**HLSC - INTEGRATED LIFE SCIENCES**

**HLSC100 Students in the University: Integrated Life Sciences (1 Credit)**
In a small classroom setting, Integrated Life Sciences students learn about academic resources on and off campus.
**Restriction:** Must be in the Honors College Integrated Life Sciences program.
**Credit Only Granted for:** EDCP108O, HLSC100, HONR100, or UNIV100H.

**HLSC207 Principles of Biology III Organismal Biology (3 Credits)**
The diversity, structure and function of organisms as understood from the perspective of their common physicochemical principles and unique evolutionary histories.
**Prerequisite:** (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Or students who have taken courses with comparable content may contact the department.
**Restriction:** Must be in the Honors College Integrated Life Sciences program.
**Credit Only Granted for:** BSCI207, BSCI279D, or HLSC207.

**HLSC322 Principles of Genetics and Genomics (4 Credits)**
Principles and mechanisms of heredity and gene expression, with a focus on the application of genomics to contemporary medicine, biotechnology, and societal issues.
**Prerequisite:** HLSC207.
**Restriction:** Must be in a major in UGST-HCOL-Integrated Life Sciences Program.
**Credit Only Granted for:** HLSC322 or BSCI222.

**HLSC374 Mathematical Modeling in Biology (4 Credits)**
Students will learn empowering mathematical techniques through the understanding of biological models. Models are chosen from a variety of biological disciplines. Mathematical skills that will be developed along the way include: solving non-linear difference equations, eigenvector analysis, and the implementation of these algorithms as computer models.
**Prerequisite:** MATH131, MATH136, or MATH141. Cross-listed with BSCI374.
**Credit Only Granted for:** BSCI374, BSCI474, or HLSC374.
**Additional Information:** The HLSC374 version of this course is restricted to students in the Honors College Integrated Life Sciences program.

**HLSC377 Research and Application in Life Sciences (3 Credits)**
A skills based course covering current research in the life sciences emphasizing novel approaches to complex real-word problems having a biological basis.
**Prerequisite:** HLSC207 and HLSC322.
**Restriction:** Must be in the Integrated Life Sciences honors program.