# COMD 420 - Neurofndtns Lang, Spch, Hearing

# Fall 2018

014010040

Section 001: 177 TLRB on M W from 12:00 pm - 1:15 pm

# Course Information

# Description

COMD 420: Neurofoundations of Language, Speech, and Hearing. (3:3:0)

WHEN TAUGHT: Fall, Winter

PREQUISITE: COMD 320, COMD 334, PDBIO 220

DESCRIPTION: This course is required by undergraduate students majoring in Communication Disorders and, for graduate students meets the American Speech-Language-Hearing Association's (ASHA) certification requirements for course work in foundations of language, speech and hearing science. This course presents the foundations of the neurosciences to speech, language, and hearing at an advanced level. Both normal and abnormal neurological systems in communication disorders are discussed as well as the basic science foundation of the neuroscience of communication disorders.

#### **Course Outcomes**

# Foundations of the Neuroscience of Language, Speech and Hearing: From Neuron to Cortex.

Demonstrate knowledge of the basic building blocks from cell to brain as those building blocks contribute to the areas of speech, language, and hearing.

# **Neural System Integration**

Demonstrate the ability to integrate various neural systems and their interaction as the central nervous system formulates and modifies neural information in the processing of speech, language, and hearing.

# Theoretical Model

Be able to construct a theoretical model of neurological involvement in peripheral and central disorders involving speech, language, and hearing function.

# Understanding of the PNS and CNS in Communication Disorders

The student will demonstrate the ability to integrate various neural systems and their interaction as the central nervous system formulates and modifies neural information in the processing of speech, language, and hearing.

# **Learning Outcomes**

#### **Building Blocks**

Demonstrate knowledge of the basic building blocks from cell to brain as those building blocks contribute to the areas of speech, language, and hearing.

#### **Neural System Integration**

Demonstrate the ability to integrate various neural systems and their interaction as the central nervous system formulates and modifies neural information in the processing of speech, language, and hearing.

## Theoretical Model

Be able to construct a theoretical model of neurological involvement in peripheral and central disorders involving speech, language, and hearing function.

# **Neuroscience Foundation of Communication Disorders**

The student will demonstrate knowledge of the basic building blocks from cell to brain as those building blocks contribute to the areas of speech, language, and hearing.

# Understanding of the PNS and CNS in Communication Disorders

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The student will demonstrate the ability to integrate various neural systems and their interaction as the central nervous system formulates and modifies neural information in the processing of speech, language, and hearing.

# Appointment Scheduling

My office hours are primarily by appointment; however, if I am not involved in some activity you are welcome to see me at any time. If you call my office telephone and leave a message be sure to leave a time and phone number that you will be available for me to return your telephone call. I will make one attempt at returning your telephone call. If you contact me using e-mail be sure to put the course number (i.e. ComD 420, etc.) in the subject heading. I prioritize my e-mail by subject heading, with no heading getting the lowest priority. My telephone contact is for 'emergencies' and is not to be used to schedule appointments or leave messages. I do not mind being contacted for specific questions.

To schedule an appointment to see me you must use the following internet link and complete the self-scheduling procedure:

# <a href="https://my.timetrade.com/book/HG6FR">https://my.timetrade.com/book/HG6FR</a> <a href="https://my.timetrade.com/book/HG6FR">(https://my.timetrade.com/book/HG6FR</a>)

# **Prerequisites**

ComD 320: Speech Anatomy Course Description (#)

ComD 334: Hearing Science and Acoustics <u>Course Description (#)</u> PdBio 220: Human Anatomy (with lab) <u>Course Description (#)</u>

# Personal Testimony



I have a deep and abiding knowledge of the Gospel of Jesus Christ. I have received personal revelation that God lives and He is our Eternal Father, that Jesus came to this earth, atoned for our sins, was resurrected, and appeared to His apostles and to the people of the American continent as told in the New Testament and the Book of Mormon. I have read the Book of Mormon, the Pearl of Great Price, and the Doctrine and Covenants and have prayed about those writings and have been given a testimony of their divinity and truth.

I support and sustain President Monson as Prophet, Seer, Revelator, and as the President of the Church of Jesus Christ of Latter-Day Saints. I recognize him as the only person on this earth authorized to hold and exercise all of the sacred keys of the Priesthood. I further testify that the

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other members of the First Presidency and the Quorum of the Twelve Apostles are Prophets, Seers, and Revelators, and sustain all those that have been appointed to serve under their direction.

I have applied the teachings and counsels given in the Bible, Book of Mormon, Doctrine and Covenants, Pearl of Great Price, Conference Reports, and many other writings and sayings by the Prophets and their chosen leaders. I have found them to be central in my life. I know that through careful study of the written works and the spoken counsel of these individuals that we will not only be able to return to our Father in Heaven as promised, but also have a fulfilling and joyful life in our mortal existence.

I believe all that has been given and all the will be given is true and correct, and that through exactness we may obtain the eternal blessings of our Father in Heaven.

I write this testimony with the Spirit of our Lord Jesus Christ and in his name I bear the truthfulness thereof.

David McPherson Provo, April 16, 2000 Provo, August 15, 2010

# **Class Prayer**

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Students will be called upon to offer a prayer at the beginning of the class. As Brigham Young counseled Karl G. Maeser, the first head of the then Brigham Young Academy, "...neither the alphabet nor the multiplication tables were to be taught without the Spirit of God." Realizing that prayer is personal, and that it is not unusual for individuals not to prefer to offer public prayer, if any student is not comfortable to offer a class prayer the instructor should be confidentially informed, preferable at the beginning of the term, or prior to class.

# Extra Credit

Extra credit is only assigned when the entire class members would have the opportunity to participate in the experience. No individual extra credit is awarded.

# **Participation Policy**

Students are expected to participate in class and participation is an integral part of higher education. Lack of preparation may result in a one point reduction for each occurrence in the total number of points earned for the course.

Late arrivals and early departures from class may also result in a one point reduction for each occurrence in the total number of points earned for the course. Not being present in class is considered a lack of preparation, as noted above.

# **Grading Scale**

Grades	Percent
А	96%
A-	92%
B+	88%
В	84%
B-	81%
C+	78%
С	75%
C-	70%
D+	69%
D	65%

D-	64%
Е	0%
Т	0%

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# **Attendance Policy**

Attendance is expected and may be recorded. As noted in the Participation Policy, late arrivals and early departures from class may result in a one point reduction for each occurrence in the total number of points earned for the course. Not being present in class is considered a lack of preparation.

There is no exception to this policy including, but not limited to, leaving or arriving late due to other classes and obligations. Likewise, except for medical situations with your immediate family and university approved activities, this policy applies. Included in this is family travel, social engagements, marriages, and any other non-academic purposes. An exception is made for graduate program visits, interviews and instructor approved academic activities.

# **Grading Policy**

Assignments are due by 12:00 pm (noon) on the "due" or "close" date unless otherwise posted. Late assignments, if accepted, are subject to a 20% reduction in earned points. Assignments that are more than three days late, if accepted, may receive a 50% reduction in earned points. Assignments more than seven will not be accepted.

Official university activities may have due dates adjusted if arranged prior to the function. Exams will be due prior to the activity.

Health considerations of the student or immediate family may have due dates adjusted on an individual basis.

Students with accessibility needs must make arrangements prior to the opening of the exam or assignment. Retrospective adjustments will not be considered.

Adjustments will be made for students attending approved academic scholarly events and those needing to be away for graduate school interviews.

Personal travel, including advanced ticketing, family social events, and other such activities, will not receive adjustments. Plan your marriages and travel at other times.

The final exam is given according to the university schedule and exceptions, except as noted above, are not possible.

Remember, the University calendar is posted three years in advance.

# **Archiving of Student Work**

All materials not claimed by the end of the fourth week of the term following this class will be destroyed. After that date, it will not be possible to contest scores or grades, except according to University policy. The instructor reserves the right to fully review all contested material and adjust scores accordingly.

# **Exams**

There are three essay exams throughout the semester. The exams include information from the textbook, classroom discussion and presentations, laboratory experiences, and independent inquiry.

The exams are open book, but not open person.

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Technical specifications include 1.5 line spacing (not single or double spacing), Times Roman 12 pt font using only black ink. Headings may be emphasized with bold, underline, and italics, but must be the same font, font size, and color, as noted above. Margins should be one inch on all four edges.

Your name is to appear on the first page and the page numbers are to be used. Each prompt will be rewritten before the answer. For example:

1. Compare and contrast the differences in the color of the Pacific and Atlantic oceans.

The color of the two oceans is dependent on the temperature, salt content, micro organisms, ........

Exams are due by 12:00 pm, noon, on the day the exam closes (due date). Late submissions will receive a 20% penalty. Submissions received after three days may not be accepted or a 50% penalty applied at the discretion of the instructor.

# **Assignments**

Assignments are due by 12:00 pm, noon, on the day the assignment closes (due date). Late submissions will receive a 20% penalty. Submissions received after three days may not be accepted or, at the discretion of the instructor, a 50% penalty applied.

# **Textbooks**

ComD 420, Neurofoundations of Communication Disorders, uses an online, interactive course for the study of neuroscience. It is provided by the Department of Neurobiology and Anatomy, McGovern Medical School at the University of Texas Health Science Center at Houston (<a href="https://med.uth.edu/">https://med.uth.edu/</a> (<a href="https://med.uth.edu/">https://med.uth.edu/</a>). Although there is no cost for the use of this media, you are encouraged to make a small donation to the project at <a href="http://nba.uth.tmc.edu/neuroscience/giving.htm">http://nba.uth.tmc.edu/neuroscience/giving.htm</a> (<a href="http://nba.uth.tmc.edu/neuroscience/giving.htm">http://nba.uth.tmc.edu/neuroscience/giving.htm</a>). Previous textbooks for this course were over \$125.00. Support for projects such as this help keep the cost of higher education down. the URL for the text book is:

# http://nba.uth.tmc.edu/neuroscience/index.htm

# **Laboratory Assignments**

There are several laboratory assignments, or experiences. These will primarily consist of demonstrations and observations. You will be required to submit notes from this assignment via Learning Suite. In some situations the class will be divided into smaller sections. It will be necessary for you to attend during your assigned session, or trade with another student. There are no substitute or alternative assignments. This is because of the scheduling of the event, the cost of the event, or the type of event may not lend itself to additional or repeat experiences.

The write-up is to include your name, the date of the experience, the type (name) of the experience, what was demonstrated, and what you learned from the experience.

#### ASHA Code of Ethics

The ASHA Code of Ethics guides our profession and is fundamental to a moral and ethical standard of conduct. You are responsible to be familiar with the code and it is fair game to appear on exams and other assignments. Although we may discuss certain aspects throughout the course, you are responsible for the entirety of the document.

http://www.asha.org/uploadedFiles/ET2016-00342.pdf (http://www.asha.org/uploadedFiles/ET2016-00342.pdf)

# Helpful Tips to Make Your Life Easier

Plan in advance. Inform in advance. Complete assignments on time.

It is easier for me to consider exceptions to the course if we have a discussion in advance of the situation. I have more flexibility in resolving issues. My intent is that you succeed; however, this must be done in fairness to all students and so it does not compromise the objectives of the course.

# **Assignments**

# **Assignment Descriptions**

9.12.18

Sep **12** 

Due: Wednesday, Sep 12 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 9.17.18

Sep **17** 

Due: Monday, Sep 17 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

# Lab 1: Nerve Conduction

Sep **19** 

Due: Wednesday, Sep 19 at 12:00 pm

# 9.19.18

Sep **19** 

Due: Wednesday, Sep 19 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 9.24.18

Sep **24** 

Due: Monday, Sep 24 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 9.26.18

Sep **26** 

Due: Wednesday, Sep 26 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

# 10.01.18

Oct **01** 

Due: Monday, Oct 01 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 10.03.18

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Due: Wednesday, Oct 03 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 10.08.18

Due: Monday, Oct 08 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 10.10.18



Due: Wednesday, Oct 10 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 10.15.18



Due: Monday, Oct 15 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

# 10.17.18



Due: Wednesday, Oct 17 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

# Lab 2: QEEG

Oct **22** 

Due: Monday, Oct 22 at 12:00 pm

#### 10.29.18



Due: Monday, Oct 29 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

# 10.31.18

Oct **31** 

Due: Wednesday, Oct 31 at 12:20 pm

# Happy Halloween!

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 11.05.18



Due: Monday, Nov 05 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 11.07.18

Nov **07** 

Due: Wednesday, Nov 07 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

# 11.12.18



Due: Monday, Nov 12 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 11.14.18



Due: Wednesday, Nov 14 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 11.28.18



Due: Wednesday, Nov 28 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

# Lab 3: MRI

Nov 28

Due: Wednesday, Nov 28 at 11:59 pm

## Video 1

Nov **29** 

Due: Thursday, Nov 29 at 8:10 am

You are to write a brief essay, one or two pages, on what you learned about language from the two videos shown in class. This is a thought assignment.

# 12.03.18

Dec **03** 

Due: Monday, Dec 03 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 12.05.18

Dec **05** 

Due: Wednesday, Dec 05 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 12.10.18



Due: Monday, Dec 10 at 12:20 pm

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

#### 12.12.18



Due: Wednesday, Dec 12 at 12:20 pm

Happy last day of class!

Write a mini essay based on the prompt or question given in class. Feel free to submit it on learning suite, or turn in a handwritten copy in class.

# **University Policies**

# Grading

All assignments must be typewritten unless otherwise noted. If computer generated, an easily readable font must be used. Originals and copies must be clear with dark print. Unless otherwise noted all assignments are due by the beginning of the class period on the due date. If late assignments are accepted, penalties may be assigned based on the assignment and the time it was submitted to the instructor. No assignments are accepted after the last day of class.

Reading assignments are to be completed <u>prior</u> to the beginning of the class period. Students that are unprepared may be penalized up to 2% of the final course grade for each occurrence. Absence from class is considered not being prepared.

Late assignments will be reduced by 20% of the earned points.

Quizzes are timed and you have 30 minutes to complete the quiz.

The two lowest quiz scores will be dropped from the final grade.

#### **Honor Code**

In keeping with the principles of the BYU Honor Code, students are expected to be honest in all of their academic work. Academic honesty means, most fundamentally, that any work you present as your own must in fact be your own work and not that of another. Violations of this principle may result in a failing grade in the course and additional disciplinary action by the university. Students are also expected to adhere to the Dress and Grooming Standards. Adherence demonstrates respect for yourself and others and ensures an effective learning and working environment. It is the university's expectation, and every instructor's expectation in class, that each student will abide by all Honor Code standards. Please call the Honor Code Office at 422-2847 if you have questions about those standards.

# Sexual Misconduct

In accordance with Title IX of the Education Amendments of 1972, Brigham Young University prohibits unlawful sex discrimination against any participant in its education programs or activities. The university also prohibits sexual harassment-including sexual violence-committed by or against students, university employees, and visitors to campus. As outlined in university policy, sexual harassment, dating violence, domestic violence, sexual assault, and stalking are considered forms of "Sexual Misconduct" prohibited by the university.

University policy requires all university employees in a teaching, managerial, or supervisory role to report all incidents of Sexual Misconduct that come to their attention in any way, including but not limited to face-to-face conversations, a written class assignment or paper, class discussion, email, text, or social media post. Incidents of Sexual Misconduct should be reported to the Title IX Coordinator at <a href="mailto:t9coordinator@byu.edu">t9coordinator@byu.edu</a> or (801) 422-8692. Reports may also be submitted through EthicsPoint at <a href="https://titleix.byu.edu/report">https://titleix.byu.edu/report</a> (https://titleix.byu.edu/report) or 1-888-238-1062 (24-hours a day).

BYU offers confidential resources for those affected by Sexual Misconduct, including the university's Victim Advocate, as well as a number of non-confidential resources and services that may be helpful. Additional information about Title IX, the university's Sexual Misconduct Policy, reporting requirements, and resources can be found at <a href="http://titleix.byu.edu">http://titleix.byu.edu</a> (<a href="http://titleix.byu.edu">http://titleix.byu.edu</a> (<a href="http://titleix.byu.edu">http://titleix.byu.edu</a> (<a href="http://titleix.byu.edu">http://titleix.byu.edu</a>) or by contacting the university's Title IX Coordinator.

# **Student Disability**

Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability which may impair your ability to complete this course successfully, please contact the University Accessibility Center (UAC), 2170 WSC or 422-2767. Reasonable academic accommodations are reviewed for all students who have qualified, documented disabilities. The UAC can also assess students for learning, attention, and emotional concerns. Services are coordinated with the student and instructor by the UAC. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures by contacting the Equal Employment Office at 422-5895, D-285 ASB.

# **Academic Honesty**

The first injunction of the Honor Code is the call to "be honest." Students come to the university not only to improve their minds, gain knowledge, and develop skills that will assist them in their life's work, but also to build character. "President David O. McKay taught that character is the highest aim of education" (The Aims of a BYU Education, p.6). It is the purpose of the BYU Academic Honesty Policy to assist in fulfilling that aim. BYU students should seek to be totally honest in their dealings with others. They should complete their own work and be evaluated based upon that work. They should avoid academic dishonesty and misconduct in all its forms, including but not limited to plagiarism, fabrication or falsification, cheating, and other academic misconduct.

# **Deliberation Guidelines**

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To facilitate productive and open discussions about sensitive topics about which there are differing opinions, members of the BYU community should: (1) Remember that we are each responsible for enabling a productive, respectful dialogue. (2)To enable time for everyone to speak, strive to be concise with your thoughts. (3) Respect all speakers by listening actively. (4) Treat others with the respect that you would like them to treat you with, regardless of your differences. (5) Do not interrupt others. (6) Always try to understand what is being said before you respond. (7) Ask for clarification instead of making assumptions. (8) When countering an idea, or making one initially, demonstrate that you are listening to what is being said by others. Try to validate other positions as you assert your own, which aids in dialogue, versus attack. (9) Under no circumstances should an argument continue out of the classroom when someone does not want it to. Extending these conversations beyond class can be productive, but we must agree to do so respectfully, ethically, and with attention to individuals' requests for confidentiality and

discretion. (10) Remember that exposing yourself to different perspectives helps you to evaluate your own beliefs more clearly and learn new information. (11) Remember that just because you do not agree with a person's statements, it does not mean that you cannot get along with that person. (12) Speak with your professor privately if you feel that the classroom environment has become hostile, biased, or intimidating. Adapted from the Deliberation Guidelines published by The Center for Democratic Deliberation. (http://cdd.la.psu.edu/education/The%20CDD%20Deliberation%20Guidelines.pdf/view? searchterm=deliberation%20guidelines)

# **Devotional Attendance**

Brigham Young University's devotional and forum assemblies are an important part of your BYU experience. President Cecil O. Samuelson said, "We have special and enlightening series of devotional and forum assemblies...that will complement, supplement, and enrich what will also be a very productive period in your classrooms, laboratories, and libraries. We look forward to being with you each Tuesday...and hope that you will regularly attend and bring your friends and associates with you...A large part of what constitutes the unique 'BYU experience' is found in these gatherings where the Spirit has been invited and where we have the opportunity to discuss and consider things of ultimate worth and importance that are not afforded to the academic community on almost any other campus" (from the address "The Legacy of Learning", 30 August, 2005). Your attendance at each forum and devotional is strongly encouraged.

# **Inappropriate Use Of Course Materials**

All course materials (e.g., outlines, handouts, syllabi, exams, quizzes, PowerPoint presentations, lectures, audio and video recordings, etc.) are proprietary. Students are prohibited from posting or selling any such course materials without the express written permission of the professor teaching this course. To do so is a violation of the Brigham Young University Honor Code.

# **Plagiarism**

Intentional plagiarism is a form of intellectual theft that violates widely recognized principles of academic integrity as well as the Honor Code. Such plagiarism may subject the student to appropriate disciplinary action administered through the university Honor Code Office, in addition to academic sanctions that may be applied by an instructor. Inadvertent plagiarism, which may not be a violation of the Honor Code, is nevertheless a form of intellectual carelessness that is unacceptable in the academic community. Plagiarism of any kind is completely contrary to the established practices of higher education where all members of the university are expected to acknowledge the original intellectual work of others that is included in their own work. In some cases, plagiarism may also involve violations of copyright law. Intentional Plagiarism-Intentional plagiarism is the deliberate act of representing the words, ideas, or data of another as one's own without providing proper attribution to the author through quotation, reference, or footnote. Inadvertent Plagiarism-Inadvertent plagiarism involves the inappropriate, but non-deliberate, use of another's words, ideas, or data without proper attribution. Inadvertent plagiarism usually results from an ignorant failure to follow established rules for documenting sources or from simply not being sufficiently careful in research and writing. Although not a violation of the Honor Code, inadvertent plagiarism is a form of academic misconduct for which an instructor can impose appropriate academic sanctions. Students who are in doubt as to whether they are providing proper attribution have the responsibility to consult with their instructor and obtain guidance. Examples of plagiarism include: Direct Plagiarism-The verbatim copying of an original source without acknowledging the source. Paraphrased Plagiarism-The paraphrasing, without acknowledgement, of ideas from another that the reader might mistake for the author's own. Plagiarism Mosaic-The borrowing of words, ideas, or data from an original source and blending this original material with one's own without acknowledging the source. Insufficient Acknowledgement-The partial or incomplete attribution of words, ideas, or data from an original source. Plagiarism may occur with respect to unpublished as well as published material. Copying another student's work and submitting it as one's own individual work without proper attribution is a serious form of plagiarism.

#### Mental Health Concerns

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Mental health concerns and stressful life events can affect students' academic performance and quality of life. BYU Counseling and Psychological Services (CAPS, 1500 WSC, 801-422-3035, caps.byu.edu) provides individual, couples, and group counseling, as well as stress management services. These services are confidential and are provided by the university at no cost for full-time students. For general information please visit <a href="https://caps.byu.edu">https://caps.byu.edu</a> (https://caps.byu.edu); for more immediate concerns please visit <a href="http://help.byu.edu">http://help.byu.edu</a> (http://help.byu.edu).

# Respectful Environment

"Sadly, from time to time, we do hear reports of those who are at best insensitive and at worst insulting in their comments to and about others... We hear derogatory and sometimes even defamatory comments about those with different political, athletic, or ethnic views or experiences. Such behavior is completely out of place at BYU, and I enlist the aid of all to monitor carefully and, if necessary, correct any such that might occur here, however inadvertent or unintentional. "I worry particularly about demeaning comments made about the career or major choices of women or men either directly or about members of the BYU community generally. We must remember that personal agency is a fundamental principle and that none of us has the right or option to criticize the lawful choices of another." President Cecil O. Samuelson, Annual University Conference, August 24, 2010 "Occasionally, we ... hear reports that our female faculty feel disrespected, especially by students, for choosing to work at BYU, even though each one has been approved by the BYU Board of Trustees. Brothers and sisters, these things ought not to be. Not here. Not at a university that shares a constitution with the School of the Prophets." Vice President John S. Tanner, Annual University Conference, August 24, 2010

# Schedule

Date	Column 1	Column 2
Week 1		
W Sep 05 Wednesday	- Introduction and Overeview of Neuroscience	- Couse Introduction - Section 1, Introduction to Neurons and (review video)
Week 2		
M Sep 10 Monday	-The Action Potential and Synaptic Activity	Section 1: Chapter 1: Resting Potentials and Action Potentials
		Section 1: Chapter 2: Ionic Mechanisms and Action Potentials
		Section 1: Chapter 3: Propagation of the Action Potential

	-The Action Potential and Synaptic Activity	Section 1: Chapter 4: Synaptic Transmission and
	9.12.18	the Skeletal Neuromuscular Junction
		Section 1: Chapter 5: Mechanisms of Neurotransmitter Release
		Section 1: Chapter 6: Synaptic Transmission in the Central Nervous System (review video lecture)
Week 3		
M Sep 17 Monday	9.17.18	
		Section 2: Chapter 1: Overview of the Nervous System
		EXAM 1 opens
W Sep 19 Wednesday	Class Lecture	
	9.19.18	
Sa Sep 22 Saturday		
Week 4		
M Sep 24 Monday	- Synaptic Plasticity	Section 1: Chapter 7: Synaptic Plasticity
	9.24.18	Section 1: Chapter 8: Organization of Cell Types
		Section 1: Chapter 9: Synapse Formation, Surviva and Elimination
W Sep 26 Wednesday	- Neurotransmitters & Neuronal Disease	Section 1: Chapters 11-13: Neurotransmitters
	9.26.18	(Acetycholine, Bio.amine, Amino Acid).
		Section 1: Chapter 15: Genetics and neuronal

M Oct 01 Monday	- Disorders of Synaptic Activity	
	10.01.18	
W Oct 03 Wednesday	-Overview of the Nervous System	
	10.03.18	
Week 6		
M Oct 08 Monday	-Somatosensory System -Spinal Cord	Section 2: Chapter 2:
	10.08.18	Somatosensory Systems
		Section 2: Chapter 3: Anatomy of the Spinal Cord
		Section 2: Chapter 4: Somatosensory Pathways
		Section 2: Chapter 5: Somatosensory Processes
W Oct 10 Wednesday		
	- Vestibular Systems  10.10.18	Section 2: Chapter 10: Vestibular System: Structur and Function
		Section 2: Chapter 11: Vestibular System: Pathwa and Reflexes
		Disorders Disorders of the Vestibular System
		EXAM 1 closes (not accepted after 12:00 PM)
Sa Oct 13 Saturday		

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M Oct 15 Monday	- Auditory Systems -Visual Systems	
	10.15.18	Section 2: Chapter 12: Auditory System: Structure and Function
		Section 2: Chapter 13: Auditory System: Pathways and Reflexes
		Section 2: Chapter 14: Visual Processing: Eye and Retina
W Oct 17 Wednesday	- Visual Systems -Disorders of the Visual System	Section 2: Chapter 15: Visua Processing: Cortical Pathways
	10.17.18	Disorders Disorders of the Auditory & Visual Systems
Week 8		
M Oct 22 Monday	- LAB Demonstration 2: QEEG (Group 1)	
W Oct 24 Wednesday	- LAB Demonstration 2: QEEG (Group 2)	
Th Oct 25 Thursday		
Week 9		
M Oct 29 Monday	- Motor Systems	Section 3: Chapter 1: Motor Units and Muscle Receptors
	10.29.18	Section 3: Chapter 2: Spina Reflexes and Descending Motor Pathways
		Section 3: Chapter 3: Moto

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W Oct 31 Wednesday	- Motor Systems	Section 3: Chapter 4: Basa
	10.31.18	Ganglia (abbreviate this chapter)
	10.51.10	Section 3: Chapter 5: Cerebellum (abbreviate this chapter)
		Section 3: Chapter 6: Disorders of the Motor System
Week 10		
M Nov 05 Monday	- Higher Brain Function	Section 4: Chapter 1:
	11.05.18	Hypothalamus: Structural Organization
		Section 4: Chapter 5: Limbio System: Hippocampus
		Section 4: Chapter 6: Limbi System: Amygdala
		Section 4: Chapter 7: Learning and Memory
		EXAM 2 opens
W Nov 07 Wednesday	- Higher Brain Function	Section 4: Chapter 8: Highe
	11.07.18	Cortical Functions: Languag
Week 11		
M Nov 12 Monday	-Higher Brain Function	Service A. Sheet and SNS
	11.12.18	Section 4: Chapter 10: CNS Aging and Alzheimer's Disease
		Section 4: Chapter 9: Higher Cortical Functions: Association and Executive Processing

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M Nov 19 Monday	- Lab 03 MRI - Group 1	EXAM 2 closes (not accepted after 12:00 PM
W Nov 21 Wednesday	No Classes	
Th Nov 22 Thursday	Thanksgiving Holiday	
Week 13		
M Nov 26 Monday	-Lab 03 MRI - Group 2	
W Nov 28 Wednesday	-Disorders of Higher Brain Function 11.28.18	
Th Nov 29 Thursday		
Su Dec 02 Sunday		
Week 14		
M Dec 03 Monday	-Disorders of Higher Brain Function 12.03.18	Section 4: Chapter 12: Neurotransmitter and Co Death
		Disorders of Higher Brain Function
W Dec 05 Wednesday	TBA 12.05.18	
Week 15		
M Dec 10 Monday	TBA Final Exam Opens 12.10.18	
W Dec 12 Wednesday	TBA  Last Day of Class	
	ТВА	

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Week 16

Th Dec 20 Thursday

Final Exam:
177 TLRB
11:00am - 2:00pm

Final Exam Closes (no exam accepted after 8:00 pm)