

CPSE 608 - Biological Basis of Behavior

Spring 2015

Section 001: 341 MCKB on T Th from 4:00 pm - 7:00 pm

Instructor/TA Info

Instructor Information

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Course Information

Description

The current course is designed to provide students with a solid foundation in the underlying principles and key issues of biological psychology. Through instruction and proactive learning, students should develop a working knowledge of brain anatomy and chemistry, and their relationship to the human experience and functioning.

Readings for this course will consist of a brief primer on the brain and a variety of articles that will be posted under the course content tab. Students will also be expected to research and provide additional readings throughout the semester.

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

Grading Policy

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 as evident by:

- 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 as evident by:

- 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 as evident by:

- 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.)

Participation Policy

Regular active participation is essential to your learning in this course. Given the proactive learning techniques that will be employed, students are expected to attend each class prepared to contribute and take control of their academic experience.

Attendance Policy

Pursuant to the participation policy, attendance is mandatory and essential to your mastery of course topics and their clinical applications. If you must miss a class, please notify me in advance.

Assignments

Assignment Descriptions

Poster Topic

Due: Tuesday, May 05 at 11:59 pm

Note: you should not begin working on your topic until you have received approval for your topic. Any topic not approved will result in an automatic failure for the poster assignment.

Brains In The News #1

Due: Tuesday, May 19 at 7:00 pm

Summarize the science behind a news headline.

Midterm

Due: Thursday, May 21 at 7:00 pm

You will be tested on material covered during the first half of the course. Exams will be in class on the scheduled date and may consist of multiple choice, fill in the blank, short response and/or essay questions.

AA Meeting and Write-up

Due: Thursday, Jun 04 at 11:59 pm

Each student will need to attend a local AA meeting and report on their experience. There are several meetings throughout the valley held at various times during the week. For a listing of available meeting times see: <https://sites.google.com/a/utahvalleyaa.org/aa/meeting-schedules>

Be sure the meeting you plan to attend is listed as "open." In addition, no more than 2 students may attend the same meeting.

After you attend your meeting, you will be required to submit a summary of your experience. Topics you might address include: your impression of how effective the meeting is at treating substance abuse, what did you observe about those in attendance, what seemed to be the power behind the success of those attending, what were the ongoing struggles, etc.

Poster

Due: Thursday, Jun 11 at 7:00 pm

You will participate in the Fourth Annual Brain and Behavior Research Poster Session. Selecting a relevant topic of interest, you will prepare and present to your peers, the University community, and the general public as a mental health professional. Requirements include:

- *Professional-looking presentation*
- *One-page handout, summarizing your presentation*
- *Inviting at least two people to attend*

Brains In The News #2

Due: Thursday, Jun 11 at 7:00 pm

Summarize the science behind a news headline.

Jigsaw participation

Due: Thursday, Jun 11 at 11:59 pm

5 points per day.

Jigsaw Lead

Due: Thursday, Jun 11 at 11:59 pm

Twice during the semester, each student will take the lead in researching and finding resources for their assigned jigsaw topic and distribute to their group.

(25 points per time)

In gathering resources, lead students should consider the following three pillars:

- 1- Definition/understanding of the topic/issue
- 2- Biological underpinnings (e.g., genetic/biological influence on etiology of the issue, etc.)

3- Clinical relevance (e.g., Bx or Sx profiles; treatment, etc.)

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 Harassment

Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education and pertains to admissions, academic and athletic programs, and university-sponsored activities. Title IX also prohibits sexual harassment of students by university employees, other students, and visitors to campus. If you encounter sexual harassment or gender-based discrimination, please talk to your professor or contact one of the following: the Title IX Coordinator at 801-422-2130; the Honor Code Office at 801-422-2847; the Equal Employment Office at 801-422-5895; or Ethics Point at <http://www.ethicspoint.com>, or 1-888-238-1062 (24-hours).

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.

Schedule

Date	Column 1	Column 2
T Apr 28 Tuesday	Course introduction; Jigsaw assignment; How the Brain is Organized.	
Th Apr 30 Thursday	Neuron Basics: Structure and function	
T May 05 Tuesday	Poster Topic How the Brain Develops Video: <i>The Secret Life of the Brain</i>	
Th May 07 Thursday	Brain anatomy and functions	
T May 12 Tuesday	Brain anatomy and functions	
Th May 14 Thursday	Higher Cognitive Functions Jigsaw Topics: Executive Functions Learning and Memory	

Attention

T May 19 Psychopharmacology

Tuesday

Jigsaw Topics:

Antipsychotics

Antidepressants/anxiolytics

Stimulants

Brains In The News #1

Th May

Midterm

21

Thursday

M May

Memorial Day Holiday

25

Monday

T May 26 Substance Abuse and Treatment

Tuesday

Jigsaw Topics:

Marijuana/hallucinogens

Narcotics

Alcohol/Tobacco

Th May

Neurodevelopmental Disorders and

28

Treatment

Thursday

Jigsaw Topics:

Autism spectrum disorders
(including NVLD)

ADHD

Learning

disabilities/language

disorders

T Jun 02

Psychiatric Disorders and Treatment

Tuesday	Jigsaw Topics: Cerebral vascular events TBI (mild-moderate-severe) Epilepsy
Th Jun 04 Thursday	Psychiatric Disorders and Treatment Schizophrenia Bipolar Disorder Depression/Anxiety
AA Meeting and Write-up	
T Jun 09 Tuesday	Neurodegenerative Disorders and Treatment Video: <i>Grace</i>
Th Jun 11 Thursday	Poster Session (Location TBA) Brains In The News #2 Jigsaw Lead Jigsaw participation Poster
T Jun 16 Tuesday	Exam Preparation Day
Th Jun 18 Thursday	Final Exam: 341 MCKB 5:00pm - 6:50pm