

3-2 Engineering Program

Director: Allen Dotson

Mission

The 3-2 Engineering Program is an example of a faculty-designed interdisciplinary studies major. Successful completion of this degree program leads to a B.S. degree from St. Andrews and a B.S. degree from North Carolina State University in a field of engineering selected by the student. Accordingly, the program's mission is twofold. The program supports the Mathematics faculty's mission to enable the majors to develop critical thinking skills while mastering a broad spectrum of knowledge from the mathematical sciences. The program also seeks to prepare its majors for the engineering requirements of N.C. State University. This supports the College's mission to prepare its students for professional opportunities in careers. Under the 3-2 Engineering Program, the engineering degree must be earned from N.C. State before the B.S. Degree will be awarded by St. Andrews. Note: Since N.C. State has extensive general education requirements, many of which can be met by prudent choices of breadth courses taken at St. Andrews, students interested in this program should contact the director of the program as soon as possible, to plan an efficient course of study.

Required Courses:

CHE 210	Essential Concepts of Chemistry
CHE 210L	Essential Concepts of Chemistry Laboratory
CHE 215	Introduction to Structural Inorganic Chemistry I
CHE 215L	Introduction to Structural Inorganic Chemistry Laboratory
CIS 127	Introduction to Programming and Abstraction
MAT 221	Calculus I
MAT 222	Calculus II
MAT 310	Multivariable calculus
MAT 312	Linear Algebra
MAT 340	Differential Equations
PHY 211	General Physics I
PHY 212	General Physics II

Additional Requirements:

- Three courses chosen from the selections below:
CIS 226 Object Oriented Programming
MAT 205 Statistics I

Any upper level courses in MAT, CIS or CHE. Students may take all of these electives in a single discipline; for example, a student planning to study chemical engineering may take all three electives in Chemistry.