

	Psy	657	001	Syllabus for Clinical Psychopharmacology
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Instructor: Errol Yudko, Ph.D.

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Office: UCB 261

Class Meets:

Online			
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Course Description:

This class will be delivered online. Students will be expected to read from their assigned readings, view lecture, discuss the material provided at a professional level and respond to specific questions on essay exams that demonstrate mastery of the material.

Textbook

The text is required reading.

Julien's Primer of Drug Action 15th Edition
by Claire D. Advokat (Author), Joseph E. Comaty (Author), Robert M. Julien Ph.D.
(Author)
Worth Publishers

This one is optional, but worth buying:

Handbook of Clinical Psychopharmacology for Therapists, Preston, Oneal, and Talaga

Course Objectives:

1. understand the basic principals of psychopharmacology as they pertain to psychotherapeutic drugs
2. understand the functions of metabotropic and ionobotropic receptors as they pertain to psychotherapeutic drugs
3. distinguish between the major classifications of neurotransmitters as they pertain to psychotherapeutic drugs
4. contrast agonist and antagonist drugs and describe how various drugs act as agonists and antagonists at various neurotransmitter receptors as they pertain to psychotherapeutic drugs
5. contrast direct and indirect actions of psychotherapeutic drugs
6. Develop mastery of the concepts pertaining to physiological, experiential, and behavioral effects and side effects of major drug classes that are used to treat psychopathology.
7. Understand the biological basis for psychopathology
8. Master the concepts pertaining to the effects of drug therapy on altering abnormal behavior

Lecture Schedule

Date	Topic	Reading Assignment
	Week 1: Pharmacokinetics	Julien Ch. 1
	Week 2: Neurotransmission	Julien Ch. 2
	Week 3: Pharmacodynamics	Julien Ch. 3
	Week 4: The Endocrine System	Sapolsky 2003
	The Limbic System	
	The Physiology of Stress	
	Stress, memory, and Depression	
	Week 5: Depressive Disorders	Julien Ch. 12
	Diagnostic Considerations	Preston chapters 7
	Antidepressant Medications	
	Epigenetics	Handout
	Week 6: BPD, PTSD, BD	Paris 2005
	PTSD	Preston Chapter 12
	Bipolar Disorder	Julien Ch. 14
	Mood Stabilizers	Julien Ch. 14
	Diagnostic Considerations	Preston Ch. 8
	Epigenetics	Handout
	Week 7: Midterm Exam	

	Week 8: The GABA-BZP receptor and systems	Blanchard, Yudko, & Blanchard 1993
	Diagnostic Considerations	Preston Chapter 9
	Anxiolytics	Julien Ch. 5 & 13
	Obsessive-Compulsive Disorder	Preston Chapter 10
	Week 9: The Dopamine System	Julien Ch. 4 & 7
	Psychotic Disorders	Julien Ch. 11
	Antipsychotic Medications	Julien Ch. 11
	Parkinson's Disease and its treatment	Julien Ch. 16
	Diagnostic Considerations	Preston Chapter 11
	Spring Break	
	Week 10: Substance Related Disorders	Julien Ch 4
	Pharmacotherapy for substances	
	Reward Pathways	Julien Ch 4
	Addiction and Endocrinology	
	GABA	Julien Ch. 13
	Pharmacotherapy for alcohol addiction	
	Week 11: Treating the Elderly	Julien Ch. 17
	Acetylcholine systems of the brain	
	Alzheimer's Disease and its treatment	Lleo 2006
	Week 12: Opiate systems of the Brain	Julien Ch. 10
	Pharmacotherapy for opiate addiction	Julien Ch. 10
	Week 13: Pediatrics	Julien ch 16
		Preston Ch 1-7
	Week 15: Marijuana	Julien Ch. 9
	Week 16: Psychedelic Drugs	Julien Ch. 8
	Final Exam	

Grading Policy

Two essay exams will be given. The exams will be equally weighted to determine the final score.

90%-100% A

80%-89% B

70%-79% C

60%-69% D

59% F

No Extra Credit will be made available.

Advising Statement

Advising is a very important resource designed to help students complete the requirements of the University and their individual majors. Students should consult with their advisor at least once a semester to decide on courses, check progress towards graduation, and discuss career options and other educational opportunities provided by UH-Hilo. Advising is a shared responsibility, but students have final responsibility for meeting degree requirements

Disability Statement

Any student with a documented disability who would like to request accommodations should contact the University Disability Services Office - Campus Center Rm 311, 933-0816 (V), 933-3334 (TTY) - as early in the semester as possible.

Additional Readings:

Blanchard RJ, Yudko, E.B., Rodgers, R.J., Blanchard, D.C. Defense system psychopharmacology: an ethological approach to the pharmacology of fear and anxiety. Behav Brain Res, 1993 Dec 20; Vol. 58 (1-2), pp. 155-65

Lléo, A.; Greenberg, S. M.; Growdon, J. H. CURRENT PHARMACOTHERAPY FOR ALZHEIMER'S DISEASE. By:. Annual Review of Medicine, 2006, Vol. 57 Issue 1, p513-533, 21p;

Paris, Joel. Recent Advances in the Treatment of Borderline Personality Disorder. Canadian Journal of Psychiatry, Jul2005, Vol. 50 Issue 8, p435-441, 7p

Yudko E, Blanchard, R.J. & Blanchard, D.C. Emerging themes in preclinical research on alcohol and aggression, Recent Dev Alcohol, 1997; Vol. 13, pp. 123-38

Boylan, Romero, & Birmaher. Psychopharmacologic treatment of pediatric major depressive disorder. Psychopharmacology (2007) 191: 27-38.

Goodman, Murphy, & Storch. Risk of adverse behavioral effects with pediatric use of antidepressants. Psychopharmacology (2007) 191: 87-96.

Iva B Zovkic¹ and J David Sweatt Epigenetic Mechanisms in Learned Fear: Implications for PTSD Neuropsychopharmacology REVIEWS (2013) 38, 77–93

K. Kamenov^{1,2}, C. Twomey³, M. Cabello^{1,2}, A. M. Prina⁴ and J. L. Ayuso-Mateos The efficacy of psychotherapy, pharmacotherapy and their combination on functioning and quality of life in depression: a meta-analysis Psychological Medicine (2017), 47, 414–425

Javier Gonzalez-Maeso,^{1,7} Noelia V. Weisstaub,^{3,4,5,7} Mingming Zhou,⁴ Pokman Chan,¹ Lidija Ivic,¹ Rosalind Ang,¹ Alena Lira,⁴ Maria Bradley-Moore,⁴ Yongchao Ge,^{1,2} Qiang Zhou,¹ Stuart C. Sealfon,^{1,2} Hallucinogens Recruit Specific Cortical 5-HT_{2A} Receptor Mediated Signaling Pathways to Affect Behavior and Jay A. Gingrich^{4,5,6} Neuron 53, 439–452, February 1, 2007 ^a2007

Reinblatt & Riddle. The pharmacological management of childhood anxiety disorders: a review. Psychopharmacology (2007) 191: 67-86.

Smarty & Findling. Psychopharmacology of pediatric bipolar disorder: a review. Psychopharmacology (2007) 191: 39-54.

Kathryn E. Speera, Stuart Semplea, Nenad Naumovskic, Nathan M. D'Cunhaa, Andrew J. McKune HPA axis function and diurnal cortisol in post-traumatic stress disorder: A systematic review Neurobiology of Stress Volume 11, November 2019, 100180

Nora D. Volkow, M.D., Maureen Boyle, Ph.D. Neuroscience of Addiction: Relevance to Prevention and Treatment Am J Psychiatry 175:8, August 2018

Rafael G. dos Santos, Jaime E. C. Hallak,
and José Alexandre S. Crippa Neuropharmacological Effects
of the Main Phytocannabinoids: A Narrative Review Springer Nature Switzerland AG
2021 E. Murillo-Rodriguez et al. (eds.), Cannabinoids and Neuropsychiatric Disorders,
Advances in Experimental Medicine and Biology 1264