The SEED program links seniors in the Electrical Engineering (EE) and Mechanical Engineering (ME) programs with the best Vermont and New England businesses. Start-ups, companies, farms, healthcare providers, non-profits, researchers and individual entrepreneurs have all participated as clients in over 160 projects since 2007.

The multi-disciplinary student teams collaborate with their client, the course instructors, faculty mentors and UVM staff to address a design need, build a device, engineer a process, or formulate a mathematical model. SEED projects have resulted in successful devices, marketed products, start-up companies, and useful tools, software programs and analyses.

From a company's perspective, a SEED project allows the client to address a long-standing problem that requires a proof-of-concept investigation or proto-type build. A SEED project also offers the opportunity to work directly with likely candidates for entry-level engineering positions. Practicing engineers often find that mentoring students is a personally rewarding experience.

Students relish the opportunity to engage in engineering practice, apply the theory they have been learning and prepare for work in industry. This capstone experience aims to have a design problem that needs a solution? WANT TO BUILD A PROOF-OF-CONCEPT? LOOKING FOR FUTURE EMPLOYEES?

HAVE A DESIGN PROBLEM THAT NEEDS A SOLUTION? WANT TO BUILD A PROOF-OF-CONCEPT? LOOKING FOR FUTURE EMPLOYEES?

UVM’S SENIOR EXPERIENCE IN ENGINEERING DESIGN (SEED) PROGRAM

WHAT HAPPENS DURING THE YEAR?

Fall Semester: Students follow the engineering design process to define their problem, select a solution and create a detailed design. This process will also include budgeting, resource allocation, scheduling and literature reviews required to support a successful project. Spring Semester: Students manufacture, assemble and test their design allowing for iterations in the process. The semester ends with a project demonstration, final design review and presentation at the Engineering Design Night.

WHAT ARE A CLIENT’S RESPONSIBILITIES?

A client should be prepared to commit staff to support the student team throughout the fall and spring semesters. Clients should be available to answer questions, attend design reviews and participate in periodic meetings as requested. Funding is required to support the SEED program. Clients fund one project at different levels based on approximate company size and revenue. The funding levels are as follows:

- Non-profit - Material Costs only
- Startup - $1k + Material Costs
- Team - $5k, includes $1k in Material Costs
- Program - $10k, includes $4k in Material Cost Program sponsors have the option for multiple independent teams to be assigned to their project.

INTELLECTUAL PROPERTY?

Your SEED project could be patentable! UVM can implement any type of intellectual property needs of a client. CDA, NDA, government and ITAR-level commitments have been made. Professional support is provided by UVM’s Office of Commercialization.

PREVIOUS CLIENTS:


UVM-Based: Vermont Space Grant Consortium/VT-NASA EPSCOR, Proctor Maple Research Center, UVM Extension Program, UVM Transportation Research Center, Paul Miller Research Center Farm, Vermont Lung Center, UVM Dept. of Rehabilitation and Movement Science; Student-funded: Eleview, UVM AERO Racing, UVM Mini-Baja Racing.

UVM Grant Funded Research: National Institute for Health, National Science Foundation, Dept. of Energy, National Park Services, UVM Clean Energy Fund.

YOUR COMPANY COULD BE NEXT!

Submit a project at go.uvm.edu/dbtos Questions? SEED@uvm.edu (802) 656-3333