The Virginia Tech College of Engineering works in disruptive technology areas that include:

- autonomous systems and robotics
- cybersecurity and cyber physical systems
- data analytics and decision sciences
- injury and occupational biomechanics
- manufacturing materials and systems
- energy engineering and science
- sustainable infrastructure and construction
- transportation and logistics
- turbomachinery and diagnostics
- corrosion and water
- wireless communications and security

### Departments and Schools

- Aerospace and Ocean Engineering
- Biological Systems Engineering
- Biomedical Engineering and Mechanics
- Chemical Engineering
- Civil and Environmental Engineering
- Computer Science
- Electrical and Computer Engineering

- Engineering Education
- Industrial and Systems Engineering
- Materials Science and Engineering
- Mechanical Engineering
- Mining and Minerals Engineering
- Myers-Lawson School of Construction
- School of Biomedical Engineering and Sciences

### 2018 Freshman Class Profile:

- average high school GPA is 4.2
- average SAT Math score is 707
- average SAT Reading score is 656
- total SAT average is 1358
- 12% First Generation
- 23% female

### Dean Julia M. Ross

- Ross holds tenured positions in both the departments of Chemical Engineering and Engineering Education and is the Paul and Dorothea Torgersen Dean of Engineering.

- Ross studied at Purdue University and later obtained her PhD from Rice University; both in chemical engineering.

- Ross applies chemical engineering principles to questions about the way infectious cells adhere to each other and to surfaces in the body.

- Ross uses principles like fluid mechanics, mass transfer, and reaction kinetics to better understand staph infections at the cellular level.