Sweet Briar College Engineering Partnership Opportunities

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About the Margaret Jones Wyllie '45 Engineering Program:

Sweet Briar College offers an ABET-accredited major (B.S.) and minor in Engineering Science. Our students study a broad range of engineering disciplines including Mechanical, Structural, Electrical, Thermal, Materials, and Controls. More information can be found on our website.

About our people:

In addition to employing a machinist and electrical technician, our faculty expertise includes:

Thermo/Fluid Systems Analysis | Colloidal Systems | Materials Characterization
Nanomaterials | Materials Simulation and Modeling | Finite Element Analysis
Deformation and Failure Analysis | Dielectric Materials | Power Systems
Thermoelectric and Thermoionic Devices | Lubrication | Tribology | Rheology
Vehicle Powertrain Modeling | Building HVAC and Energy | Mechatronics

About our facilities:

Materials Characterization—

Scanning Electron Microscope with up to 50kX magnification, 50kN automated MTS Universal Test Stand with cyclic loading capabilities, Rockwell A/B/C Harness Testing, impact testing, liquid thermal properties testing, with powder X-ray diffraction anticipated

Fabrication—

Tabletop CNC router, CNC milling machine, 3D printers, laser cutter and engraver, well-furnished shop

Other—

Research-grade wind tunnel with 25 x 36 cm cross-section and 40 m/s wind speed capabilities, well-furnished mechatronics lab

Let Sweet Briar Engineering assist via ***low-cost/no-cost*** access to equipment and expertise. We can provide services such as specialized technical equipment for testing, characterization, and fabrication of unique parts and equipment as well as faculty expertise. Your knowledge and experience will help us to better train and educate our students so we can provide ***you*** with more knowledgeable interns and entry level engineers.

Want to get involved?

Become a Community Design Client

As part of our Engineering Design in the Community course, an external client presents an engineering problem to groups of sophomore-level students. The students are then given three weeks to generate and evaluate concepts from which they design and build a prototype. The best part? This service is free of charge for our clients. If you have a design opportunity that you think our students can tackle and would like to serve as the client, please contact us!
Client submissions are accepted and evaluated through the end of March.

Assist as a Capstone Design Client

Beginning in the fall and continuing through the spring, groups of seniors tackle a large-scale project as part of the culminating experience of our engineering program. Similar to the Community Design Project, students work with a customer to define the problem, develop solutions, and build prototypes. If you have a project in mind and are interested in being a client, please contact us!
Projects are evaluated over the summer and decisions are typically made in early August.

Speak at a Lunch and Learn

If you are a working engineer or are recruiting engineering students, we'd love to hear from you! Every Thursday, we arrange a Lunch and Learn with our students and an invited speaker. Presentatons can be made in person or via teleconference. Current Sweet Briar COVID policies will be enforced.

Attend our Annual Banquet

Join us on February 23, 2023 to celebrate National Engineers Week! Each year engineers, high school and college students, educators, and members of the public from Lynchburg and the Shenandoah Valley gather with us to celebrate engineering in our region and enjoy an evening of networking.

Previous keynote speakers have included:

Tara Vatcher, senior vice president of software architecture and development for Stellantis, a leading global automaker and provider of mobility solutions.

Dr. Kevin Kochersberger, programmatic lead for the first African Drone and Data Academy in Malawi and professor at Virginia Tech.

Kip S. Thorne, theoretical physicist and Nobel laureate. One of the wold's leading experts on the astrophysical implications of Einstein's Theory of General Relativity.

Christine Darden, retired NASA aeronautical engineer, data analyst and mathematician featured in Hidden Figures: The American Dream and the Untold Story of the Black Women Mathematichians Who Helped Win the Space Race

Antoine Picard, lead software engineer at Google.

Kathryn Thornton, former NASA astronaut and Associate Dean at the University of Virginia.

We hope that you will consider visiting Sweet Briar Engineering and find a collaboration to be an asset to your organization. If you would like to send us your job listings, we will gladly forward your career and internship opportunities to our students.