## Instructor/TA Info

#### **Instructor Information**

Name: Marc Steed Email: dr.steed@gmail.com Office Location: 1300 East Center Street

## **Course Information**

### **Participation Policy**

Students are expected to attend the class sessions as outlined in the syllabus.

This is a "closed screen" class. The use of laptops, tablets, and cellphones during class discussion time is prohibited in order to facilitate individual participation and group discussion. If you need to use your phone, please step outside of the classroom until you are finished.

Come prepared to participate. Demonstration of familiarity with assigned readings via random quizzes and other learning activities can raise the final grade by 1/2 point (e.g., B to a B+).

#### **Learning Outcomes**

#### Basic principles of neuroanatomy and neurophysiology

1. Discuss basic principles of neuroanatomy and neurophysiology.

#### **Psychotropic drugs**

2. Critically discuss the way in which psychotropic drugs are distributed, metabolized, and excreted.

#### Way in which different psychotropic agents modify behavior

3. Compare and contrast the way in which different psychotropic agents modify behavior by altering neurotransmitter systems.

#### **Drug classification**

4. Describe drug classification and which drugs are used to treat different disorders.

### Psychobiology of drug abuse

5. Be familiar with the psychobiology of drug abuse, classes of abused drugs, and drug abuse treatment alternatives.

### Neurologic impairment

6. Be familiar with various forms of neurologic impairment and accompanying behavioral manifestations.

#### **Grading Scale**

Grades	Percent
А	93%
A-	90%
B+	87%
В	83%
B-	80%
C+	77%
С	73%
C-	70%
D+	67%
D	63%
D-	60%
E	0%

Students are expected to demonstrate writing skills in describing, analyzing and evaluating ideas and experiences. Written material must follow specific standards regarding citations of authors' work within the text and references at the end of the paper. I will adhere to the following standards when grading written work:

NOTE: Letter grades may be assigned for any or all of the following reasons:

"A" Range: Outstanding achievement, significantly exceeds standards

• Unique topic or unique treatment of topic, takes risks with content; fresh approach.

• Sophisticated/exceptional use of examples.

• Original and "fluid" organization; all sentences and paragraphs contribute; sophisticated transitions between paragraphs.

• Integration of quotations and citations is sophisticated and highlights the author's argument.

• Confidence in use of Standard English; language reflects a practiced and/or refined understanding of syntax and usage.

• Sentences vary in structure, very few, if any mechanical errors (no serious mechanical errors).

"B" Range: Commendable achievement, meets or exceeds standards for course.

• Specific, original focus, content well handled.

• Significance of content is clearly conveyed; good use of examples; sufficient support exists in key areas.

• Has effective shape (organization), effective pacing between sentences or paragraphs.

- Quotations and citations are integrated into argument to enhance the flow of ideas.
- Has competent transitions between all sentences and paragraphs.

· Conveys a strong understanding of standard English; the writer is clear in his/her attempt to

articulate main points, but may demonstrate moments of "flat" or unrefined language.

• May have a few minor mechanical errors (misplaced commas, pronoun disagreement, etc.), but no serious mechanical errors (fragments, run-ons, comma splices, etc.)

- "C" Range: Acceptable achievement, meets standards for course
- Retains overall focus, generally solid command of subject matter
  Subject matter well explored but may show signs of underachievement
- Significance is understood, competent use of examples
- Structure is solid, but an occasional sentence or paragraph may lack focus
- · Quotations and citations are integrated into argument
- Transitions between paragraphs occur but may lack originality
- · Competent use of language; sentences are solid but may lack development, refinement, style
- Occasional minor mechanical errors may occur, but do not impede clear understanding of

material

• No serious mechanical errors (fragments, run-ons, comma-splices, etc.)

"D" Range: Unsatisfactory achievement; does not meet acceptable standards

Note: The "D" grade is a passing grade; work that is not of "passing quality" should receive a grade of "F".

- Significance of content is unclear
- Ideas lack support, elaboration
- · Lacks sufficient examples or relevance of examples may be unclear
- Support materials is not clearly incorporated into argument
- Expression is frequently awkward (problematic sentence structure)
- · Mechanical errors may often impede clear understanding of material
- May have recurring serious mechanical errors (fragments, run-ons, comma splices, etc.)

#### **Attendance Policy**

Please make every effort to attend class. We will be covering a lot of material. You will be expected to know information from the readings as well as material presented via class activities designed to facilitate understanding and application of the topic.

If you are absent or need to miss class, it is your responsibility to let me know and arrange to have someone share notes and information with you. If a schedule conflict arises, please approach me with a proposed solution we can reason through. I will say that I don't give exams early, nor are there make-up quizzes, and the Poster Presentation assignment is mandatory. Excessive absences will be deleterious to your learning, reflect poorly on your professionalism, and decimate your grade.

## **University Policies**

#### **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**

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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 <u>19coordinator@byu.edu</u> or (801) 422-8692. Reports may also be submitted through EthicsPoint at <u>https://titleix.byu.edu/report (https://titleix.byu.edu/report)</u> 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 http://titleix.byu.edu (http://titleix.byu.edu) 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.

#### 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 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.

#### **Respectful Environment**

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"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

### **Mental Health Concerns**

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 <u>https://caps.byu.edu</u>); for more immediate concerns please visit <u>http://help.byu.edu (http://help.byu.edu)</u>.

## Assignments

## **Assignment Description**

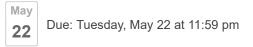
#### **Neuroscience in Psychology**

May 03 Due: Thursday, May 03 at 3:59 pm

Neuroscience and behavior is a hot topic, both in training and professional services. The zeitgeist of adding "brain" to a title or service has produced some valid and informative treatments as well as some charlatans and psdeudo-science.

Review this article for class discussion and write up a reflection on how you will address the "neuro" wave in your profession and as a professional. Submit via Learning Suite before class begins.

#### Quizzes



Quizzes and other such activities will randomly occur during the quarter to help me know you are reading and thinking about assigned materials.

You, of course, are not expected to be an expert on the subject matter covered by these spontaneous activities; rather the purpose is to allow you to demonstrate to me that you have read something, can think divergently about the material, and can convey that information in a pithy manner.

#### **AA** Meeting

May 24 Due: Thursday, May 24 at 11:59 pm See http://www.utahvalleyaa.org/meeting-schedules for details.

Each of you should plan to attend an open AA meeting.

After attending, please write a one (1) page reflection paper about your experience. At the top of the page, include your name and the date, time, and location of the meeting you attend. Failure to do so will result in 1/2 credit. In your write up you will receive more points for insightful self-reflection than you will for recantation of pedantic information. In the past students have attended meetings en masse, which has impaired treatment effectiveness for those who are there for treatment. Please plan to attend the meeting by yourself; I don't want to hear from the AA folks that treatment has been interrupted by a group of students. Also, please plan to engage in the group; I also don't want to hear that you sat back and just observed. Try to find something you can relate to or with and participate in the group process reasonably.

We will work collaboratively to determine the best way to manage this (e.g., Google docs, Learning Suite, etc.).

## **Video Presentation**

**12** Due: Tuesday, Jun 12 at 4:30 pm

You and your research paper partner will create a 10-minute oral presentation about your paper topic that will be recorded and uploaded to GoReact using this link:

(Insert link here)

Requirements include:

- Begin video by stating your full names and title of your project. Save your file on GoReact under the name of your project title (1 point)
- Professional dress, materials, speech, and mannerisms during presentation (5 points)
- Equal involvement of both partners (5 points)
- Appropriate, informative, comprehensive, and engaging summary of your paper topic (20 points)
- Stay within 10 minute time limit (4 points)

## **Final Project Paper**

Jun 14

Due: Thursday, Jun 14 at 4:30 pm

In full collaboration with a partner, write a 10-20 page paper that clearly defines your assigned topic. You should use only peer-reviewed sources (Wikipedia is not considered a peer-reviewed source). Submit a hard copy and the supporting PDFs of your sources in a manila folder to the secretary office 340 MCKB by 4:30 pm on June 14th.

Objective	Points Possible
Work collaboratively with a partner to complete a 10- 20 page respon se paper about your assigned topic (your partner will provide this score)	10
Adhere to writing standards as outlined in the syllabus	10
Paper effectively covers defined topic within 10-20 pages	10
Reference page is included using APA-style for works cited	10
References are appropriately cited throughout the paper (APA format)	10
A PDF of each citation is included with the final paper	10

E 100 100 4 0	80	
	Paper shows deep reflection and insight, thoroughly covering the assigned topic in detail	50
	TOTAL	110

You should have chosen a topic and a partner on the first day of class. You are responsible for knowing who your partner is and what your topic is.

## TOPICS

## Basic principles of neuroanatomy and neurophysiology

1. Discuss basic principles of neuroanatomy and neurophysiology.

- Neuroanatomy
  - Neurons-define what it is, the parts of it, different types
  - Brain structures-what are some of the major structures formed by groups of neurons and axons and what are their functions
- 1-
- 2-
- Neurophysiology
  - How neurons work-how do neurons communicate with each other, maintain homeostasis
  - Brain networks-how do different brain structures communicate with each other, theories of brain functioning
- 1-
- 2-

## • Psychotropic drugs

2. Critically discuss the way in which psychotropic drugs are distributed, metabolized, and excreted.

- Pharmacokinetic/Pharmacodynamics-how do drugs get into the body, pros/cons of alternate entry methods, excretion of drugs, how drugs are processed by the body, how they cross blood-brain barrier
- 1-
- 2-
- Mechanisms of drug action-how drugs affect neuron functioning, how long drugs stay in the body, the concept of drug half-life, synergistic or antagonistic effects of multiple drugs
- 1-
- 2-

## • Way in which different psychotropic agents modify behavior

3. Compare and contrast the way in which different psychotropic agents modify behavior by altering neurotransmitter systems.

• Neurotransmitter/Neurotransmitter systems/Behavioral impact of neurotransmitters

- · Glutamate, GABA, Acetylcholine
- 1-
- 2-
- · Neurotransmitter/Neurotransmitter systems/Behavioral impact of neurotransmitters
  - Dopamine, Serotonin, Norepinephrine
- 1-
- 2-

#### • Drug classification

4. Describe drug classification and which drugs are used to treat different disorders.

• History of drug/supplement development legislation/Drug development process-how drug legislation has changed over time and why, what is the current FDA process for bringing a new drug to market, how are supplements held to or exempt from the FDA process, drug classes and schedules

- 1-
- 2-
- Drug and supplement classifications and uses-what are the different classes of psychotropic drugs, prescribing limitations and exemptions ("off-label" use), what disorders are different classes of drugs used to treat
- 1-
- 2-

#### Psychobiology of drug abuse

5. Be familiar with the psychobiology of drug abuse, classes of abused drugs, and drug abuse treatment alternatives.

- Physiological/psychological aspects of drug abuse
- 1-
- 2-
- Categories of drugs of abuse
  - Hallucinogens
  - Depressants
  - Stimulants
  - Designer drugs
- 1-
- 2-
- Drug abuse treatment history/treatment options-what's been done in the past and was it effective, is drug abuse an illness or a crime, briefly identify more common treatment options, identify less well-known treatment options

- 1-
  - 2-

- Neurologic impairment
- 6. Be familiar with various forms of neurologic impairment and accompanying behavioral manifestations.
  - Neurologic injury
    - TBI
    - Stroke
    - Brain tumors
    - Epilepsy
    - Anoxia
    - Developmental disabilities
    - Toxic exposure
  - 1-
  - 2-
  - Psychiatric illness
    - Schizophrenia
    - Bipolar disorder
    - Depression
    - Psychosis
  - 1-
  - 2-

#### Professionalism

**Jun 14** Due: Thursday, Jun 14 at 11:59 pm

"Be well, do good work, and keep in touch."-Earl Nightengale You will be evaluated based on your professionalism in class. See syllabus for details.

#### Video Reflection

Jun14Due: Thursday, Jun 14 at 11:59 pm

Using the link provided (insert link here), select and view three of your peer's presentations on GoReact. For **each** presentation, provide the following in a 1-2 page reflection paper:

- Names of presenters and title of presentation (1 point x3)
- Three to five insights gained from the presentation (3 points x 3)
- How you could use this information in your future profession (5 points x 3)
- At least two additional questions you still have (1 point x 3)



19

- 100 100 40

Due: Tuesday, Jun 19 at 11:59 pm

A final exam will be administered, aligning with the date and time scheduled for the class.

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# Schedule

Date	Column 1	Column 2
Week 1		
T May 01 Tuesday	Introduction, Overview, Expectations, and Administrivia Basic Principles of Neuroanatomy/Neurophysiology	Select topic and partner for final project paper
Th May 03 Thursday	Basic Principles of Neuroanatomy/Neurophysiology-Cont'd	Neuroscience in Psychology
Week 2		
T May 08 Tuesday	Basic Principles of Neuroanatomy/Neurophysiology-Cont'd	Review Chapters 1-9 of <i>Brain Facts Primer</i>
Th May 10 Thursday	Psychotropic Medications	
Week 3		
T May 15 Tuesday	Psychotropic Medications	
Th May 17 Thursday	Psychotropic Medications	
Week 4		
T May 22 Tuesday	Medications and Behavior	Quizzes
Th May 24 Thursday	Drug Classification	AA Meeting Anatomy Lab
Week 5		
M May 28 Monday	Memorial Day	
T May 29 Tuesday	Illicit Drugs	
Th May 31 Thursday	Illicit Drugs	
Week 6		
T Jun 05 Tuesday	Drug Abuse Treatment Principles and Options	
Th Jun 07 Thursday	Neurologic Impairment and Behavioral Manifestations	
Week 7		
T Jun 12 Tuesday	Neurologic Impairment and Behavioral Manifestations	Video Presentation

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Th Jun 14 Thursday	Out of class assignment: Video reflections/Submit final projects	Final Project Paper Video Reflection Professionalism	
Week 8			
T Jun 19 Tuesday	Spring Exam Preparation (06/19/2018 - 06/19/2018)	Final Exam	