

1. **CELLULAR SIGNALING**
CHEM F675-001
CRN 38902
3 CREDITS
Jan 10, 2022-Apr 30, 2022
2. in person lectures
3. **INSTRUCTOR: LAWRENCE K. DUFFY**
246 WRRB
lkduffy@alaska.edu
907-474-7525
4. **OFFICE HOURS:** Wednesday - 10:30 AM
5. **COURSE DESCRIPTION:** Cellular signaling is important in molecular systems and constitutes a central topic in biochemical and medical studies. The course discusses the basic concept of signals, signal transduction, role of proteins, modification of proteins for regulation and relationship to selected diseases in humans. Major topics include G-Proteins, Second Messengers, Protein Kinases, Tyrosine Kinase, 7 Transmembrane Domain proteins, Signal Transduction by Proteolysis and Neurotransmitters.
6. **TEXTBOOK:** Cellular Signal Processing by Friedrich Marks
Ursula Klingmuller and Karin Muller - Decker.
Second Edition, Routledge, 2017
Taylor and Francis,
ISBN 978-0-8153-4534-3
7. **LEARNING OUTCOMES and COURSE GOALS**
 - * Develop an overview of molecular signaling
 - * Comprehend the coordination of biochemical pathways
 - * Ability to explain the molecular basis of cellular signaling
 - * Ability to explain the signal disruptions in diseases
8. **INSTRUCTIONAL METHODS:** Lectures by instructor and discussions.
Review of case studies
9. **EVALUATION:** Three exams will be given.
Student participation in discussions will be noted
Grades will be based on the +/- system
follow the UAF Incomplete Grade Policy
in the UAF catalog; I
10. **STUDENT PROTECTIONS:** Every qualified student is welcome.
Veteran's services, rural services and ?
disability services to arrange reasonable accommodations.
Students are protected by Title IX.
Minors have additional protections.
Please check the UAF handbook.
www.uaf.edu/handbook
I am happy to work with ;
11. **Technology:** Access to internet to communicate with instructor.



UAF Governance

UAF Governance Home / Faculty Senate / Curriculum / Syllabus Addendum

Syllabus Addendum

The UAF Faculty Senate approved the concept of the syllabus addendum in May 2020. The syllabus addendum contains non-academic information for all UAF syllabi. See a Google Doc version of the syllabus addendum linked here.

Syllabus Addendum (Revised 8/18/2021)

COVID-19 statement: Students should keep up-to-date on the university's policies, practices, and mandates related to COVID-19 by regularly checking this website: <https://sites.google.com/alaska.edu/coronavirus/uaf?authuser=0>

Further, students are expected to adhere to the university's policies, practices, and mandates and are subject to disciplinary actions if they do not comply.

Student protections statement: UAF embraces and grows a culture of respect, diversity, inclusion, and caring. Students at this university are protected against sexual harassment and discrimination (Title IX). Faculty members are designated as responsible employees which means they are required to report sexual misconduct. Graduate teaching assistants do not share the same reporting obligations. For more information on your rights as a student and the resources available to you to resolve problems, please go to the following site: <https://catalog.uaf.edu/academics-regulations/students-rights-responsibilities/>.

Disability services statement: I will work with the Office of Disability Services to provide reasonable accommodation to students with disabilities.

Student Academic Support:

- Speaking Center (907-474-5470, uaf-speakingcenter@alaska.edu, Gruening 507)
- Writing Center (907-474-5314, uaf-writing-center@alaska.edu, Gruening 8th floor)
- UAF Math Services, uafmathstatlab@gmail.com, Chapman Building (for math fee paying students only)
- Developmental Math Lab, Gruening 406
- The Debbie Moses Learning Center at CTC (907-455-2860, 604 Barnette St, Room 120, <https://www.ctc.uaf.edu/student-services/student-success-center/>)
- For more information and resources, please see the Academic Advising Resource List (https://www.uaf.edu/advising/lr/SKM_364e19011717281.pdf)

Student Resources:

- Disability Services (907-474-5655, uaf-disability-services@alaska.edu, Whitaker 208)
- Student Health & Counseling [6 free counseling sessions] (907-474-7043, <https://www.uaf.edu/chc/appointments.php>, Whitaker 203)
- Center for Student Rights and Responsibilities (907-474-7317, uaf-studentrights@alaska.edu, Elelson 110)
- Associated Students of the University of Alaska Fairbanks (ASUAF) or ASUAF Student Government (907-474-7355, asuaf.office@alaska.edu, Wood Center 119)

Nondiscrimination statement: The University of Alaska is an affirmative action/equal opportunity employer and educational institution. The University of Alaska does not discriminate on the basis of race, religion, color, national origin, citizenship, age, sex, physical or mental disability, status as a protected veteran, marital status, changes in marital status, pregnancy, childbirth or related medical conditions, parenthood, sexual orientation, gender identity, political affiliation or belief, genetic information, or other legally protected status. The University's commitment to nondiscrimination, including against sex discrimination, applies to students, employees, and applicants for admission and employment. Contact information, applicable laws, and complaint procedures are included on UA's statement of nondiscrimination available at www.alaska.edu/nondiscrimination. For more information, contact:

UAF Department of Equity and Compliance
1692 Tok Lane, 3rd floor, Constitution Hall, Fairbanks, AK 99775
907-474-7300
uaf-deo@alaska.edu

Additional syllabi statement for courses including off-campus programs and research activities:

University Sponsored Off-Campus Programs and Research Activities

We want you to know that:

1. UA is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual: www.alaska.edu/nondiscrimination.
2. Incidents can be reported to your university's Equity and Compliance office (listed below) or online reporting portal. University of Alaska takes immediate, effective, and appropriate action to respond to reported acts of discrimination and harassment.
3. There are supportive measures available to individuals that may have experienced discrimination.
4. University of Alaska's Board of Regents' Policy & University Regulations (UA BoR P&R) 01.02.020 Nondiscrimination and 01.04 Sex and Gender-Based Discrimination Under Title IX, go to: <http://alaska.edu/bor/policy-regulations/>.
5. UA BoR P&R apply at all university owned or operated sites, university sanctioned events, clinical sites and during all academic or research related travel that are university sponsored.

For further information on your rights and resources [click here](#).

Contact information

Governance Office

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328 Signers' Hall

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