UNIVERSITY OF SOUTH DAKOTA  
SCHOOL OF HEALTH SCIENCES  
ADDITION STUDIES  
ADS 424/524 PSYCHOPHARMACOLOGY OF ALCOHOL AND DRUGS  
ONLINE SUMMER SESSION 2017

PROFESSOR:  
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By Appointment

TEXTS

SUPPLEMENTAL READING

COURSE DESCRIPTION
A study of the psychopharmacology of substance related disorders coexisting with mental health disorders. Includes implications prescription drugs have for treating individuals with a dual diagnosis.

COURSE OBJECTIVES AND OUTCOMES:
STUDENTS WILL:

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify major drugs of use and abuse</td>
<td>Course readings, group discussions, and midterm examination</td>
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<tr>
<td>2. Distinguish the molecular biology of drug receptors in the nervous system and human body</td>
<td>Course readings, group discussions, and midterm examination</td>
</tr>
<tr>
<td>3. Determine the psychotherapeutic use of drugs and their abuse/dependency potential</td>
<td>Course readings, group discussions, midterm examination, and written assignment</td>
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<tr>
<td>4. Interpret the diagnosis of mental health disorders and how these collaborate with alcohol/drug addiction</td>
<td>Course readings, group discussions, written assignment, and final examination</td>
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<tr>
<td>5. Apply fundamental knowledge of psychopharmacotherapy and other various counseling techniques relating to mental health disorders and drug addiction</td>
<td>Course readings, group discussions, written assignment, and final examination</td>
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</table>
COURSE OUTLINE

I. Classification of psychoactive drugs
   A. Basic pharmacology
   B. Routes of administration
   C. Distribution, metabolism, and excretion

II. Nervous system anatomy
   A. Peripheral nervous system (PNS)
   B. Central nervous system (CNS)
   C. Endocrine system

III. Major drugs of use/abuse
   A. CNS depressants
   B. Psychostimulants
   C. Hallucinogens
   D. Marijuana

IV. Psychotherapeutic drugs
   A. Minor/Major tranquilizers
   B. Narcotics/Opioids
   C. Antidepressants
   D. Antipsychotics
   E. Antagonists/Antabuse

V. Mental disorders that collaborate with alcohol/drug addiction
   A. Depression
   B. Bipolar disorder
   C. Dementia
   D. Schizophrenia
   E. Attention deficit disorder (ADD) & Attention deficit hyperactive disorder (ADHD)
   F. Generalized anxiety disorder
   G. Compulsive-obsessive disorder
   H. Post traumatic stress disorder (PTSD)
   I. Personality disorder

VI. Psychopharmacotherapy
   A. Integration of treatment
   B. Education of disciplines
   C. Research

GETTING STARTED

You can log onto the course by going to: https://d2l.sdbor.edu and typing in your USD email login and USD email password. Any problems logging in, please contact Continuing Education immediately: http://www.usd.edu/cde/. You can access the USD Portal at http://my.usd.edu. For information about USD's technical, academic and student support services, as well as how to take advantage of these services, please refer to the CE Online
Student Orientation at [http://www.usd.edu/cde/upload/Online-Orientation-Guide.pdf](http://www.usd.edu/cde/upload/Online-Orientation-Guide.pdf). This document also contains important information pertaining to minimum technology requirements, registration information, as well as other university services and policies.

**REQUIREMENTS AND EVALUATION**

**PARTICIPATION**

Reading the assigned pages from the text is required along with accessing course/class notes for the topics and necessary for the group discussion topics. Questions, concerns, and/or more information on a specific topic pertaining to either of these are strongly encouraged through Desire2Learn (D2L) email and the discussion board. The following table indicates topics, dates, and reading assignments:

<table>
<thead>
<tr>
<th>DATES</th>
<th>TOPICS</th>
<th>READINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 15 – May 22</td>
<td>Introductions</td>
<td></td>
</tr>
<tr>
<td>May 23 – May 30</td>
<td>Basic pharmacology and routes of drug admin</td>
<td>Advokat, Preface and Chapters 2 &amp; 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Course/class notes</td>
</tr>
<tr>
<td>May 31 – June 8</td>
<td>Structure and function of nerve cells</td>
<td>Advokat, Chapter 1</td>
</tr>
<tr>
<td></td>
<td>PNS, CNS, and Endocrine Systems</td>
<td>Course/class notes</td>
</tr>
<tr>
<td>June 9 – June 17</td>
<td>Sedative Hypnotics</td>
<td>Advokat, Chapters 5 &amp; 13</td>
</tr>
<tr>
<td>June 18 – June 26</td>
<td>Psychostimulants</td>
<td>Advokat, Chapters 6 &amp; 7</td>
</tr>
<tr>
<td><strong>June 27</strong></td>
<td><strong>Midterm Exam</strong></td>
<td></td>
</tr>
<tr>
<td>June 28 – July 10</td>
<td>Cannabis &amp; Psychedelic drugs</td>
<td>Advokat, Chapters 8, &amp; 9</td>
</tr>
<tr>
<td>July 11 – July 22</td>
<td>Opioid analgesics</td>
<td>Advokat, Chapter 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Course/class notes</td>
</tr>
<tr>
<td>July 23 – August 2</td>
<td>Epidemiology &amp; Neurobiology of Addiction,</td>
<td>Advokat, Chapters 4 &amp; 17</td>
</tr>
<tr>
<td></td>
<td>Challenging Times</td>
<td></td>
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</tbody>
</table>

**DISCUSSION GROUPS**

Participation in discussion groups via the discussion board is required and students will be randomly assigned to these groups. This is a collaborative effort between both the professor and the students. Each group will designate a facilitator who will begin and end each discussion topic as assigned on the course syllabus. Each discussion topic will need a new group facilitator. Student groups will be monitored by the professor and will be provided with the professor’s guidance if deemed necessary. Students need to stay “focused” on the
topic and use proper internet/discussion board etiquette (Netiquette). Refer to page 6 in the Continuing Education orientation packet.

Each student needs to post to the discussion board topics within the timeframe at least 5 times per topic. The initial substantial posting for each discussion topic must occur within the first three days of the specified beginning date and cite specific page numbers from assigned textbook readings. Please review the evaluation criteria for discussion group topics on how to receive total points.

Students will need to respond to each other in a timely manner and not post all five responses at one time. Remember to include information from assigned readings, class notes, and other outside resources that you find beneficial. The group facilitator needs to provide a synopsis of the discussion topic within 5 days of the completion of the topic. The professor will assess and evaluate the students’ performance in discussion topics and the group facilitators’ initiation and synopsis. Students will be notified about discussion topic points within 5 days upon receipt of the group facilitators’ synopsis. Grades for discussion topics are based on individual participation within the group.

**DISCUSSION SCHEDULE AND TOPICS**

<table>
<thead>
<tr>
<th>DATES</th>
<th>TOPIC</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 23 – May 30</td>
<td>Terminology: In your opinion, which two of the five definitions from class notes seem to be the least understood? Indicate why you believe that to be the case and give specific examples/resources. Define drug half-life. How does half-life apply to steady state of concentration?</td>
<td>10</td>
</tr>
<tr>
<td>May 31 – June 8</td>
<td>Neurobiology: Discuss the normal functioning of brain components and the natural process of neurotransmitters. Identify how this information pertains to the use/abuse of psychoactive drugs and/or mental health disorders. Give specific examples from class notes and readings.</td>
<td>10</td>
</tr>
<tr>
<td>June 9 – June 17</td>
<td>Neurotransmitters and depressant drugs: Which neurotransmitters are most affected by depressant drug use/abuse whether prescribed or self-induced? Provide specific information from class notes, readings, and outside</td>
<td>10</td>
</tr>
<tr>
<td>Date Range</td>
<td>Topic</td>
<td>Points</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>June 18 – June 26</td>
<td>Differentiate the CNS stimulant actions of caffeine &amp; nicotine from those of amphetamine &amp; cocaine. Which neurotransmitters and brain components are most affected? How do these differ from the clinical antidepressants?</td>
<td>10</td>
</tr>
<tr>
<td>June 28 – July 10</td>
<td>Misdiagnosis: How could withdrawal symptoms from cannabis, &amp; hallucinogens be misdiagnosed as a mental health disorder? Refer to the DSM 5 Desk Reference to support your answer along with text readings and outside resources you found beneficial.</td>
<td>10</td>
</tr>
<tr>
<td>July 11 – July 22</td>
<td>Opioid receptors: How does the understanding of opioid receptors, mu, kappa, delta, provide an understanding of mental health disorders &amp; the treatment of opiate/narcotic drug addiction? Give specific examples from class notes, readings, and outside resources.</td>
<td>10</td>
</tr>
<tr>
<td>July 23 – Aug. 2</td>
<td>Pharmacotherapy: How is the understanding of neurobiology of addiction and mental health disorders leading to new therapies? How will you incorporate this information into your current or future position as an addiction professional?</td>
<td>10</td>
</tr>
</tbody>
</table>

EVALUATION CRITERIA FOR DISCUSSION GROUP TOPICS:

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posting a response to professor’s question within the first three days of the specified beginning date</td>
<td>2 Points</td>
</tr>
<tr>
<td>Substantial initial posting</td>
<td>2 Points</td>
</tr>
<tr>
<td>Responding to peer posting</td>
<td>2 Points</td>
</tr>
<tr>
<td>Substantial peer posting response</td>
<td>2 Points</td>
</tr>
<tr>
<td>Incorporation of course readings, notes, &amp; outside professional resources</td>
<td>2 Points</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10 Points</td>
</tr>
</tbody>
</table>
**D2L EMAIL**

Students submitting emails to the professor through D2L email or USD email will receive a response within 24 hours after receipt during the week and within 48 hours on the weekends, excluding holidays.

**COEXISTING DISORDER RESEARCH PAPER 50 POINTS**

Each student will prepare and submit in the D2L Drop Box a synopsis of a mental health disorder and a substance related disorder (co-occurring disorder). Students will need to select their topic based upon selections indicated on the syllabus under course outline V. This paper needs to include all substances (drugs) that may be associated with the mental health disorder. The professor needs to be notified about student selection topic areas within the first three weeks of the course and no later than **June 16, 2017**. Students will need to incorporate no less than 5 scholarly outside resources based upon individual research along with course materials. The format for the paper is computerized 12-font doubled spaced 5-10 pages (**Maximum 10 pages**). This paper needs to be submitted in APA style. If you are not familiar with APA style you can access the APA format at the APA online site: [http://www.apastyle.org/elecref.html](http://www.apastyle.org/elecref.html). **Please review the evaluation criteria for this paper on how to receive the total points.**

The paper needs to include but is not limited to the following:

* What symptoms, according to the DSM 5, designate a mental disorder? How can these be distinguished from withdrawal symptoms of specific drugs, ie., alcohol, methamphetamines, heroin, marijuana, inhalants, OTC, steroids, benzodiazepines, cocaine, LSD, etc.?
* What drugs are most commonly prescribed for this mental disorder? What are the long and short-term effects? What part(s) of the brain and neurotransmitter(s) is/are most affected?
* Which came first the diagnosis of substance abuse disorder or the mental health disorder? How can this be determined?
* Is there a behavioral reaction to “wanting” the drug?
* What is needed for an individual with this diagnosis to be functional in society? (therapeutic approaches)
* How can you make a difference with your education and experience?
* Bibliography

**EVALUATION CRITERIA FOR COEXISTING DISORDER RESEARCH PAPER**

| Identification of coexisting disorder involving DSM 5 criteria | 8 Points |
| Withdrawal symptoms from specific drugs that may resemble a mental health disorder | 8 Points |
| Prescribed medications for mental health disorder, long and short-term effects | 8 Points |
Specific brain components and neurotransmitters most affected by coexisting disorder | 8 Points
---|---
Therapeutic approaches for functionality in society with coexisting disorder | 8 Points
Application of personal education and experience | 8 Points
Bibliography | 2 Points

The professor will assess and evaluate each paper. The final submission of this paper in the D2L dropbox is due on **July 27, 2017**. Late submissions will be deducted one point per day after the due date. Students will receive feedback on this paper within 7-10 days after the due date, excluding weekends and holidays.

**TWO WRITTEN EXAMINATIONS** 100 POINTS

Each examination is worth 50 points. The midterm examination will be an online exam that involves 60% class material and 40% reading assignments. This exam will consist of multiple choice and short answer essay questions (50 points). The exam will be available for 24 hours from 12:00 AM – 11:59 PM CST **June 27, 2017** and students will be given ample time to complete the exam. Students will receive their grade within 7-10 days after the due date, excluding weekends and holidays.

The final exam is comprehensive and will be an “at home” exam that needs to be submitted in the dropbox on or before **August 4, 2017** (50 points). This exam will consist of identifying ten personal concepts that was gained from the course and how these are applicable for self career goals and improvement of the understanding of drug addiction treatment and/or prevention. Late submissions will be deducted one point per day after the due date. Students will receive their grade within 7-10 days after the due date, excluding weekends and holidays.

**There will be NO make-up examinations!** Emergency situations or documented illnesses will be dealt with on an individual basis. If you are aware of a conflict for the date of an exam, the professor needs to be notified at least 24 hours in advance.

**TOTAL POINTS AND GRADING SCALE:** (All grades will be available in D2L assessments under grades)

<table>
<thead>
<tr>
<th>Points Range</th>
<th>Grade</th>
</tr>
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<tbody>
<tr>
<td>220 - 198</td>
<td>A</td>
</tr>
<tr>
<td>197.5 – 176</td>
<td>B</td>
</tr>
<tr>
<td>175.5 – 154</td>
<td>C</td>
</tr>
<tr>
<td>153.5 – 132</td>
<td>D</td>
</tr>
</tbody>
</table>

**FREEDOM IN LEARNING:**

Students are responsible for learning the content of any course of study in which they are enrolled. Under Board of Regents and University policy, student academic performance shall be evaluated solely on an academic basis and students should be free to take reasoned exception to the data or views offered in any course of study. Students who believe that an
academic evaluation is unrelated to academic standards but is related instead to judgment of their personal opinion or conduct should contact the dean of the college which offers the class to initiate a review of the evaluation.

ACADEMIC HONESTY POLICY:
Any cheating, plagiarism, or submission of student’s examinations that are NOT enrolled in the class necessitates a consequential action. The consequence will involve a grade of zero or “F” for the work submitted and potential reporting of the incident to the proper campus authorities. Your academic honesty allows for your standard of excellence in achieving the grade you earn or deserve and maintaining the respect of your classmates and professors. Please refer to the USD BOR policy 2-33 [www.sdbor.edu/policy/Documents/2-33.pdf](http://www.sdbor.edu/policy/Documents/2-33.pdf).

Cheating is defined as the use or giving of any unauthorized assistance in taking quizzes, tests, or examinations; use of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems or carrying out other assignments.

Plagiarism is defined as intentionally or knowingly representing the words or ideas of another as one’s own in any academic exercise.

DISABILITY SERVICES:
Any student who feels s/he may need academic accommodations or access accommodations based on the impact of a documented disability should contact and register with Disability Services during the first week of class. Disability Services is the official office to assist students through the process of disability verification and coordination of appropriate and reasonable accommodations. Students currently registered with Disability Services must obtain a new accommodation memo each semester. For information contact:
Ernetta L. Fox, Director
Disability Services
Room 119 Service Center
(605) 677-6389
disabilityservices@usd.edu

The University of South Dakota strives to foster a globally inclusive learning environment where opportunities are provided for diversity to be recognized and respected.

“The University of South Dakota School of Health Sciences is committed to an environment of inclusiveness in classroom and practice settings that honors diverse perspectives, traditions, heritages, and experiences.”

GRADUATE STUDENTS:
Each graduate student will select a neurotransmitter to research and submit to the professor via email how alcohol and/or other drugs effect the natural functioning of this neurotransmitter. Your choice and decision needs to be made and approved by the professor NO LATER THAN JUNE 10, 2017!
A computer-generated 12-font double-spaced paper 7 – 12 pages maximum is required. This paper needs to be submitted in APA style. You will need to include a bibliography consisting of no less than 5 scholarly references. Due no later than July 27, 2017! Papers need to be submitted in the D2L dropbox. Late submissions will be deducted one point per day after the due date. Students will receive feedback on the paper within 7-10 days after due date.

EXTRA CREDIT (OPTIONAL): 10 POINTS
Personally interview a pharmacist. Include their name and where they work and submit a 2-page double-spaced 12-font computer generated paper that includes but is not limited to the following:

* What drugs are most often prescribed and by whom, physicians or psychiatrists?
* What does the patient receive regarding information about the side effects of the drug?
* What precautions are taken, if any, to reduce abuse of and addiction to drugs by physicians/psychiatrists prescribing the same drug?
* What is the responsibility of the pharmacist, physician, and/or psychiatrist to the patient?

This paper needs to be submitted in the D2L dropbox and is due no later than August 1, 2017.