C688 Fall 2019

Biochemistry Colloquium Chem 688

Primary Instructor: Kelly Drew, 474-7190, kdrew@alaska.edu

Department of Chemistry and Biochemistry Murie Life Sciences Building, Room 223F

Office Hours: please contact instructor via email or phone

Meeting Time: Friday, 2 pm - 3 pm, Murie 230

Text: reading material distributed during course

Course Description:

This 1 credit course provides a set of practical skills to succeed as a professional scientist in a very competitive environment whether higher education, academia, or private industry. The colloquium topics will emphasize use of peer-reviewed data bases, how to read and decipher original research articles in your area of expertise as well as outside of your area of expertise, and effective styles of presenting research for formal and informal discussion.

Graduate students are expected to present their own research progress or present two published research articles.

Course Goals: Spring 2019 – Accessing and reading professional literature

- Effective literature search
- Effective communication
- Ability to clearly formulate scientific problems

Learning Outcomes: Spring 2011 – Preparation of a grant for submission

- Presenting science to scientists, students with broad backgrounds of expertise
- Identify funding sources and conflicts of interest in published work
- Critically evaluate published and preliminary studies for reproducibility and rigor
- Be able to follow ARRIVE guidelines in the student's own work and assess adherence to ARRIVE guidelines in published work

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Instructional Methods:

The course is composed of group discussion (approx. 85%), and individual oral presentations (approx 15%). Some course topics will be introduced through reading material.

Required reading:

https://www.nc3rs.org.uk/arrive-guidelines

 $\underline{https://www.nc3rs.org.uk/sites/default/files/documents/Guidelines/NC3Rs\%20ARRIVE\%20Guidelines\%20Checklist\%20(fillable).pdf}$

(Download the ARRIVE guidelines and fillable checklist).

Grading:

Students will be evaluated on the basis of their attendance (50%) and *participation* (50%). Demonstrate attendance by signing in with Dr. Drew or Dr. Murphy. If sign in is not available email Dr. Drew as soon as possible and briefly describe the topic of discussion to demonstrate attendance.

Participation will be scored from comments posted in Perusall, questions or comments made during oral discussion of the papers

ARRIVE guideline checklist must be completed for every published paper discussed and turned in to Dr. Drew at the beginning of each class period.

$\underline{Grade} = (\%A + \%P + \%ARRIVE guideline checklist)/3$

%A= % of total attendance possible

%P = % of total possible where each paper or slide set discussed is worth a maximum of 3 points. (1=one Perusall comment; 2= 2 Perusall comments + 1 oral comment or question; 3= 3 or more Perusall comments and 1 or more oral questions or comments. Comments can refer to content or graphics. Be aware of how data is presented. Can you read it? Is the table or graph complete or is information missing. During presentations not what communication styles and strategies are effective and not effective. Use the experience to hone your own presentation and graphic skills. Apply these skills to your presentations.

%ARRIVE guideline checklist = % of total possible where each checklist is worth a maximum of 3 points. ($1 \le 12/20$ completed; 2 = 12-18/20 completed; 3 = 19-20/20 completed)

Course Policies:

Attendance:

Presentations: Students will receive adequate preparation time for all assignments. Content and

organization of topics are the primary concern, however presentation and

discussion are also subject to score.

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

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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 accommodations for students with disabilities.

Student protections and services:

Every qualified student is welcome in my classroom. As needed, I am happy to work with you, disability services, veterans; services, rural student services, etc to find reasonable accommodations. Students at this university are protected against sexual harassment and discrimination (Title IX), and minors have additional protections. As required, if I notice or am informed of certain types of misconduct, then I am required to report it to the appropriate authorities. 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

Schedule for weekly discussion are posted at

 $\underline{https://docs.google.com/spreadsheets/d/1JiZjJ9fLUMf8xx8nO8Y4sPck4VXp_xp_xfqfKigJ1x8/editfgid=0}$

Please sign up on the google sheet Papers will also be posted in Perusall. perusall course code MURPHY-G9QQ7

Papers to present or slides of original data to be discussed should be sent to Carl Murphy at cimurphy4@alaska.edu at least one week before the presentation date.