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Part I: Syllabus

1. Description of Neurobiology

Welcome to Neurobiology! During this semester we are going to explore the organization and function of the human nervous system from the subcellular to the organismal level. We will focus on how the nervous system regulates behaviors. Basic neuroscience research will be applied to pathological conditions with reference to aberrant as well as normal function. You will develop an in-depth knowledge of one human behavior by researching the neuroscience primary literature. This course will incorporate class meetings and student oral presentations of neuroscience primary literature (and class meeting material) into a dynamic class atmosphere.

The learning objectives of this course are to understand the following behavioral neuroscience concepts:

1. Neurons are the building blocks of the central and peripheral nervous systems, the structure and function of a neuron, signaling within and between neurons, and chemical and pharmacological principles.
2. The integration of many input signals, levels of association of information, and output signals result in complex behaviors, including perception, control of movement, sleep and biological rhythms, reproductive behavior, emotion, ingestive behavior, language, learning and memory, human communication, neurological disorders, schizophrenia and the affective disorders, anxiety disorders, autistic disorders, attention deficit/hyperactivity disorder, stress disorders, and substance abuse.
3. Science is a collaborative enterprise and therefore being able to successfully work together is an important skill. You will work in groups of three-four to discuss class meeting materials, to present a review topic in behavioral neuroscience, and to write a review paper describing this topic.

We will use a variety of approaches to understand these concepts and achieve the learning outcomes:

1. Class meetings and discussions. In class meetings, we will talk about the basic concepts in neurobiology. An important source for this information is from the main text for this course: *Physiology of Behavior* by Neil R Carlson, 2016, 12th Edition, Pearson, New York. Quizzes will test your knowledge of the class meeting material. The material in this textbook will be discussed during the first two thirds of the semester. The textbook content and quizzes are found on the Pearson Revel website. You will receive an invitation to join the course on Revel.

The format of the 90-minute class meetings will be as follows:

a. You prepare for the day’s content ahead of time by doing the assigned readings. The due dates for assigned readings and associated quizzes are set at 11:59 pm the day prior to the class meeting date that will discuss the assigned readings.

b. You discuss the content with your peers and explain these concepts to them until everyone in your group has a full understanding.

c. You organize the content into flow diagrams, schematics, or tables with your
group and present these to the class.

d. I will be available for guidance, clear up misconceptions, and answer questions.
e. I will not do traditional lecturing. Instead we will engage in active learning strategies, such as described in c. and d. above.

2. **Student oral presentations on a review topic in behavioral neuroscience.** To summarize and incorporate information from many different sources into a comprehensive understanding of the material is another important skill of any scientist. During the second half of the term, BIOL F417 students will present orally, with three other classmates, a review on a topic in behavioral neuroscience of their choice. Each group has to choose a different behavior.

   BIOL F617 students will work by themselves regarding the review topic. However, they will be assigned to a group for class meeting discussions. This group is also encouraged to assist each other with the presentations and writing of the review paper (see below).

3. **A written review paper on the topic in behavioral neuroscience.** Publishing results of scientific research more often than not is a collaborative endeavor. Therefore, being able to successfully work together on a written assignment is a requirement of this course. You will work with your group to write a review article on the topic in behavioral neuroscience you presented to the class.

4. **Graduate Student Research Proposal Presentation and Writing (BIOL F617).** BIOL F617 students will be asked to give a 25-minute presentation on a research proposal for their graduate studies and write the research proposal using NIH guidelines.

This manual will act as your guide for this course. In it is a description of the course requirements, class meeting topics, and reading assignments, as well as general information to help you get the most out of this class. You should bring it to each class and refer to it frequently throughout the semester.

Your minimal responsibilities for this course are defined in the Course Requirements section below. Be aware, however, that your performance on exams, oral presentations, and written assignments often depends on how well you integrate all of the different kinds of information you receive from class meetings, discussions, reading assignments, observing and evaluating peer oral presentations, and your own literature review. Therefore, do not think of those assignments as separate entities but rather as parts of a jigsaw puzzle; together the complete pictures/concepts emerge.
Instructor
Abel Bult-Ito, Ph.D.
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Department of Biology & Wildlife
College of Natural Science and Mathematics

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Phone: 907-474-7158
E-mail: abultito@alaska.edu
Mailbox: Murie Building, Room 101 (Box 6100)
Office hours: T and Th 1:30-2:30pm, or by appointment for in-person or online chat, or by email during work hours (M-F 8am through 5pm)

Course Meeting Times and Locations
Class meetings: T, Th 3:40pm – 5:10pm
Class meeting room: Murie Building, Room 107
Sections: F01; CRN 36396; BIOL F417
F01; CRN 36398; BIOL F617
Blackboard Site: http://classes.uaf.edu
Pearson Web Sites: The course content and quizzes are found on the Pearson Revel website. You will receive an invitation to join the course.

Student protections and services statement
Every qualified student is welcome in my course. As needed, I am happy to work with you, disability services, veterans’ services, rural student services, etc. to find reasonable accommodations. Students at UAF 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 to the following site: www.uaf.edu/handbook/.

Disabilities services
The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. We will closely work with the Office of Disabilities Services (208 Whitaker Building, 474-5655 or TTY at 474-1827; email: uaf-disabilityservices@alaska.edu) to provide reasonable accommodation to students with disabilities.

To ensure that everyone has equal opportunities to succeed in this course, please let me know if I need to accommodate any disabilities that you may have with assistance of Disability Services. Any information you provide will be held strictly confidential.

Support services
The Division of Student Services provides student-centered programs and services designed to assist students in achieving their personal, academic and career goals. In collaboration with the academic deans, we lead the university in recruiting a diverse student body. With the use of ongoing assessment, we support and develop programs and communities that contribute to the retention, success and leadership development of students. Go to http://www.uaf.edu/sss/ to learn more.

Writing support services are available to UAF students through the Writing Center, located in 801 Gruening, 474-5314, online at: http://www.alaska.edu/english/writing-center/. You are encouraged to use this resource to meet writing expectations.

Technology support services are available through the OIT Support Center, 450-8300 (Toll Free: 800-478-8226), online at: http://www.alaska.edu/oit/sc/about/contact.xml, and via email to helpdesk@alaska.edu.

The Biology and Wildlife Learning Lab is now available. Teaching Assistants will be available to answer questions and provide guidance. You can also use the space in Murie 202 to do homework, work on projects, do your online course work, etc. The schedule can be found at: https://www.bw.uaf.edu/resources/learning_lab.php.

A note on sexual misconduct
UAF is committed to fostering a safe, productive learning environment. Title IX and UAF policy prohibits discrimination on the basis of sex. Sexual misconduct, including harassment, domestic and dating violence, sexual assault, and stalking, is also prohibited at UAF.

UAF encourages anyone experiencing sexual misconduct to talk to someone about what happened, so they can get the support they need and UAF can respond appropriately.

If you wish to speak confidentially about an incident of sexual misconduct, want more information about filing a report, or have questions about UAF policies and procedures, please contact our Title IX Coordinator, which can be found on UAF’s website.

UAF is legally obligated to investigate reports of sexual misconduct, and therefore it cannot guarantee the confidentiality of a report, but it will consider a request for confidentiality and respect it to the extent possible.

As a teacher, I am also required by UAF to report incidents of sexual misconduct and thus cannot guarantee confidentiality. I must provide our Title IX coordinator with relevant details such as the names of those involved in the incident.

Electronics in the Classroom
No electronics like iPods, music players, and alike are allowed in the classroom. Cell phones need to be turned off. Laptops, tablets, or iPads can only be used for note taking and that only in the front of the classroom. Any violation of this policy will result in
confiscation of your electronic gadget without recourse.
2. Course Requirements

To do well in this course you must attend all class meetings. Your grade will be based on the following criteria:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>BIOL F417</th>
<th>BIOL F617</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Three Partial Exams</td>
<td>24% (8% each)</td>
<td>21% (7% each)</td>
</tr>
<tr>
<td>2. Final Exam</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>3. Class Participation</td>
<td>14% (0.5% each)</td>
<td>14% (0.5 each)</td>
</tr>
<tr>
<td>4. Oral Presentations</td>
<td>27% (9% each)</td>
<td>21% (7% each)</td>
</tr>
<tr>
<td>5. Final Review Paper</td>
<td>15.5%</td>
<td>12.5%</td>
</tr>
<tr>
<td>6. Research Proposal</td>
<td>Not applicable</td>
<td>13% (6.5% + 6.5%)</td>
</tr>
<tr>
<td>7. Class preparation (Quizzes)</td>
<td>8.5% (0.5% each)</td>
<td>8.5% (0.5% each)</td>
</tr>
<tr>
<td>8. Diagnostic exams</td>
<td>3% (1.5% each)</td>
<td>3% (1.5% each)</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Three Partial Exams**

Three partial exams will be given (see course manual sections 3 and 4 for dates); 8% each of the final grade for BIOL F417 students and 7% each for BIOL F617 students. Exams will cover any material presented in all class meetings (which include the Pearson Revel materials) from the beginning of the course (exam 1) or since the last exam (exams 2-3). These materials include all assigned readings unless specified otherwise.

If you are not able to attend an exam, you must let me know in advance; at least four weeks in advance in a non-emergency situation and as soon as possible in an emergency situation (e.g., serious illness (doctor’s note required), death in the family). NO partial exam makeup will be offered.

**The Final Exam**

The final exam, 8% of the final grade for BIOL F417 students and 7% for BIOL F617 students, will be comprehensive. It will cover any material presented in all class meetings from the beginning of the course through class meeting 20 (which include the Pearson Revel materials). These materials include all assigned readings unless specified otherwise.

If you are not able to attend the final exam on Thursday 1 May 2020, from 1-3 pm, you must let me know as soon as possible in advance; only emergency situations (e.g., serious illness (doctor’s note required), and death in the family) will be considered. So, having a plane ticket that has you depart before the final exam date is NOT a valid reason and will NOT be considered. NO final exam makeup will be offered.

**General Exam Information**

While taking the exams you are not allowed to use any reference materials, calculators, notes, or help from others. However, you are strongly encouraged to study for exams with classmates and have a free exchange of information and ideas. Exams will be returned in class or will be available in my office. Answer keys to all exams will be
posted on the BIOL F417 and BIOL F617 Black Board sites at http://classes.uaf.edu. I will try to grade the exams within one week.

I urge you to read through your exam and bring to my attention any errors that I made in totaling your points. I also encourage you to see me about a re-grade if you feel that I have misgraded or misinterpreted your answer. Exams should be a learning exercise for all of us. If you would like a re-grade you should return your test to me by following this procedure:

1. Consult the exam key to see what I accepted for full credit.
2. Explain in writing why you are requesting a re-grade.
3. Give your exam and explanation to me no later than one week after the exams have been returned and the exam keys have been posted.

Class Participation
Attending class meetings and actively engaging in the class meeting material is crucial for successful completion of this course. Class participation is worth 14% of the final grade or 0.5% per class meeting. Unexcused absences will result in loss of class participation credit. Missed class meetings cannot be made up. Only legitimate absences will be considered for special consideration, such as a legitimate non-emergency situation (e.g., out of town for UAF Athletics competitions) and as soon as possible in a legitimate emergency situation (e.g., serious illness (doctor's note required), death in the family), and advance notice is required.

As you will be evaluating the presentations of your peers in the class in the latter half of the semester, your presence is required. Both presenting materials you have researched and evaluating other’s presentations represent excellent ways to improve your own presentation skills.

Oral presentations
At a minimum, each BIOL F417 group member will present for 8 minutes, followed by up to 3 minutes of questions and answers at least three times during the last one third of the semester. Each individual student will be evaluated on his or her presentation skills (67% of grade). In addition, each group will be evaluated on how well the group members worked together to provide a comprehensive presentation of their review topic (33% of grade). The evaluation will be based on peer evaluation (40% of grade) and instructor evaluation (60% of the grade), and each presentation is 9% of the final grade.

At a minimum, each BIOL F617 student will present for 20 minutes, followed by up to 5 minutes of questions and answers at least three times during the last one third of the semester. The evaluation will be based on peer evaluation (30% of grade) and instructor evaluation (70% of the grade) and each presentation is 7% of the final grade.

Each BIOL F617 student will also give a 20-minute presentation on their research proposal, followed by up to 5 minutes of questions and answers (6.5% of the final grade) during the last one third of the semester.
Written Review Paper on Topic in Behavioral Neuroscience
You will write a review paper on a topic in behavioral neuroscience with your group members (BIOL F417), or alone (BIOL F617). Depending on the topic, this paper can discuss the behavioral characteristics and/or symptoms of the behavior being reviewed, the neural networks that are involved in controlling the behavior, the cellular/subcellular mechanisms that control the behavior, treatment options, and suggestions for future research. One grade will be given for the group and is 15.5% (BIOL F417) or 12.5% (BIOL F617) of the final grade.

You will have two class periods on 5 March (Class 16) and 2 April (Class 22) 2020 to work with your group on your review paper, although you should schedule several meetings outside of class to be able to write an excellent paper. A complete draft of the review paper is due on Monday at noon on 6 April 2020, which will be 30% of your final review paper grade, or 4.65% of your final grade for BIOL F417 students and 3.75% of your final grade for BIOL F617 students.

The paper has to be at least 15 pages in length (double spaced; 1-inch margins; and 12-type font) excluding the title page, figures and tables, and the reference list. The review should be based on at least 30 peer-reviewed scientific journal articles, with at least 15 published in the past 5 years. The final paper is due no later than Monday 27 April 2020 at noon, which represents 70% of your paper grade, or 10.85% of your final grade for BIOL F417 students and 8.75% of your final grade for BIOL F617 students.

The style of the paper should be based on that of a behavioral neuroscience peer-reviewed journal review article. Example of what the scientific review paper components could be:

- **Title page (5% of paper grade)**
  - Includes title, author, course information, and affiliation information.

- **Abstract (5%).**
  - No more than 250 words.
  - Usually it includes 2-3 sentences of background and rationale, 2-3 sentences of each main body component, and 2-3 sentences of conclusion.

- **Introduction (5%).**
  - Briefly discuss the rationale of the review article.

- **Main body of the review (70%). This could have the following components:**
  - Behavioral characteristics and/or symptoms of the behavior being reviewed.
  - Neural networks that are involved in controlling the behavior.
  - Cellular/subcellular mechanisms that control the behavior.
  - Treatment options.
  - Suggestions for future research.

- **Conclusion (5%).**
  - Present the main takeaways of the review paper.

- **Acknowledgments (5)**
  - Thank those who have contributed to the work and list those who have funded the preparation of the paper.

- **References (5%).**
Include full citations of all peer-reviewed articles you have cited in the text of the paper.

Do not include articles you did not cite in the text of the paper.

In addition, the BIOL F617 students will each write a research proposal using NIH guidelines (www.nih.gov). The first draft (2% of final grade) is due 30 March 2020 and the final proposal is due 20 April 2020 (4.5% of final grade).

Class preparation
This class will be taught in a different way than most of your classes. Specifically, I have adopted a “flipped classroom” paradigm. This means that the class meeting/book materials are on the Pearson Revel website and in the textbook for you to access when and where you want. It also means that you will be responsible for reviewing materials before you come to class, which will be assessed with quizzes on Revel, which are due the day prior to the class meeting by 11:59pm AKST!

Instead of a traditional lecture format, you will be engaging in active learning activities during class time, which has been shown to be more effective in your learning the course content. It is essential that you live up to your responsibilities and complete the assigned materials the day prior to the class meeting. Consequently, coming to class prepared is 8.5% of your final grade (class participation grade), or 0.5% of the final grade for each class meeting that discusses class content (Classes 1-6, 8-12, 14, 15, 17-20), which will be recorded by quiz completion on Revel. On Revel, each quiz question is worth 5 points. You get three chances to answer the question correctly, but for each additional chance you lose one point.

When your class preparation assignments are due is clearly listed in Revel and in section 4 of this course manual. These assignments are listed as Chapter X due* in section 4. The * means that the quizzes and readings are due at 11:59 pm AKST on that day, which importantly is one day before the class meeting date!

Grading
The class will be graded on a straight percentage basis:

- 97.0-100% is an A+
- 93.0-96.9% is an A
- 90.0-92.9 is an A-
- 87.0-89.9 is a B+
- 83.0-86.9 is a B
- 80.0-82.9% is a B-
- 77.0-79.9 is a C+
- 73.0-76.9 is a C
- 70.0-72.9% is a C-
- 60.0-69.9% is a D
- < 60% is an F

I will not grade on a curve. This means that in principle everyone will be able to get an A in this course. Of course, everyone will also be able to get an F, but I am confident that you will work hard enough to avoid this scenario.

Note: Be aware that the grading scale above will be used without exception. Therefore, for example 89.9% will result in a final grade of B+ and 59.9% will result in a final grade.
of F. The 0.1% difference may seem like a small difference, but since it is based on 10-11 separate grades and 24 class participation and 16 class preparation credits, it truly reflects a level of performance that does not warrant a higher grade. Being on the right side of the cut-off is your responsibility!

**Explanation of NB, C, W, and incomplete grades**

This course adheres to the UAF guidelines regarding the granting of “NB” Grades: The NB grade is for use only in situations in which the instructor has No Basis upon which to assign a grade. In general, the NB grade will not be granted.

A “C” (including C+ and C-) grade indicates a satisfactory level of acquired knowledge and performance in completion of course requirements.

A “W” grade indicates withdrawal from the course after the first two weeks of the semester. The instructor may withdraw a student for the course when the student does not participate significantly in the course.

Your instructor follows the UAF Incomplete Grade Policy: The letter “I N” (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, he has not been able to complete the course during the regular semester. Negligence or indifference are not acceptable reasons for an “I N” grade.

Information about last date to drop, last day for full tuition and fees refund, and last date to withdraw from the course can be found on the UAF academic calendar at [https://catalog.uaf.edu/calendar/](https://catalog.uaf.edu/calendar/).
### Part II: General Course Information

3. Outline of Class Meeting Topics, Required Reading Assignments, Partial Exams, Student Presentations, Written Review Paper, and the Final Exam  
(Subject to Change)

<table>
<thead>
<tr>
<th>Date</th>
<th>Class Meeting #</th>
<th>Topic</th>
<th>Reading Assignments Carlson, 11th Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-14-20 T</td>
<td>1</td>
<td><strong>Diagnostic Exam 1</strong></td>
<td><em>Surprise</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Course Introduction; Structure and Function of</em></td>
<td><em>This Manual</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Cells of the Nervous System</em></td>
<td><em>Chapters 1 &amp; 2, p1-55</em></td>
</tr>
<tr>
<td>01-16-20 Th</td>
<td>2</td>
<td><strong>Structure of the Nervous System</strong></td>
<td><em>Chapters 3, p56-87</em></td>
</tr>
<tr>
<td>01-21-20 T</td>
<td>3</td>
<td><strong>Psychopharmacology</strong></td>
<td><em>Chapters 4, p88-117</em></td>
</tr>
<tr>
<td>01-23-20 Th</td>
<td>4</td>
<td><strong>Methods and Strategies of Research</strong></td>
<td><em>Chapter 5, p118-148</em></td>
</tr>
<tr>
<td>01-28-20 T</td>
<td>5</td>
<td><strong>Vision</strong></td>
<td><em>Chapter 6, p149-187</em></td>
</tr>
<tr>
<td>01-30-20 Th</td>
<td>6</td>
<td><strong>Audition, the Body Senses, and the Chemical Senses</strong></td>
<td><em>Chapter 7, p188-230</em></td>
</tr>
<tr>
<td><strong>02-04-20 T</strong></td>
<td>7</td>
<td><strong>Partial Exam 1</strong></td>
<td><em>Chapters 1-6, p1-187</em></td>
</tr>
<tr>
<td>02-06-20 Th</td>
<td>8</td>
<td><strong>Control of Movement</strong></td>
<td><em>Chapter 8, p231-260</em></td>
</tr>
<tr>
<td>02-11-20 T</td>
<td>9</td>
<td><strong>Sleep and Biological Rhythms</strong></td>
<td><em>Chapters 9, p261-295</em></td>
</tr>
<tr>
<td>02-13-20 Th</td>
<td>10</td>
<td><strong>Reproductive Behavior</strong></td>
<td><em>Chapters 10, p296-329</em></td>
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<tr>
<td>02-18-20 T</td>
<td>11</td>
<td><strong>Emotion</strong></td>
<td><em>Chapter 11, p330-365</em></td>
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<tr>
<td>02-20-20 Th</td>
<td>12</td>
<td><strong>Ingestive Behavior</strong></td>
<td><em>Chapter 12, p366-404</em></td>
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<tr>
<td><strong>02-25-20 T</strong></td>
<td>13</td>
<td><strong>Partial Exam 2</strong></td>
<td><em>Chapters 7-12, p188-404</em></td>
</tr>
<tr>
<td>02-27-20 Th</td>
<td>14</td>
<td><strong>Learning and Memory</strong></td>
<td><em>Chapter 13, p405-445</em></td>
</tr>
<tr>
<td>03-03-20 T</td>
<td>15</td>
<td><strong>Human Communication</strong></td>
<td><em>Chapter 14, p446-480</em></td>
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<tr>
<td>03-05-20 Th</td>
<td>16</td>
<td><strong>Review Paper Preparation</strong></td>
<td><em>Further Develop Topic and Do Literature Search</em></td>
</tr>
<tr>
<td><strong>03-10-20</strong></td>
<td>-</td>
<td><strong>Spring Break</strong></td>
<td><em>-</em></td>
</tr>
<tr>
<td><strong>03-12-20</strong></td>
<td>-</td>
<td><strong>Spring Break</strong></td>
<td><em>-</em></td>
</tr>
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</table>

**Notes:**
- Spring Break
- Further Develop Topic and Do Literature Search

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11
<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
<th>Chapter/Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>03-17-20</td>
<td>T</td>
<td>17 Neurological Disorders</td>
<td>Chapter 15, p481-518</td>
</tr>
<tr>
<td>03-19-20</td>
<td>Th</td>
<td>18 Schizophrenia and the Affective Disorders</td>
<td>Chapter 16, p519-551</td>
</tr>
<tr>
<td>03-24-20</td>
<td>T</td>
<td>19 Stress, Anxiety, and Neurodevelopmental Disorders</td>
<td>Chapter 17, p552-587</td>
</tr>
<tr>
<td>03-26-20</td>
<td>Th</td>
<td>20 Substance Abuse</td>
<td>Chapter 18, p588-618</td>
</tr>
<tr>
<td><strong>03-30-20</strong></td>
<td>M</td>
<td>- Complete Draft of Research Proposal (F617)</td>
<td><strong>Due at Noon</strong></td>
</tr>
<tr>
<td>03-31-20</td>
<td>T</td>
<td>21 Partial Exam 3</td>
<td>Chapters 13-18, p405-618</td>
</tr>
<tr>
<td>04-02-20</td>
<td>Th</td>
<td>22 Review Paper Preparation</td>
<td>Further Develop Topic and Do Literature Search</td>
</tr>
<tr>
<td><strong>04-06-20</strong></td>
<td>M</td>
<td>- Complete Draft of Review Paper</td>
<td><strong>Due at Noon</strong></td>
</tr>
<tr>
<td>04-07-20</td>
<td>T</td>
<td>23 Student Presentations</td>
<td>Work on Literature Review and Oral Presentation</td>
</tr>
<tr>
<td>04-09-20</td>
<td>Th</td>
<td>24 Student Presentations</td>
<td>Work on Literature Review and Oral Presentation</td>
</tr>
<tr>
<td>04-14-20</td>
<td>T</td>
<td>25 Student Presentations</td>
<td>Work on Literature Review and Oral Presentation</td>
</tr>
<tr>
<td>04-16-20</td>
<td>Th</td>
<td>26 Student Presentations</td>
<td>Work on Literature Review and Oral Presentation</td>
</tr>
<tr>
<td><strong>04-20-20</strong></td>
<td>M</td>
<td>- Final Research Proposal (F617)</td>
<td><strong>Due at Noon</strong></td>
</tr>
<tr>
<td>04-21-20</td>
<td>T</td>
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<td><strong>04-27-20</strong></td>
<td>M</td>
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<td>05-01-20</td>
<td>F</td>
<td>1-3 pm Final Exam</td>
<td>Chapters 1-18, p1-618</td>
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4. Dates of Class Meetings, Partial Exams, Chapter Preparation and Quizzes Due, Student Presentations, Written Review Paper, and Final Exam
(Subject to change)

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<td>05/01/20</td>
<td>Final Exam 1-3pm</td>
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*Quizzes and readings are due at 11:59 pm AKST.
5. How to Get the Most Out of the Course

1. Nine-twelve hours each week is the minimum amount of time you will have to commit to this course in order to do well. This includes 3 hours for class meetings and 6-9 hours for study related to class meeting content each week for class meetings 1-20. For class meetings 21-28, this includes 3 hours for class meetings, 2-3 hours for oral presentation preparation, 2-3 hours of literature review, and 2-3 hours for writing the paper every week. BIOL F617 students will have to add extra time because of their additional assignments.

2. Do the assigned readings before coming to class, watch the video(s), and complete other pre-class assignments. This will help you understand the class meeting material and see how a topic is going to be developed. Coming to class prepared will also give you the necessary background to participate meaningfully in class discussions. A significant portion of the material is review and will not be discussed in detail!

3. Establish a schedule of study that includes some time set-aside for review. For example, as we discuss the structure of the nervous system, make sure to review the structure and functions of neurons.

4. Never cram for a test. This may allow you to just get by in the course, but it will never allow you to learn and understand the subject. Remember that you will only get out of the course what you put in to it. Don't just say to yourself, "Yeah, I understand it." Quiz yourself. Ask a group member to quiz you informally. That is one of the surest ways to determine if you really understand the material.

5. Don't be embarrassed or afraid to admit that you are having difficulty, either to me or to your fellow students. We should all work together to see that everyone learns. Please contact me because I want this class to be a successful learning experience for everyone. I have office hours because I want to help you succeed; use my time!

6. Set aside time for your literature review every week. This cannot be completed a week before your oral presentation, or when the written paper is due. When you read a peer-reviewed journal article, be critical and put it into the context of other papers you have read. When you read journal articles take notes and highlight text so you can easily find materials when you are writing parts of the paper. Never copy the text straight into your paper, but paraphrase in your own words. Always cite the origin of the materials you use; plagiarism is a serious offense!

7. Ask questions. This is the best way you have for clearing up confusing points and misunderstandings and to go beyond what we talked about in class meetings. Learning to ask questions is the first skill that a scientist has to develop in order to find meaningful answers. Have fun! Nothing works better than enjoying what you are doing. Please let me know at any time what I can do to improve the course.
6. How to Get Information on Neurobiology

The websites provided by Pearson for the textbook are extensive and provide excellent information and tools to understand the concepts and to help remember the content. For your literature review, I suggest you use the National Institutes of Health (NIH) PubMed website (http://www.ncbi.nlm.nih.gov/pubmed/). You can use key words, author names, and phrases to find articles of interest on this website. In addition, you can use the reference list of the articles you have already obtained to find older papers on the same topic. Please ask me if you are having difficulty identifying articles of interest.

7. Students’ Rights and Responsibilities

The university subscribes to principles of due process and fair hearings as specified in the "Joint Statement on Rights and Freedoms of Students." This document can be found in the Division of Student Services. You are encouraged to read it carefully.

Most students adjust easily to the privileges and responsibilities of university citizenship. The university attempts to provide counsel for those who find the adjustment more difficult. UAF may terminate enrollment or take other necessary and appropriate action in cases where a student is unable or unwilling to assume the social responsibilities of citizenship in the university community.

STUDENT CODE OF CONDUCT

UAF students are subject to the Student Code of Conduct. In accordance with board of regents' policy 09.02.01, UAF will maintain an academic environment in which freedom to teach, conduct research, learn and administer the university is protected. Students will benefit from this environment by accepting responsibility for their role in the academic community. The principles of the student code are designed to encourage communication, foster academic integrity and defend freedoms of inquiry, discussion and expression across the university community.

UAF requires students to conduct themselves honestly and responsibly, and to respect the rights of others. Conduct that unreasonably interferes with the learning environment or violates the rights of others is prohibited. Students and student organizations are responsible for ensuring that they and their guests comply with the code while on property owned or controlled by the university or at activities authorized by the university.

The university may initiate disciplinary action and impose disciplinary sanctions against any student or student organization found responsible for committing, attempting to commit or intentionally assisting in the commission of any of the following prohibited forms of conduct:

- Cheating, plagiarism or other forms of academic dishonesty
- Forgery, falsification, alteration or misuse of documents, funds or property
- Damage or destruction of property
d. Theft of property or services

e. Harassment

f. Endangerment, assault or infliction of physical harm

g. Disruptive or obstructive actions

h. Misuse of firearms, explosives, weapons, dangerous devices or dangerous chemicals

i. Failure to comply with university directives

j. Misuse of alcohol or other intoxicants or drugs

k. Violation of published university policies, regulations, rules or procedures

l. Any other actions that result in unreasonable interference with the learning environment or the rights of others.

This list is not intended to define prohibited conduct in exhaustive terms, but rather offers examples as guidelines for acceptable and unacceptable behavior.

Honesty is a primary responsibility of you and every other UAF student. The following are common guidelines regarding academic integrity:

1. Students will not collaborate on any quizzes, in-class exams, or take-home exams that contribute to their grade in a course, unless the course instructor grants permission. Only those materials permitted by the instructor may be used to assist in quizzes and examinations.

2. Students will not represent the work of others as their own. A student will attribute the source of information not original with himself or herself (direct quotes or paraphrases) in compositions, theses, and other reports.

3. No work submitted for one course may be submitted for credit in another course without the explicit approval of both instructors.

Alleged violations of the Code of Conduct will be reviewed in accordance with procedures specified in regents' policy, university regulations and UAF rules and procedures. For additional information and details about the Student Code of Conduct, contact the dean of students or visit www.alaska.edu/bor/.

STUDENT BEHAVIORAL STANDARDS

Education at the university is conceived as training for citizenship as well as for personal self-improvement and development. Generally, UAF behavioral regulations are designed to help you work efficiently in courses and live responsibly in the campus environment. They are not designed to ignore your individuality but rather to encourage you to exercise self-discipline and accept your social responsibility. These regulations, in most instances, were developed jointly by staff and students. Contact the dean of students for more information.
8. Netiquette

We are mutually interdependent in the success of our learning endeavor. I expect that we will all model the highest standards of respect and consideration for one another and for our learning process. Please make sure that:

- Your contributions are regular and sufficiently engaging.
- Your contributions are insightful with deliberate contemplation evident.
- You contribute meaningfully to the discussion, and your comments demonstrate original thought and stimulate continued dialog.
- Your feedback is constructive and collegial.
- Your comments are widely distributed across the cohort.
- Your communications exhibit professionalism and respect.

Netiquette addresses civility and professionalism in online communications. Adhering to some basic guidelines further ensures the success of our communications and collective learning experience. Please:

- Do not use offensive language.
- Do not dominate discussions.
- Use simple English.
- Use correct spelling and grammar.
- Share tips with other students.
- Keep an “open-mind” and be willing to express even your minority opinion.
- Think before you push the “Send” button.
- Do not hesitate to ask for feedback.
- When in doubt, always check with others for clarification.

9. Copy Right

Please be aware that any materials you receive in this class are protected under US copyright law. Do not distribute these materials to anyone else, as this may constitute a violation of the law and could result in prosecution.

10. Additional Information

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

Effective communication: Students who have difficulty with oral presentations and/or writing are strongly encouraged to get help from the UAF Department of Communications and Journalism’s Speaking Center (907-474-5470, speak@uaf.edu) and the UAF English Department’s Writing center (907-474-5314, greening 8th floor), and/or CTC’s Learning Center (907-455-2860, 604 Barnette St.).