



FIRST2 NETWORK



West Virginia University Institutional Team



The First2 Network is supported by the U.S. National Science Foundation under Award Number:
HRD-1834595, High Rocks Educational Corporation.

CHANGE IDEA #1

STEM Movie Night

TRACKER STATUS: Plan/Do Coached

STEM Movies (Radioactive, Gattaca, and Documentary) offered at 6 pm on Wed Oct 29.

Despite the advertisement push, only ~10 students and 1 faculty member attended.

Chemistry chair is very enthusiastic about this event. To improve, work with STEM instructors, Foundational STEM Collaborative, and with Women & Gender Studies.

"It helped spark curiosity, on how everything we learn is for a reason and can spark change for the future."



"I think it made me appreciate the grind to get to the top level more."

CHANGE IDEA #2

First Gen Student Mentoring

TRACKER STATUS: Uncoached



Funded by the First Gen Student Success grant.

8 successful first gen students (First Gen Student Ambassadors) each mentor three 1st & 2nd year first gen students (24 students total) in Fall 2025.

Mentoring? Individual and group lunch meetings, templated emails, journaling.

“One mentee shared the difficulty with balancing pressure from parents and peers to pursue different careers.”

“I’ve been trying to serve as a sounding board while providing further resources (like student services, Carruth, and office hours).”

“Making a fund for club dues.”

“More financial aid for first-generation students and resources catered to their unique experience.”

“Educating parents on importance of autonomy for young adults (esp first gen students).”

CHANGE IDEA #3

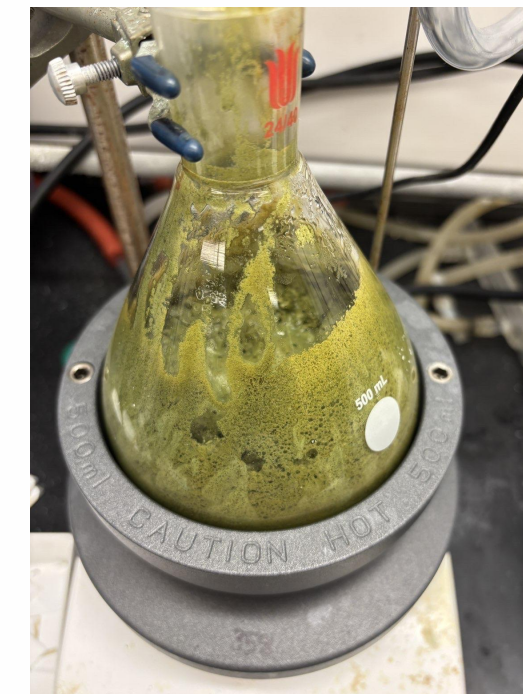
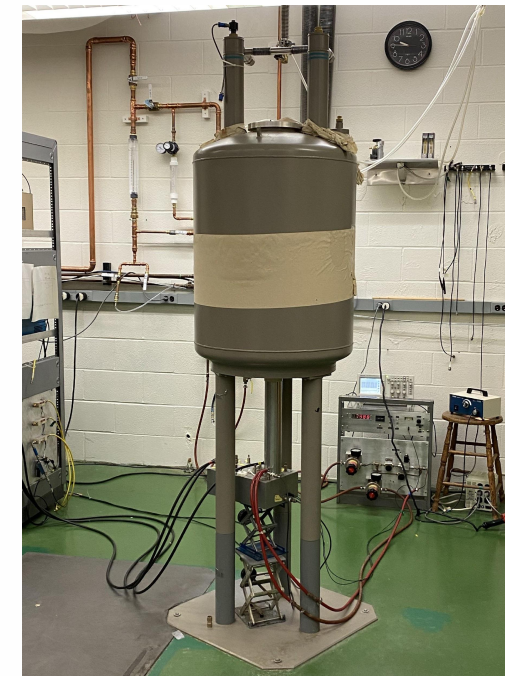
High School Outreach

TRACKER STATUS: Plan/Do Coached

Funded First2 students, along with peers, visit WV high schools to discuss “*How to Succeed in College: Using Resources and Making Connections*” and majoring in STEM.

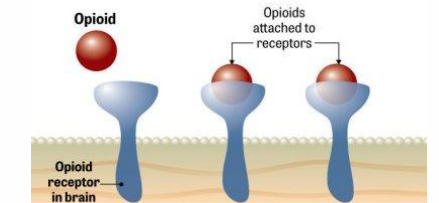
Visited? Pocahontas and Morgantown High Schools.

Upcoming Visits? At least four other WV high schools.

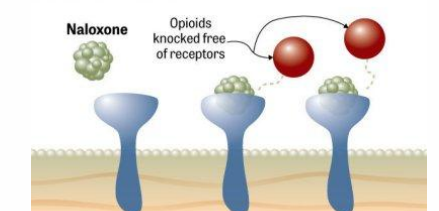


OPIOID OVERDOSE

The brain has many receptors for opioids. An overdose occurs when too much of an opioid (heroin, OxyContin, Percocet) fits in too many receptors, stopping the person's breathing.



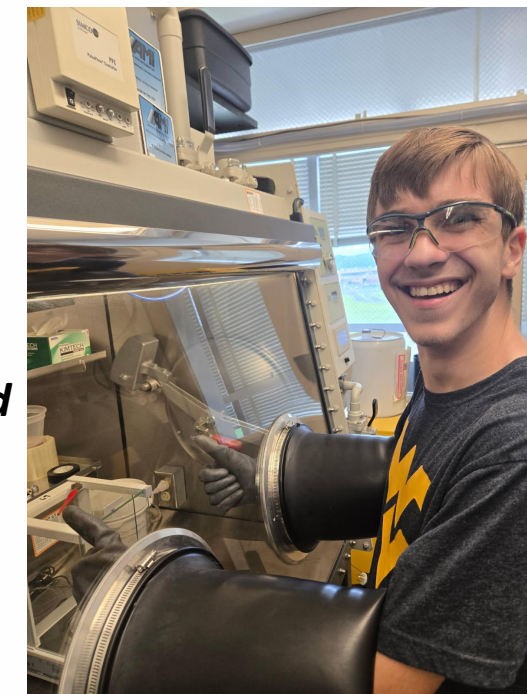
Naloxone has a stronger affinity to the opioid receptors than opioid drugs, so it knocks the opioids off the receptors for a short time. This allows the person to breathe again and reverses the overdose.



Source: harmreduction.org (MLive.com)

What did students learn?

- **Free STEM Grad School**
- **Choosing STEM major**
- **Balancing school and life**



CHANGE IDEA #4

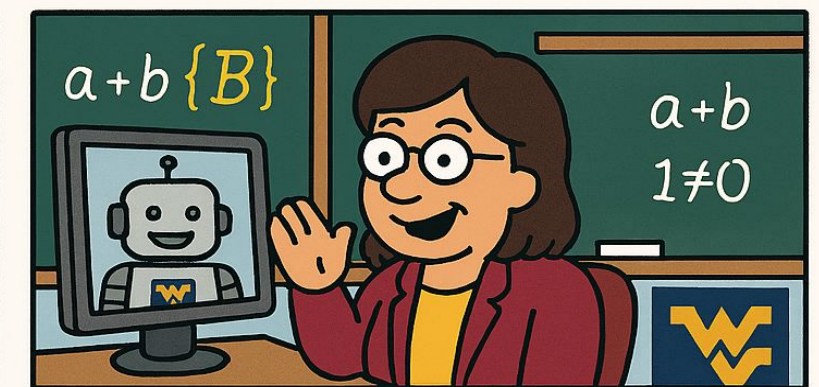
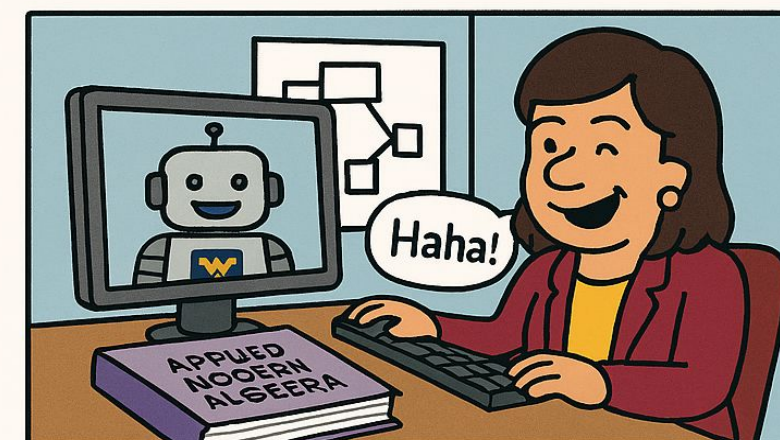
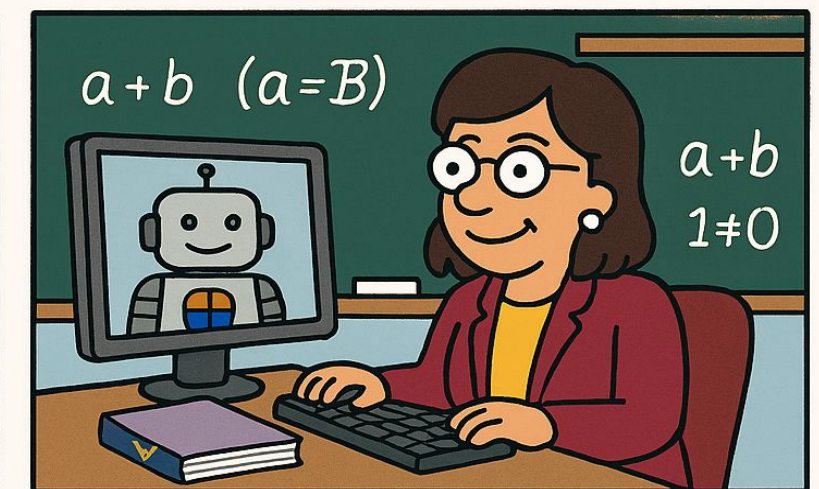
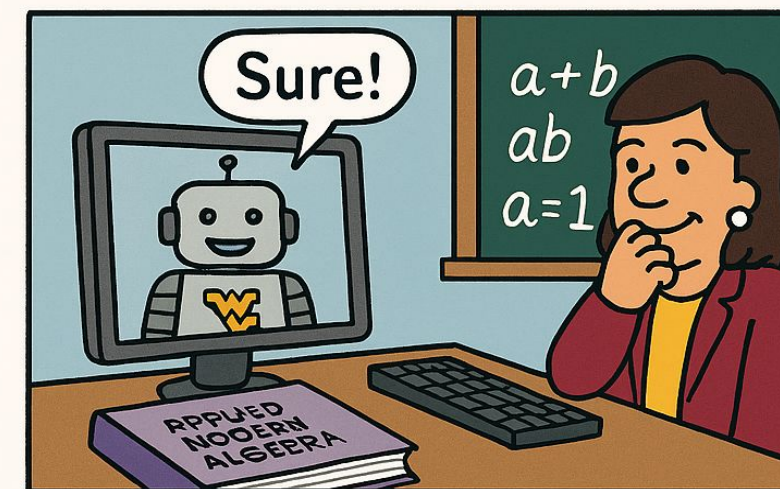
Redesign of Course Using AI

TRACKER STATUS: Plan/Do Coached

Improve STEM course relevance for the MATH 375: Applied Modern Algebra course taken by engineering majors.

In several iterations, entered catalog course description and objectives into Gen AI (perplexity.ai), along with audience, and asked for design of 15-week course to cover relevant topics. Text materials chosen and schedule aligned with text. Finally, used AI to find real-world applications specific to Quantum Computing and later applications relevant to students' majors for each chapter.

Retrospective post-survey will be used to assess student perceived usefulness of course material, motivation, interest, and applied applications. Final exam is to write a paper on how Abstract Algebra is used in the major.



 West Virginia University

Redesigning an Applied Modern Algebra course using generative AI

Per Margie Darrah: *"Mid-term reflections gave excellent feedback on the class and the approach!"*



CHANGE IDEAS: OTHER

- **Quantum Technology Club (Russell Dillon)**
- **Tracking Student Participation in Chemistry Tutoring (Tyler Seifert)**
- **FirstGen Mountaineers Student Club (Sarah Warder)**
- **Biweekly Opportunity Emails (Sarah Warder)**
- **STEM Student Panel (Sydney Kudlak & Doreen Winters)**
- **Exemplary Research Mentors: Student Voices (Ella Moats)**

Contact Us!

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Special thanks to our Funded First2 Students!

Sydney Kudlak

Ella Moats

Doreen Winters

Tyler Seifert

Sarah Warder

Russell Dillon