

From: [Allison Caster](#)
To: [Faculty Senate](#)
Cc: [Toni Lefton](#); [Kristine Callan](#); [Terry Bridgman](#)
Subject: Signature Student Experience, Expression of Interest: Discovery @ Mines
Date: Monday, November 2, 2020 3:32:12 PM
Attachments: [Caster_Discovery_Expression of Interest.pdf](#)

To Whom it May Concern;

Please find below (and attached) our Expression of Interest to submit a full proposal for the Mines Signature Student Experience Faculty Senate Funding 2020/21 for our program "Discovery @Mines".

Thank you for this opportunity! We look forward to sharing our detailed vision and plan with you.

Sincerely,
Allison G. Caster, PhD
Teaching Associate Professor

COLORADOSCHOOLOFMINES
Department of Chemistry
Coolbaugh Hall, Room 114-C

Discovery @ Mines: A Signature Honors Experience

A University Honors & Scholars Program in collaboration with the Departments of Chemistry, Physics, and Applied Math & Statistics.

Mines freshmen arrive ready to join a community of discoverers, excited to channel their passions toward shaping the future. Yet they spend the majority of their time on physics, calculus, and chemistry "silo" courses separated in time, space, and instructional style, only marginally personalized. We envision an inspiring, unique, and useful journey of scientific discovery, starting with that first step into the Mines classroom. A deeply interdisciplinary core experience will combine systems-thinking, problem-based learning, and hands-on application of essential calculus, chemistry, and physics principles in an environment that fosters a growth mindset, autonomy, leadership, and communication. An opportunity to master and apply these interrelated tool-sets on projects builds upon students' current expertise and can ignite new passions. Piloted as a 1-year Honors course, this ambitious undertaking will combine best-practices that satisfy the current first-year calculus, physics, and chemistry requirements, with a robust model for feedback and assessment of learning outcomes.

Allison Caster, Teaching Associate Professor of Chemistry
Kristine Callan, Teaching Professor of Physics
Terry Bridgeman, Teaching Professor of Mathematics
Toni Lefton, Executive Director of University Honors and Scholars Programs

Discovery @ Mines: A Signature Honors Experience

*A University Honors & Scholars Program
in collaboration with the Departments of Chemistry, Physics, and Applied Math & Statistics*

Mines freshmen arrive ready to join a community of discoverers, excited to channel their passions toward shaping the future. Yet they spend the majority of their time on physics, calculus, and chemistry “silo” courses separated in time, space, and instructional style, only marginally personalized. We envision an inspiring, unique, and useful journey of scientific discovery, starting with that first step into the Mines classroom. A deeply interdisciplinary core experience will combine systems-thinking, problem-based learning, and hands-on application of essential calculus, chemistry, and physics principles in an environment that fosters a growth mindset, autonomy, leadership, and communication. An opportunity to master and apply these interrelated tool-sets on projects builds upon students’ current expertise and can ignite new passions. Piloted as a 1-year Honors course, this ambitious undertaking will combine best-practices that satisfy the current first-year calculus, physics, and chemistry requirements, with a robust model for feedback and assessment of learning outcomes.

Allison Caster, Teaching Associate Professor of Chemistry
Kristine Callan, Teaching Professor of Physics
Terry Bridgeman, Teaching Professor of Mathematics
Toni Lefton, Executive Director of University Honors and Scholars Programs