Modesto Junior College
Course Outline of Record

PSYCH 118

I. OVERVIEW
The following information will appear in the 2010 - 2011 catalog

PSYCH 118 Pharmacology of Abused Substances 3 Units

Also offered as: HUMSR - 118: Pharmacology of Abused Substances

Recommended for Success: Before enrolling in this course, students are strongly advised
to satisfactorily complete HUMSR 116 or PSYCH 101.

An introduction to psychopharmacology and the process of drug addiction. Topics include
classification of abused and psychotherapeutic drugs, basic principles of pharmacology,
behavioral and physiological effects of drugs, major neurotransmitter systems and how they
are influenced by drugs.

Field trips are not required. (A-F or P/NP - Student choice) Lecture

Transfer: (CSU)

II. LEARNING CONTEXT
Given the following learning context, the student who satisfactorily completes this course should be able to achieve the
goals specified in Section III, Desired Learning:

A. COURSE CONTENT

1. Required Content:

   a. Classifications of abused and psychotherapeutic drugs
   b. Neuroanatomy, neurophysiology, and organization of the nervous system
   c. Basic principles of pharmacology
   d. Stimulants
   e. Depressants and inhalants
   f. Psychotherapeutics: Antidepressants and Antipsychotics
   g. Alcohol
   h. Tobacco
   i. Caffeine
   j. Opiates
   k. Hallucinogens
   l. Marijuana

2. Recommended Content:

   a. Dependence and addiction
   b. DSM Criteria for Substance Dependence
B. **ENROLLMENT RESTRICTIONS**

1. **Advisories**

Before enrolling in this course, students are strongly advised to satisfactorily complete HUMSR 116 or PSYCH 101.

C. **HOURS AND UNITS**

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<th>INST METHOD</th>
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D. **METHODS OF INSTRUCTION (TYPICAL)**

*Instructors of the course might conduct the course using the following method:*

1. Lecture
2. Class discussion
3. Guest speakers
4. Media presentations

E. **ASSIGNMENTS (TYPICAL)**

1. **EVIDENCE OF APPROPRIATE WORKLOAD FOR COURSE UNITS**

*Time spent on coursework in addition to hours of instruction (lecture hours)*

a. Weekly readings in textbook and published articles.

b. Preparation for quizzes and exams through reading textbook, study guides, practice quizzes, reviewing notes and preparing article summaries.

2. **EVIDENCE OF CRITICAL THINKING**

*Assignments require the appropriate level of critical thinking*

a. Discuss the relationship between the Effective Dose 50 (ED50) and Lethal Dose 50 (LD50).

b. Compare and contrast drug disposition (metabolic) tolerance and pharmacodynamic tolerance.

c. Discuss the evidence for the dopamine theory of schizophrenia.

d. Describe and explain Nesbitt's Paradox.

e. Compare and contrast the mechanism of action of barbiturates and benzodiazepines.

F. **TEXTS AND OTHER READINGS (TYPICAL)**

III. **DESIRED LEARNING**

A. **COURSE GOAL**
As a result of satisfactory completion of this course, the student should be prepared to:

describe and explain nervous system functioning and identify the actions of drugs on different neurotransmitter systems.

B. **STUDENT LEARNING GOALS**
Mastery of the following learning goals will enable the student to achieve the overall course goal.

1. **Required Learning Goals**
   Upon satisfactory completion of this course, the student will be able to:
   
   a. Define and describe the characteristics of a psychoactive drug.
   
   b. Identify the major behavioral classifications of psychoactive drugs.
   
   c. Explain concepts of pharmacology, including principles of drug action, drug safety, and toxicity.
   
   d. Explain drug absorption, distribution, metabolism, elimination, half-life, effectiveness and potency.
   
   e. Describe the process of synaptic transmission.
   
   f. Explain the mechanisms of drug action on synaptic transmission and receptor function.
   
   g. Identify major neurotransmitter systems and explain how these are affected by psychoactive drugs.
   
   h. Compare and contrast the physiological, behavioral, and dependence-producing effects of psychoactive drugs.

IV. **METHODS OF ASSESSMENT (TYPICAL)**

A. **FORMATIVE ASSESSMENT**
   1. Objective tests and quizzes.
   
   2. Class presentations.
   
   3. Written projects.
   
   4. Term papers.

B. **SUMMATIVE ASSESSMENT**
   1. Objective tests and quizzes.
   
   2. Oral presentations.
   
   3. Written analysis of published research reports in pharmacology.
   
   4. Comprehensive final exam based on short-answer and multiple-choice questions.