



*Russell J.D. Holmes, 2015–16 Distinguished Teacher
Morse-Alumni Undergraduate Teaching Award*

Students could not wish for a better guide to materials science and engineering than Russell J.D. Holmes. They need one for the challenges they face, such as the exceptionally difficult but required course called Electrical and Magnetic Properties.

“In the past, this calculus- and quantum mechanics-based course typically gave students nightmares and unneeded extra stress,” says a former student. “However, the ease with which Professor Holmes was able to teach the material has transformed it into a class students are excited to attend.

“... [T]he students in his class care more about truly learning the concepts than passing a test. I believe this is one of the most powerful and magnificent things you can achieve in teaching.”

Holmes also teaches the capstone senior design course, in which student teams are paired with mentors from industry to produce both a design and an economic analysis.

Under his tutelage, student performance has risen dramatically, and he has kept up with the daunting task of recruiting sufficient mentors as course enrollment has doubled.

Holmes has a gift for explaining difficult concepts in as many ways as it takes to help every student understand them. He routinely integrates undergrads and even high school students into his research program, and as an undergraduate faculty adviser for the materials science program, he seizes every opportunity to guide students during their formative years. 🌳

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“Our undergraduates are not looking for professors to be an infallible source of knowledge. Instead, they are looking for professors to be partners on a journey of discovery, with both parties interested in learning new material.”

