

Biology 331 : Synthetic Cell Biology

Synthetic biologists take apart, rebuild, and repurpose parts of a cell in order to program and probe cell behavior. To do this, synthetic biologists utilize approaches from cell biology, engineering, molecular genetics, and biochemistry. This advanced course will survey the questions addressed by synthetic biology research, the molecular approaches utilized, and the implications of this work in the realms of biomedicine and agriculture. A key component of this survey will be the lab, wherein students will engage in a synthetic biology research project. Course-work will include reading and discussion of primary research literature, lectures to provide background information, student-led presentations, scientific writing, and hands-on lab work. The course will consist of 2.5 hours of lecture/discussion and one 3-hour lab per week. Applies to the Molecular/Cell major requirement and as an elective for BBMB majors. Students who received credit for BIOL 374 ST: *Molecular and Synthetic Biology* cannot receive credit for this course.

Credits 4

Prerequisite Courses

[Biology 205: Genetics](#)

[Chemistry 245: Organic Chemistry I](#)