CHEM F654: Protein Structure and Function

Instructor : Dr. Maegan Weltzin, 907-474-6527, mmweltzin@alaska.edu
Department of Chemistry and Biochemistry
Murie 113E

Lecture: TR 9:45 am ±11:15 pm
Murie Rm 130

Office Hours: 11:15-1:15 T Murie 113E or arrange via phone/email

CRN: 34020
Prerequisite: CHEM F351 (Macromolecules)
Textbook s: The suggested textbook serves merely as a basic reference. Course material also composed of review articles and primary research literature pertinent to the topics.

- Scientific research articles and review articles (PDF via Blackboard)
  Handouts provided in class

- David Whiteford. 2005. Proteins: Structure and Function . John Wiley & Sons.
  ISBN: 978-0471-49894-0

Course Description

This 3-credit course introduces the concept of the intricate relationships between protein structure and protein function, one of the most fundamental concepts of biochemistry. The four major topics include: 1) basic aspects of protein structure, 2) protein function, 3) protein life history, and 4) protein structure

x Participation will be based on an average score, which includes material read, ability to answer questions directly related to text, ability to answer questions by applying learned material, and similar.

x Written and oral assignment(s) will be scored as follows (detailed scoring sheet will be provided):

Content:	40%
Organization:	30%
Presentation/Format:	15%
Quality of Discussion:	15%

x Student-led discussions will be evaluated on a scoring matrix including material read (10%), understanding of methodology (20%), ability to answer questions directly related to text (50%), ability to answer questions applying learned knowledge (20%).
  o As lead student, each paper is worth 25 pts (25pts * 3 papers = 75 pts)
  o As a non-lead student, each paper is worth 10 pts (10pts * 10 papers= 100 pts)

x Student presentations will be evaluated on a scoring matrix including organization, introduction of topic (20%), delineation of problem (10%), understanding of methodology (20%) and results (25%), discussion (10%), quality of sources (5%), and addressing audience questions (10%).

and, ordinarily, for the course in which the violation occurred. Moreover, violation of the Honor Code may result in suspension or expulsion.

Plagiarism Policy:
3ODJLDULVP LV GHILQHG DV WKH XVH RI ³RWKHU´ LQWHOOHFWXDO
author. Intellectual property includes all electronic, spoken or print media ***thus any information taken of the web is included under this statement***. Students are expected to cite all sources used in oral and written presentations. Cases of plagiarism will be taken seriously with a grade 0 for the particular assignment and your advisor will be notified. Severe cases may be referred to the Department Chair or Dean or class failing considered.

Disabilities
Students with a physical or learning disability are required to identify themselves to the Disability Services office, 474-7043, located in the Center for Health and Counseling. The student must provide documentation of the disability. Disability Services will then notify the instructor of special arrangements for taking tests and working homework assignments.

Computer Access: Currently Department of Computing and Communications (DCC) maintains two open labs on campus: the Bunnell Lab, and the Node (Rasmussen library). The Node has 24-hour access.

Support Services: Support can be obtained through the University of Alaska Library system, online resources, and the instructor. Additional services are available through Student Support Services (http://www.uaf.edu/sssp/) at UAF.

Classroom Etiquette: The purpose of this information is to assist students in understanding proper classroom behavior. The classroom should be a learning centered environment in which faculty and students are unhindered by disruptive behavior. Students are expected to maintain proper decorum in the classroom and to stay for the entire length of class. If the student plans to leave during class, they should inform the instructor prior to the start of class. The University of Alaska Fairbanks is an institution of higher education that promotes the free exchange of ideas. However, students must adhere to the rules set forth by the University and the instructor. Failure to comply with classroom rules may result in dismissal from the class and/or the University. Faculty have the authority to manage their classrooms to ensure an environment conducive to learning. The University of Alaska Student Code of Conduct (the Code), part of the Board of Regents Policy 09.02, is available at https://www.alaska.edu/bor/policy/09-02.pdf. You should be familiar with the Code as you will be held accountable to maintain the standards stated within. The Code includes the following statements:

P09.02.020.A As with all members of the university community, the university requires students to conduct themselves honestly and responsibly and to respect the rights of others. Students may not engage in behavior that disrupts the learning environment, violates the rights of others or otherwise violates the Student Code of Conduct (Code), university rules, regulations, or procedures. Students and student organizations will be responsible for ensuring that they and their guests comply with the Code while on property owned or controlled by the university or at activities authorized or sponsored by the university.

The Student Code of Conduct may also apply to behavior exhibited online or electronically via email, social media, text messaging, or other electronic means.

Student protections and services statement: Every qualified student is welcome in my classroom. $V QHHGHG , DP KDSS\ WR ZRUN ZLWK \RX GLVDELOLW\ VHUYLFH etc. to find reasonable accommodations. Students at this university are protected against sexual harassment and discrimination (Title IX), and minors have additional protections. For more information on your rights as a student and the resources available to you to resolve problems, please go the following site: www.uaf.edu/handbook/.

Amending Syllabus

The instructor may initiate changes to this syllabus subject to majority approval by students. Any and all changes will be clearly communicated (oral, email, blackboard). The instructor reserves the right to make minor change to the lecture schedule or calendar and any grading policies that are favor of the student.

	Membrane proteins		
Feb 25	Protein Structure/Function Student Led Discussions : Paper Discussion (45 min)	Fantini et al., 2016 (***Kowalski***	