

NFS 1072 Kitchen Science, Fall 2021 and 2022, Spring 2018 – present

A self-designed integrated lecture-lab introductory course focused on teaching students basic chemistry, physics, and biology concepts that explain culinary phenomena. Hands-on laboratories and interactive demonstrations allow students to visualize and explore scientific principles in the context of foods and food preparation techniques, and help students gain experience in data analysis, presentation, and interpretation. Required course for Nutrition & Food Science majors in the Food Sciences concentration. *Prior to 2023, the course number was NFS 072.* (enrollment = 16 students)

BIOL 1400 Principles of Biology 1, Summer 2017 – present, Fall 2012 – present

Introductory non-majors course also required for some life science-related majors. Large lecture with laboratory component. Topics include cell molecules and structure, cellular energy transformation, information processing, cell division, inheritance, and microevolution. Major emphasis on the scientific process. *Prior to 2023, the course number was BIOL 001.* (enrollment = ~180 – 200 students)

BIOL 1450 Principles of Biology 2, Spring 2012 – present

Introductory non-majors course also required for some life science-related majors. Large lecture with laboratory component. Topics include plant and animal homeostatic systems, speciation, phylogenetic trees, animal behavior, and ecology. Major emphasis on the process of science. *Prior to 2023, the course number was BIOL 002.* (enrollment = ~180 – 200 students)

NFS 2183 Introduction to Biochemistry, Fall and Summer 2011 – 2016, Fall 2017 – present

One-semester, upper-level biochemistry course designed for Nutrition & Food Science majors. Topics include biomolecule structure and properties, enzyme kinetics, carbohydrate and lipid metabolism, regulation and integration of metabolic processes, and gene expression. This is a required course for all Nutrition & Food Science majors. *Prior to 2023, the course number was NFS 183.* (enrollment = ~30 – 40 students)

NFS 187 Introduction to Biochemistry: Laboratory, Summer and Fall 2012 – 2016, Fall 2017 – Fall 2021

Laboratory associated with NFS 183 Introduction to Biochemistry. Techniques include spectrophotometry, electrophoresis, and mass spectrometry. Solely responsible for two sections during summer semester (materials preparation, teaching, grading). Responsible for all course materials (see Curriculum Development section) and overseeing the course with the assistance of a graduate student laboratory coordinator. Sections are taught by graduate student teaching assistants.

HCOL 186 Science in the News, Spring 2016 – Spring 2017

An Honors College Sophomore Seminar course that uses evaluation of current news reports on scientific findings and primary scientific literature as a framework to help students develop skills necessary to become self-directed learners and effective researchers.

BCOR 011 Exploring Biology, Fall 2011

Introductory biology course for students in the integrated biological sciences program. Topics include cell structure and function, gene expression and regulation, cell division, inheritance, and DNA technologies.

Guest Lecturer, Yale University, New Haven, CT

Cellular and Molecular Biology of Cancer, Winter 2009 – 2011

Molecular Virology of Animal Viruses, Fall 2010

Department of Genetics Graduate Student Seminar, Winter 2009

Teaching Assistant, Stanford University, Stanford, CA

Biochemical Structure, Metabolism, and Energetics, Winter 2002

Topics in Microbiology, Spring 2003

Laboratory Teaching Assistant, Williams College, Williamstown, MA

Biochemistry I and II, Fall 2000 – Spring 2001

Organic Chemistry I and II, Fall 1999 – Spring 2000

Introductory Chemistry II, Spring 1999

Advanced Introductory Chemistry I, Fall 1998

Grader, Williams College, Williamstown, MA

AIDS: The Disease and Search for a Cure, Spring 2001

Professional Development

Center for Teaching & Learning Faculty Associate, Fall 2020 – present

Activities include individual consults to assist other faculty members, helping to envision and run workshops, helping to develop a faculty technology survey and a student mid-semester feedback survey, and evaluating and drafting Knowledge Base articles related to teaching technologies.

Yale Scientific Teaching Fellow, Fall 2010

Participants selected through competitive application process. Nine-week training course in using scientific teaching methods to teach scien301pl

NFS 187 Introduction to Biochemistry: Laboratory

Developed entirely new curriculum and accompanying laboratories for NFS 183. The new curriculum reinforces concepts covered in NFS 183. Additionally, labs were designed to promote student interest and engagement by connecting more directly to things relevant to Nutrition & Food Science and Dietetics majors (e.g. assessing dye concentrations of sports drinks; using lactase isolated from Lactaid pills in enzyme kinetic analyses; isolating and separating proteins from two types of brewing yeasts). My work included:

- creating and testing all laboratories
- writing all laboratory materials (e.g. student laboratory handouts, assignments and grading rubrics, laboratory report guidelines)
- implementing pre-lab quizzes to promote student preparation
- developing an Excel workshop to develop students' data analysis skills
- implementing a lab report peer review and oral presentation to develop students' communication }

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ADVISING & MENTORING

Primary advisor for undergraduate students in the biological sciences major. Advisees include students from multiple colleges within the University of Vermont.

Laboratory mentor for multiple students in graduate school and as a postdoctoral researcher.

Mentor to undergraduate females through Women in Science at Yale.

ACADEMIC SERVICE

Invited manuscript reviewer, University of California Press, Summer 2023

Associate Provost for Academic Affairs Advisory Committee, Fall 2018 – Spring 2019

NEASC (now NECHE) Accreditation Standard Four Subcommittee, Fall 2017 – Fall 2018

Educational Stewardship Committee, Fall 2016 – Spring 2020

Faculty Senate Curricular Affairs Committee, Spring 2015 – present

Chair, Spring 2016 – present

Curriculum Committee, College of Agriculture & Life Sciences, Fall 2014 – Spring 2016

Co-Chair, Fall 2015 – Spring 2016

Awards Committee, College of Agriculture & Life Sciences, Fall 2014 – Spring 2015

Plant Biology Curriculum Committee, 2013 – present

Grant Reviewer

- Engaged Practices Innovation, 2016 – 2019

One-year grants to stimulate the development of innovative projects that increase student engagement, thereby leading to increased retention and persistence to graduation.

- REACH Grant Program, 2013 – 2014

Awards University funds to faculty in diverse disciplines to promote innovative research projects whose impacts are likely to extend beyond the University.

Ad Hoc Reviewer (via Daniel DiMaio), Journal of Virology, 2008 – 2011

Women in Science at Yale, Yale University, 2008 – 2011

Chemistry Students Advisory Committee, President, Williams College, 1999 – 2001

Chemistry Department Job Search Student Advisory Committee, 1999 and 2000

Purple Key Society Volunteer, Williams College, 1999 – 2001

Reading for the Blind & Dyslexic Volunteer, Berkshire/Williamstown Regional Unit, 1999 – 2001

ADMINISTRATIVE ACTIVITIES

Interim Co-Director of the Environmental Science Program, University of Vermont, Spring 2014

Responsibilities included participating in admitted student visiting day activities, helping incoming students select fall courses, and advising current Environmental Science Students.

GRANTS, AWARDS & HONORS

Carrigan Award for Excellence in Undergraduate Teaching and Advising, 2017

Nominated for Kroepsch-Maurice Excellence in Teaching Award, 2013 and 2015

Almstead, Laura