

LEWIS & CLARK COLLEGE
GRADUATE SCHOOL OF EDUCATION &
COUNSELING

SYLLABUS – CPSY 545
Drugs, The Brain and Behavior
Fall Semester 2008

Mondays 5:30 p.m. to 8:45 p.m. – Howard Hall, Room 102
September 8, 2008 to December 8, 2008

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. The cognitive, behavioral, and affective changes resulting from psychoactive use, abuse and addiction will be addressed in detail. There will be a short unit on the concepts of prevention.

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:

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

Recommended:

Streetdrugs-University. This is a web site maintained by Publishers. There is a \$5.00 yearly membership. The address is www.streetdrugs-university.org. This reference, which is continually updated, is used by students, counselors, attorneys, law enforcement, and medical personnel for quick summaries and pictures of street drugs.

Suggested Web Resources:

<http://samhsa.gov>
<http://www.nfattc.org>
<http://ncadi.samhsa.gov>

Course Requirements:

- 1) Attendance is required – role will be taken.....30% of grade
- 2) Five short in-class tests30% 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. Assigned reading needs to be completed before the class session.*

2) *There will be five short (about 25 questions – multiple-choice, true or false) in-class tests. The schedule of when these tests will be given is at the end of this syllabus. The worst score of the five tests will be thrown out, with only the best*

four scores used for grading. There are NO make-up tests given. Therefore, if you miss a test, that missed test will be the one that is thrown out.

3) A paper, five pages or less, is due the last day of class, in which you explain, in non technical language, the neurobiology of drug addiction to a significant other who has presented for treatment of stimulant addiction.

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 short in-class tests 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) 668-9286, or email me at teneyckt@dishmail.net. This number and email address are for my office in my home. 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 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 should contact the instructor as soon as possible to make necessary accommodations.

READINGS:

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

Wk	Date	Reading – Due Dates	Topic
I	9/8		Introductions, Syllabus, Presentation of Study CD, Discussion
II	9/15	Ch 1, pp. 1-45	Introduction; History, Classifications of Psychoactive Drugs
III	9/22	Ch 2, pp. 45-93	Basic Pharmacology; Levels of Use; Theories of Addiction
IV	9/29	Ch 2, Con't.	Continued
V	10/6	Ch. 3, pp. 93-159	CNS Stimulants including Caffeine and Nicotine
VI	10/13	Ch. 4, pp. 159-207	Opiates/Opioids, Pain Control, Sedative-Hypnotics
VII	10/20	Ch 5, pp. 207-257	Alcohol
VIII	10/27	Ch.5, con't.	Fetal Alcohol Spectrum Disorders
IX	11/3	Ch 6, pp. 257-303	Psychedelics, Marijuana, Club Drugs
X	11/10	Ch. 7, pp. 303-330	Inhalants, Sports & Drugs. Basic Prevention Concepts
XI	11/17	Ch. 7, pp. 330-365	Behavioral Health (Process Addictions)
XII	11/24	Continued	Behavioral Health continued with Emphasis on Pathological Gambling.
XIII	12/1	Ch 10, pp. 513-549	Psychiatric Medications, Herbal Supplements, OTC Preparations
XIV	12/8	Ch. 10, con'	Continued.

ASSIGNMENTS DUE

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

Wk	Date	Topic	In Class Tests
I	9/8	Introduction	
II	9/15	History, Classifications	
III	9/22	Basic Pharmacology	
IV	9/29	Continued	
V	10/6	Stimulants	Test Chapter 2
VI	10/13	Opiates/Opioids, Sedative-hypnotics	Test Chapter 3
VII	10/20	Alcohol	Test Chapter 4
VIII	10/27	Alcohol & FASD	
IX	11/3	Psychedelics, Marijuana, Club Drugs.	Test Chapter 5
X	11/10	Inhalants, Sports Drugs, Prevention Concepts	
XI	11/17	Behavioral Health.	Test Chapters 6, 7
XII	11/24	Continued	
XIII	12/1	Psychiatric Medications	
XIV	12/8	Continued.	<u>DUE: Final Paper</u>