

WIN a book scholarship*. GAIN experience. BUILD your skill set. ENHANCE your resume.

How to Get Into a Research Lab

As an Undergrad

Thursday, January 28, 2021
3 - 4 PM



via Zoom
(<https://unm.zoom.us/j/92060037798>)



RSVP is preferred, but not required.
ess.unm.edu/events > February

or through our app - succESS



Welcome!

I encourage you to complete this sentence in the chat:

Today I want to get _____ out of this event, and right now I'm feeling _____.

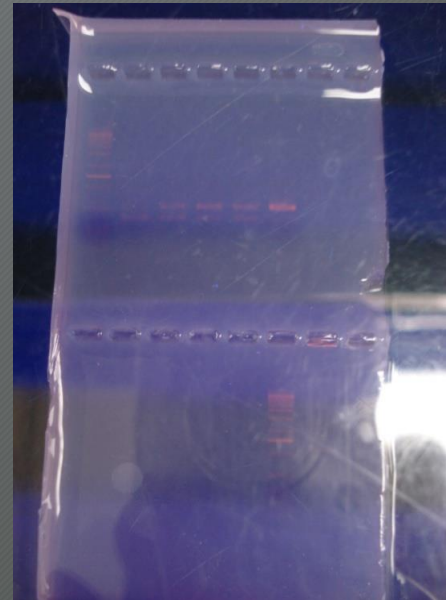
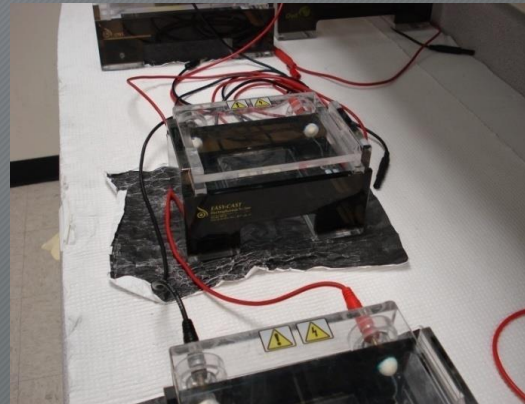
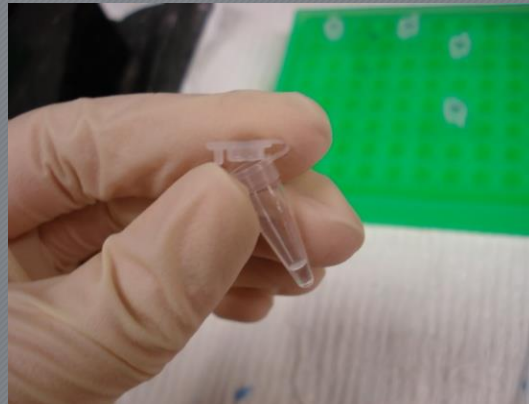
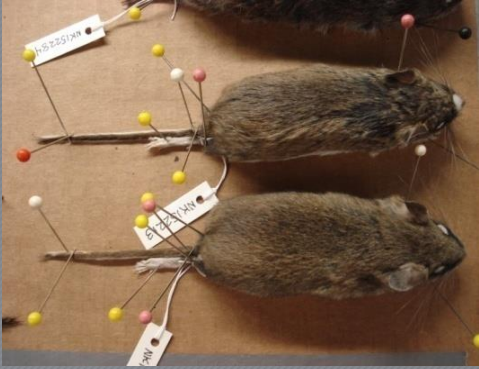
Who am I?

Yadéeh Sawyer, Ph. D.



UNIVERSITY
OF MIAMI





Ecology and Evolution

Open Access

Phylogeographic structure in long-tailed voles (Rodentia: Arvicolinae) belies the complex Pleistocene history of isolation, divergence, and recolonization of Northwest North America's fauna

Yadéeh E. Sawyer & Joseph A. Cook


Department of Biology and Museum of Southwestern Biology, University of New Mexico, MSC03 2020, Albuquerque, New Mexico 87131-0001



Journal of Biogeography (J. Biogeogr.) (2017)



Diversification of deermice (Rodentia: genus *Peromyscus*) at their north-western range limit: genetic consequences of refugial and island isolation

Yadéeh E. Sawyer^{1*} , Melanie J. Flamme², Thomas S. Jung³, Stephen O. MacDonald¹ and Joseph A. Cook¹



ORIGINAL RESEARCH

WILEY Ecology and Evolution 

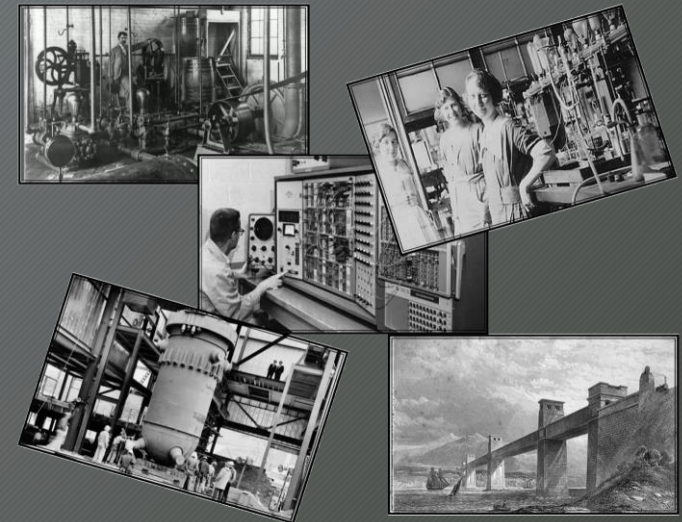
Living on the edge: Exploring the role of coastal refugia in the Alexander Archipelago of Alaska

Yadéeh E. Sawyer¹  | Stephen O. MacDonald¹ | Enrique P. Lessa²  | Joseph A. Cook¹ 

Who am I?



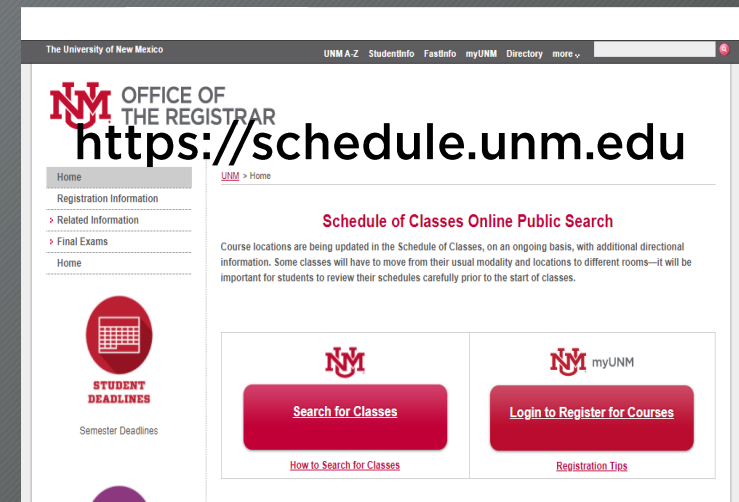
- Location
- Subject area
- What YOU bring to the table



Field of Interest



- Homework
 - Subject or department
 - Who is working on what?
 - Connection to your interest
 - Publications
 - How are the lab dynamics?
 - Expand your search
 - Web search
 - UNM Schedule
 - Have conversations. Use your network!
 - Go to professors office hours



Found a Potential Research Lab/Mentor?

- Request a meeting
- Be patient
- Follow through



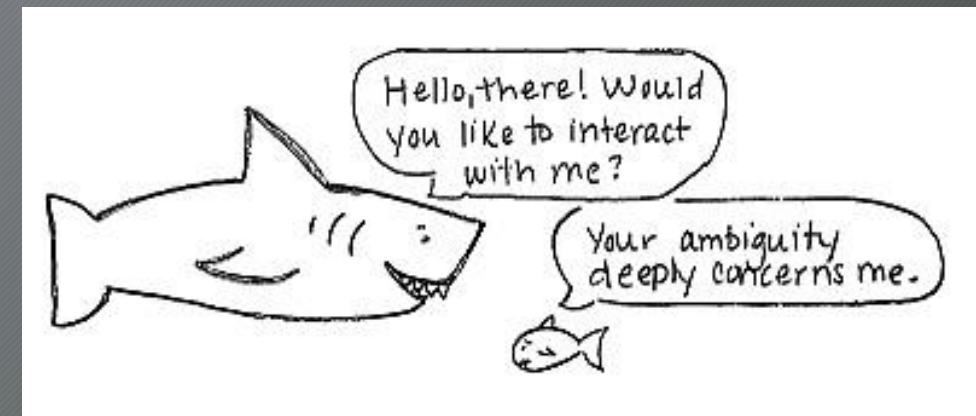
Request a Meeting



Professional Email Writing



- Tailor your email. Make it personal and specific.
- Meaningful subject line
- Appropriate greeting
- Introduce yourself
- Brief reason for the email
- Next steps
- Give them an “out” while being productive
- Thank you
- Professional signature
- **PROOF READ**



In Solidarity,
Yadéeh E. Sawyer, Ph.D. (she/her/hers)

Retention Program Specialist
Green Zone and Dream Zone Certified
Engineering Student Success Center
University of New Mexico
yadeeh@unm.edu
505.277.9151

Prepare for Your Meeting



- Know their work
- How does this relate to your interest?
- What are your needs?
- Have notes ready



Live Meeting



- Be flexible and adaptable
- Pay attention to the time
- 1st live impression
- It's ok to be nervous!
- Start on the right foot
- Elevator pitch
- Questions and conversation
- Mentoring style
- Next Steps/Close out



Follow Up

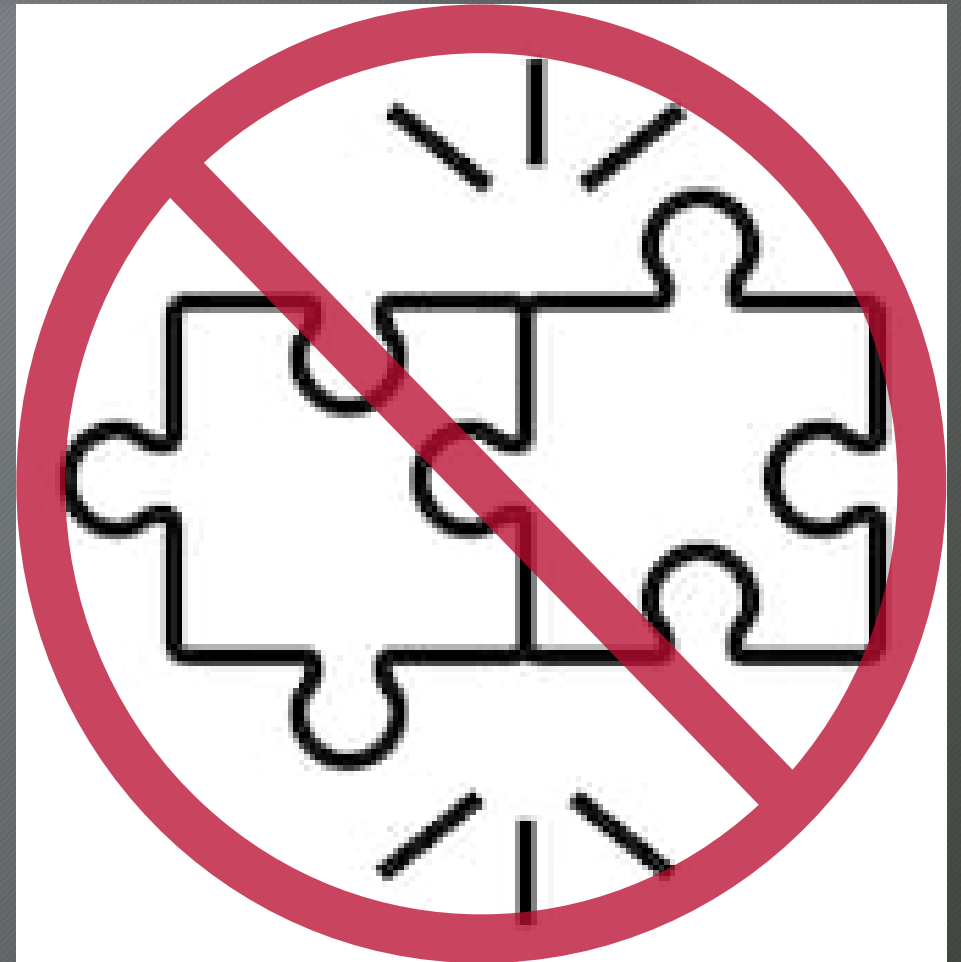


- ALWAYS
- Thank you
- Timely



Be Flexible

- No perfect match



**Undergraduate Research
Opportunity Conference**

UResearch.unm.edu



**VIRTUAL
UROC
April 15,
2021**

Abstract Workshop:
February 15, 12:00 pm

Abstract Submission Deadline:
February 28, 11:59 pm

Presentation Workshop:
March 9, 1:00 pm



Win a Book Scholarship!

See the **AMAZING
Student Research**
UNM students are
doing



**Review Poster and
Oral Presentations**
to enter a drawing
for a Book
Scholarship

Get IDEAS
for what YOU can
do research on.

uresearch.unm.edu

No RSVP necessary, but sign up for email reminders at
ess.unm.edu/events > April OR through succESS.unm.edu

Learn more at:

- Undergraduate Research (uresearch.unm.edu)
- Engineering Student Success Center - Events (ess.unm.edu/events - April)



SOE Undergraduate Research Programs



- ESS Student Research Experience Program
- ESS Internship Programs
- SoE EPICS @ UNM Program



UNM SCHOOL OF ENGINEERING

Engineering & Computing Internship Opportunities

Gain experiential learning that integrates knowledge and theory learned in the classroom with practical application and skills development in a professional setting.

Internships give you the opportunity to gain valuable hands-on experience while making connections in professional fields you are considering for career paths.

Internships also provide employers the opportunity to guide and evaluate talent.

Students should begin thinking about internships during their junior year. The programs we have in place will only admit Juniors, seniors, and graduates. Consultations are available to freshmen and sophomores on how find internships on their own.

Visit us at goto.unm.edu/internships
Contact Nada Abdelhack, MA
Engineering Student Success Center
Call: (505) 277-1403
Email: nabdelha@unm.edu



We are expanding the community service that is already a big part of the School of Engineering with our

EPICS@UNM
Engineering Projects in Community Service at UNM

EPICS@UNM brings together students and local communities through courses that solve real-world problems and help address human, community and environmental needs.

We encourage any students, partners, and sponsor interested in helping the community from an Engineering and Computing angle to participate.

Additional details can be found at goto.unm.edu/epics.
Questions about the program can be sent to epics@unm.edu.



<https://autonomy.unm.edu/siri/index.html>



PURDUE
UNIVERSITY



Get info and
apply here:



Cyber-Physical Systems

Summer Intensive Research Internship

Creating Technology to Help People

**June 1–July 30
Summer 2021**

Applications
Open: January 1, 2021
Deadline: February 15, 2021



COMPETITIVE STIPEND • HOUSING & MEAL PLAN • TRAVEL ALLOWANCE

Program Description

What

- Introduces students to cyber-physical systems (CPS)
- Promote inclusive academic research environments in CPS
- Encourage student participation in graduate programs or employment in CPS-related fields

Who

- Sophomores, juniors, and seniors interested in CPS-related fields and in diversity & inclusivity
- Underrepresented students are particularly encouraged to apply

Where

- Students will conduct research in pairs at Purdue University

Why

- Develop basic research skills
- Obtain exposure to state-of-the-art research and engineering facilities
- Acquire preparation for graduate school
- Learn about professional and research opportunities in CPS

Projects

- Learning for control for autonomous systems
- Measuring human trust in autonomous systems
- Deep learning for robotic navigation
- Psychophysiological sensing of human workload and attention
- Improving self-driving cars for older adults

Fields of Study

- Computer Science
- Mathematics
- Statistics
- Electrical Engineering
- Mechanical Engineering
- Aerospace Engineering
- Computer Engineering

For more information and to apply:

autonomy.unm.edu

email: carolj@unm.edu

<https://autonomy.unm.edu/siri/index.html>

Info Session

Friday, January 29, 2021. 2:30 - 3:30 PM
via Zoom (meeting ID: 983 3392 3546)

Get info & apply here
(autonomy.unm.edu)



Cyber-Physical Systems

Summer Intensive Research Internship

Creating Technology to Help People



**June 1-July 30
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Applications
Open: January 1, 2021
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COMPETATIVE STIPEND • HOUSING & MEAL PLAN • TRAVEL ALLOWANCE



PURDUE
UNIVERSITY

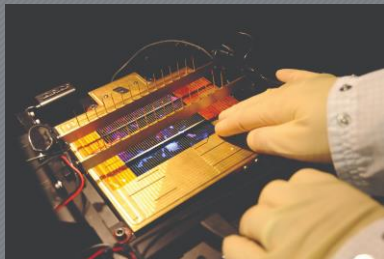


UNM Research Centers & Opportunities

<https://engineering.unm.edu/research/research-centers.html>



- **NSF Funded (ERC's)**
- **NASCENT (Nano ERC) – Nano Tech/Energy Technologies**
- **QESST (NSF/DOE) – Solar Energy**
- **CISTAR – Shale Gas**
- **NSF Summer REU Programs**



Tip for students looking for research groups - look in Engineering news for announcements of grants.

School of Engineering

CARC – High Speed Processing

CEET – Emerging Energies

Center for Stable Isotopes

CHTM – High Tech Materials (Optics)

CIESESE – Consortium for Integrating Energy Systems in Science and Engineering Education

CMEM – Micro-engineered Materials

COSMIAC – Space

CREST /CWE – Water/Environment

ESS Student Research Experience Program

MTTC – Clean room for semiconductor processing and MEMS

RED – CBE: Revolutionizing Engr and CS Departments

STC – Patents/Start-ups

UNM/AFRL Agile Manufacturing Center

UNM Undergraduate Research Programs

- First Year Research Experience (FYRE) through the College Enrichment Program
- El Puente Scholars
- McNair/ROP Scholars
- PREP (Post-Baccalaureate Program)

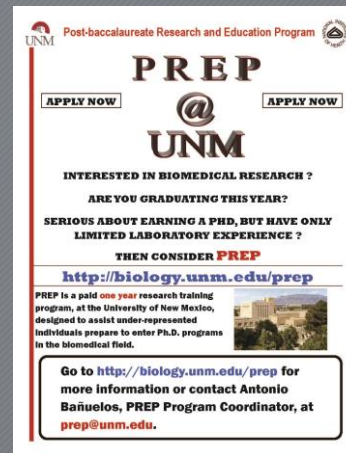


EL PUENTE RESEARCH FELLOWSHIP
Empowering underrepresented students through research!

- Apply cultural knowledge to your academic life
- Connect issues in your academic field to your community
- Develop and improve research, reading, and writing skills
- Engage with a prestigious community of scholars
- Explore and prepare for graduate school
- Receive **\$1,800** scholarship upon successful completion
- This program is open to students regardless of immigration status

Application available at www.unm.edu/rop and due by May 31, 2021

For information please contact Alejandra amendiaceunm.edu or 505-277-5020



Post-baccalaureate Research and Education Program

PREP @ UNM

APPLY NOW

INTERESTED IN BIOMEDICAL RESEARCH ?
ARE YOU GRADUATING THIS YEAR?
SERIOUS ABOUT EARNING A PH.D, BUT HAVE ONLY LIMITED LABORATORY EXPERIENCE ?
THEN CONSIDER **PREP**

<http://biology.unm.edu/prep>

PREP is a paid one year research training program, at the University of New Mexico, designed to assist under-represented individuals prepare to enter Ph.D. programs in the biomedical field.

Go to <http://biology.unm.edu/prep> for more information or contact Antonio Bañuelos, PREP Program Coordinator, at prep@unm.edu.



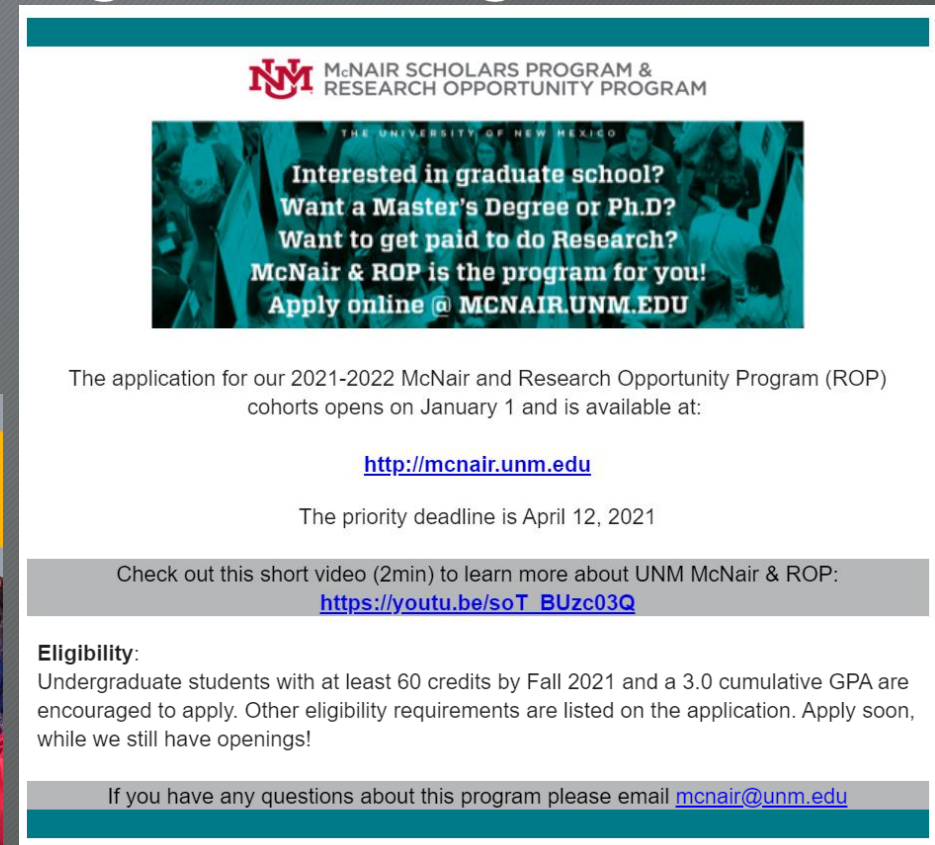
F.Y.R.E.

FIRST YEAR RESEARCH EXPERIENCE

Do you want to discover what research is all about? FYRE can pay you to do research during your first year at UNM.

APPLY NOW

[CEP.UNM.EDU](http://cep.unm.edu)



McNAIR SCHOLARS PROGRAM & RESEARCH OPPORTUNITY PROGRAM

Interested in graduate school?
Want a Master's Degree or Ph.D?
Want to get paid to do Research?
McNair & ROP is the program for you!
Apply online @ MCNAIR.UNM.EDU

The application for our 2021-2022 McNair and Research Opportunity Program (ROP) cohorts opens on January 1 and is available at:

<http://mcnair.unm.edu>

The priority deadline is April 12, 2021

Check out this short video (2min) to learn more about UNM McNair & ROP:
https://youtu.be/soT_BUzc03Q

Eligibility:
Undergraduate students with at least 60 credits by Fall 2021 and a 3.0 cumulative GPA are encouraged to apply. Other eligibility requirements are listed on the application. Apply soon, while we still have openings!

If you have any questions about this program please email mcnair@unm.edu

Research Experience for Undergraduates (REU)

- NSF list many different fields (<https://www.nsf.gov/crssprgm/reu/>)
- McNair/ROP posts many of these on their social media:
 - FB: @unm.rop
 - IG: @unmcnairop
- Overview:
 - Don't miss the deadlines.
 - Application requirements
 - Compensation



NM ENGINEERING STUDENT SUCCESS CENTER

WE ARE STUDENT SUCCESS!



WE OFFER:

- Tutoring
- Scholarships and fellowships
- Engineering tours
- Jobs and internships
- Networking events
- Mentoring and undergraduate research
- Academic success workshops
- K-12 opportunities
- ...and more!...

CONTACT US TODAY!

ess@unm.edu
(505) 277-4354
Centennial Engineering Center, Suit 2080
ess.unm.edu



5 Reasons to Engage with



ess.unm.edu



Build Your Network

Enhance Your Resume



Access to Scholarships & Financial Aid



Achieve Academic Success



Connect to Research & Internship Opportunities



ESS Tutoring App

ESS Drop-in Tutoring Sessions now available on
the Penji App

App available on [Google Play](#) and [Apple Stores](#)
as well as on [penjiapp.com](#)



**You must use your UNM email to access the
ESS Tutoring Community!**

For support and more details visit ess.unm.edu

No citizenship or GPA requirements. Semester deadline - Feb 5 & Sept 5

Get a STEM Professional as a mentor

Build your network and
receive guidance and
support from a STEM
professional working in
the field.

*This program is open to UNM STEM
Majors. Priority is given to Freshmen
and Sophomores, but all levels are
encouraged to apply.*

Be a Mentor

We are looking for
upper level Engineering
and Computer Science
students to be the light
for our new students. Help
others learn from your
experiences.

Gain Student Research Experience

Get hands-on research
experience!

*This program is open to UNM
Engineering and Computer Science
majors (including pre-majors). Priority
is given to Freshmen and Sophomores,
but all levels are encouraged to apply.*

Semester deadline - Feb 5 & Sept 5

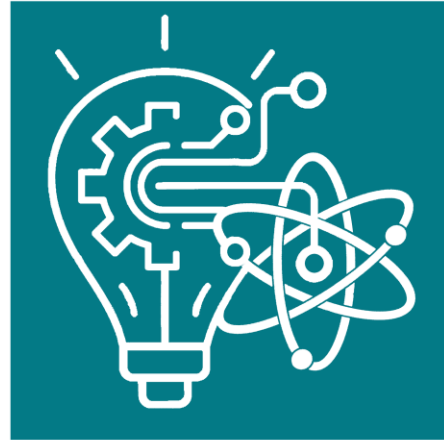




Introducing a new tool for
engineering your

success

This **APP** allows you to
keep up to date on all we
have to offer.



Put your learning into your own hands.



success.unm.edu

and coming soon to the Play Store



@UNMESSCENTER

NM
ENGINEERING STUDENT
SUCCESS CENTER

Pre-Semester Prep
Jan 11 - 15. Trig, Calculus 1 & 2, Physics

Semester Long
Get a STEM Professional Mentor;
Be a Peer-Mentor; Gain Research Experience

Weekly

Wk 1 Find Your Pack - SoE Student Organization Day

Wk 2 How to Get Into a Research Lab

Wk 3 Mock Exams

Wk 4

- Resume Event/Career Expo
- STEM Mixer

Wk 5 Study Skills

Wk 6 Engineering Week!

Wk 7 Time Management

Wk 8 Giving Effective Presentations

Wk 10 Impostor Syndrome

Wk 11 Basic Excel

Wk 12 Start-Ups, Patents, & Publications

**Wk 13 Undergraduate Research Opportunities
Conference (UROC)**

Wk 14 Dealing with Disappointment

Wk 15 Tips & Tricks for Standardized Exams

Spring 2021 Events
We are Student Success

FREE

And more! For more details, visit:
ess.unm.edu/events OR through our app - success

WIN a book scholarship. **GAIN** experience.
BUILD your skill set. **ENHANCE** your resume.

FREE

Mock Exams

2 days! Thursday & Friday, February 4 & 5, 2021



Take a **PRACTICE TEST** (Thurs 9 - 4 PM ONLY)

Receive an **ANSWER KEY** (Thurs 10 AM - 4 PM & Fri 9 AM - 2 PM)

Get help from **TUTORS** (Thurs 2 - 5 PM & Fri 9 AM - 1 PM)

Tests Offered:

Chem 1215

Math 1512, 1522, & 1250 (w/Dr. Ifzarene, but all 1230, 1240 & 1250 are welcome)

Physics 1310 (based on Dr. Goldflam's sections, all sections welcome)



*School of Engineering students only



Online via email & Zoom

Pre-registration is HIGHLY encouraged.

ess.unm.edu/events > February



Engineering Student Success Center | CAPS | CEP

RSVP is preferred,
but not required.



ess.unm.edu/events
OR through our app - success

FREE



Every Other Tuesday.
2 - 3 PM.
via Zoom
(Meeting ID:
945 4519 6176)



Lab Safety Matters!

Join us for a 3 part series that will prepare you for lab work, or make you a more valuable lab mate.

Attend, one, two, or all three*.

WIN a book scholarship*.

GAIN experience.

BUILD your skill set.

ENHANCE your resume.

1/26 or 3/9: Hazard Communication in the Laboratory & Hazardous Waste Management

2/9 or 3/23: Hierarchy of Hazard Control & PPE

2/23 or 4/6: Hazard Evaluation and Heuristics

*Attend all 3 and earn a Lab Safety Certificate from SRS

Engineering Student Success Center
Environmental Health & Safety



*School of Engineering students only

STEM MIXER

Friday, February 12, 2021
12:30 - 3:30 PM

Zoom (with Breakout Rooms)
<https://unm.zoom.us/j/95952027972>

FREE

Win a scholarship!*

*School of Engineering students only

UNM Students, staff, and faculty, as well as Albuquerque's STEM Professionals are all encouraged to attend!

Come and network with others interested in STEM.

NM ENGINEERING STUDENT SUCCESS CENTER

RSVP is preferred, but not required.

ess.unm.edu/events > February

or through our app - success



Workshop Improve Your Study Skills

Come learn some **STUDY HACKS** to see how you can turn your current habits into effective studying to conquer your classes and beyond.

- Information Recall
- Anti-Cramming
- The Test Cycle



Engineering Student Success Center | CAPS

Thursday, February 18, 2021

2 - 4 PM

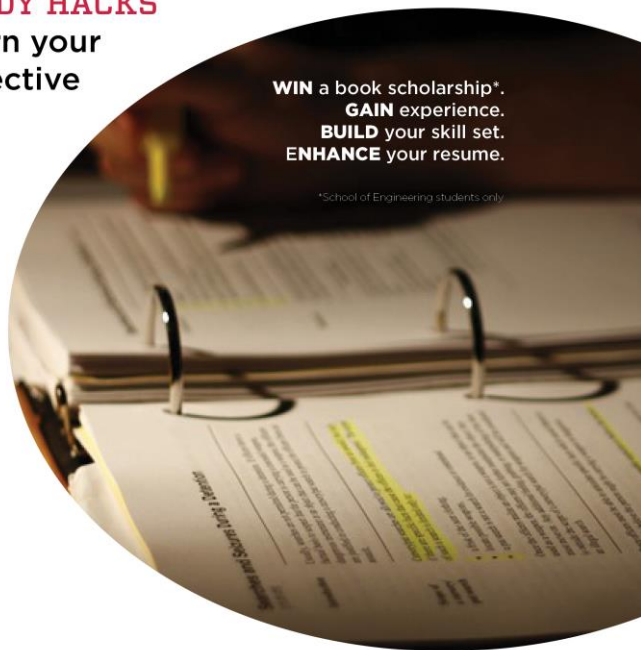
Via Zoom (<https://unm.zoom.us/j/96222033907>)



Learn more or RSVP (preferred but not required) at

ess.unm.edu/events > February

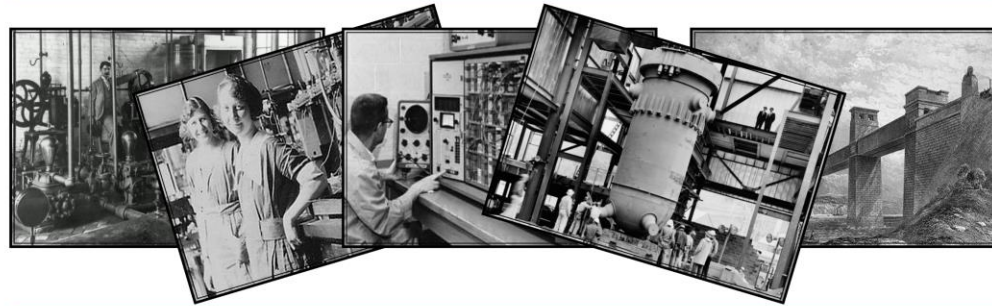
OR through our app - success



WIN a book scholarship*.
GAIN experience.
BUILD your skill set.
ENHANCE your resume.

*School of Engineering students only

History and Careers within Engineering and Computing



Come learn about the significant points in history and what careers are out there for you.

February 19 - 26, 2021 @ 4 PM
via Zoom <https://unm.zoom.us/j/92334286337>

Win a book scholarship!*
*SoE students only

- » 19th. Computer Science
- » 22nd. Chem & Bio Engineering
- » 23rd. Civil, Env., & Const. Eng.
- » 24th. Electrical & Computer Eng.
- » 25th. Mechanical Engineering
- » 26th. Nuclear Engineering



Questions?

yadeeh@unm.edu
505-277-9151



goto.unm.edu/ess-feedback

Give
feedback.

Win a book
scholarship!



ENGINEERING STUDENT
SUCCESS CENTER



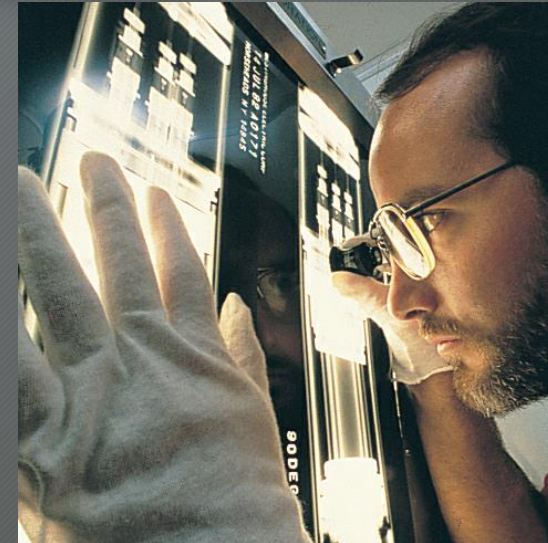
@UNMESSCENTER

*Don't forget to follow us
on social media!*

Chemical & Biological Engineering (CBE; ChemE, BioE)



- Petroleum/Crude Oil Processing
- Bioengineering: Enzymes, Prosthetics, Drug Delivery
- Pharmaceuticals
- Energy: Conversion, Biofuels, Miniaturized, Storage
- Tissue Engineering
- Materials Processing
- Environmental: Cleanup, Protection, Remediation, Sustainability
- Protein Structures/Polymers
- Sensors and Biosensors
- Nanomaterials/Nanodevices
- Cancer, Alzheimer's, DNA, Genetics



Civil, Construction, & Environmental Engineering (CivE, ConE, EnvE)

Including Construction Management (ConM)



- Mechanics of Materials
- Construction Materials
- Asphalt/Concrete
- Precision Structures
- Hydraulics
- Environmental
- Geotechnical (incl. GIS)
- Structural
- Soil Mechanics
- Transportation/Surveying

- Flood Control
- Water Resources
- Water Treatment
- Computer Aided Design



Steel Bridge



Concrete Canoe

Computer Science (CS)



SCHOOL OF
ENGINEERING

- Human Computer Interaction: Social Networking, Media
- Chemical/Molecular/Biomedical Computing: Micro Ants
- Parallel and Distributed Computing
- Pattern/Language Recognition
- Gaming Theory
- Computer Immunology
- Big Data Analytics/Data Mining
- Artificial Life: Automated Reasoning, Machine Learning
- Internet Protocols, Measurements, Routing
- Animation, Digital Media and Visualization
- Computer Vision Systems
- Information Analysis, Privacy, Security



Swarm Robotics/NASA



ARTS Lab/CARC

Electrical/Computer Engineering (ECE; EE, CompE)

- Power, Energy, Plasma and Fusion Science
- High-Performance Algorithms/Computing
- Robotics, Artificial Intelligence and Vision
- Image/Video Processing
- Networked Multimedia/Parallel Computing
- Advanced Graphics/Gaming Theory
- Advanced Cyber-Infrastructure
- Signal Processing/Information Theory
- Networked Control Systems
- High-Tech Materials
- Wireless Sensor Networks
- Virtual Reality
- MIND Institute
- Communications/Information Sciences
- Integrative Nanoscience and Microsystems



Mechanical Engineering (ME)

Lobo Launch

- Materials & Micro-Systems
- Artificial Limbs
- Vehicles (Space, Air, Road)
- Gearing Machines
- Fluid Mechanics
- Crystal Plasticity
- Dynamic Systems & Controls
- Solid & Computational Mechanics
- Thermal Sciences
- Vibrations
- Solar
- Manufacturing
- Robotics
- Heating, Ventilation, Refrigeration
- Biotechnology

*Interdisciplinary thrust areas including **renewable energy**, **aerospace systems**, and **bioengineering***

Solar Splash



FSAE Race Car Design



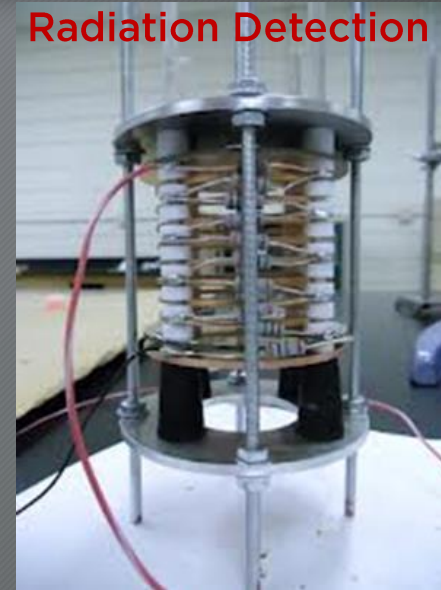
Nuclear Engineering (NucE)



SCHOOL OF
ENGINEERING

- Hazardous Waste Management, Disposal, Safety
- Nuclear Fusion/Fission
- Exploration and Utilization of Outer Space
- High Energy Charged Particle Transport
- Nonproliferation and The Nuclear Fuel Cycle
- Nuclear Reactor Physics/Next Generation Development
- Radiation Transport
- Spent Fuel Analysis/Aging Acceleration Techniques
- Multi-physics Simulations
- Process Imaging and Visualization

Radiation Detection



Low Power
Nuclear
Reactor



Spent fuel pool