1. Course information

Title and Numbers: Natural History of Alaska; Biology 104 (3 credits, lecture only), 104L (1 credit, lab only), and 104X (4 credits, Lecture+Lab)

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Lecture</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>70357</td>
<td>Lecture only</td>
<td>MWF 9:15-10:15 am</td>
<td>None</td>
</tr>
<tr>
<td>70359</td>
<td>Lab only</td>
<td>None</td>
<td>R, 9:45 am-12:45 pm</td>
</tr>
<tr>
<td>70360</td>
<td>Lab only</td>
<td>None</td>
<td>R, 2:00 pm – 5:00 pm</td>
</tr>
<tr>
<td>70361</td>
<td>Lab only</td>
<td>None</td>
<td>F, 10:30 am – 1:30 pm</td>
</tr>
<tr>
<td>70362</td>
<td>Lecture and Lab</td>
<td>MWF 9:15-10:15 am</td>
<td>R, 9:45 am-12:45 pm</td>
</tr>
<tr>
<td>70363</td>
<td>Lecture and Lab</td>
<td>MWF 9:15-10:15 am</td>
<td>R, 2:00 pm – 5:00 pm</td>
</tr>
<tr>
<td>70364</td>
<td>Lecture and Lab</td>
<td>MWF 9:15-10:15 am</td>
<td>F, 10:30 am – 1:30 pm</td>
</tr>
</tbody>
</table>

IMPORTANT: If you are taking this course as an “n” (natural science) course as part of your core requirements, you must take both the lecture and the lab!

Credits: see above. Note that if you later decide to major in the biological sciences, you cannot later use this course for biology elective credit.

Prerequisites: (High School Biology); there are no college-level prerequisites.

Locations:
Lectures: Schaible Auditorium, Bunnell Building

Labs: 103 Irving I, West Ridge (West of UA Museum)
Note: If you are trying to get between lower and upper (West Ridge) campus, you can walk (15-20 minutes), take a scheduled shuttle bus ride, or drive your own vehicle. If you are driving a vehicle, look for parking places north of (behind) the IARC and Geophysical Institute buildings—usually there are fewer spaces available as you head west toward the Irving I building, your destination. Also, drive cautiously in this area; there are lots of places where it is difficult to see cross traffic.

IMPORTANT: For many labs, we will leave the building and work outside, weather permitting. Please be on time and dress to walk and remain still in lousy weather—neither rain, nor sleet nor snow may deter us from our scheduled rounds, unless it is genuinely nasty outside.

Meeting times:
104, 104X Lectures, M, W, F 9:15 am – 10:15 am (Too early? Just be thankful it’s not 8-9 am)
104L, 104X Labs:
F01: Thursday, 9:45am—12:45pm;
F02: Thursday, 2:00pm—5:00pm;
2. Instructor and Teaching Assistants

Instructor:
Edward C. Murphy,
Offices: 415A Irving I Building; 305C Bunnell Building (following lectures);
Office hours: following lectures and by appointment (feel free to phone or email me to
set up an appointment);
Telephones: 474-7154 (campus); 479-8224 (home; please call only if earlier than 9:00
pm).
Email: e.murphy@uaf.edu

Co-instructor for Friday Lab:
Cindy Fabbri, UAF School of Education / College of Natural Science and Mathematics,
714 D Gruening; Phone: 474-1558; Fax:474-5451; email: ffcf@uaf.edu;
Office hours: call or email to make an appointment.

Teaching Assistants (Office hours: call or email to make an appointment.):

Alison Banks, office: 337 Irving II, Phone: 474-2456, email: banks@sfos.uaf.edu.

Elisabeth Robins, office: IGERT Trailer T-2; Phone: 474-7603, email: ftesr@uaf.edu.

Katie Villano, office: 417 Irving I; Phone: 474-7183, email: fnklv@uaf.edu.

Note: If you are enrolled in either BIOL104X or 104L, the instructor and TA’s will be
rotating through the lab sections so that you get to know all of us.

3. Course readings/materials: We will be reading chapters from various books and
articles from popular scientific journals throughout the semester. Readings are listed on
the Lecture Outline—read these BEFORE coming to class.

Although there are no required textbooks to purchase, we will read articles from various
journals and several selections from each of the following:
Hanover NH.
Chicago.
Associates, Ithaca, NY.

4. Course description:

Catalog:
BIOL 104 3 Credits
BIOL 104X 4 Credits
Natural History of Alaska (n)
The physical environment peculiar to the North and important in determining the biological setting; major
ecosystem concepts to develop an appreciation for land use and wildlife management problems in both
terrestrial and aquatic situations. May not be used as biology elective credit for a major in biological science. BIOL 104X (4 credits) fulfills the Natural Science Core requirement. BIOL 104 (3 credits) is also available via Independent Learning. BIOL 104X laboratory fee: $50. (3+0 or 3+3) 104 Offered Fall, 104X Offered Spring

My view: This course focuses on the history of the natural world of Alaska and emphasizes ecological and evolutionary concepts as a framework for understanding (1) present patterns of occurrence and abundance of particular species of plants and animals and (2) structure and change in communities and ecosystems, in terrestrial, freshwater, and marine environments. The process of field-oriented observational and experimental science is also emphasized.

Course goals and student learning outcomes: You should be surprised and astounded by some of the materials presented and, in turn, much more able to understand and appreciate them using the concepts covered throughout the course. You should learn that Alaska’s environment has changed dramatically and continues to change, influencing, and being influenced by, the organisms, including humans, living here.

6. Instructional Methods:
Lectures: A mix of topics and teaching styles designed to keep you awake at 9 am and emphasizing theories and concepts relevant to understanding the dynamic natural world of Alaska.
Labs: A focus on field observation to understand who lives in the local area and why, also a focus on identifying some key members of the biota of Alaska.

7. Course calendar: see below.

8. Course policies:
Attendance: you must attend all laboratories or receive an excused absence to receive a passing grade. You should attend lectures if you want to succeed in this course; if you miss lectures even occasionally your chances of succeeding in the course will be low.

Tardiness: coming late to labs when field trips are scheduled will be unproductive—you will miss the lab. Coming late to lectures: come in quietly but wake up any snoozing students as you make your way to your seat.

Class participation: I encourage you to ask questions and make comments; please raise your hand so I can find you in the room and speak loudly; the technology in the front of the room is fairly noisy and my hearing is waning.

Plagiarism, academic integrity: follow the UAF student code of ethics (see the catalog: “Student Code of Conduct”).

9. Evaluation:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>F, 14 Sept.</td>
<td>Steller Sea Cow report (1 page)</td>
<td>5</td>
</tr>
<tr>
<td>F, 28 Sept.</td>
<td>Midterm I</td>
<td>60</td>
</tr>
</tbody>
</table>
Midterms and Final Examination will be in similar formats with a mix of True/False, multiple choice, and short essay questions.

Individual Poster Project: Using your choice of a question about the natural history of Alaska, you will find relevant materials and present the question and relevant materials in the format of a poster, which will be displayed with all others in the course.

Moon observations: This assignment will be distributed a few weeks before the due date; you will make individual observations and inferences about the moon’s orbit and post your ideas on the BLACKBOARD class account.

Climate analysis: an individual exercise: you will choose the Alaskan locality of your choice, obtain the historical data on January (Winter) and July (Summer) temperatures and evaluate whether there has been any directional change using instructions and guidelines from the instructors. The entire class will discuss the results for all localities analyzed.

Standards (%):

<table>
<thead>
<tr>
<th>Percent</th>
<th>Grade</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>97-100</td>
<td>A+</td>
<td>Mastery of subject matter</td>
</tr>
<tr>
<td>93-96</td>
<td>A</td>
<td>Above average scholarly effort and performance</td>
</tr>
<tr>
<td>90-92</td>
<td>A-</td>
<td>Average scholarly effort and performance</td>
</tr>
<tr>
<td>87-89</td>
<td>B+</td>
<td>Below average scholarly effort and performance</td>
</tr>
<tr>
<td>83-86</td>
<td>B</td>
<td>Unacceptable level of scholarly effort and performance</td>
</tr>
<tr>
<td>80-82</td>
<td>B-</td>
<td></td>
</tr>
<tr>
<td>77-79</td>
<td>C+</td>
<td></td>
</tr>
<tr>
<td>73-76</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>70-72</td>
<td>C-</td>
<td></td>
</tr>
<tr>
<td>60-69</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>&lt;60</td>
<td>F</td>
<td></td>
</tr>
</tbody>
</table>

Laboratory portion of 104L, 104X:

<table>
<thead>
<tr>
<th>Date</th>
<th>Item</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 or 5 October</td>
<td>Red squirrel Observations</td>
<td>10</td>
</tr>
<tr>
<td>1 or 2 November</td>
<td>Chickadee Observations</td>
<td>10</td>
</tr>
</tbody>
</table>
### Table

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 or 30 November</td>
<td>Lab practical</td>
<td>60</td>
</tr>
<tr>
<td>6 or 7 December</td>
<td>Museum excursion</td>
<td>10</td>
</tr>
<tr>
<td>Throughout</td>
<td>Participation</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Attendance: mandatory</td>
<td>All earned or zero</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

10. **Support services:** contact the instructor and/or teaching assistants anytime you need help or find a problem with the course. If you are dissatisfied with resolution of any problem after contacting the instructor, feel free to contact the Chair of the Department of Biology and Wildlife (Rich Boone, ffrdb@uaf.edu, 474-7671, 212 Irving I), and if still dissatisfied, contact the Dean of the College of Natural Science and Mathematics (Joan Braddock, ffjfb@uaf.edu, 474-7608).

11. **Disabilities services:** Please contact the Disabilities Services program in Center for Health and Counseling if you are having any types of medical or learning problems. Phone: 474-7043; 474-7045 (TTY); email: fydso@uaf.edu. If you have a documented disability and need individualized instruction or testing, please make sure that we know well ahead of time—we want to meet your needs!

**Additional:**

*Safety:* The instructors and teaching assistants will do everything they can to make this course a safe and enjoyable experience. IT IS YOUR RESPONSIBILITY TO DRESS Appropriately FOR THE WEATHER WE ARE LIKELY OR POSSIBLY GOING TO EXPERIENCE, to be alert, and to behave safely.

*Core curriculum:* BIOL104X can be used to partially satisfy the natural science portion of the core requirements for baccalaureate degrees because it has a laboratory component. Therefore, if you are taking BIOL104X, you must pass the lab portion of the course to receive a passing grade (attend all laboratories and receive 61% or higher on the 100 points in the laboratory portion of the course).

*Extra credit:* There will be opportunities to obtain extra credit throughout the semester; you may earn up to a Maximum of 10 percent of your grade (40 points if enrolled in BIOL104X, 30 points if enrolled in BIOL104, and 10 points if enrolled in BIOL104L). In lecture, extra credit options will be available before each exam: you can obtain extra credit by writing answers to practice questions that will be available about 1 week before the exam and then meeting with one of the TA’s before the exam.

*How to succeed in this course:*

1. **Attend lectures:** Last fall, ALL of the students who earned A’s or B’s regularly attended lectures. All of the students who irregularly or rarely attended lectures received D’s or F’s.

2. **Take notes at lectures:** Even though detailed lecture notes will be available shortly after each lecture, taking notes is an excellent way to maintain your attention.
3. Read the detailed lecture notes shortly after each lecture and add to your own notes from that lecture as you read them.

4. Read the assigned readings BEFORE coming to class the day they are listed.

5. Before each exam: use your notes, the detailed lecture notes, and the readings to answer the practice questions and then attend one of the help sessions we will schedule.

6. Ask questions in class, after class or by email: all of the students who received A’s last Fall were active learners in this way.

ERes: All required and recommended readings will be on a class account on the UAF ERes system:
See http://eres.uaf.edu/coursepage.asp?cid=576 to access the readings for this course. Note that you will need to enter a password; this year it is history (I’ll announce it in class).

BLACKBOARD: All lecture notes (WORD documents, with figures and photos often removed to reduce file size so that you can access the documents even if you have a slow connection speed, and POWERPOINT files (often very large) for detailed information). You need a UAF computer userid (“fsXYZ” format) to be added as a user and to have access to the course materials. We should have the account established and everyone should have access by about 10 September.

Shuttle bus routes and schedule: See http://www.uaf.edu/fs/shuttlebus.html

Campus maps:
Buildings, see: http://www.uaf.edu/campusmap/
Trails and natural areas: see:
http://www.uaf.edu/mastplan/northcampus/Trails%20map%2020060130.pdf

Acceptable Conduct in lecture:
1. Turn off your cell phone throughout the entire class period.
2. Do not talk to neighbors unless you have a question that you will then share with the entire class.
3. Arrive on time for the start of class and remain tuned in until the instructor ends the session. If you arrive late or must leave early, be courteous to students around you and the instructor.