

CHEM 491 - RESEARCH & INDEP STUDY I

Fall 2016

Class room: Colton 120L

Instructor: Yong Kim, PhD

Office: Tiernan 370

Email: ykim@njit.edu

Office Hours: Mon and Tue from 10:00-11:00AM or by appointment

Prerequisites: CHEM 475 – Biochemistry Lab

Co-requisites: The University Lab Safety Training

The University Biosafety Training

Text: Kim YI, Boyd JS, Espinosa J, Golden SS. (2015) Detecting KaiC phosphorylation rhythms of the cyanobacterial circadian oscillator in vitro and in vivo. *Method Enzymol.* 551, 153-173.

Course description: In this course, students will perform an original research project under the supervision of Dr. Yong Kim. With the purified proteins, the in vitro oscillator of the cyanobacterial circadian clock will be reconstituted to study the reaction mechanism of KaiC phosphorylation. The result from the research will be presented in the research group at the end of the semester.

- The NJIT honor code will be upheld, and that any violations will be brought to the immediate attention of the Dean of Students.
- Students will be consulted by the instructor and must have written agreement to any modifications or deviations from the syllabus throughout the course of the semester.

Grade:

If you have lab safety violation, you will get F letter grade.

Lab performance: 90%, Research presentation 10%

Lab performance

Students must work in the lab at least 6 hours per week.

Research presentation

10-30 min power point presentation with 1) Background, 2) Experimental results, and 3) Discussion.