Ten years of CoRe

Oct. 25, 2018

MSU celebrates a decade of creating tomorrow’s engineers in the Cornerstone & Residential Experience

There’s one program that’s at the CoRe of being a Spartan Engineer at Michigan State University.

For the past 10 years, students seeking to graduate from the College of Engineering all begin their journey in the Cornerstone & Residential Experience (CoRe).

CoRe Director Timothy Hinds said the program was created to build the whole engineer.

“CoRe’s mission is to help first-year engineering students succeed,” Hinds said. “With the help of our community and corporate partners, CoRe brings the real world into the classroom and residential environment. It reinforces the importance and relevance of engineers for solving global challenges.”

CoRe began in 2008 when then Engineering Dean Satish Udpa (now MSU’s executive vice president for administrative services) met with representatives of MSU and Consumers Energy to discuss ways to increase student interest in critical energy-related issues.

Those early conversations led to Consumers Energy becoming the first corporate sponsor of the college’s new Engineering Theme Partnership Program. Initial activities included the creation of the first energy theme floor for residents of East Wilson Hall.

In the past decade, BOSCH, General Electric, and Tenneco have also created theme floors in East Wilson Hall. All offer students comfortable study and meeting spaces, plenty of power outlets for energy-hungry electronic devices, and big-screen TVs in lobbies that are decorated with colorful informational displays.
Hinds said no other university in the country has partnerships like MSU’s undergraduate engineering model.

“It strengthens networking opportunities for students to enter co-op and internship pathways and encourages our students to explore their interests in energy and environmental sustainability, and other areas of engineering,” Hinds noted.

**CoRe leadership**

*Neeraj Buch*: 2008 – 2012  
*S. Patrick Walton*: 2012 – 2017  
*Timothy Hinds*: 2017 -

Founding director Neeraj Buch (now associate dean for engineering undergraduate students and a professor of civil and environmental engineering at MSU) said CoRe introduced teamwork and design thinking from the beginning.

“We structure CoRe so incoming students can explore the various engineering disciplines through interactions with peers, faculty, teaching specialists, and industry professionals from day one. It’s part of what makes it so special,” Buch added.

S. Patrick Walton (the C. Robert and Kathryn M. Weir Associate Professor and associate chair for the MSU Department of Chemical Engineering and Materials Science) helped CoRe grow in prominence between 2012-17.

“By building academic and industrial partnerships, we reinvented how first-year engineering students lived and studied,” Walton said. “While the rest of the CoRe team deserves much of the credit, I am glad to have played my role in helping MSU engineering students succeed in their first year and beyond,” he added.

Today’s CoRe program serves more than 1,800 entering engineering students at MSU. CoRe offices, classrooms, and labs are mostly in Wilson Hall or nearby in other South Neighborhood residence halls.

Two courses, EGR 100: Introduction to Engineering Design and EGR 102: Introduction to Engineering Modeling, engage students in team-based projects that help develop interests and options in professional engineering. Additionally, tutoring, academic advising, and volunteer activities are available and encouraged.

Co-curricular director Carmellia Davis-King said CoRe team members are continually devising interesting ways to target the social, professional and academic development in the CoRe community. Annual activities include:

- **Professional development** by touring labs with hands-on demonstrations in facilities like the machine lab; attending STEM conferences around the state; or panel discussions featuring Spartan Engineering faculty, alumni and friends.  
- **Teamwork** opportunities, including study groups format, physics and chemistry throughout the semester.
• **Communications** activities that include resource fairs to prepare for tests and exams; money management seminars; and how to apply for scholarships.
• **Networking** opportunities by visiting companies and corporations or by learning more about MSU's expansive study abroad program.
• **Critical thinking skills** that are put to use in design competitions and resource scavenger hunts.
• **Mentoring** on the theme floors and through visits by alumni and friends.
• **And socializing** over pizza, popcorn, candy, study breaks, and games with prizes.

In 2018, the Center for Spartan Engineering also moved into Wilson Hall to better facilitate early career engagement with freshmen and sophomores students. The center helps students explore career options, prepare for the job search, and connect with employers through resume critiques, advising, workshops, networking events and career fairs.

“We want our CoRe students to know where they are headed next,” Hinds added.

**Related Website:** [CoRe at MSU](https://www.egr.msu.edu/news/2018/10/25/ten-years-core)

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