

**LEWIS & CLARK COLLEGE**  
**GRADUATE SCHOOL OF EDUCATION &**  
**COUNSELING**

**SYLLABUS – CPSY 545**  
***Drugs, The Brain and Behavior***

Fall Semester 2010

Mondays 5:30 p.m. to 8:45 p.m. – SCON, Room 101

September 13, 2010 to December 13, 2010

**Class Instructor:**

Thomas G. Ten Eyck (Adjunct Faculty)

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**Description of Course:**

Catalogue description: *“Psychopharmacology of alcohol and drug abuse. Major drugs and classes of abused substances. Mechanisms of action in the brain, patterns of physiological response in abuse, addiction (dependence) and recovery. Impact on the brain function, cognition, emotions, behavior, social effects. Pharmacological adjuncts to detoxification and treatment.”*

**Course Purpose:**

This course provides a presentation of the various classifications of psychoactive drugs and other drugs of abuse, a basic overview of the factors which influence the absorption, distribution, metabolism and excretion of drugs (pharmacokinetics), and the interactions of psychoactive drugs and the receptors responsible for the action of the drug in the body (pharmacodynamics). The current state of drug use in recovery, including agonist treatment (i.e., methadone et. al.) will be presented. There will be presentations about the major drugs used for co-existing mental and emotional disorders, how these drugs interact with drugs of abuse, and how they are used in the recovery process. How psychoactive drugs of abuse affect the user physically and cognitively resulting in changes in behavior and affect will be addressed in detail. There will be a short unit on the concepts of prevention and specific affects on minority groups.

This course is designed for presentation to counseling psychology graduate students who are focusing on addictions counseling, and is not designed for pharmacology or other science students.

The following TAP 21\* competencies will be directly addressed. Therefore, at the end of the course, the student will be able to:

- < Discuss the fundamental concepts of pharmacological properties and effects of all psychoactive substances. [Section I,A,3,K,a: p.16]\*
- < Relate detailed knowledge of the continuum of drug use, such as initiation, intoxication, harmful use, abuse, dependence, withdrawal, craving, relapse, and recovery. [Section I,A,3,K,b: p.16]
- < Discuss with depth the behavioral, psychological, social, and health effects of psychoactive substances. [Section I,A,3,K,c: p.16]
- < Describe the philosophies, practices, policies, and outcomes of pharmacotherapy for psychoactive substance use disorders (e.g., methadone treatment). [Section I,B,1,K,a-1&b: p.17]
- < Demonstrate familiarity with medical and pharmacological resources in the treatment of substance use disorders including:
  - current literature regarding medical and pharmacological interventions;
  - assets and liabilities of medical and pharmacological interventions;
  - health practitioners in the community who are knowledgeable about addiction and addiction treatment. [Section I,C,6,K,a,b,c: p.21]
- < Demonstrate in-depth knowledge of symptoms of intoxication, withdrawal, and toxicity for all psychoactive substances, alone and in interaction with one another. [Section II, A,3,a: p.31]
- < Relate the physical, pharmacological, and psychological implications of psychoactive substance use. [Section II, A,3,b: p.31]
- < Discuss the effects of chronic psychoactive substance use or intoxication on cognitive abilities. [Section II, A,3,c: p.31]
- < Demonstrate knowledge of:
  - when to refer for toxicity screening or additional professional help;
  - the basic concepts of toxicity screening options, limitations, and legal implications;
  - toxicology reporting language and the meaning of toxicology reports. [Section II, A,3,e,f,g: p.31]
- < Discuss the relationship between psychoactive substance use and violence. [Section II, A,3,h: p.31]
- < List and discuss mental and physical conditions that mimic drug intoxication, toxicity, and withdrawal. [Section II, A,3,j: p.31]
- < Describe the warning signs, symptoms, and the course of substance use disorders. [Section VI, 4: p.87]

\*Brackets refer to *TAP 21: Addiction Counseling Competencies: The Knowledge, Skills and Attitudes of Professional Practice*, U. S. Department of Health and Human Services, SAMHSA, DHHS Publication No. (SMA)98-3171, 1998.

In addition to the above stated TAP 21 competencies and recommended knowledge bases, at the end of the course the student will be able to:

- < Demonstrate knowledge of the basic pharmacokinetics and pharmacodynamics of the major drug classifications of psychoactive and other drugs of abuse.
- < Relate how the action of drugs in the central nervous system relates to behavior and the process of addictions.
- < Discuss both on a peer level and on a client level the meaning, negative and positive, of physical and psychopharmacological aspects psychoactive and other drugs of abuse.
- < Discuss the current theories of addictions (including process addictions) in terms of brain transmitter actions.
- < Discuss the major differences between pathological gambling and substance abuse and dependence.
- < Begin to integrate all of the above into the process of case conceptualization, treatment planning, and direct clinical work.

### **Course Texts:**

#### **Required:**

Inaba, William S. & William E. Cohen, *Uppers, Downers, All Arounders: Physical and Mental Effects of Psychoactive Drugs*. Sixth Edition., CNS Publications, Inc., Ashland, Oregon, 2007.

#### **Supplemental Reading (not required):**

Erickson, Carlton K., *The Science of Addiction, From Neurobiology to Treatment*, W.W. Norton & Company, 2007.

Grant, Jon E., *Impulse Control Disorders, A Clinician's Guide to Understanding and Treating Behavioral Addictions*, W.W. Norton & Company, 2008.

Julien, Robert M., *A Primer of Drug Action (Tenth Edition), A Comprehensive Guide to the Actions, Uses, and Side Effects of Psychoactive Drugs*, Worth Publishers, 2005.

### **Course Requirements:**

- 1) Attendance is required – role will be taken.....30% of grade
- 2) Five tests on Moodle .....30% of grade
- 3) A final paper.....40% of grade

#### **NOTES ON THE ABOVE:**

1) Students are expected to **attend each session** and to **actively participate** in the class discussions. **Role will be taken**. Assigned reading needs to be completed before the class session.



2) There will be **five tests (multiple-choice, true or false) on Moodle**. The schedule of when these tests will be given is at the end of this syllabus.

3) A **paper is due on December 6**. You are to imagine you are being asked the following questions by a Masters level mental health clinician who knows little if anything about addictions. **Write responses to the following three questions. Do not write more than five, double-spaced pages.**

A) “Why don’t some people just stop using or drinking knowing full well they are causing themselves and others serious problems?”

B) “Explain to me how certain impulsive behaviors, such as problem gambling or compulsive shopping, are a matter of brain chemistry imbalances rather than merely poor choices?”

C) “What should I tell my client on mental health medications who is also using non prescribed psychoactive substances?”

### **Evaluation and Grades:**

92% — 100%	A
86% — 92%	A-
80% — 86%	B+
74% — 80%	B
70% — 74%	B-
<70% —	C

### **Class Experiences and Expectations:**

This class requires the student to cover a lot of detailed information in order to become familiar with pharmacological and neurological terminology as well as the specifics of each psychoactive drug of abuse and psychotropic medication. Consequently:

- it is imperative that the readings be done thoroughly and on time;
- the *Uppers, Downers, All Arounders* CD be reviewed for each chapter;
- the five tests on Moodle are all taken.

### **Instructor Contact:**

Since I am adjunct faculty, I do not have an office on campus. However, I want to make access to me as easy as possible. Therefore, if you need to talk to me between class sessions, please call me at (503) 720-0137, or email me at [teneyckt@dishmail.net](mailto:teneyckt@dishmail.net). This is my private cell number and email address. I also have a mailbox in the Counseling Psychology Office and will pick up mail weekly only on Monday afternoons.

I am willing to meet with any student about specific problems if the need

arises. Please call me and we can make an appointment at a time that is convenient to both of us. When you call or when leaving a message, please state that you are a Lewis and Clark Student in the 545 course.

Furthermore, I arrive for Monday's classes by 5:00 p.m. and am available at that time for meeting with any student on an ad hoc basis. I am also willing to stay after class on Monday evenings for consultation as needed.

**Special Needs:**

Any student who because of a disability requires some special arrangements in order to meet course requirements needs to contact me, the instructor, as soon as possible to make necessary accommodations.

## **READINGS:**

All assigned readings are from Inaba/Cohen's, *Uppers, Downers, All Arounders*.

<b>Wk</b>	<b>Date</b>	<b>Reading – Due Dates</b>	<b>Topic</b>
I	9/13	Ch 1, pp. 1-33.	Introductions, Syllabus, Presentation of Study CD, History, Discussion
II	9/20	Ch 1&2, pp. 33-69	Classifications of Psychoactive Drugs, Basic Pharmacology
III	9/27	Ch 2, pp. 69-91	Basic Pharmacology; Levels of Use; Theories of Addiction
IV	10/4	Ch 2, con't.	Continued
V	10/11	Ch. 3, pp. 93-159	CNS Stimulants including Caffeine and Nicotine
VI	10/18	Ch. 4, pp. 159-185	Opiates/Opioids, Pain Control
VII	10/25	Ch 5, pp. 186-257	Sedative-Hypnotics, Alcohol
VIII	11/1	Ch.5, con't.	Alcohol, Fetal Alcohol Spectrum Disorders
IX	11/8	Ch 6, pp. 257-279	Fetal Alcohol Spectrum Disorders, Psychedelics
X	11/15	Ch. 7, pp. 279-330	Marijuana, Club Drugs Inhalants, Sports & Drugs.
XI	11/22	Ch. 7, pp. 330-365	Basic Prevention Concepts Behavioral Health (Process Addictions)
XII	11/29	Continued	Behavioral Health continued with Emphasis on Pathological Gambling.
XIII	12/6	Ch 10, pp. 513-549	Psychiatric Medications, Herbal Supplements, OTC Preparations
XIV	12/13	Ch. 10, con'	Continued.

# ASSIGNMENTS DUE

Chapters refer to Inaba/Cohen, *Uppers' Downers, All Arounders*.

Wk	Date	Topic	All Tests are on Moodle!
I	9/13	Syllabus, History, etc.	
II	9/20	Classifications, Basic Pharmacology	
III	9/27	Pharmacology con't	
IV	10/4	Pharmacology con't	
V	10/11	Stimulants	Test #1: Chapter 2
VI	10/18	Opiates/Opioids, Pain Control	Test#2: Chapter 3
VII	10/25	Sedative-hypnotics Alcohol	
VIII	11/1	Alcohol & FASD	Test #3: Chapter 4
IX	11/8	FASD, Psychedelics,	Test #4: Chapter 5
X	11/15	Marijuana, Club Drugs, Inhalants, Sports & Drugs.	
XI	11/22	Basic Prevention Concepts Behavioral Health (Process Addictions)	
XII	11/29	Continued	Test #5: Chapters 6, 7
XIII	12/6	Psychiatric Medications, Herbal Supplements, OTC Preparations	<b><u>DUE: Final Paper</u></b>
XIV	12/13	Continued.	