Rutgers Graduate School of Biomedical Sciences New Brunswick/Piscataway
RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY
Fall 2016 (2 Credits)
Course Syllabus

Course Title: Neurobiology of Addiction

Course Director: Dr. Anthony Tobia
Associate Professor, Dept. of Psychiatry
Clinical Associate Professor, Division of General Internal Medicine
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Course Schedule: day and time TBD, fall 2016

Credits: 2

I. Course Overview

This 2-credit course provides an overview of the principles of substance-related disorders and the mechanisms that underlie addiction. Students will be introduced to the epidemiology and developmental course of addiction, risk and protective influences that act on the course of addiction and its adverse health consequences. Both genetic and environmental underpinnings will be discussed. Effective interventions and treatment modalities will also be briefly discussed. Finally, while the emphasis of the course is on addiction to substances (alcohol, tobacco, illicit drugs), the emerging class of non-substance addictive behaviors (sex addiction, internet/gaming, and pathological gambling) will also be presented. What distinguishes this course from other post-baccalaureate curricula is that we supplement traditional classroom didactic with a discussion of selected media and anime.

II. Learning Objectives

Upon successful completion of this course, students will be able to:

- Recognize the role of the CAGE questions in screening for at-risk drinking
- Differentiate between elevated liver enzymes due to chronic alcohol ingestion versus viral etiology
- Identify standard drink equivalents
- Identify physical sequelae of liver failure
- Recognize benzodiazepine overdose and its recommended treatment
- Identify the mechanism of action of Disulfiram
- Distinguish between alcohol withdrawal delirium and alcoholic hallucinosis
- Recognize acute intoxication syndromes of alcohol and substances of abuse
- Identify the acute withdrawal syndromes of alcohol and substances of abuse
- Recognize the signs of opioid intoxication and withdrawal
- Recognize the signs of inhalant intoxication
- Recognize the signs of stimulant intoxication and withdrawal
- Recognize the signs of hallucinogen intoxication
- Discuss how sex addiction and gambling disorder are related to addiction medicine
III. Course Structure

This course will meet weekly on [day and time TBD] during the Fall Semester. The course will use a combination of lectures, discussions, and analyses of cases studies.

IV. Course Text:

Kaplan and Sadock, Synopsis of Psychiatry, 9th ed., 2003, Lippincott Williams & Wilkins

V. Course Topics:

<table>
<thead>
<tr>
<th>Alcohol Use Disorder</th>
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<tr>
<td>Alcohol-Induced Disorders</td>
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<td>Fetal Alcohol Syndrome</td>
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<td>Cocaine-Induced Disorders</td>
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<td>Amphetamines &amp; Synthetic Mephadrone</td>
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<td>Heroin-Induced Disorders</td>
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<td>LSD Use Disorder</td>
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<td>DMT, NMDA &amp; other Club Drugs</td>
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<td>PCP Use Disorder</td>
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<tr>
<td>Sex Addiction</td>
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<td>Cannabis Use Disorder</td>
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<td>Inhalant Use Disorder</td>
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<td>Nicotine Use Disorder</td>
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<td>Caffeine Use Disorder</td>
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<td>Gambling Disorder</td>
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VI Assessment and Grading: A, B+, B, C+, C and F

VII Assessment and Grading

The final grade will be determined by an average of mid-term and (non-comprehensive) final exams. Students will also be given the opportunity to earn extra credit by tweeting clinically relevant topics with the hashtag to be determined.

Students are required to take all regularly scheduled examinations. Excused absences from these exams, due of illness or family emergency may be granted only by the MS/MBS Program Director.
In the event of illness or emergency, students should contact the MS/MBS Program Director as soon as possible. If an excuse is granted, the Program Director will notify the course director. Make-up examinations will be given only to students whose absence from an examination is judged by the Program Director to be for valid cause. Otherwise the exam score will be recorded as zero.

Planned absences such as Medical School Interviews, religious observations, etc that conflict with an exam must be scheduled at least one week prior to the exam and are granted at the course director's discretion.

Make-up exams will be made available to students granted an excused absence.

**VIII Course Evaluation:** This course will be evaluated by online survey as administered by the MBS/MSBS program.