

Physics 165x

Introduction to Astronomy

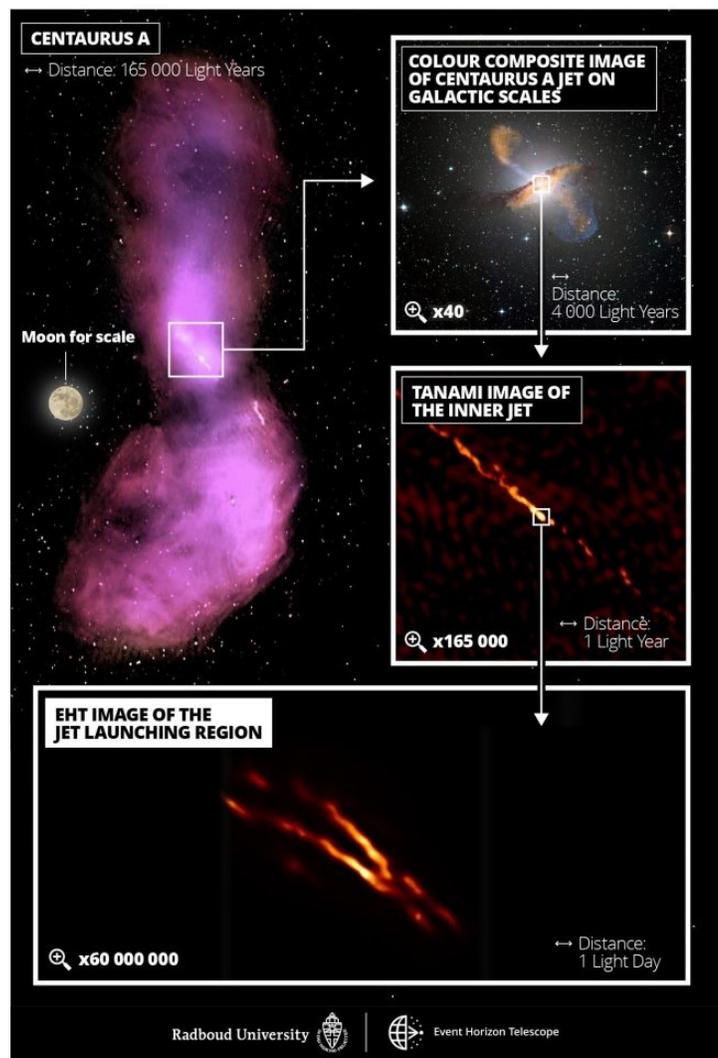
4 Credits

Dr. Mark Conde

Breaking news in Astronomy:

In July 2021 the *Event Horizon Telescope* collaborative presented a new “zoomed in” view of the very heart of a nearby active galaxy known as Centaurus-A. The top left panel shows a wide-field image of giant gas clouds ejected by the Cen-A, with the full moon superimposed for scale. The top right panel is a 40x zoom, showing the galaxy itself and the jets of gas leaving it. The next panel below shows a 165000x zoom image of the inner jets, obtained with the TANAMI radio telescope array. The bottom panel shows the new EHT image, obtained with a 60000000x zoom. This is the highest-ever resolution image of the jet launching region. Scale bars are shown in light years and light days.

Credit: <https://scitechdaily.com/dark-heart-of-the-nearest-radio-galaxy-pinpointed-by-event-horizon-telescope/>



Overview

Description

This will be a standard 100-level undergraduate introduction to astronomy for non-science majors. It covers the science of astronomy and its societal consequences, with an emphasis on the interrelationships between astronomy and other sciences. As listed in the UAF Catalog, the topics to be covered are:

- Astronomical concepts and tools
- Earth-based and satellite observation of light
- The solar system
- Stellar astronomy
- Cosmology

There is an associated lab component, in which we will undertake some practical hands-on investigation of the tools and techniques used by astronomers to observe and understand the universe around us. When the weather permits, we may offer additional evening opportunities to use telescopes on the roof of the Reichardt building to observe some interesting sky objects. This part of the course is contingent upon covid-19 restrictions. It is offered solely for your interest and enjoyment, so participation in these possible sky observing sessions is voluntary.

Bachelor's degrees at UAF incorporate a common set of learning experiences known as the General Education Requirements (GER). Requirements to meet the GER in Natural Sciences can be found [here](#) or summarized [here](#). PHYS165X can be used by students to meet the University of Alaska's General Education Requirement (GER) in Natural Sciences, subject to the following stipulations:¹

- Students must earn a C- grade or higher in each course used to meet a baccalaureate GER.
- Natural science and mathematics credits used to satisfy general education requirements can also be used to satisfy major requirements.

GER courses are required to address some or all of the following specific requirements:

- Build knowledge of human institutions, sociocultural processes, and the physical and natural world through the study of the natural and social sciences, technologies, mathematics, humanities, histories, languages and the arts.
- Develop intellectual and practical skills across the curriculum, including inquiry and analysis, critical and creative thinking, problem-solving, written and oral communication, information literacy, technological competence, and collaborative learning.
- Acquire tools for effective civic engagement in local through global contexts, including ethical reasoning, intercultural competence, and knowledge of Alaska and Alaska issues.
- Integrate and apply learning, including synthesis and advanced accomplishment across general and specialized studies, adapting them to new settings, questions and responsibilities, and forming a foundation for lifelong learning.

In order to meet these requirements, this course will include substantial emphasis on major concepts in natural science, including:

- Consideration of the scientific method, as it applies to astronomy

¹ See <https://catalog.uaf.edu/bachelors/general-education-requirements/#generaleducationrequirements>

- An experimental/laboratory component
- Consideration of the societal relevance of astronomy, and how it interacts with public policy

Major concepts and the scientific method will be discussed in lectures during the first few weeks, and you will apply these ideas in practice during the labs. The societal importance of astronomy will also be discussed in lectures, and a number of homework questions ask you to discuss issues of societal relevance. This course is not designated as Alaska Native Themed.

GER Natural Science courses are required to undergo regular Student Learning Outcomes Assessments. One of the consequences of this is that the University may request additional feedback from you regarding your assessment of the conduct and value of this course.

The course will be closely linked to the assigned textbook (*Universe*, 9th, 10th, or 11th editions) although at times we may cover the topics in a slightly different order.

Course goals and student learning outcomes

Upon completion of this course students will:

- Understand the tools and techniques of scientific study, and how these have been used to establish our current knowledge of the universe.
- Be familiar with the hierarchy of objects that make up the universe, how they are distributed through space, and how Earth is placed in this universe.
- Understand the basic nature of these objects – how they formed, how they behave, and what their ultimate fates are likely to be.
- Be familiar in particular with the solar-system objects that are our near neighbors in space and may one day provide additional options for human habitation and resource extraction.
- Appreciate the societal relevance of astronomy and its connection to other fields of science.

My goal as an instructor is to provide every student with maximum possible opportunity for success. This means that I try to be as flexible as possible with the course requirements, to avoid creating needless hurdles. Nevertheless, some penalties for missed or late work are necessary; my policies in this regard are outlined below.

Instructor information

Instructor:	Dr. Mark Conde	
	Email:	mgconde@alaska.edu
	Office locations:	Reichardt room 110.
	Office Phone:	474-7741
	Office hours:	9:30-11:00 Tuesday & Thursday, or immediately after class on these days.
Teaching Assistant: Blake Mino:		Email: bdmino@alaska.edu Office hours: TBD
Lab Manager: Zak Tourville:		Email: ztourville@alaska.edu Office: REIC room 114. Phone: 474-7857
Office Manager: Ellen Craig:		Email: eacraig@alaska.edu Office: Reichardt room 102.

Target schedule

<i>Week</i>	<i>Dates</i>	<i>Topics (from the textbook Universe)</i>	<i>Labs</i>
1	Aug 23 - Aug 27	Class introduction, Chapter 1	None
2	Aug 30 - Sep 03	Chapters 2-3	Math Review
3	Sep 06 - Sep 10	Chapters 4-5, Quiz 1	1
4	Sep 13 - Sep 17	Chapters 6-7	2
5	Sep 20 - Sep 24	Chapters 8-9, Quiz 2	3
6	Sep 27 - Oct 01	Chapters 10-11	4
7	Oct 04 - Oct 08	Chapters 12-13, Quiz 3	5
8	Oct 11 - Oct 15	Chapters 14-15	6
9	Oct 18 - Oct 22	Chapters 16-17	7
10	Oct 25 - Oct 29	Chapters 18-19, Quiz 4	8
11	Nov 01 - Nov 05	Chapters 20-21	9
12	Nov 08 - Nov 12	Chapters 22-23, Quiz 5	10
13	Nov 15 - Nov 19	Chapter 24, 25	11
14	Nov 22 - Nov 26	Thanksgiving week, Chapter 26	Make-up
15	Nov 29 - Dec 03	Chapters 27-28, Quiz 6	Telescope
16	Dec 06 - Dec 10	Finals week	None
17	Dec 13 - Dec 17	Grades posted by Dec 15	

Note that this is a rather ambitious schedule, requiring us to cover roughly one chapter from *Universe* per lecture. It is unlikely that we will make it all the way to the end of the book as shown here, but I at least want to complete up to Chapter 24.

Campus-wide Covid-19 Policies

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>

Please note that students are expected to adhere to these policies, practices, and mandates and are subject to disciplinary actions if they do not comply.

Be aware that the covid-19 situation in Alaska will evolve, in currently unknown ways, and on a weekly basis. Procedures and policies will change as needed. For this class, the lectures and labs will be presented in a face-to-face manner, at least initially.

Remember – ***it is required that you wear a mask and maintain social distancing in all indoor shared spaces on campus.*** This is the most important thing that each of us can do to ensure that our campus is a safe, healthy, and effective learning environment.

Course components and instructional methods**Instructional materials**

Material for this course will be prepared electronically and will be available *over the web* via the "Blackboard"² system at <https://classes.alaska.edu>. Material to be posted this way includes:

² All students should have access to Blackboard. Please let me know if you have difficulties with this.

- Course syllabus (this document)
- Lecture notes (see comments below)
- Homework problem sets
- Lab notes
- Supplementary handouts
- Online student grades

Lectures

At least initially, lectures will be held face-to-face, on Tuesdays and Thursdays from 11:30 am – 1:00 pm in Reichardt room 203.

I will be presenting lectures using a combination of computer slides and additional notes, diagrams etc. drawn by hand on a whiteboard. I will post printable versions of the electronic lecture notes online ahead of time. You should read the lecture notes and the relevant chapter from *Universe* beforehand. Many students may find it helpful to annotate these notes with your own supplemental notes during the lecture.

Should we need to move to online delivery, I have setup a dedicated video studio in the Reichardt building, and would be live-streaming from there. Should this be required, I expect this setup would make for high-quality and engaging live-streaming class sessions.

Labs

Generally, each student will be expected to complete one lab session per week. There is currently only one lab section allocated for this class. It will meet in room 252 of the Reichardt building, and run from 2:15pm to 5:15pm on Tuesdays.

No regular lab sessions are scheduled during the first week of class, or during the week of Thanksgiving. Labs in the final week of semester will consist of telescope observing sessions and/or recitations in preparation for the final exam.

There will be a total of 11 labs. In a normal semester. Lab write-ups should be completed during the lab, and turned in to the TA at the end of the session. Your worst lab score will be discarded; the remaining 10 scores for your lab participation and write up will contribute to your final grade. Complete lab policies are outlined in more detail in a separate document that will be available from the PHYS165 Blackboard site.

Laboratory sessions are a vital part of this course, and should not be missed. To pass this course, ***there is an absolute requirement that you must attend and write up at least 7 of the labs.*** Any student failing to reach this number will automatically fail.

Homework

Homework will be assigned each week during the Thursday lecture, and will be due by 5:00 pm on Thursday of the following week. ***All homework will be assigned, submitted, and graded using UAF's "Gradescope" tool.*** This means your completed work must be either scanned or photographed, and uploaded to Gradescope. Here is a link to a short video explaining the homework submission process in Gradescope:

- https://youtu.be/KMPoby5g_nE

There are two reasons for using Gradescope to submit homework. First, it provides verification that your work has been submitted, along with secure storage to prevent any work getting lost. Second, it allows you to submit work at any time, without needing to be on campus or have access to a physical submission box. The reason the homework

deadlines are on Thursday is to allow you to speak to your lab instructor during the Tuesday lab session if you need help with the homework problems. Further, since you will already be on campus to do the lab, this is also an opportunity to use the campus network for your homework submission if you have limited or no internet access from your home.

Please realize that even if you submit a correct solution to a problem, your grader may not recognize it as correct if it's poorly presented. To maximize your chance of scoring well, your homework should:

- Be neatly laid out
- Be largely free from crossing-out and over-writing
- Include some verbal description explaining the approach and reasoning that you used to solve the problem
- Use grammatically correct English and be well enough written that the grader can understand what you're trying to say

Exams and Quizzes

There will be six 20-minute quizzes during the semester and one two-hour final exam. The preliminary dates for these are

- Quizzes: Sep 10, Sep 24, Oct 8, Oct 29, Nov 12, and Dec 3.
- Final: 1:00 - 3:00 p.m., Tuesday, December 7

Quizzes will (most likely) be held at the end of every second Thursday's lecture, during the last 20 minutes of our regularly scheduled class time. So long as we are holding face-to-face classes, quizzes will be conducted in person. However, if we are required to move online, then the quizzes will be conducted using Gradescope. I will discuss the mechanics of this with the class, to make sure it works for everyone. Only your best 5 quiz scores will contribute to your final grade. Your lowest quiz score will be discarded and will make no contribution. Quizzes and the final exam make a large contribution to your final grade. I try to make these as easy as possible, and past experience has been that most students perform well on these tests.

Course policies

Grading

The course grade will consist of the following components

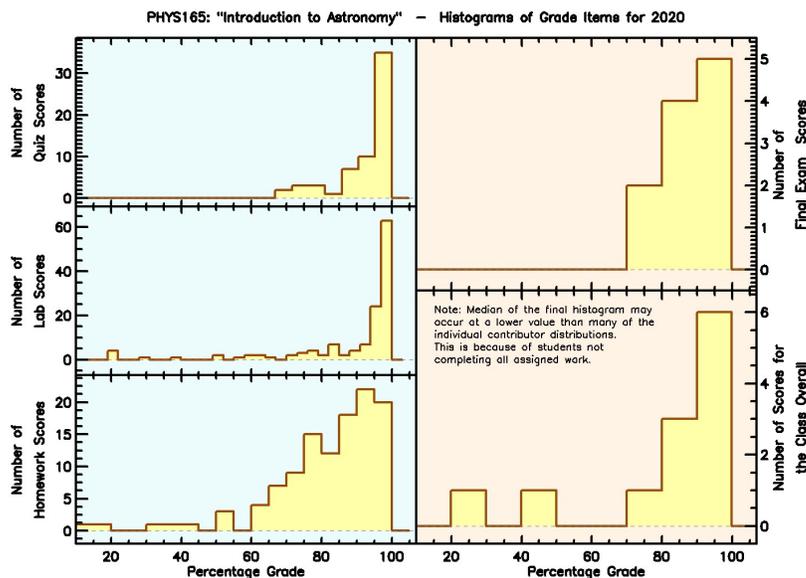
- Homework: 24% (2% each for 12 assignments)
- Best 10 out of 11 labs: 30% (3% each for 10 labs)
- Best 5 out of 6 quizzes: 25% (5% each for 5 quizzes)
- One two-hour final exam: 21% (Makes up 100%)

I will post all grades online, using the UAF's "Blackboard" system (<http://classes.alaska.edu>). All registered students have access to this system for checking their grades. Please do *check that we have posted all your grades correctly*, and let me know if you think there is an error. Also, please retain all work that we return after grading, in case an error does appear. Returned graded work is proof of your scores.

Final grades will be returned as letter grades with plus/minus modifiers. These will be derived from your overall percentage grade. The approximate conversions for each letter

grade will be as follows. A: $\geq 90\%$; B: 75% to 90%; C: 60% to 75%; D: 50% to 60%; F: $< 50\%$. Plus/minus modifiers will subdivide each main grade into three equally spaced sub-levels.

For those who are interested in actual data on how difficult this class might be, the figure below shows histograms of overall scores for the various course components for the class of 2020.



(These results are very typical of all of the ten years that have taught the course previously.) As you can see, submitted work usually scores highly. **By far the strongest risk factor for a low grade in this class is due to failure to complete and submit assigned work.** Even so, it is typical for two-thirds of the final grades to be above 80%.

Attendance

UAF policy³ states that “you are expected to adhere to the class attendance policies set by your instructors.” In normal times, I expect at least 90% attendance from all students. However, I understand that this semester is likely to be atypical. **We will record attendance for all in-person classes.** This record is for possible contact tracing, in the event that a class member tests positive for covid-19. In cases of low attendance, I will follow-up with relevant students to see if any accommodations could help. Students not turning in work and with very low attendance may be subject to an instructor-initiated withdrawal (depending on extenuating circumstances.)

Class participation

There is no requirement for you to participate actively in class by asking questions or joining discussions, and there is no grade component based on this. Nevertheless, for this purely online class I will encourage discussion questions at any time during the lectures. Because we have a large amount of material to cover, I may defer answering lengthy or numerous questions until after class.

³See <http://catalog.uaf.edu/academics-regulations/attendance/>

Consequences of Low Grades

It is important to understand the implications of receiving a letter grade of “C” or below for this course. The table below (published in 2013) is the most recent statement I can find regarding these policies. I am reasonably certain that the information in this table is still current. However, the source document from which it was taken has been moved or deleted from UAF’s web site, and I have not been able to locate a more current replacement. So be aware that policies may have changed (although, again, I do not think this is very likely).

This course follows the University of Alaska Fairbanks Incomplete Grade Policy: “The letter “I” (Incomplete) is a temporary grade used to indicate that the student has satisfactorily completed (C or better) the majority of work in a course but for personal reasons beyond the student’s control, such as sickness, has not been able to complete the course during the regular semester. Negligence or indifference are not acceptable reasons for an “I” grade.”

Needless to say, a grade of “F” represents a failure. Zero grade points will be awarded, and the course must be re-taken to receive credit.

Grade / Grade Points	Definition and academic implications
C+ (2.3) C (2.0) C- (1.7)	<p>“C” (including C+ and C-) indicates a satisfactory level of acquired knowledge and performance in completion of course requirements.</p> <p>C- (1.7) is the <u>minimum</u> acceptable grade that undergraduate students may receive for courses to count toward the major or minor degree requirements, or as a prerequisite for another course. A minimum grade of C (2.0), however, MAY be required by specific programs for prerequisite and / or major / minor courses. Please consult specific program listings in the UAF Catalog.</p> <p>C- (1.7) is the <u>minimum</u> acceptable grade required for all Core (X) Courses.</p>
D+ (1.3) D (1.0) D- (.7)	<p>“D” (including D+ and D-) indicates a minimal level of acquired knowledge and minimal performance in completion of course requirements. This grade does not satisfy requirements for courses in the major, minor, Core, or graduate programs.</p>

Table updated 5/21/2013

Missed or late work

A make-up quiz will be offered if a student misses a quiz due to illness, clash with another UAF commitment, or a genuine emergency. Determination of whether circumstances justify this make-up will be at the discretion of the instructor. An unexcused absence will lead to 0 points earned on that quiz.

Depending on covid-19 restrictions, we may not be able to offer opportunities for students to perform in-person make-ups for any labs(s) that they may miss. Rather, it is likely that any make-up options will be offered purely online.

Problem sets will generally not be accepted after the due date, without evidence of illness or genuine emergency. Students having documented clashes with other UAF commitments may pre-arrange alternate homework submission deadlines with me. All decisions regarding late homework or alternate deadlines will be at the discretion of the instructor.

Student conduct and academic honesty

It is the responsibility of each student to be informed about the policies for student conduct and safety at the University of Alaska. You are encouraged to read these policies at <https://uaf.edu/csrr/student-conduct/> and links therein. It should go without saying that students are expected to do their own original work for all assignments. Copying from other students or indeed from any source that is not your own work constitutes plagiarism. Failure to comply with UAF policies may be considered academic misconduct and may result in a failing grade (either for individual portions of work, or for the entire course, depending on severity.) Serious cases will be referred to university authorities for possible further disciplinary action.

Student responsibilities

It is the responsibility of all students to be aware of the various requirements of the class. This includes knowing what work is required, when the deadlines are, and how this work should be turned in. These requirements are clearly outlined in the syllabus, and multiple reminders will be given in class. Lack of awareness of a requirement will not be regarded as an acceptable rationale for failing to meet it.

The department takes great care to ensure that all submitted work is graded fairly and that the resulting scores are correctly credited to the students who submitted the work. Nevertheless, scores occasionally do get entered incorrectly or missed altogether. **It is the responsibility of students to check their scores in Blackboard frequently**, and to notify the instructor and/or TA immediately any discrepancy is noted. As discussed earlier, students are also responsible for keeping all graded work returned to them, as evidence of the grade received, should any disparity arise later.

Course requirements and materials

Prerequisites

Placement in WRTG F111X; placement MATH F105, or permission of instructor.

Textbooks

Required:

- *Universe*, 9th, 10th, or 11th Editions, by Freedman, Geller, & Kaufmann (W.H. Freeman & Co.)

Recommended additional reading: There are numerous excellent 100-level astronomy books available now. Any of the recent ones would likely be helpful for this course.

Note that online notes will be provided. However, these will make frequent reference to the more extensive treatment of topics that appears in the book.

Calculators

You will need access to a calculator to complete some of the homework problems. Calculators will also be permitted during quizzes and the final exam, although I rarely pose problems on these tests that require one. You will not need anything elaborate; an easy-to-use scientific calculator is all that you will need. Remember that it is much more important to present the correct reasoning for solving a problem than it is to arrive at the correct numerical value. Please, explain your reasoning when presenting solutions to homework and exam problems. I will award partial points for correct reasoning, if presented, even if the final answer is incorrect or incomplete.

Support Services

Homework help

I have set the weekly homework deadline to be on Thursday evening. This was chosen so that you can (and should) speak to your lab TA during your lab class (either on Tuesday, or Wednesday) if you need additional homework help. The TA will have seen my solution to each problem, so they know what I am expecting. They can help you understand what is being asked, how to tackle the problem, and how to present your solution.

Complaints and concerns

You are always welcome to discuss your concerns with me. However, if you have a concern that you feel cannot be resolved by discussion with me, you may wish to contact the Physics Department chair, Dr. Truffer. The University also has an Academic Advising Center on the 5th floor of the Gruening building, open Monday to Friday, 8 am to 5 pm and contactable via phone at 907-474-6396. The advising center can help with all student matters, from study tips to help with understanding the University's formal mechanisms for academic appeals. (See also <http://www.uaf.edu/advising/>)

Student Health and Counseling Center

The University provides health and counseling services through its Student Health and Counseling Center, which is located at 612 N. Chandalar Drive, on the 2nd floor of the Whitaker Building (the same building as Fire and Police, across from the bus turn around.) Their web site is at <http://www.uaf.edu/chc/>. The center will see students on an appointment basis. The number to call for an appointment is 474-7043. It is best to do so at 8:00 AM in the morning, because they are scheduled daily on a first come first serve basis.

Disabilities and/or Special Needs

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. Disability services are provided free of charge, and are available to any student who qualifies as a person with a disability. Student seeking special

accommodations for a disability must first discuss their needs with Disability Services. Call 474-5655 to schedule an appointment.

UAF Disability Services is located in the Whitaker Building, room 208. Extensive support is available, as described at <http://www.uaf.edu/disability/>

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).

Sexual Harassment and Discrimination

Students at this university are protected against sexual harassment and discrimination (Title IX), and minors have additional protections. Please be aware that 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/.

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

Emergency Notification Plan

Students will receive emergency notifications via phone or email. Please check your UAOnline account to confirm your emergency notification settings. For more information, please refer to the Student Handbook. In cases where you do not have access to your devices, as your instructor, I will take responsibility to relay any emergency notifications.

Extended Absence Policy

The university of Alaska Fairbanks recognizes that students may need to miss more classes than allowed by a particular instructor as specified in course policies. Extended absences are defined as missed classes or course work by students beyond what is permissible by the instructor's written course policies. Students may need to miss class and/or course work for a variety of reasons, including, but not limited to:

- Bereavement
- Personal illness or injury
- Serious illness of a friend, family member or loved one
- Military obligations
- Jury service

Other emergency or obligatory situations For more information, go to the Students Hand book or the Center for Students Rights and Responsibilities.

Additional Support Services

- Speaking Center: 907-474-5470, speak@uaf.edu, Gruening 507.
- Writing Center: 907-474-5314, uaf-writing-center@alaska.edu, Gruening 8th floor.
- UAF Math Services: uafmathstatlab@gmail.com, Chapman 305 (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.
- For more information and resources, please see the Academic Advising Resource List: https://www.uaf.edu/advising/lr/SKM_364e19011717281.pdf.

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/.](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, Eielson 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](#).