

Biochemistry Colloquium**Chem 688**

Primary Instructor: Thomas Kuhn, 474-5752, tbkuhn@alaska.edu
Department of Chemistry and Biochemistry
Murie 223 D

Office Hours: to be determined individually (email or phone)

Meeting Time: Wednesday, 11:45 pm – 12:45 pm, Murie 230

Text: Reading material will be distributed during course
Reference texts to be considered:
Experimental Design for Biologists
Ed. D.J. Glass
Cold Spring Harbor Laboratory Press, 1st edition, 2007
ISBN 978-0-19-956912-0

Philosophy of Science: A very short introduction
Samir Okasha
Oxford University Press, 1st edition, 2002
ISBN-13: 978-87969-735-8

Course Description:

Experimental Design is at the heart of science and is guided by the scientific method – the core of how to ask questions and finding answers. The course will initially focus on the most significant concepts that frame our current structure of scientific inquiry followed by an integration of these concepts into proper experimental designs. Next, a focus on various skills essential to succeed as a professional scientist will be addressed including project/data management, and career preparations.

Course Goals:

- Utilizing the scientific method properly and critical
- application into the experimental design
- professional data/project management
- presenting as a professional scientist

Learning Outcomes:

- essential concepts shaping scientific inquiry
- conceptual framework for research
- validation of experimental design
- effective time/logistics management
- being a scientist

Instructional Methods:

Course material is exclusively composed of primary literature pertinent to the topics discussed. The suggested textbook serves as a basic reference. The course is primarily composed of class discussion with short individual presentations. At least one week preparation time is given for any assignments.

Blackboard will be utilized as a central communication platform for all announcements, posting of reading material, distributing and collecting assignments. It is assumed that every student is frequently visiting blackboard to check for announcements as well as email notifications.

Course Policies:

- Attendance:* Regular student attendance is expected to ensure consistency in discussions, assignments, and presentations. Active student participation is vital and will significantly contribute to the final grade.
- Presentations:* Students will receive adequate preparation time. Content and organization of topics are the primary concern, however presentation and discussion are also subject to score (rubric provided in class).
- Assignments:* Students will receive adequate writing time and all assignments are guided by questions. All written material will be subject to critique and revision to allow ample time for improvements. Written assignment(s) will be scored according to a rubric (provided to students in class):

Grading:

Grades are pass or fail. Students will be evaluated largely on the basis of their **participation (75%)**. Timely submission of written assignments is expected (10%) as well as a current status of the course portfolio (15%).

Ethical Considerations:

The Chemistry Department's policy of cheating is as follows: *"any student caught cheating will be assigned a course grade of F. The student's academic advisor will be notified of this failing grade and the student will not be allowed to drop the course"*.

Plagiarism Policy:

Plagiarism is defined as the use of "other" intellectual property without proper reference to the original 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. Severe cases may be referred to the Department Chair or Dean or class failing considered.

Services –Support, Disabilities:

Support services will be provided by 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. We will work with the Office of Disabilities Services (203 WHIT, 474-7043) to provide any reasonable accommodations for students to succeed.

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/.

UA is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual: <https://alaska.edu/nondiscrimination/>.

Effective communication: Students who have difficulties with oral presentations and/or writing are strongly encouraged to get help from the UAF Department of Communication's Speaking Center (907-474-5470, speak@uaf.edu) and the UAF English's Department's Writing Center (907-474-5314, Gruening 8th floor), and/or CTC's Learning Center (604 Barnette Street, 907-455- 2860).