WHERE ARE WE?

IS Building
Engineering Lab and Innovation Center

Follow LAB Sign
WHO ARE WE SERVING?

South Mountain Community College (SMCC) – 3 Campuses

• Students
• Faculty
• Stuff
• Community
HOW BIG IS OUR LAB?

2100 sqf
LAB’S HISTORY!

- 2016: Planning
- 2017: Establishment
- 2018: Execution
- 2019: Outreach
2016

Summer 2016
- Relationship formed with Base11
- Desire to provide equipment for STEM-trained students

Winter 2016
- Dr. Carl Whitesel brought on the team to guide this project

2016 PLANNING
Spring 2017

- Outreach and support from local companies and employers established.

Summer 2017

Training with Base11
  - Relationships with other college partners formed – Skyline College, Orange Coast College.
  - Relationships with world-wide industrial partners established – Dassault Systemes.

Fall 2017

- Final requirements to accept lab donation completed.
January 2018

• Equipment delivered and installed
• Retail value $250,000.

Spring 2018

• Faculty training on equipment.

Summer 2018

• Prop301 grant received to supplement and expand lab equipment.

Fall 2018

• “Soft” opening to all Engineering students and non-Engineering students.
Spring 2019

• Continued growth and reach more students.
• Created Lab Logo.

Summer 2019

• Engineering Club 2 weeks.
• College Camp 2 weeks.
WHAT WE HAVE?

Machines & Tools
HP DESIGN JET T1700 PLOTTER PRINTER

SMCC ENGINEERING WORKSHOP RULES

- Sign in and fill out student waiver before entering workshop.
- Get instructor’s permission before opening or using any tools.
- Wear proper attire and PPE.
- Read instructor’s manual before using any heavy machinery.
- Do not operate heavy machinery when class is in session.
- No food or drink in lab.
- Clean up after yourself and put away any tools not in-use.
SINDOH DP200 3D PRINTERS
MAKERBOT 3D PRINTER & DIGITIZER
EPILOG LASER FUSION MODEL M2
MONOFAB – PRECISION MILL
VINYL CUTTER

Prof. Suzan Allaham

Vinyl Cutting Studio
@ Engineering Lab - SMCC
SHOPBOT CNC MILL
PROJECTS @ ENGINEERING LAB

Wooden Arch Bridge

By ECE214 Class
Vertical Storage Rack

By Matthew
PROJECTS @ ENGINEERING LAB

3D Printed Star Wars Helmet

By Phillip
PROJECTS @ ENGINEERING LAB

Holiday Coasters

By Matthew
VIDEOING OUR WORK
FRIDAYS @ ENGINEERING LAB
The winner is Sam Ekhle.
Everybody celebrate the winning
THE PRIZE
COMING SOON......

✓ Industrial Wind Tunnel – is arrived and under process to place it in lab’s new building

✓ Grant funding for mechanical test equipment, but not limited to:
  o Tensile strength
  o Compression strength
  o Inertia

All above photos are only indicator
ENGINEERING PROGRAM TEAM

Dr. Carl Whitesel
Program Coordinator

Prof. Suzan Allaham
Lab Manager
Adjunct Faculty

Prof. Patrick Grates
Adjunct Faculty
STUDENTS

Matthew Spadafino
Student Work Study – Daily operation of lab

Mariaysela Varela
STEM-Train Intern project for mechanics of materials

Dawit Gemeda
CPLC Internship Student - Daily operation of lab

Timothy Ragin
Student Work Study – Initial setup and repairs of lab equipment

Antonio Aguilar
STEM-Train Intern project for Raspberry Pi workspace setup
LAB'S VOLUNTEERS

Jean-Marc Kamanda

Rodrigo Lopez

Phillip Houx
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THANK YOU

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LAB MANAGER
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