Syllabus: Principles of Genetics (BIOL 260, 4 credits) Summer 2020
Prerequisites: BIOL F115X; BIOL F116X; CHEM F105X; MATH F151X or higher, LS F101X or successful completion of library skills competency test

Lectures: TR 1:00 – 2:50 pm Murie 106
Labs: W 1:00 – 4:30 pm Murie 306

Final Exam: 10:15am-12:15pm Wed, Dec 14, 2016 Murie Auditorium

Instructor: Kendall Mills, email: kkmills@alaska.edu Office: 244 West Ridge Research Building
Office hours: W 4:30 – 5:30 pm (following lab)

Course readings/materials: Sapling Plus for Genetics: A conceptual approach 6th ed
You will need to make an account at Sapling Learning to complete homework and to access the online e-textbook. Please go to www.saplinglearning.com/login to log in or create an account. The following link includes detailed instructions on how to register for your course: https://community.macmillan.com/docs/DOC-5972-sapling-learning-registering-for-courses.
The e-textbook comes as part of your Sapling account.
If you want online access plus the cloth text, you want ISBN-10: 1-319-12592-1; ISBN-13: 978-1-319-12592-9

If you have any issues during sign up or throughout the term Sapling technical support team can be reached by phone or by webform via the Student Support Community. Please see the following link for detailed hours and information. https://community.macmillan.com/docs/DOC-6915-students-still-need-help

Blackboard: http://classes.uaf.edu/
The Blackboard web site contains lab and lecture handouts, homework assignments, and practice tests.

Course description: This course covers the physical and chemical properties of DNA, principles of transcription and translation, Mendelian inheritance, quantitative genetics, population genetics, and phylogenetics.

Course goals and learning outcomes: Why do you look like your family? Why aren't you identical to your family? How do we find genes in the genome? How do we determine what those genes do? Students will learn the fundamentals of Mendelian and molecular genetics, as well as how these topics are important in everyday life; topics such as genetic diseases, stem cells, forensics and genetically-modified organisms (GMOs). Additionally, students will gain experience with critical thinking, problem solving, writing, and will gain hands on practice in modern laboratory skills.

Course policies: You are expected to attend all lectures and your appropriate lab period, to arrive on time, and to participate in all laboratory activities including discussions and computer simulations. Homework will be due on Sapling and/or Blackboard every Sunday and Wednesday. This is a difficult class, with many details to master. Homework gives you an opportunity to master these details prior to the exam. Exams will be primarily based on lectures and labs. Use your textbook to get a better understanding of the topics covered in lecture.

Homework: There will be homework due every Friday at 11pm on Blackboard and/or Sapling. You may work with others on homework.

Lab Handouts will be provided on Tuesdays and will be on Blackboard. Please read the handouts before lab.

Unless specifically stated in the assignment, all papers, quizzes and exams should be performed by you, by yourself. Please, no cheating on exams, quizzes, papers or other assignments. This includes copying text from the internet, reading other students' papers to paraphrase them, and allowing other students to read your paper. You are in school to learn, and I hope that you want to learn. If you resort to cheating, you won't study as hard, and you won't learn as much, so you will be cheating yourself of an education. If you are involved in cheating or plagiarism, you will receive an F in the course, and will be referred to the Associate Dean of Students & Director of Judicial Services for disciplinary action.

Late assignments: Please submit homework and lab handouts on time. A penalty of 10%/day may be applied. It may not be accepted if it is very late.

Support Services: If you require more assistance than can be provided in class, lab and meetings with the course instructor/TAs, you may want to contact Student Support Services (http://www.uaf.edu/sssp/). They provide free services to eligible students, including: tutoring, math help, academic advising, mentoring and personal support, and cultural and social engagement. You may be eligible if you have a limited income, a documented physical or learning disability, or are a first-generation college student (meaning that neither of your parents earned a Bachelor's degree).

Disabilities Services: If you have a disability, or think you may have a disability, please contact the Office of Disabilities Services (203 WHIT, 474-7043). We will work with this office to provide reasonable and appropriate accommodation to 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/.

Evaluation: Student performance will be evaluated through exams, weekly homework assignments and quizzes, several papers, one short presentation, laboratory reports and lab participation. Grade cutoffs are A:90%, B:80%, C:70%, D:60%, F:<60%.

Exam 1	15%
Exam 2	15%
Final Exam	30%
Homework (Blackboard and Sapling)	15%
Lab handouts, presentations	20%
Lab paper	5%

Schedule: Do not rely on the printed lecture/lab/homework schedule. Timing of topic coverage is **subject to change** and will be updated on blackboard. **Exam dates will not change except in extreme circumstances such as university closure.**