

Dr. Nicole Horenstein, Leigh 402,  
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<b>Course Description</b>	This is a 3-credit course focused on biotransformations of organic molecules. In essence this means using either enzymes or cells to convert one compound into another. The prerequisite for the course is successful completion of organic chemistry (CHM2211, CHM2213, or CHM3217). We will first discuss concepts in catalytic reactions and learn the basics of proteins and how enzymes catalyze reactions. Subsequently we review some of the major classes of biotransformations, and their scope and limitations. Further we will discuss transformations of industrial importance e.g. ethanol production, fermented food and beverages (with a practical demonstration or two), as well as what may be one of the most important reactions on the planet, found in the dark side of photosynthesis.
<b>Text &amp; Materials</b>	“Biotransformations in Organic Chemistry” by Faber. This course will use the digital version of the text which is free, and available online through the UF libraries. <a href="https://link.springer.com/book/10.1007%2F978-3-642-17393-6">https://link.springer.com/book/10.1007%2F978-3-642-17393-6</a>
<b>Web</b>	The course CANVAS website will be announced.
<b>Lecture</b>	M,W,F, Period 5 (11:45 PM - 12:35 PM) Leigh Hall, 242.
<b>Office Hours</b>	To be announced.
<b>Course grading</b>	There will be two exams (100 points each) and a final culminating project (100 points) in the form of a written paper and short powerpoint presentation.
<b>Grades/Grading</b>	The following grading scale will apply A ≥ 90%, A- = 87-89.9%, B+ = 84-86.9%, B = 77-83.9%, B- = 73-76.9%, C+ = 70-72.9%, C = 63-69.9%, C- = 60-62.9%, D+ = 57-59.9%, D = 50-56.9%, E < 50%. This scale includes a curve. The letter grade of A reflects exemplary work.
<b>Homework</b>	I will assign periodic readings and problems which we will discuss in class.

***The Honor Pledge:***

***"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code. "***

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied:

***"On my honor, I have neither given nor received unauthorized aid in doing this assignment."***

**Campus Resources*****The Counseling & Wellness Center***

Provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

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University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575,  
[www.counseling.ufl.edu/cwc/](http://www.counseling.ufl.edu/cwc/)

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001 Reid Hall

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