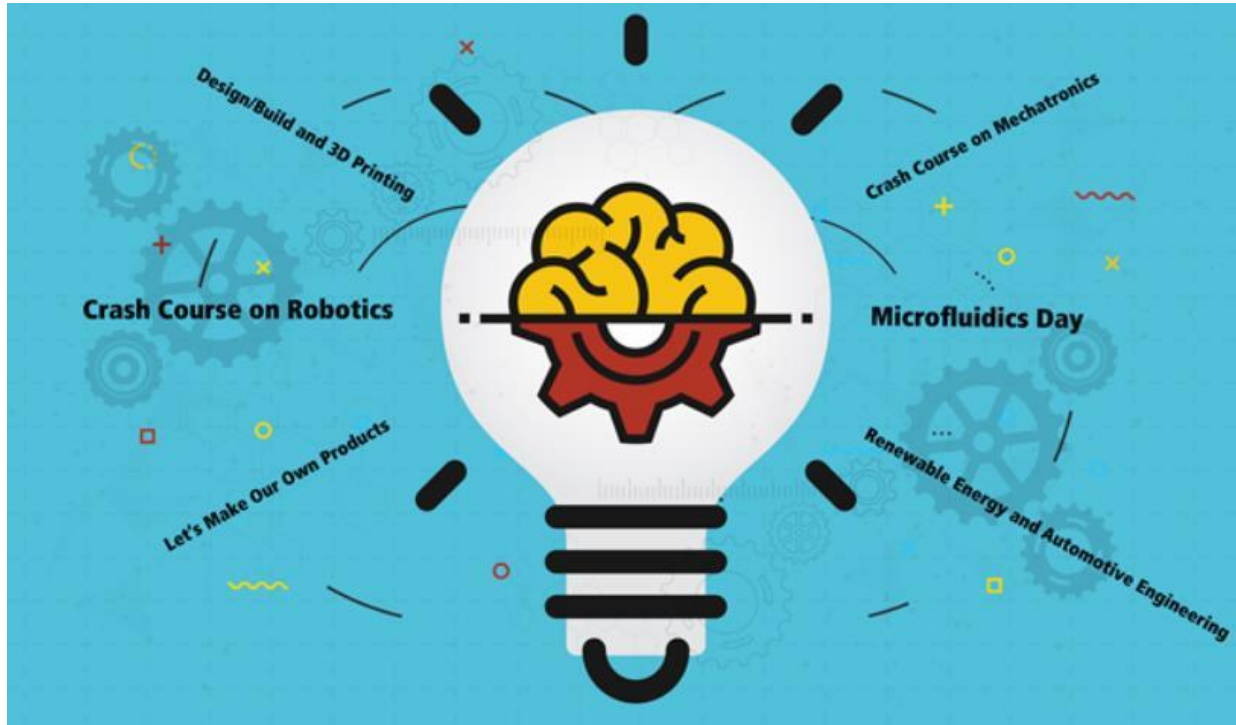


Explore, Design and Build A Mechanical Engineering Bootcamp



April 29 – 30 and May 6 – 7, 2023
Open to high school students grades 10-12.

Enjoy an unforgettable on-campus experience by exploring the vast field of mechanical engineering. Learn hands-on skills in our state-of-the-art laboratories on topics including:

- Engineering drawing and modelling
- 3D printing
- Manufacturing processes
- Robotics
- Programming
- Mechatronics systems
- Renewable energy
- Automotive engineering
- Microfluidics

For registration or more information:

<https://aus-mcebootcamp.com>

Email:

mce-bootcamp@aus.edu

Modules

Module 1: Design/Build and 3D Printing Day

Using Autodesk Inventor and a 3Dprinter, you will design and create a quadcopter body. You will also see how you can improve its shape.

Module 2: Let's Make Our Own Products

Go from making things in the cyber world to making things in the real world. You will use hand tools to form metals and make products that you can take and use at home.

Module 3: Crash Course on Robotics and Mechatronics

Develop your computational thinking skills by creating graphical algorithms, and then build and program functional robots using the LEGO EV3 robotics kit.

Have you heard about mechatronics? Find out all about this exciting field, which combines robotics, electronics, computer, telecommunications, systems, control, and product engineering. You will use the Arduino Inventor Kit to build and program a mechatronic system.

Module 4: Renewable Energy, Automotive Engineering, and Microfluidics Day

Have you seen scientists in Hollywood movies using sophisticated equipment to analyze the DNA in a blood sample in the lab to identify a murder suspect? Wouldn't it be faster if they could do this using pocket devices at the crime scene? Learn how microfluidics has made this happen and get hands-on experience by designing and fabricating your own microfluidic chip using a laser cutter.

Developing renewable energy is an important topic in today's world. Learn about solar and wind power by assembling a solar panel system and using a wind turbine. You will also learn about the design and operation of the automotive engine.

**REGISTER
NOW!**

- The camp will be offered **ONSITE**.
- **Cost:** Free of charge, but students will be selected according to their statement of interest and according to our available capacity.
- **Registration deadline:** April 22, 2023