

Saint Louis University
Madrid Campus

Psychopharmacology PSY-414

Lecturer: Dr. Anya M. Hillery
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Semester: Fall 2014
Credits: 3
Timetable: 12.30-13.45 (Tues, Thurs)
Padre Rubio Hall, Room 10
Office hours: 12.00 – 14.00 (Wed)
Other times arranged by request.
Office Location: Science Office, Padre Arrupe Hall (first floor)
Text: Maisto, S. A., Galizio, M., & Connors, G. J. (2011).
Drug use and abuse. 5th edition. Wadsworth.

Course Objective:

To provide a basic introduction to psychopharmacology: the study of the effects of drugs on the brain and human behaviour.

Learning Outcomes:

At the end of the course you should be able to:

- understand the concepts of drugs, drug use, drug dependence and drug abuse
- identify social, psychological and physical consequences of drug-taking on the individual and society
- understand the origins and changes in drug use in society
- understand the anatomy and physiology of the nervous system, neurons, neural transmission and neurotransmitter systems; and thus how psychoactive drugs work in the brain and produce their effects
- understand the principles of pharmacokinetics, with particular respect to routes of drug administration and the ADME processes
- understand the principles of pharmacodynamics
- understand the principles of drug testing
- understand behavioural pharmacology, drug user and environmental effects
- understand the history, pharmacokinetics, mechanism of action, and effects, of various drugs and drug classes on the individual. These drug classes include: cocaine, amphetamines and related stimulants; the opiates; alcohol; nicotine; hallucinogens; marijuana, caffeine; psychotherapeutic medications (including anti-anxiety, sedatives, anti-psychotics, anti-depressants, mood-stabilizing drugs); other prescription and OTC drugs
- describe the different methods of treatment and prevention of drug-abuse and to discuss ways of educating the public as to the outcomes of taking drugs

Description of the Course:

The course is divided into 3 main parts:

Part I. An introduction to psychopharmacology

Part II: Study of individual drugs and drug classes

Part III: Clinical Considerations: Psychotherapeutics; Treatment and Prevention of substance-use disorders

Course Contents & Time-line:

Part 1: Weeks 1 - 5: An Introduction to Psychopharmacology

General concepts: drugs, classification, drug use, drug dependence and abuse

Origins and changes in drug use in society, legal aspects

The nervous system and drug-receptor interactions

Pharmacokinetics and pharmacodynamics

Behavioural pharmacology

Part II: Weeks 6 - 11: Drug Classes

Week 5 & 6: Cocaine, amphetamines and related stimulants

Week 6 & 7: Opiates

Week 8: Alcohol

Week 9: Nicotine

Week 10: Hallucinogens

Week 11: Marijuana

Part III: Weeks 12 - 15: Clinical Considerations

Week 12: Psychotherapeutic medications

Week 13 & 14: Treatment of substance-use disorders

Week 15: Prevention of substance abuse

The Examinations:

There are three main exams for this course: two mid-terms and a final exam.

The exams are not cumulative, thus the first mid-term will examine the material covered up to this exam. The second mid-term will examine the material covered *after* the first mid-term and the final exam will examine the material covered *after* the second mid-term.

However, there is also a comprehensive final exam that examines **all** of the course material. This exam is obligatory for students who fail or miss either mid-term exam. It is voluntary for any students who, having done their mid-terms, would like to try and improve their grade (but a poor result may obviously reduce the grade).

Students who miss an exam are required to provide written documentation of the circumstances, e.g. doctor's medical certificate, letter from university counsellor, etc.

There will also be two Quizzes, taken in class, a week before the two mid-terms. The aim of these quizzes is to encourage study and revision for the mid-terms.

Important Dates!

- First Quiz: Thursday 2 October
- First Mid-Term: Thursday 9 October
- Second Quiz: Thursday 6 November
- Second Mid-Term: Thursday 13 November
- Final Exam: **Tuesday 16 December** (12.00-15.00).

Grades:

The final grade is calculated as follows:

- First mid-term: 20%
- Second mid-term: 20%
- Final exam: 20%
- Quizzes: 20% (10% each)
- Group Assignments: 15%

There are three group assignments, worth 5% each, based on nicotine, alcohol and marijuana. More information on these assignments will be given in class.

Class attendance is obligatory. Absence from class must be accounted for. More than four unaccountable absences will result in a drop in the final grade. Continual lateness to class is disruptive and not acceptable.

Texts and other Learning Resources

The following books, stocked in the library, are also recommended:

- Drug use and abuse, 6th edition, (Maisto, Galzo, Connor)
- Psychopharmacology: drugs, the brain and behaviour (Meyer and Quenzer)
- Understanding drugs and behaviour (Parrott)
- Annual Editions: Drugs Society and Behavior 2009/2010
- A Primer of Drug Action: a Concise, Non-Technical Guide to the Actions, Uses and Side Effects of Psychoactive Drugs (Julien)
- Basic Psychology (Gleitman, Fridlund and Reisberg)
- Pharmacology for Nursing Practice (Guierrez and Queener)
- Principles of Anatomy and Physiology (Tortora & Grabowski)
- Drug Delivery and Targeting for Pharmacists and Pharmaceutical Scientists (Hillery, Lloyd and Swarbrick)

The library also holds the DVDs *Rent* and *Trainspotting*

Relevant websites will be recommended throughout the course.

Extensive use of the SLU Blackboard Learning System will be employed: <http://slu.blackboard.com>. All lectures will be posted there, as well as many additional support features (including lecture summaries and tutorials) and it should be checked daily for announcements.

Statement on Academic Honesty:

The University is a community of learning, whose effectiveness requires an environment of mutual trust and integrity, such as would be expected at a Jesuit, Catholic institution. As members of this community, students, faculty, and staff members share the responsibility to maintain this environment. Academic dishonesty violates it. Although not all forms of academic dishonesty can be listed here, it can be said in general that soliciting, receiving, or providing any unauthorized assistance in the completion of any work submitted toward academic credit is dishonest. It not only violates the mutual trust necessary between faculty and students but also undermines the validity of the University's evaluation of students and takes unfair advantage of fellow students. Further, it is the responsibility of any student who observes such dishonest conduct to call it to the attention of a faculty member or administrator.

Examples of academic dishonesty would be *copying from another student, copying from a book or class notes during a closed-book exam, submitting materials authored by or editorially revised by another person but presented as the student's own work, copying a passage or text directly from a published source without appropriately citing or recognizing that source, taking a test or doing an assignment or other academic work for another student, tampering with another student's work, securing or supplying in advance a copy of an examination without the knowledge or consent of the instructor, and colluding with another student or students to engage in an act of academic dishonesty.*

Where there is clear indication of such dishonesty, a faculty member or administrator has the responsibility to apply appropriate sanctions. Investigations of violations will be conducted in accord with standards and procedures of the school or college through which the course or research is offered. Recommendations of sanctions to be imposed will be made to the dean of the school or college in which the student is enrolled. Possible sanctions for a violation of academic integrity include, but are not limited to, disciplinary probation, suspension, and dismissal from the University. Students should review the College of Arts and Sciences policy on Academic Honesty, which can be accessed on-line at <http://www.slu.edu/colleges/AS/> under "Quicklinks for Students".

Disability Statement

In recognition that people learn in a variety of ways and that learning is influenced by multiple factors (e.g., prior experience, study skills, learning disability), resources to support student success are available on campus. Students who think they might benefit from these resources can find out more about: Course-level support (e.g., faculty member, departmental resources, etc.) by asking your course instructor. University-level support (e.g., tutoring/writing services, Disability Services) by visiting the Academic Dean's Office (San Ignacio Hall) or by going to http://spain.slu.edu/academics/learning_resources.html. Students who believe that, due to a disability, they could benefit from academic accommodations are encouraged to contact Disability Services at +34 915 54 58 58, ext. 204, send an e-mail to counselingcenter-madrid@slu.edu, or to visit the Counselling Office (San Ignacio Hall). Confidentiality will be observed in all inquiries. Course instructors support student accommodation requests when an approved letter from Disability Services has

been received and when students discuss these accommodations with the instructor after receipt of the approved letter.

Collection of Student Work for Assessment

Saint Louis University - Madrid Campus is committed to excellent and innovative educational practices. In order to maintain quality academic offerings and to conform to relevant accreditation requirements, we regularly assess our teaching, services, and programs for evidence of student learning outcomes achievement. For this purpose we keep on file anonymized representative examples of student work from all courses and programs such as: assignments, papers, exams, portfolios, and results from student surveys, focus groups, and reflective exercises. Thus, copies of your work for this course, including exams, oral presentations, written assignments, surveys and submitted papers, may be kept on file for institutional research, assessment and accreditation purposes. If you prefer that Saint Louis University-Madrid Campus does not keep your work on file, you will need to communicate your decision in writing to your professor.