Outreach Programs
Mold Engineers

As soon as the sixth-grade teacher asked students at the Philadelphia parochial school, “Who wants to join an engineering club offered by Villanova University?” 30 hands shot up. In that moment, another of the College of Engineering’s outreach programs lifted off.

NovaCANE (Villanova Community Action by New Engineers) has evolved into a multi-grade-level program that introduces school students to engineering. Each month, Villanova students present lessons at partner schools. At year's end, youngsters come to campus for an engineering fest replete with lab activities and competitions.

As with all the STEM (science, technology, engineering and mathematics) programs, interaction between K-12 students and Villanovans is crucial. “Our students may be the spark that ignites a young person’s interest in engineering,” says Professor David Dinehart, PhD, assistant chair, Department of Civil and Environmental Engineering, and NovaCANE founder.

National STEM priorities—stimulating interest in STEM subjects and careers, improving school performance and reaching out to underrepresented and economically disadvantaged groups—have guided the College in growing one of the country’s most robust outreach programs. Grounded in an Augustinian culture committed to excellence in education and service to the community, it is superbly qualified for the task.

The outcomes prove it. In 2011-2012, faculty and students led or supported eight STEM programs, many of which receive funding from companies and foundations. Some initiatives provide classroom programming. HE²ARTS (Health Education and Enrichment in Arithmetic, Technology and Science), co-developed by Rosalind Wynne, PhD, associate professor, Electrical and Computer Engineering, enhances curricula in several New York City middle schools.

Others use Villanova’s facilities. VESTED (Villanova Engineering, Science and Technology Enrichment and Development) brings low-income high schoolers to campus for in-depth engineering experiences and college-prep mentoring. Studies show that VESTED has heightened interest in engineering and increased college attendance.

Villanova’s outreach initiatives and high-caliber undergraduate experience have garnered national recognition. It hosts the Leadership Education and

“Workshops on college applications were as helpful as the engineering components,” says Boratha Tan ’16, a VESTED participant and now a proud Villanova engineering student.

Development (LEAD) program’s Summer Engineering Institute, which immerses academically gifted high schoolers from diverse backgrounds in engineering and campus culture. “Villanova gave me valuable experiences in leadership, college life and professional development,” says Britney Davis ’15, a 2010 LEAD participant.

The College of Engineering invests time and resources in STEM programs because the return is so valuable. They open up exciting worlds for young, curious minds and help to shape a path for tomorrow’s engineers.