

Course Information Packet

Biology 358 — Neuroanatomy

A Blended Course Taught by a
Modified Problem-Based Learning (PBL) Format
Winter Term 2011–2012 Academic Year
Lecture: Hanson Hall of Science, Room 102

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Required Material: Tallitsch, RB (2011) *Neuroanatomy Lecture Notes*. (7th ed.)
Rock Island: Augustana Press.

Optional Textbook: Goldberg, S. (2010) *Clinical neuroanatomy made ridiculously simple*. (4th edition). Miami: MedMaster, Inc.

Our Joint Commitments:

By deciding to take this class you are making an overt decision—namely that you will attend this class *each and every day it is scheduled, and that you will do your best to succeed in this class*.

By deciding to teach this class, I too am making an overt decision—namely that *I will offer class sessions that are worth attending, and that I will do my best to help you succeed*. If I am not keeping this commitment let me know, just as I will let you know that you are not keeping your commitment, if that is the case.

1. Course Objectives:

- The course objectives that would be characterized as essential are as follows: By the end of this course you should have
 - gained factual knowledge, including new neuroanatomical terminology and knowledge;
 - learned how to *apply* course material to improve your thought process, problem-solving skills, and decision-making processes;
 - developed a 3-dimensional understanding of neuroanatomical relationships for all structures discussed within each region of the nervous system.
- The course objectives of this course that would be characterized as important are as follows: By the end of this course you should have

- developed specific skills, competencies and points of view needed by neuroanatomists;
 - acquired skills in working with others as a member of a team;
 - learned how to find and use resources by answering questions or solving problems.
- Other course objectives that will help you in numerous situations, be it in college or beyond, are as follows:
 - Increased your written communication skills.
 - Increased your self-assessment skills.
 - Increased your ability to assess the work of others.
 - Developed a 3-dimensional understanding of neuroanatomical relationships for all of the structures discussed.
 - Increased your test-taking abilities.
 - Accomplished the individual goals listed at the beginning of each lecture section, as listed in your lecture outline.
 - Finally, I hope that throughout the term you will have fun and enjoy the course.

2. What you can expect of *me* this term: I am a firm believer that a college education is a two-way street. As a professor, I hope you learn things from me. However, I also hope that I will learn things from you. In addition, I don't think it is appropriate to list what I expect of you without telling you what you can (and should) expect of me. So, during this term you can expect that I will:

- I was told the following by a very good friend who was an excellent teacher: "Students won't give a damn about what you know until they know you give a damn." *You can and should expect me to give a damn*—about you as a person and as a student.
- Do my best to make this term fun!
- Keep the class interesting, organized, and functioning in an open environment of mutual respect.
- Believe, foster and convey the attitude that everyone enrolled in this class has the ability to succeed if they try.
- Care about your progress in this class.
- Do my best to write examinations that aren't tricky, but are fair and test *what you know* rather than what you don't. *However*, if I do not achieve this goal, I will do my best to be a good listener as you discuss with me why you interpreted any and all questions in a particular way. I will also do my best to rectify the problem as much as possible.
- Return all graded tests and quizzes to you by the next class period.
- Understand that my class is not the only class you are taking this term, and that you have an academic and personal life outside of my classroom.
- Be fair and treat all students with respect.
- Set a standard of high expectations and then help you live up to them.

- Point out patterns and relationships between concepts covered in this class, as well as link ideas and facts to previous knowledge.

3. Neuroanatomy will be taught this year as a “blended” course. Because neuroanatomy is such a “content rich” course I have always been concerned about having to spend so much time in class passing information from me to the students and not having enough time (in class) to make sure that you, the student, really *understand* the information you need to know. So...this year (like last year’s neuroanatomy students) you are participating in a grand experiment. (I truly believe that a professor needs to try something at least twice before determining whether or not it really works.) Neuroanatomy will be taught in a manner unlike anything you have had in the Biology Department thus far. In this class you will

- **Use the Index and Table of Contents in your textbook to determine what to read**
 - I would advise, however, that you do the reading *after* listening to the video lecture
- **Download the latest version of QuickTime Player**
 - If you are a Macintosh user
 - Go to <http://www.apple.com/quicktime/download/>
 - Follow the instructions to download the version of QuickTime Player that matches your system software
 - If you are a Windows user
 - Go to <http://quicktime-download.info/>
 - Follow the instructions to download the version of QuickTime Player that matches your system software
- **Access the lectures on line.**
 - Go to www.augustana.edu/users/bitallitsch
 - Click on “Neuroanatomy” and then click on the “Video Download Page” link in the bottom right-hand corner of the subpage
 - Click on the appropriate video title and download the QuickTime video
 - You will listen to the video lecture anytime you want, anywhere you want, as long as you do so before class starts
- **You will come to class prepared to**
 - Ask any questions you might have concerning the lecture material
 - Verbally answer questions and participate in classroom “think sessions” that will help you *understand* the material covered in the QuickTime video lectures
- **What will we do in class?**
 - I will ask if there are any questions concerning the lecture video you listened to on your computer
 - I will ask questions that will force you to *use the information covered in the video to solve complex problems*
 - You will stay in class until *you* are comfortable with your knowledge of the material

- I will stay in class until the last person leaves. If there are still people needing help after the normal class period we will move to my office or another location and continue the discussion
 - Take weekly quizzes to demonstrate that you have indeed listened to the video lectures
 - These quizzes will be worth 10 points each
 - You will be able to drop your lowest 10-point quiz
 - Quiz question format will vary
 - True-false
 - Multiple-choice
 - Picture identification
4. **Unit Exams:** Exams will include a variety of questions, ranging from true-false, multiple choice, multiple uglies, essay and picture identification utilizing copies of the unmarked serial sections included in your lecture note outline. Two unit exams will be given, with each being worth 100 points. Both exams will be counted in your total point score. (Help sessions are scheduled the evening before the exam. All help sessions are scheduled for the regularly schedule lecture room, and will begin at 7 p.m. and will continue until all questions are answered.)
5. **Quizzes:** Eight quizzes will be given throughout the term. The first quiz, which *cannot be dropped*, covers terminology and is a 20-point quiz. The seven remaining quizzes are all 10-point quizzes. *You may drop the lowest score of these seven quizzes.* These quizzes will test only your knowledge of the video lecture material that has been covered since the most recent lecture exam or most recent quiz, whichever time period is the shortest. These quizzes may be multiple choice, picture labeling, and/or short answer format. *Make-ups are not allowed under any circumstances; any missed quiz automatically becomes your dropped quiz.*
6. **Final Exam:** A *comprehensive final exam* will be given during the regularly scheduled time slot for G-period classes: (Thursday, 16 February, 12:00 – 2:00 p.m.) in the regularly scheduled lecture room. The exam will be approximately 50% new material (material not tested in a unit examination since the 2nd unit exam) and 50% comprehensive material. Possible comprehensive essay problem-solving questions for the final will be handed out during the 9th or 10th week of classes. The final examination will be worth 200 points. A help session is scheduled the evening before the final exam. This session is scheduled for the regularly schedule lecture room, and will begin at 7 p.m. and will continue until all questions are answered.
7. **Practice Exams:** You may access practice exams and print them out for your review from my web page. The address for the web page is as follows:

<http://www.augustana.edu/users/bitallitsch>

- 8. PBL Assignments:** Throughout this term you will be given several PBL assignments. On the first day of class we will discuss the PBL process, and what will be expected of you as an individual and as a team member for each portion of these assignments.
- 9. Grades:** Grades will be determined on a straight percentage scale out of a possible 765 points: 200 from lecture exams, 200 from comprehensive final, 20 points from the terminology quiz, 60 points from the seven 10-point weekly quizzes (7 quizzes worth 10 points each with lowest 10-point quiz grade dropped), 270 points from the PBL sets (30 from preliminary reports, 30 from secondary reports, 210 from final reports), and 15 points from completing the VARK assessment, as listed below. Please be advised that class attendance and participation do count when computing final grades, especially in borderline cases.

A =	765 – 689	points (100 – 90%)
B =	688 – 612	points (89 – 80%)
C =	611 – 536	points (79 – 70%)
D =	535 – 459	points (69 – 60%)
F =	below 459	points (below 60%)

- 10. Cheating and Plagiarism Policy:** Any individual suspected of, or caught cheating on an examination or quiz, or plagiarizing on a PBL problem set will receive a “0” grade for that examination or problem set and a “F” grade overall for the course. *(Please note: Having a PBL assignment turned in with your name on it for which you did little or no work will be, in this class, considered cheating and will cause you to receive a “O” grade for that paper and a “F” grade overall for the course.)* A drop slip will not be signed for the course. In addition, the Dean of Students Office and the Office of Academic Affairs will be notified, in writing, of the name of the student and the circumstances of the cheating incident. For review of this policy please read through the appropriate section in *Inside Augustana*.
- 11. Class Attendance and Decorum:**
- a. Class Attendance:** Excessive absences will be taken into account in determining a student’s final grade.
 - b. Late arrivals:** I understand that there will be times when you just can’t get to class on time. That’s normal, and no big deal, as long as it doesn’t become a habit. If and when you do arrive late, please enter the classroom via the back door, located on the 4th floor immediately above the lecture room.
 - c. Class Decorum:**
 - i.** Eating and drinking in class is allowed, provided you do not disturb your neighbors. Please be careful of spills etc., and please remove all trash, cups and wrappers from the classroom.

- ii. OK—so I’m old fashioned—I admit it. Because of this, old habits die hard. I was taught that gentlemen do not wear hats indoor—so hats are not allowed in lecture under any circumstances.
- iii. Please do not put your feet on the back of the chair in front of you.
- iii. Because of the location of my office I am amazed as I observe the continuous stream of students that leave room 102 during lecture to go to the bathroom, get a drink of water, socialize with their friends. I apologize if this seems harsh but, except for the extreme circumstance, if you get up to leave the room before class is over take everything with you because you won’t be coming back. You are in college now — go to the bathroom — get that drink of water *before class starts*. To leave in the middle of class is impolite and, as stated above, (except for the extreme circumstance) if you get up to leave the room before class is over take everything with you because you won’t be coming back.
- d. **Cell Phones:** Neither the ringing nor the answering of cell phones during class will be tolerated—so turn it off!

- 12. Required learning style assessment:** Periodically students have come to me with questions on how they should study for one of the various courses I teach. During these discussions, it has come to my attention that many individuals (both students and faculty alike) are unaware of their learning style(s) and effective studying strategies that would work with their individual learning style(s). Therefore, everyone is required (15 points awarded only upon successful completion and posting of results) to access the VARK web site and take the VARK learning style assessment.

VARK is a short, simple inventory that has been well received by students and faculty alike because its dimensions are intuitively understood and its applications are practical. Its use has helped both students and faculty alike. It has helped students earn more effectively, and it has helped faculty to become more sensitive to the diversity of teaching strategies necessary to reach all students.

VARK is an acronym made from the initial letters of four sensory modal preferences (Visual, Aural, Read/write and Kinesthetic). Modal preferences are used by people when they are taking in or giving out information. For example some people prefer to “read about it,” others to talk or draw. Some have no strong preferences for any one mode. Although we have known for centuries about the different modes, this inventory, initially developed in 1987 by Neil Fleming at Lincoln University, New Zealand, was the first to systematically present a series of questions with help-sheets for students, teachers, employees, and others to use in their own way. It also sought to be advisory rather than diagnostic and predictive.

To take the VARK on-line with automatic scoring, go to:

<http://www.vark-learn.com/english/index.asp>

This site also contains the list of study suggestions based on learning preferences.

In order to obtain your 15 point reward for taking the VARK test you are to e-mail the information listed below to me *before Monday of the second week of class*. (Please make sure that the subject line in the e-mail contains the following: Neuroanatomy_VARK_score.)

- a. point total
- b. subtotals for the four categories
- c. learning preference(s)

13. **Using “Track Changes” on MS Word:** If you do not know how to use Track Changes, or view the bubble comments/changes in a MS Word document please go to ITS (or see me) and get the necessary instructions.
14. **For more information about Problem-Based Learning** visit my web site.

www.augustana.edu/users/bitallitsch

Tentative Lecture and Examination Schedule

Date	Lecture Topic and Video Lecture Downloads
15 November	Introduction to Problem-Based Learning; Course Information Packet handed out and discussed; Introduction to the gross anatomy of the brain. <i>Download: Introduction to Brain Gross Anatomy (approx. 24 minutes)</i>
17 November	Quiz #1 (Terminology, 20 points); PBL #1, part 1 distributed; Introduction to the gross anatomy of the brain; Anatomy of the spinal cord; Brachial & Lumbosacral plexus; Long ascending tracts of the spinal cord <i>Download: Spinal Cord Anatomy (approx. 12 minutes)</i> <i>Long Ascending Sensory Tracts: General Stuff (approx. 15 minutes)</i> <i>Dorsal Columns (approx. 13 minutes)</i>
22 November	PBL #1, part 1 due; Quiz #2 (10 points); Anatomy of the spinal cord; Brachial plexus & Lumbosacral plexus; Long ascending tracts of the spinal cord <i>Download: Spinothalamic Tracts (approx. 10 minutes)</i> <i>Spinocerebellar Tracts (approx. 12 minutes)</i>
24 November	<i>No class – Thanksgiving break!</i>
29 November	PBL #1, part 2 distributed; Long ascending tracts of the spinal cord; Long descending tracts of the spinal cord <i>Download: Introduction to the Descending Motor Tracts (approx. 8 minutes)</i> <i>Corticobulbar and Lateral Corticospinal Tracts (approx. 10 minutes)</i> <i>Anterior Corticospinal Tracts (approx. 4 minutes)</i>
1 December	Quiz #3 (10 points); PBL #1, part 2 due; Long descending tracts of the spinal cord; Autonomic Nervous System <i>Download: Neurology of UMN and LMN Lesions (approx. 8 minutes)</i> <i>Autonomic Nervous System (approx. 7 minutes)</i>
6 December	Autonomic Nervous System; Medulla <i>Download: Medulla (approx. 28 minutes)</i>
8 December	Quiz #4 (10 points); PBL #1 due; PBL #2, part 1 distributed; Discussion of PBL #1; Medulla

Tentative Lecture and Examination Schedule (continued)

Date	Lecture Topic
13 December	Lecture Exam #1; PBL #2, part 1 due 17 December at 8 a.m.
15 December	PBL #2, part 2 distributed; Pons; Mesencephalon <i>Download: Pons (approx. 17 minutes)</i> <i>Mesencephalon (approx. 35 minutes)</i>
10 January	PBL #2, part 2 due; Pons; Mesencephalon; Cerebellum <i>Download: Cerebellum (approx. 35 minutes)</i>
12 January	Quiz #5 (10 points); Diencephalon; Hypothalamus & Subthalamus <i>Download: Diencephalon (approx. 36 minutes)</i>
17 January	PBL #2 due; PBL #3, part 1 distributed; Discussion of PBL #2; Hypothalamus & subthalamus <i>Download: Basal Ganglia (approx. 32 minutes)</i>
19 January	Quiz #6 (10 points); PBL #3, part 1 due; Basal Ganglia; Visual System <i>Download: Visual System (approx. 21 minutes)</i>
24 January	Lecture Exam # 2
26 January	PBL #3, part 2 distributed electronically; <i>No class today, but go over lecture material dealing with Visual System; Auditory system; Vestibular System</i> <i>Download: Auditory Pathway (approx. 22 minutes)</i> <i>Vestibular Pathway (approx. 15 minutes)</i>
31 January	PBL #3, part 2 due; Auditory system; Vestibular system; Limbic & Amygdaloid systems <i>Download: Olfactory and Limbic Systems (approx. 11 minutes)</i>
2 February	Quiz #7 (10 points); Cerebrum <i>Download: Cerebrum (approx. 8 minutes)</i>
7 February	PBL #3 due; Discussion of PBL #3; Course evaluations; Final Exam questions distributed
9 February	Quiz #8 (10 points); Course wrap-up