Syllabus Winter 2018
BI232 – Introduction to Human Anatomy & Physiology (3 credits)
MWF 9:00-9:50 am LInC 100

Pre-requisites: Successful completion with C- or better in BI231 is required for either
BI232 or BI233.
Pre-dental students should take the Advanced Human A&P course (Bi33X/Bi34X)

The key to studying anatomy: Be interested in the process & information and apply your
understanding to your own body.

Instructor:
Dr. Lindsay Biga
lindsay.biga@oregonstate.edu
Cordley 1028/30 (across from A&P lab)
Office phone: 541-737-3785

Cell Phone: 541-220-0103 (please use
carefully, this is my personal number)
Forum sessions: Weds & Fri 10-11 am
Office hours: TBD

This is a very big class and if you ever need help, as a matter of practicality, you need to ask for it. If you
are having any problems or you are not performing well in the class or you feel lost, please come and see
me. I want to see you all succeed, both here and in life.

Teaching Team:
Introduction to Human A&P is led by Dr. Lindsay Biga. I teach the lecture, develop course curriculum, direct
learning activities and oversee all aspects of our course and the associated lab. Assisting with learning in the
course are former undergraduate students who now facilitate student learning both in and outside of the
classroom; these are the Learning Assistants (LAs), Supplemental Instruction Leaders (SI leaders or tutors)
and lab Teaching Interns (TIs). LAs, SI leaders and TIs all assist students with learning via facilitated
activities. Lab instructors are graduate students who direct learning in the lab. All members of the teaching
team collaborate and work extensively to foster student learning, success and development.

Email:
Please email me if you have any questions (lindsay.biga@oregonstate.edu) and please allow at least 24 hours
for response. Due to the large class size and the potential large volume of email, emails will be answered at
the instructor's convenience in the order that they were received. I greatly appreciate courteous emails as well
as a greeting and a closing (including your name) in any emails that you send. Lengthy answers to A&P
questions are impractical and often ineffective in email format. If you have questions of this nature, it is best
to discuss them with me at office hours or before lecture. I also welcome questions during lecture.

Office Hours:
Please see above for regular office hours. As life is somewhat unpredictable for all of us, I understand that you
may not be able to make my designated office hours. I have an open door policy so that you can come and talk
to me at anytime that is convenient for you. You can usually find me in my office on the first floor in Cordley
throughout the day. Please communicate with me if you would like something more formal and we can
schedule an appointment. You can talk to me at class, reach me by email, or call me on the phone. I am
always willing to meet with you individually or as a group. Please realize that should you stop by
unexpectedly, I may not be immediately available, but that I will happily coordinate a mutually convenient
and timely meeting.
Class Activities
Our classroom is a cooperative classroom in which we all work together to achieve learning. To reach this goal, instructors, students, LAs, and SI leaders must interact with one another in scientific discourse. Each lecture class will have open-ended questions or activities that involve student work – both with immediate neighbors and the room at large. On Fridays, students will work in small groups facilitated by LAs to complete more involved activities. Participation is required for learning and participations is required for success in our course.

Extra Sessions
Starting the second week of the term and continuing throughout the term, we will be holding additional non-required forum sessions directly following lecture on Wednesdays and Fridays. We will not have pre-planned material for these sessions, but we will be reviewing material from lecture, questions that students ask or discussing the answers to Exam or Study Questions (see below for explanation of Study Questions). This is an opportunity for a smaller learning environment and more individualized attention from your instructor that many people find helpful and discover that regularly attending one session each week improved their understanding of course material and their performance on exams. We are making this time available to help you better understand the course material.

Required Materials:
Available at the OSU Bookstore
1) TurningPoint clicker (QT Response Clicker/ResponseWare) $65.50

Textbook:
You may choose which A&P textbook you would like to use. For the past two years, this course has employed Martini’s Visual Anatomy & Physiology, a high quality, beautiful text that serves as a supplement to lecture and Canvas material. It is available at the bookstore. This year I am working on a project to revise an existing free, online textbook (OpenStax Anatomy & Physiology: https://openstax.org/details/anatomy-and-physiology). In its current state, this is a basic textbook that can serve as a reference. It is up to you whether you purchase a textbook or use the available, free online version. I will discuss this on the first day of class.

Course Goals:
This is the second term of a three-term introductory human anatomy and physiology series. The general goal of this introductory 200 level course series is to understand and appreciate how the various organ systems work in the human body to sustain life. The 200 level course series has a strong gross functional anatomy focus and the knowledge and skills acquired in this course are intended to be further developed through additional undergraduate education. In this term, we focus on understanding the structures, functions and regulatory mechanisms involved in the nervous, endocrine and reproductive systems.

Canvas:
We will be using Canvas for this course. Canvas gives you online access to course documents (class notes, syllabus, external links, practice exams, study questions, etc.) or take on-line quizzes using your ONID ID. I also use Canvas frequently to post announcements and send email. To login, type in http://oregonstate.instructure.com into your internet browser’s address bar and press enter. OSU’s Canvas Login page should come up –please login using your ONID username and password. If you do not have an ONID username & password, go to: http://www.onid.orst.edu/ & click the link to sign up for ONID.
Study Questions:
I believe that answering study questions is a good learning tool and well worth your time. I will regularly post Study Questions on Canvas. The study questions are intended to make you think about the course material and understand all aspects of the material presented in lecture. It is in your best interest to answer these questions in your own words – recopying the textbook or another person’s answers (including a tutor’s) are not active learning. Since successive course topics build on previously presented material, you are wise to answer these questions before attending the next lecture. Furthermore, I use these questions as a topic guide when I construct questions for the exams (although I am not obligated to use only the material specifically asked within the questions). I do not post answers to questions as I believe the learning is in answering the questions yourselves. Answers to these questions can be found in the lecture notes for that day or the assigned pages for that day (see schedule for page numbers). I am happy to discuss the answers with you in office hours, at an appointment or at extra sessions. You may find it helpful to answer these questions in a study group or with a partner. The more you discuss this material the better your understanding and the more successful you will be in this course.

Learner Outcomes:
Students will be able to:
1. Describe how the nervous, endocrine and reproductive systems are anatomically arranged.
2. State the macroscopic anatomy of the nervous, endocrine and reproductive systems.
3. Organize the nervous, endocrine and reproductive systems functionally as well as structurally.
4. Use examples to explain and illustrate how the nervous and endocrine systems respond to stimuli and activate effectors (ie: reflexes, higher order processing, signal transmission).
5. Describe the special senses and how the brain receives, interprets special sensory information.
6. Explain the physiology of the human reproductive system and how it regulates gamete production.
7. Process information in class by active participation using classroom response system (clickers).
8. Process course information through on-line quizzes.
9. Demonstrate your mastery of course content through in class activities and exams.

Learner Expectations:
1. Treat everyone with dignity and respect.
2. Bring your enthusiasm for the study of the human body to class.
3. Ask if you have questions.
4. Print the posted notes before class and bring them & clicker to every lecture.
5. Use the hand held clicker to participate in class.
6. Take additional notes during lecture and while studying – the posted notes are only to serve as an outline – they are not complete.
7. Take the on-line quizzes.
8. Attend all lectures, mentally and physically – arrive on time to lecture, stay for the entire lecture, minimize talking during lecture and silence your cell phones. If you need to arrive late or leave early, please do so through the back doors as quietly as possible. Please do not sleep, read the newspaper, study for other classes, text message, talk on the phone, listen to music, watch t/v/movies, or perform surgery during lectures – this is both rude and disrespectful to me and your peers.
9. Dedicate time to studying outside of class & between lectures – experts recommend 2-4 hours of outside class study time PER LECTURE HOUR. For our class, you should be studying a minimum of 6-12 hours per week.
10. Answer the study questions.
11. Read the textbook and use the additional DVDs (or Mastering A&P).
12. Take all midterm exams and the cumulative final exam.
13. Follow the Student Conduct Regulations in all endeavors. See Student Conduct part of syllabus or http://studentlife.oregonstate.edu/studentconduct/offenses-0 for more information. It is every student's responsibility to know and follow the regulations.

Evaluation of Student Performance: Grading & Course Policies:
Grading will be based on a combination of 3 examinations (Exam I, Exam II & the Final Exam), 1 required on-line Short Quiz (about action potentials) and Extra Credit.

A. Exams/Short Quiz:
The two “midterm” exams will be 30 questions (2 points each) & the cumulative final will be 60 questions (2 points each) graded on a scantron – there will be matching, true/false, multiple choice and anatomy identification/interpretation using figures. Unfortunately, the class size precludes that ability to give anything but scantron exams. Exams I & II are given during regular class time. Locations may vary.

<table>
<thead>
<tr>
<th>Quiz/Exam</th>
<th>Date/Time</th>
<th>Locations</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Quiz</td>
<td>Blackboard Avail (1/24)</td>
<td>15 pts – on Canvas</td>
<td></td>
</tr>
<tr>
<td>Exam I</td>
<td>Weds 9 am Week 4 (2/1)</td>
<td>60 pts – see schedule for content</td>
<td></td>
</tr>
<tr>
<td>Exam II</td>
<td>Weds 9 am Week 8 (3/1)</td>
<td>60 ps – see schedule for content</td>
<td></td>
</tr>
<tr>
<td>Final Exam</td>
<td>Thurs 9:30 am Finals Week (3/23)</td>
<td>120 pts – covering all presented material</td>
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</tbody>
</table>

Regarding Exams:
Attendance at all exams is required. Photo ID is required at all exams. Make-up exams are generally not given. If you have an urgent and serious illness or another emergency that prohibits your attending the exam, you must contact me ASAP to be made aware of the consequences or discuss alternatives. All submitted responses on scantron exams are final – you will not be credited with answers that you did not bubble and your bubbled TF number will not be subject to change once submitted. Refer to OSU’s regulations for Student Conduct/ Academic Dishonesty for taking exams. Please refer to the following rules for on-line extra credit quizzes and in class clicker usage.

B. EXTRA CREDIT: ON-LINE QUIZZES
Extra credit points are available using Canvas to take on-line quizzes. You may earn up to 2.5% (6.375 points) of the total course percentage as extra credit by taking these on-line quizzes. The questions are intended to help prepare you for exams and learn the material in concert with material being discussed in lecture. I write feedback for each question to help you learn from the quizzes. Please be aware that using an on-line situation to answer exam-like questions is not the same as being in the lecture hall on exam days. These questions will likely seem much easier than exam questions for that very reason. But they are good practice for synthesis questions.

On-line Extra Credity Quiz Details:
1. To be eligible for these points, you must use Canvas to answer quiz questions on-line. The quizzes will become available on Canvas at 12 am Tuesday, Thursday and Saturday and be available for only 24 hours (Tuesday/Thursday) or 48 hours (Saturday to Sunday), closing at midnight.
2. For each quiz, you will have at least 1 question and but usually you will have about 4 or more questions. Scoring is as follows:
   a. On all quizzes you will earn full credit for the right answer(s) or no credit for the wrong answer(s). You receive a 0 for not answering.
   b. You will receive a percentage score for each quiz that will be recorded in the Canvas gradebook.
   c. You will be able to view the quiz answers and feedback once the quiz has closed.
3. At the end of the term, I will examine each individual’s quiz scores and drop the lowest 3 scores. The remaining scores will be averaged together. I will use that score to determine how much of the available 2.5 course percentage points extra credit you have earned. These extra credit points are added to your overall course average score. Your quiz extra credit will be determined on the following scale:
   
<table>
<thead>
<tr>
<th>Score Range</th>
<th>Extra Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-100%</td>
<td>6.375 pts</td>
</tr>
<tr>
<td>60-79%</td>
<td>5.2 pts</td>
</tr>
<tr>
<td>40-59%</td>
<td>4.1 pts</td>
</tr>
<tr>
<td>30-39%</td>
<td>3 pts</td>
</tr>
<tr>
<td>20-29%</td>
<td>2 pts</td>
</tr>
<tr>
<td>10-19%</td>
<td>1 pt</td>
</tr>
<tr>
<td>0-9%</td>
<td>0 pts</td>
</tr>
</tbody>
</table>

4. It is your responsibility to ensure your quiz score is being accurately recorded in the Canvas gradebook.
a. If after checking scores on Canvas, you note an inaccuracy in your scores, you have 1 week from the date of the inaccuracy to contact me about this problem.

5. Rules governing quiz usage:
   a. **Do not answer quiz questions for someone else** – it is academic dishonesty to answer responses for someone else. If I discover that you are taking the on-line quizzes for someone else or giving your answers to someone else, both of you will receive the following penalty:
      i. You both will meet with me and the chair of the Department of Integrative Biology.
      ii. You both will be ineligible for extra credit.
      iii. You both will receive a severe grade penalty which will not be eligible for dropping or replacement (to be determined at the discretion of the Department of Integrative Biology).
      iv. You both may be reported to the Student Conduct Committee for violating the Academic Dishonesty Policy.

C. **EXTRA CREDIT: Classroom response system (CLICKERS)**

Extra credit points are available using in-class response clickers (Turning Point clickers) to answer in-class questions. For a guide to how to use your clicker, please see the PDF document in Course Information on Canvas. You may earn up to 2.5% (6 points) of the total course percentage as extra credit using your clicker. The questions will usually cover previously presented content to assess understanding, but they may ask opinions or ask you to predict outcomes. I am using in-class clickers as a means for extra credit in this class for several reasons:

1. This method allows more immediate feedback regarding your comprehension/attitudes about the material. This is of benefit to you and me – you can see when your understanding is accurate and I can adjust our classroom activities to meet the needs of students in the course.
2. Using this system, I can stop and further explain confusing topics and reconcile misconceptions.
3. I want a way to give you an opportunity to earn credit for learning activities that we have no way of measuring through exams.

To be eligible for clicker extra credit:
1. You must use a Turning Point clicker (available at the bookstore).
2. Clicker points will be determined as follows:
   a. You receive credit by answering clicker questions in class. Some days I may ask more questions than others. Assuming the equipment works every lecture, I may ask at least one question per lecture.
   b. In each clicker session:
      i. I will ask at least 1 question.
      ii. You will earn full credit for the right answer(s) or half credit for the wrong answer(s). You receive a 0 for not answering.
      iii. You will receive a percentage score at the end of the session using the above scoring.
3. At the end of the term, I will drop the 3 lowest individual clicker sessions and use the remaining to calculate a percentage average. That average will determine how many extra credit points you have earned of the available 2.5 course percentage points.
4. **You are expected to check your clicker activity (to be sure it is recording responses) in 1 of 2 ways. It is your responsibility to ensure your clicker is recording responses.**
   a) In class, when I ask questions, after you send your answer, your clicker will display a happy face 😊 – this means your answer was received.
   b) You may check your scores on Canvas. I must manually upload the data into Canvas and this may take some time; please allow me 24 hours for scores to be updated.
   c) If after checking scores on Canvas, you note an inaccuracy in your scores, you have 1 week from the date of the inaccuracy to contact me about this problem.

5. Rules governing clicker usage:
a) Do not use someone else’s clicker – it is academic dishonesty to answer responses for someone who is not in class. I will be monitoring usage and if I find that you are giving your pad to someone else or answering using someone else’s pad, this will happen:
   i) You both will meet with me and the chair of the Department of Integrative Biology.
   ii) You both will be ineligible for extra credit.
   iii) You both will receive a severe grade penalty which will not be eligible for dropping or replacement (to be determined at the discretion of the Department of Integrative Biology).
   iv) You both may be reported to the Student Conduct Committee for violating the Academic Dishonesty Policy.

b) It is your responsibility to remember to bring your clicker to every class and ensure that your pad is working properly. Bring extra batteries if you are concerned. If you need to test your pad, you may do so at office hours.

c) If you are not in class, you may not receive extra credit for that session. Exceptions due to acceptable circumstances will be made on a case by case basis at the discretion of the instructor.

D. Overall point availability

<table>
<thead>
<tr>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Short Quiz</td>
</tr>
<tr>
<td>Exam I</td>
</tr>
<tr>
<td>Exam II</td>
</tr>
<tr>
<td>Final Exam</td>
</tr>
<tr>
<td>Extra credit on-line quizzes</td>
</tr>
<tr>
<td>Extra credit clicker questions (in-class)</td>
</tr>
<tr>
<td>Total points available</td>
</tr>
<tr>
<td>Max points that will determine your grade</td>
</tr>
</tbody>
</table>

E. Final course grades will be assessed as follows:
1. A score of 0 will be given to all missed exams, unless a make-up or replacement is warranted at the discretion of the instructor.
2. I will combine your exam scores and extra credit scores to calculate your best possible overall course score using the following rules:
   a) Your final exam will always count.
   b) If any or all of your Exam I/Exam II or Short Quiz scores are lower than your final exam percentage score, you may replace that (those) score(s) with the final exam percentage score.
   c) If you miss Exam I, Exam II or the Short Quiz without contacting me, a score of 0% may be given for those exams and will not be eligible for replacement.
   d) A maximum of 5% extra credit is available.
3. Using the scores as collected above, final course grades will most likely be based on this standard grading scale (100-90% = A range, 89-80% = B range, 79-70% = C range, 69-60% = D range, below 60% = F) with + given to the upper 2.5 points (i.e. B+ = 87.5 – 90) and – to the lower 2.5 points (i.e. B- = 80-82.5). The course may be curved at my discretion. Curving of final course grades is entirely at my discretion. All curving, if deemed necessary, will occur at the end of the term – individual exams will not be curved. Curves will not be made public. Curving may or may not improve your final letter grade – but it will never lower your letter grade from that listed in the standard grading scale.

Additional On-line Materials:
1. I will attempt to post a video and audio feed (podcast) of each lecture. I have been successful in offering this technology before and if all goes well, each lecture will be available through Canvas for you to review (allow approximately 24 hours for posting to occur). Clickers do not work on-line – they only work in class. A word of caution – these podcasts are not intended as a substitute for lecture; there is no experience like being there for the live and in-person show.

2. There is a world of material relevant to the study of Human Anatomy & Physiology available on-line. I have created an attenuated list of links in our external links folder of the Canvas page. Additionally, I will post animations or tutorials on our Canvas page that help explain processes or anatomy more thoroughly.

3. Fun with Figures: These are PPT files of unlabeled figures and questions that I have generated. I will post them onto our Canvas page as the weeks go by. Use them in discussion groups or as additional tools when you have exhausted your study questions. I may also use these to assign pre-class homeworks.

4. Old Exams: On our Canvas page, Modules, Exam Materials are old tests that I have written. Use these old exams as examples of types of exam questions. Every year I write new exams that focus on material from our term’s course. Content from previous years may be similar, but if you see something on an old exam that we did not discuss, fear not, you are responsible only for material from this term.

5. Multimedia Materials Module of our Canvas – this has some very nice animations and videos that I have discovered.

**Thoughts on how to succeed in this course:**

I understand that all of us learn differently and perhaps have difficulty with scantron based exams. I have created and make available many tools to help you improve your performance in this class.

1. Answer the Study Questions and discuss the answers with other students.
2. Utilize the free tutoring available through the Academic Success Center.
4. Come visit with me at office hours.
5. Study everyday – read the text chapters or use review questions and pay special attention to the text figures shown in class.
6. Talk to people about A&P – form study groups or you can ask me or each other questions or just talk over the difficult concepts again and again; the more you talk about the physiology, the better you will understand it.
7. Attend class – participation in lecture is an excellent way to hear the topic material discussed in a different way than in the text book – and get extra credit points!
8. Take on-line quizzes; it will reinforce lecture material and determine extra credit points, and it is good practice for exams.
9. Improve throughout the course – since the final is cumulative, your course grade can be greatly improved by good performance on the final exam (see above as to how).

**Academic Dishonesty:**

You are expected to be honest and ethical in your academic work. Academic dishonesty is subject to the disciplinary process outlined in the OSU Student Conduct Regulations. Academic dishonesty is defined as an intentional act of deception in one of the following areas:

- Cheating – use or attempted use of unauthorized materials, information or study aids.
- Fabrication – falsification or invention of any information.
- Assisting – helping another commit an act of academic dishonesty.
- Tampering – altering or interfering with evaluation instruments and documents.
- Plagiarism – representing the works or ideas of another person as one’s own.

You will find more information on this subject at many locations on the OSU website including: [http://studentlife.oregonstate.edu/studentconduct/offenses-0](http://studentlife.oregonstate.edu/studentconduct/offenses-0)

**Student Conduct:**
The goal of Oregon State University is to provide students with the knowledge, skill and wisdom they need to contribute to society in constructive ways. Policies, procedures, and regulations are formulated to guarantee each student’s freedom to learn and to protect the fundamental rights of others. People must treat each other with dignity and respect in order for scholarship to thrive.

In an academic community, students and faculty each have responsibility for maintaining an appropriate learning environment. Students are expected to adhere to behavioral standards that support and foster a learning environment. It is our professional responsibility to treat students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which students express opinions. For specific regulations, please see http://studentlife.oregonstate.edu/studentconduct/offenses-0

Students with Disabilities:
Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at http://ds.oregonstate.edu. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

Always remember that I am here to help you to learn. I want you to succeed here and in life.

BI232 Winter 2017 Schedule
**PLEASE NOTE:** SCHEDULE IS TENTATIVE AND SUBJECT TO CHANGE BY THE INSTRUCTOR

<table>
<thead>
<tr>
<th>Wk</th>
<th>Date</th>
<th>Topic &amp; Material Covered</th>
<th>Reading</th>
<th>OpenStax</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9-Jan</td>
<td>Classes canceled due to weather</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>11-Jan</td>
<td>Course Introduction — “Brains…Brains….” and foundations of electrical signaling</td>
<td>395-411</td>
<td>12.1 &amp; 12.4</td>
</tr>
<tr>
<td>3</td>
<td>13-Jan</td>
<td>Transmembrane potentials &amp; graded potentials</td>
<td>408-411</td>
<td>12.4 525-9</td>
</tr>
<tr>
<td>16-Jan</td>
<td>Martin Luther King, Jr. Day – NO CLASS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Action potentials &amp; AP propagation</td>
<td>412-415</td>
<td>12.4 529-533</td>
</tr>
<tr>
<td>5</td>
<td>20-Jan</td>
<td>Synapses, information processing, summation &amp; facilitation</td>
<td>416-421</td>
<td>12.5 533-7, 539</td>
</tr>
<tr>
<td>6</td>
<td>23-Jan</td>
<td>Signaling wrap up, CNS start up</td>
<td>464-467</td>
<td>13.2 3 559-67</td>
</tr>
<tr>
<td>24-Jan</td>
<td>Complete: ON-LINE SHORT QUIZ between 12:01 AM and 11:59 PM Tuesday 1/24 (15 pts)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>CNS: Brain – Anatomy &amp; Organization; CSF; Blood supply; Meninges</td>
<td>464-467</td>
<td>13.2 3 559-67, 571-77</td>
</tr>
<tr>
<td>8</td>
<td>27-Jan</td>
<td>CNS: Brain regions, case studies</td>
<td>480-483</td>
<td>13.2 559-561</td>
</tr>
<tr>
<td>9</td>
<td>30-Jan</td>
<td>CNS: Diencephalon, brainstem, cerebellum</td>
<td>468-475</td>
<td>13.2 564-568</td>
</tr>
<tr>
<td>4</td>
<td>1-Feb</td>
<td><strong>EXAM I</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>3-Feb</td>
<td>Spinal cord</td>
<td>478-479, 429-435</td>
<td>13.2 &amp; 4 568-9, 579-83</td>
</tr>
<tr>
<td>11</td>
<td>6-Feb</td>
<td>Sensory receptors, Cranial nerves &amp; Spinal Nerves, Plexuses</td>
<td>486-493, 436-445</td>
<td>13.4 583-589</td>
</tr>
<tr>
<td>12</td>
<td>8-Feb</td>
<td>Lower level processing: Reflexes, anatomy of the reflex arch</td>
<td>447-455</td>
<td>14.3 637-644</td>
</tr>
<tr>
<td>13</td>
<td>10-Feb</td>
<td>Reflexes and spinal cord pathways</td>
<td>494-499</td>
<td>15.2 &amp; 16.4 714-79, 670-74</td>
</tr>
<tr>
<td>14</td>
<td>13-Feb</td>
<td>Higher level processing: Memory, Language, Sleep, Consciousness</td>
<td>476-477</td>
<td>15.3 677-678</td>
</tr>
<tr>
<td>15</td>
<td>15-Feb</td>
<td>Overview &amp; Basics of the Autonomic Nervous System (ANS)</td>
<td>509-529</td>
<td>15.1 2 658-674</td>
</tr>
<tr>
<td>17-Feb</td>
<td>Catch up</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>20-Feb</td>
<td>Special Senses: review eye, how we smell &amp; taste</td>
<td>537-543</td>
<td>14.1 604-610</td>
</tr>
<tr>
<td>17</td>
<td>22-Feb</td>
<td>Special Senses: Equilibrium &amp; Hearing, eye anatomy</td>
<td>545-557</td>
<td>14.1 610-619</td>
</tr>
<tr>
<td>18</td>
<td>24-Feb</td>
<td>Special Senses: Eye physiology</td>
<td>560-575</td>
<td>14.1 616-622</td>
</tr>
<tr>
<td>19</td>
<td>27-Feb</td>
<td>Special Senses: catch up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1-Mar</td>
<td><strong>EXAM II</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>3-Mar</td>
<td>Endocrine System: Overview, hormones, receptors, regulation</td>
<td>587-591</td>
<td>17.1-2 734-37, 740-45</td>
</tr>
<tr>
<td>21</td>
<td>6-Mar</td>
<td>Endocrine System: Hypothalamus &amp; Pituitary Gland</td>
<td>592-597</td>
<td>17.3 745-752</td>
</tr>
<tr>
<td>9</td>
<td>8-Mar</td>
<td>Endocrine System: Regulation</td>
<td>598-611</td>
<td>17.4-10 753-74</td>
</tr>
<tr>
<td>23</td>
<td>10-Mar</td>
<td>Reproductive System: Male reproductive anatomy &amp; physiology</td>
<td>990-1001</td>
<td>27.1 1286-96</td>
</tr>
<tr>
<td>24</td>
<td>13-Mar</td>
<td>Reproductive System: Female reproductive anatomy, ovarian cycle &amp; uterine cycle</td>
<td>1003-1011</td>
<td>27.2 1297-1303, 1306-8, 1312</td>
</tr>
<tr>
<td>10</td>
<td>15-Mar</td>
<td>Reproductive System: Female reproductive anatomy &amp; hormone physiology</td>
<td>1012-1015</td>
<td>27.2 1304-6, 1308-11, 1313</td>
</tr>
</tbody>
</table>

**FINAL CUMULATIVE EXAM COVERING ALL PRESENTED MATERIAL,**

**THURSDAY MARCH 23, 9:30 AM**

Other Important Winter 2017 dates:
Sunday **January 15th**, 11:55 pm: Last day to drop a class by Web and receive 100% refund
Sunday **January 22nd**, 11:55 pm: Last day to add a class by Web (requires approval)
Friday **February 24th**, 5 pm: Last day to change grading to S/U; 11:55 pm: Last day to Withdraw from class (have W on transcript)