

# DISCOVER ENGINEERING

Sponsored by the Lola and George Aiken Fund



This hallmark event of UVM's College of Engineering and Mathematical Sciences (CEMS) and Vermont 4-H will happen on **Saturday, February 12, 2022** at the UVM Davis Center and other campus locations. Discover Engineering is a **FREE** annual event for **youth in grades 5-12** who want to learn about engineering, build skills and network with engineering students, faculty and professionals.

The day will have two distinct parts:

- In the morning participants will engage in an **Engineering Scavenger Hunt**. We are going to fill the room with exhibit tables hosted by engineering businesses and CEMS student groups. Each exhibitor will submit a question to include in the scavenger hunt; the answer to the questions can be discovered by visiting the exhibit tables. Collectively, this will allow participants to **learn about different kinds of engineering and career pathways**.
- In the afternoon participants will continue to connect with engineering professionals and UVM engineering students through **hands-on skill-building workshops**.

Discover Engineering will include:

- Inspiring and engaging **skill-building workshops**.
- Informative **exhibit tables** from engineering businesses, organizations and student groups.
- **ROBOTS!**
- Connection with youth from across Vermont.
- **Morning coffee and refreshments, boxed lunches and snacks** will be provided.
- And more!

Check out the list of workshops on the back, and then register no later than February 1, 2022!

**All youth participants must register. Go to:**  
[www.uvm.edu/extension/youth/announcements](http://www.uvm.edu/extension/youth/announcements)

To request a disability-related accommodation to participate in this program, please contact Lauren Traister, 4-H Teen & Leadership Program Coordinator, at 802-888-4972 by January 24, 2022 so we may assist you.



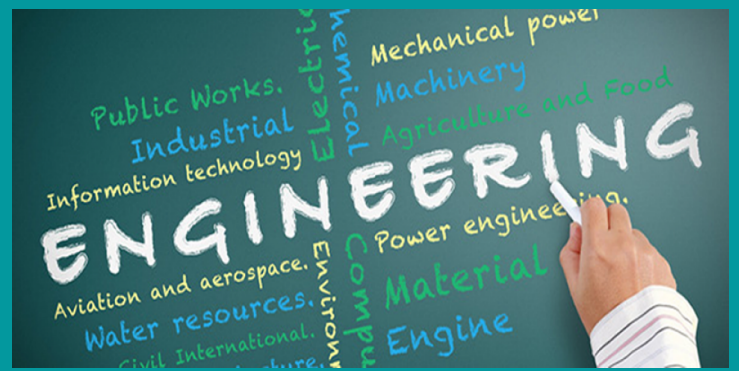
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**ENGINEERING AND  
MATHEMATICAL SCIENCES**

## Schedule

- 9:15 Arrive & Check In
- 9:30 Welcome
- 10:00 Engineering Scavenger Hunt
- 11:15 Break Into Workshop Groups; Boxed Lunches
- 11:30 Travel to Workshop Room, Eat Lunch
- 12:00 Workshop 1 / BSA STEM Merit Badges
- 1:00 Snack Break
- 1:30 Workshop 2 / BSA STEM Merit Badges continue
- 2:30 General Departure / CEMS Tour
- 4:30 BSA Departure



## Workshops Offered

### For Everyone

- Beam Deflection Study and Relationship to Motor and Pump Design
- Python Coding Workshop
- Step into a New Dimension! Using 2D materials to Create 3D Objects
- Creating Biodegradable Plastics to Save the Oceans
- Robotics: Lego-Built Robots and Coding
- Discover GIS
- Civil Engineering: Spaghetti Bridge Competition
- Solar Racing Cars
- Projectile Motion
- Introduction to Empirical Methods and Data Analysis in Renewable Energy

### Scouts BSA STEM Merit Badges

This year's Scouts BSA STEM Merit Badge Day will take place as part of the Aiken Discover Engineering. The Merit Badge opportunities are for registered Scouts BSA and Venturers (Not Cub Scouts), ages 11-17. Badges can be earned in the following:

- Aviation, Communications, Composite Materials, Digital Technology, Engineering, Graphic Arts, Music, Oceanography, Soil and Water Conservation, Weather, Energy, Fingerprinting
- Learn more by reviewing the BSA STEM Merit Badge information.

For a description of each workshop, please go to [www.uvm.edu/extension/youth/announcements](http://www.uvm.edu/extension/youth/announcements) and click on "Discover Engineering."

Discover Engineering is a program of:



At the end of February is the National Engineering Week (Feb 20-26, 2022). UVM Extension 4-H and the UVM College of Engineering and Mathematical Sciences have teamed up to host a variety of programs all month long to promote the field of engineering and help youth understand different pathways they can take to pursue a future as an engineer. Learn more at: <https://www.uvm.edu/cems/k-12-stem-outreach>