project** 2017-2019

**Projects Advisory Board** 2001-Present

## ACADEMIC OUTREACH

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**Littleton Public Schools**  
 Aerospace Engineering Curriculum Consultant, EPIC Innovation Center Design & Construction Summer 2022-Present

**Weld County R-1 Public Schools**  
 Rocket Model/Build/Fly, Windsor High School Fall 2022/Fall 2023

## LANGUAGES

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**English:** Native Language  
**Spanish:** Intermediate Listener, Novice Speaker/writer

## OTHER

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Advance Open-Water Diver, PADI Feb. 2023

Open-Water Diver, PADI 2019

Golden-Key National Honor Society Member 1992