

**Chemistry 372 - Biochemistry Laboratory I**  
**Spring 2021 Syllabus**  
**Loyola University Chicago**  
**Online: ZOOM**



**Instructor:** Agnes Pecak (aorlof@luc.edu)  
**Teaching Assistant:** Gaby Martinez-Ramirez  
(gmartinezramirez@luc.edu)

**Asynchronous Laboratory sections: discussion and laboratory sections are linked.** ALL Lab assignments will be discussed in Discussion section Chem 372-004 section. Lab assignments will be completed on student's own time. It will be student's responsibility to complete them on time. Due dates will be listed in Sakai.

**Synchronous Discussion section: online: Mondays 12:10PM - 1:00PM via ZOOM live. Access to ZOOM live weekly sessions are listed in Sakai under Chem 372-004 section.** The ZOOM link for class is accessed from the ZOOM tool in Sakai. You log in to Sakai to join. Make sure your ZOOM name is full First Name and Last Name. Odd usernames will not be allowed into ZOOM to combat any unauthorized access & that will count as an absence. Be mindful of this!

**Description and Objectives:** This online laboratory course is designed to complement Biochemistry Laboratory II (Chem 373). It will cover all theory behind all the "in person" modern laboratory techniques in Chem 373. The course theme involves a comparative investigation of the enzyme called ADP-glucose pyrophosphorylase and its mutant from a bacterial source *E coli*.

**The objectives of the course are to**

- learn the theoretical foundations for each method used in Chem 373
- understand the applicability of the biochemical methods

This course will cover the background and research information of the protein studied in Chem373. Lab techniques and procedures that will be covered in class include mutagenesis, gel electrophoresis, plasmid transformation, SDS-PAGE, a recombinant protein expression and purification and kinetics, thermal protein stability etc. Student will also explore protein called ADP-glucose pyrophosphorylase and the mutants studied in Chem 373. This online class will also cover sequence comparison, protein modeling and each equipment used in Chem 373.

**Required Materials:** Laptop with reliable internet connection, Notebook (which will also be used in Chem 373) and [ZOOM video & web conferencing software](#) (free for LUC students). UVID username and password may be required to access and

download ZOOM, enter synchronous course meetings, office hours, etc. See [ZOOM participation instructions](#) supplied by the University for more info. Links to ZOOM for synchronous sessions and office hours will be provided in Sakai. Each student will need a CamScanner or Genius Scan phone app, for iPhone or Android. This is a free app that will convert a phone picture to a PDF file. It may be necessary to take pictures of your Composition notebook pages and upload them for grading as a PDF file.

**Teaching Assistant (TA):** In order to increase the amount of individual assistance you receive in discussion; Teaching Assistant will participate in delivering this course. The teaching assistant will be responsible for answering any questions you will have about assignments and grading each assignment. If at any time during the semester, you have any questions or concerns about the behavior of your Teaching Assistant, please contact the Instructor. TA's contact information and office hours will be provided in Sakai.

### **Grade Allocation:**

**45% Quizzes.** Quizzes will be completed in Sakai. There will be a due date provided. Each student will complete the quiz on their own time. *There are no make ups for quizzes.*

**40 % Assignments:** Notebook Entries, Sequence Alignment, Protein modeling, writing Introduction/ Procedure for Research Paper etc

**15% Attendance in ZOOM live Discussion Class.** Students are expected to attend each discussion class where they will have a chance to ask questions live. Teaching Assistant will be responsible for checking the attendance.

### **Class grades:**

A = 100-88 %	A- = 87-83 %	B+ = 82-78 %
B = 77-73 %	B- = 72-68 %	C+ = 67-63 %
C = 62-58 %	C- = 57-53 %	D+ = 52-48 %
D = 47-40 %	F = Less than 40 %	

**Office hours:** Outside of class, you may contact Agnes Pecak during regularly scheduled Office Hours, Mondays 1 pm- 2 pm via ZOOM or e-mail [aorlof@luc.edu](mailto:aorlof@luc.edu).

**Sakai:** This site contains current information for quizzes, assignments, scores and zoom live access.

**Academic integrity:** The standards of the College of Arts and Sciences will be followed. In case a violation is detected, the particular assignment may receive a grade of zero.

Course content is designed for use ONLY by students in this course. All materials are subject to privacy and copyright laws. Students are NOT allowed to share any course resources, such as , PowerPoints, quiz/test/exam questions, documents, etc.

with anyone nor post to any outside media. The Chem 372 syllabus and all course materials are NOT allowed for distribution outside of class nor outside of the University. Uploading, posting, copying, or sharing electronic/non-electronic Chem 372 materials outside of class [i.e. share sites] is NOT allowed. If discovered that a student completes such action, the Dean and University get notified immediately.

### **Course Repeat Rule:**

Effective with the Fall 2017 semester, students are allowed only THREE attempts to pass Chemistry courses with a C- or better grade. The three attempts include withdrawals (W). After the second attempt, the student must secure approval for a third attempt. Students must come to the Chemistry Department, fill out a permission to register form or print it from the Department of Chemistry & Biochemistry website: <http://www.luc.edu/chemistry/forms/> and personally meet and obtain a signature from either the Undergraduate Program Director, Assistant Chairperson, or Chairperson in Chemistry. A copy of this form is taken to your Academic Advisor in Sullivan to secure final permission for the attempt.

### **Student Accommodations**

If you have any special needs, please let your instructor know the 1<sup>st</sup> week of classes. The university provides services to students with disabilities. Any student who would like to use any of these university services should contact the Student Accessibility Center (SAC), Sullivan Center, (773) 508-3700. Further information is available at <http://www.luc.edu/sac/>

### **Academic Integrity**

All students in this course are expected to have read and to abide by the demanding standard of personal honesty, drafted by the College of Arts & Sciences, which can be viewed at:

<http://www.luc.edu/cas/advising/academicintegritystatement/>

*A basic mission of a university is to search for and to communicate the truth as it is honestly perceived. A genuine learning community cannot exist unless this demanding standard is a fundamental tenet of the intellectual life of the community. Students of Loyola University Chicago are expected to know, to respect, and to practice this standard of personal honesty.*

*Academic dishonesty can take several forms, including, but not limited to cheating, plagiarism, copying another student's work, and submitting false documents.*

Any instance of dishonesty will be reported to The Chair of The Department of Chemistry & Biochemistry who will decide what the next steps may be.

### **Loyola University Absence Policy for Students in Co-Curricular Activities (including ROTC):**

Students missing classes while representing Loyola University Chicago in an official capacity (e.g. intercollegiate athletics, debate team, model government organization) shall be allowed by the faculty member of record to make up any assignments and to receive notes or other written information distributed in the missed classes.

Students should discuss with faculty the potential consequences of missing discussion or laboratory classes and the ways in which they can be remedied. Students must provide their instructors with proper documentation (develop standard form on web) describing the reason for and date of the absence.

This documentation must be signed by an appropriate faculty or staff member, and it

must be provided as far in advance of the absence as possible. It is the responsibility of the student to make up any assignments. If the student misses an examination, the instructor is required to give the student the opportunity to take the examination at another time.

(<https://www.luc.edu/athleteadvising/attendance.shtml>)

### **Accommodations for Religious Reasons**

If you have observances of religious holidays that will cause you to miss class/lab or otherwise effect your performance in the class you must alert the instructor ***within 10 calendar days of the first class meeting of the semester*** to request special accommodations, which will be handled on a case by case basis.



