# Engineering Mathematics Major (Dual Degree) at Georgetown College

# What is the dual degree program?

Georgetown has an agreement with the University of Kentucky wherein students spend 3 years at Georgetown as an Engineering Mathematics major followed by about 3 years in the engineering program at UK. Upon completing an Engineering degree at UK they also earn an Engineering Mathematics degree from GC. Dual degree students must complete all Foundations & Core requirements, but do not need a minor.

Note: Engineering Mathematics may also be taken as a standalone major completed solely at GC. It has similar but not identical requirements. See the Engineering Mathematics Major (Standalone) document.

## Why be a dual degree engineering student?

We are surrounded by engineered objects and processes. The analytical and problem-solving skills developed by engineers are opportunities to understand, appreciate, and creatively impact human flourishing. The Engineering Mathematics major has a focus on mathematical modeling beyond that of a traditional engineering degree, fostering skills which are in demand in many fields. In addition, the breadth of academic exposure and soft skills developed by a liberal arts education are valued by employers – degrees open doors, but soft skills cultivate an edge. The small college environment also affords unique advantages in class size and professor attention.

#### **Careers**

Engineers develop theoretical and practical skills valued in numerous technical industries, from automotive to medical to structural to telecommunications. If it needs to be designed, built, tested, or maintained, chances are an engineer can contribute. Some engineers specialize in or pivot toward entrepreneurial and managerial roles.

## Sample Schedule:

Schedules vary with intended discipline and mathematical preparation. The following would be appropriate for a typical student interested in mechanical engineering.

	Fall	Spring
Year 1	CHE 111 General Chemistry I	CSC 115 Computer Science I
	MAT 125 Calculus I	CHE 112 General Chemistry II
		MAT 125 Calculus II
Year 2	MAT 303 Fundamentals of Data Computing	MAT 345 Differential Equations
	MAT 325 Calculus III	PHY 212 College Physics II
	PHY 211 College Physics I	PHY 241 Engineering Physics
Year 3	COMM 115 Public Speaking	MAT 310 Linear Algebra
	PHY 313 Thermal Physics	MAT 337/343 Applied Statistical Models OR
	PHY 317 Statics	Mathematical Modeling
		PHY 319 Dynamics

### **Transfer Process**

Apply to UK during your third year at Georgetown. Students who have completed all Foundations & Core and Engineering Mathematics courses with acceptable grades are automatically accepted. UK currently has 11 Engineering tracks: Aerospace, Biomedical, Biosystems, Chemical, Civil, Computer, Computer Science, Electrical, Materials, Mechanical, and Mining.

# **Program Contact**

For more information, contact Professor Luke Granlund (<u>luke\_granlund@georgetowncollege.edu</u>) or Professor William Harris (<u>wharris@georgetowncollege.edu</u>).