## Senate Committee on Curricular Affairs
### Course Submission and Consultation Form

**Principal Faculty Member(s) Proposing Course**

<table>
<thead>
<tr>
<th>Name</th>
<th>User ID</th>
<th>College</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jessica Petko</td>
<td>jac554</td>
<td>University College (UC)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Amber Jean Seidel</td>
<td>ajs49</td>
<td>University College (UC)</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

**Academic Home:** University College (UC)

**Type of Proposal:** [ ] Add  [ ] Change  [ ] Drop

**Message for Reviewers:**

### Course Designation

(HHD 200N) Addiction Science to Society

### Course Information

**Cross-Listed Courses:**

None

**Prerequisites:**

None

**Corequisites:**

None

**Concurrents:**

None

**Recommended Preparations:**

None

**Abbreviated Title:** Addiction

**Discipline:** General Education

**Course Listing:** Inter-Domain

### Special categories for Undergraduate (001-499) courses

#### Foundations

- [ ] Writing/Speaking (GWS)
- [ ] Quantification (GQ)

#### Knowledge Domains

- [ ] Health & Wellness (GHW)
- [ ] Natural Sciences (GN)
- [ ] Arts (GA)
- [ ] Humanities (GH)
- [ ] Social and Behavioral Sciences (GS)

#### Additional Designations

- [ ] Bachelor of Arts
- [ ] International Cultures (IL)
- [ ] United States Cultures (US)
- [ ] Honors Course
Course Outline

A brief outline or overview of the course content:
This course aims to inform students on the biological, psychological, and sociological viewpoints of addiction and how they interact for an integrated perspective (the biopsychosocial model). The course will begin with an overview of the definitions used by professionals in different areas of study. Throughout the semester students will broadly explore basic concepts in biology (cells, neural communication, brain anatomy, use of animal models, pharmacology, genetics, epigenetics, and comorbidity), psychology (memory, conditioning, reward, expectancy, bias, and mental health) and sociology (family systems theory, stress theory, developmental theory, feminist theory). These concepts will then be practically applied to various questions concerning 1. The status of addiction as a disease. 2. How addiction is or should be treated. 3. The effects of addiction on family and society. 4. Policies concerning the criminalization of drugs and compulsive behaviors. In addition, methods and data from primary research in all three domains of the biopsychosocial model will be analyzed. Assignments and projects utilizing oral, visual, and written forms of communication will serve to illustrate connections within the biopsychosocial model and assess integrated learning. Lastly, at several points in the course, students will be asked for a comprehensive definition of addiction. At the beginning, it is expected that for many, this definition will reflect current knowledge, personal observations, misconceptions, and an incomplete view of addiction. Throughout the semester, as the knowledge base grows, it is expected definitions will evolve to include evidence-based arguments or statements in their definitions.

A listing of the major topics to be covered with an approximate length of time allotted for their discussion:
Defining addiction (1 week)
Psychology of addiction – learning, memory, and expectancy (1 week)
Animal behavior and the brain – animal models, brain anatomy, reward system (1 week)
Neural communication (1 Week)
Classes of drugs (2 weeks)
Nature vs Nurture (1 week)
Mental health comorbidities (1 week)
Effects of families (1 Week)
Treatments and Quitting (2 weeks)
Impact on society (1 week)
Policy (1 week)
Exams and assignment discussions (2 weeks)

Course Description:
Addiction is commonly defined as set of compulsive behaviors that cannot be stopped despite negative consequences. The term itself is controversial and defined differently by various disciplines. This has resulted in skewed perceptions of addiction by society as a whole. This course aims to inform students on the biological, psychological, and sociological viewpoints of addiction and how they interact to form an integrated perspective (the biopsychosocial model). By understanding the current knowledge on the biological and psychological bases of addiction, students will be better prepared to make knowledgeable decisions on their own behaviors, understand the behavior of others, and generate informed opinions on the social aspects of addiction. We will begin by comparing and contrasting the different ways addiction has been defined in various fields and exploring the debate on which
Throughout the course, students will broadly explore basic concepts in biology (cells, neural communication, brain anatomy, use of animal models, pharmacology, genetics, epigenetics, and comorbidity), psychology (memory, conditioning, reward, expectancy, bias, and mental health) and sociology (family systems theory, stress theory, developmental theory, feminist theory). These concepts will be practically applied to various questions concerning: 1. The status of addiction as a disease. 2. How addiction is or should be treated. 3. The effects of addiction on family and society. 4. Policies concerning the criminalization of drugs and compulsive behaviors. In addition, methods and data from primary research in all three domains of the biopsychosocial model will be analyzed. Several assignments using various forms of communication will serve to illustrate the connections and assess integrated learning.

The name(s) of the faculty member(s) responsible for the development of the course:

- Name: Amber Jean Seidel (ajs49)
- Title:
- Phone:
- Address:
- Campus: YK
- City:
- Fax:
- Name: Jessica Petko (jac554)
- Title:
- Phone:
- Address:
- Campus: YK
- City:
- Fax:

Course Justification

Instructional, Educational, and Course Objectives:
This section should define what the student is expected to learn and what skills the student will develop.

The major goals of this course are for students to understand how the biopsychosocial model applies to addiction and to be able to effectively communicate these connections. This course aims to inform students on the biological, psychological, and sociological viewpoints of addiction and how they interact to form an integrated perspective. The following is a list of the course objectives, each are described in further detail within the syllabus.

1. Explore the defining characteristics of an addiction and what types of things can be addicting throughout the semester allowing students to evaluate and re-evaluate their definition of addiction in light of newly gained knowledge.
2. Explain methods and evaluate data from the fields of biology, psychology, sociology, and family studies as they relate to addiction.
3. Gain experience using biological, psychological, sociological data to make evidence-based arguments about scientific and social aspects of addiction.
4. Identify societal, philosophical, and ethical implications of discoveries and their potential to address contemporary problems.
5. Identify and discuss social theoretical perspectives as they relate to addiction and family relationships.
6. Compare and contrast the effects of nature and nurture on the likelihood someone will become addicted.
7. Outline the biopsychosocial model and how topics explored in the course overlap with and connect these three modes of study.
8. Apply information from theory and research to serve the individual, family, and society.

Evaluation Methods:
Include a statement that explains how the achievement of the educational objective identified above will be assessed.

The procedures for determining students’ grades should be specifically identified.
In addition to traditional testing (a mix of multiple choice and short answer), and surveys of course content/quality, we will to assess contextual learning and integrative thinking multiple ways. Assignments will stress the connections between the biology, psychology, and sociology.

1. Topic mapping. Students will reflect on course lecture topics and readings (books, 12 step manuals, research papers) and categorize the content within a Venn Diagram of the biopsychosocial model to visualize domain overlap. We are currently exploring books that were written by physicians and scientists that have been themselves affected by addiction. These authors can provide information about all three aspects of addiction.
2. Debates. The first debate for this course will challenge to students to question whether addiction should be categorized as a “disease” based on the effects of addiction on the body, behavior, interpersonal relationships, and society. Another debate will be open to the campus community, and will examine the criminalization of substance use and behavioral addictions.
3. Visual media. Students will design public service announcements and infographic posters to help the campus and local community better understand specific types of addictions at each level of the biopsychosocial model.
4. Support group observation. With permission, students may also be asked to attend a family support group and/or an addiction recovery open support group in order to make social connections.
5. Pre- and post- testing. We will administer pretest at the beginning of the semester to gauge their current understanding (or misunderstanding) of addiction and its effect on families. A similar assessment will be administered at end of the semester to gauge growth throughout the semester.
6. Written assessments. Will include a semester-long tweaking of the definition of addiction and an in-depth comparisons of three different addictions (two drugs and a behavior).

In all of these assignments, the ability to verbalize the connections between the three fields of the biopsychosocial model in both
written and oral format will serve as basis for assessment. Projects will promote key literacies in areas such as quantitation, information/technology, health, history, aesthetic, and science.

Sample grading scheme:
- Media Project 10%
- 3 Exams 60%
- Topic Maps 6%
- Defining Addiction 4%
- Book Discussion 1 2%
- Book Discussion 2 2%
- Debate 1 5%
- Debate 2 5%
- Treatment Paper 6%

**Relationship/Linkage of Course to Other Courses:**
This statement should relate the course to existing or proposed new courses. It should provide a rationale for the level of instruction, for any prequisites that may be specified, or for the course’s role as a prerequisite for other courses.

The most similar current course to HHD 200: Addiction: Science to Society is BBH 143: Drugs, Behavior, and Health (GHA). From its course description, this course focuses on “Health aspects of use and abuse of licit and illicit drugs: related social problems and prevention.” This course is designed for non-BB H majors who want a fundamental understanding of health and social issues relating to drug and alcohol use and abuse." This proposed course differs from BBH 143 in several ways. Primarily, the focus here is its designation as a GHA and the proposed course will be an inter-domain course of GN and GS. Second, BBH 143 focuses on the substances themselves and the influence that they have on health. HHD 200, will focus on addiction and dependency as a process. While substances will be used as examples to demonstrate the biological, psychological, and sociological aspects of addiction, it is not the entire focus of the course material. Additionally, this course will explore the bidirectional family aspects of addiction through epigenetics, family history, codependency, and family theories related to addiction. Finally, as a 200-level designation, this course will delive into both animal and human models of inquiry. No prerequisites would be required for this course. Students who may choose to take both BBH 143 and HHD 200 would benefit from the depth of understanding the process of dependency and addiction from HHD 200 in addition to the knowledge of the substances and health implications from BBH 143. Other more advanced courses exist in a variety of departments that may overlap in some way. This course as a Gen Ed could serve as an overview and introductory survey on what addiction and dependency are in general.

CRIM/HIST 469: Drugs and Drug Policy in the United States
CNED 416: Interpersonal Relationships and Alcohol and Other Drugs (AOD) Dependency
CRIM/CRIMJ 424: Drugs, Crime, and Society
HLHED/KINES 443: Alcohol and Drug Education
NURS 407: Drugs of Abuse and Mental Health
CNED 422: Foundations of Addictions Counseling

Lastly, a graduate level course is being developed at the College of Medicine a collaborator which will aim to teach similar information at a level more appropriate for the Neuroscience and Biomedical science graduate student audience.

**Relationship of Course to Major, Option, Minor, or General Education:**
This statement should explain how the course will contribute to the major, option, or minor and indicate how it may function as a service course for other departments.

This course aims to fulfill General Education in the Natural and Social Science. The course is being designed for the new “Interdomain” category in light of recent General Education reforms. Its combination of the Natural and Social Science goals seeks to allow students to see the connections among disciplines in the spirit of the Integrative Studies requirement. It’s designation as HHD represents the fact that many departments we reached out to felt it would be a great inter-domain course complimenting their field, but not representing it exactly. These include HDFS, RHS, PSYCH, CRIMJ, BISC, BIOL, and BBH.

A description of any special facilities:
Seating for 30 students, and access to computer and projector.

**Frequency of Offering and Enrollment:**
Cap of 30 students, offered once every year. The cap of 30 enables in-depth discussion and debate.

**Alignment with General Education Objectives**

- **EFFECTIVE COMMUNICATION** – the ability to exchange information and ideas in oral, written, and visual form in ways that allow for informed and persuasive discourse that builds trust and respect among those engaged in that exchange, and helps create environments where creative ideas and problem-solving flourish.
- **KEY LITERACIES** – the ability to identify, interpret, create, communicate and compute using materials in a variety of media and contexts. Literacy acquired in multiple areas, such as textual, quantitative, information/technology, health, intercultural, historical, aesthetic, linguistic (world languages), and scientific, enables individuals to achieve their goals, to develop their knowledge and potential, to lead healthy and productive lives, and to participate fully in their community and wider society.
- **CRITICAL AND ANALYTICAL THINKING** – the habit of mind characterized by comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating a conclusion. It is the intellectually disciplined process of conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.
- **INTEGRATIVE THINKING** – the ability to synthesize knowledge across multiple domains, modes of inquiry, historical periods, and perspectives, as well as the ability to identify linkages between existing knowledge and new information. Individuals who engage in integrative thinking are able to transfer knowledge within and beyond their current contexts.
- **CREATIVE THINKING** – the capacity to synthesize existing ideas, images, or expertise in original ways and the
experience of performing, making, thinking, or acting in an imaginative way that may be characterized by innovation, divergent thinking, and intellectual risk taking.

GLOBAL LEARNING – the intellectually disciplined abilities to analyze similarities and differences among cultures; evaluate natural, physical, social, cultural, historical, and economic legacies and hierarchies; and engage as community members and leaders who will continue to deal with the intricacies of an ever-changing world. Individuals should acquire the ability to analyze power; identify and critique interdependent global, regional, and local cultures and systems; and evaluate the implications for people’s lives.

SOCIAL RESPONSIBILITY AND ETHICAL REASONING – the ability to assess one’s own values within the social context of problems, recognize ethical issues in a variety of settings, describe how different perspectives might be applied to ethical dilemmas, and consider the ramifications of alternative actions. Individuals should acquire the self- knowledge and leadership skills needed to play a role in creating and maintaining healthy, civil, safe, and thriving communities.

What component(s) of the course will help students achieve the General Education Learning Objectives covered in the course? Provide evidence that students in the course have adequate opportunities to achieve the identified learning objectives.

EFFECTIVE COMMUNICATION – students will exchange information and ideas regarding the biological, psychological, and sociological aspects of addiction in oral, written, and visual forms. Orally, students will participate in class discussions and two class debates. Students will be taught regarding appropriate discourse, respect for differing opinions, and the importance of background study to prepare for discussions and debates. Second, students will have opportunities to express ideas in a written format through essays and personal reflection. Finally, students will engage in visual communication through designing public service announcements and infographic posters to help the campus and local community better understand specific types of addictions at each level of the biopsychosocial model allowing students to exercise their creativity.

INTEGRATIVE THINKING – parammto an inter-domain course is the goal to have students practice synthesizing knowledge across multiple domains. In HHD 200, the course is designed topically to address the addiction process from the natural and social sciences simultaneously so students can see the integrative thinking process in play. Moreover, students will apply both natural and social science methods of inquiry learning similarity and differences between them as animal and human models are explored. On a weekly basis, students will be asked to apply the material to each individual and overlapping aspect of biopsychosocial model (a Venn Diagram). This will assist them in transferring their knowledge between their current context and beyond to other contexts.

SOCIAL RESPONSIBILITY AND ETHICAL REASONING – addiction is an issue that is in the forefront of our society and media. As such, students may have been exposed to different information and have their own ideas and values to reconcile and integrate into the course. Having knowledge of the addiction process will help them to navigate the information they are exposed to and evaluate it. Class discussion and debates will allow a structured avenue for students to approach the ethical dilemmas within the field of addiction. Students will need to prepare themselves for the debates and will need to describe both sides to assist them in learning perspective taking. Moreover, as an integrated natural and social science course, natural science perspectives and explanations of social issues as well as social science perspectives of biological processes will be a part of course lectures and materials. Learning to take not only others’ personal perspectives, but views from different disciplinary perspectives will assist students in acquiring leadership skills and participate in creating and maintaining healthy, civil, safe, and thriving communities.

How will students be assessed to determine their attainment of the Learning Objective(s) of General Education covered in this course? This assessment must be included as a portion of the student’s overall performance in this course.

EFFECTIVE COMMUNICATION – First, for oral communication, students will be assessed through their in-class discussions and debates. Students will receive prompts to respond to and faculty will evaluate how well the present their ideas to the class. Students will be evaluated on both content and appropriate level of communication in an open setting. Two example prompts include “Should addiction be considered a disease?” and “is criminalization of those with addictions helpful?” Second, students will write essays and personal reflection. For example, at the beginning of the semester, in the middle, and at the end, they will be asked to define addiction. The purpose is for them to see their growth. It will be graded on clarity of expression and grammar. Students will also reflect on readings and class activities. These reflections will be graded on their ability to apply course concepts to personal experiences and the world around them. They will also be graded on clarity and grammar. Finally, students will use visual communication by designing public service announcements and infographic posters. A key goal for this communication is for them to exercise their creativity and to deliver the content in a way that meets the needs of the community. As such, this assignment will be graded on creativity, appropriateness for the audience, and clarity in expression.

INTEGRATIVE THINKING – To assess integrative thinking, students will be asked to apply the weekly material to each individual and overlapping aspect of biopsychosocial model (a Venn Diagram). They will use a Venn Diagram with Biological, Psychological, and Sociological circles. Students will take material from each week and place it into the model. This weekly assignment will assess their ability to integrate as they fill the overlapping portions of the Venn Diagram. Students will also demonstrate integrative thinking through the infographic poster/public service announcement assignment. They will need to look at all aspects (biopsychosocial) regarding one particular substance or behavior and create an integrated informative piece. Students will also take quizzes throughout the semester to assess their knowledge in both domains. Example questions include, “Neurotransmitters are stored in packages known as: a) Axons; b) Receptors; c) Boutons; d) Dendrites; e) Vesicles”, “Alcohol prohibition resulted from which constitutional amendment? a) 17th; b) 18th; c) 19th; d)20th; e) 21st”

SOCIAL RESPONSIBILITY AND ETHICAL REASONING – Social responsibility for making a difference in the world will be demonstrated through their personal reflections and infographic poster/public service announcement. They will have the opportunities to express the ideas they have learned in a way that they can continue to educate themselves and others regarding addiction. Class discussion and debates will allow a structured avenue for students to approach the ethical dilemmas within the field of addiction. Students will need to prepare themselves for the debates and will need to describe both sides to assist them in learning perspective taking. Students will be graded on clarity of expression, respect for others’ ideas, and content. Students will be required to write out their argument before the debate. The written and oral portion will be evaluated.

General Education Domain Criteria

General Education Designation: Inter-Domain

GN Criteria
Evidence based explanations for linking biology to behavior come from studying the effects of these manipulations on disease. Students will reflect on course lecture topics and readings (books, 12 step manuals, research papers) and these authors can provide. We cover key theories from these three areas including attachment, systems, life course, and ecological enrichment environments (positive). For example, altered brain chemistry during addiction induces compulsive drug seeking despite negative consequences (Bio/Psych). Enriched environments (positive social interactions) produce chemical changes in the brain that protect individuals from addiction (Bio/Social). Peer pressure can initiate and reinforce addictive behaviors (Psych/Social). These connections will be emphasized throughout lectures and assignments as described in the assessment section.

**What components of the course will help students achieve the domain criteria selected above?**

Students of HHD 200 will gain an understanding of how addiction is generated by the molecules, cells, and tissues of the body. Methods of inquiry are central to understanding how scientists learn about the biological basis of addiction and utilize a combination of pharmacological, anatomical, and molecular manipulation paired with animal behavior which is traditionally explored in the field of psychology. Evidence based explanations for linking biology to behavior come from studying the effects of these manipulations on behavior. Students will demonstrate knowledge of the scientific method by analyzing data figures from primary literature. They will also examine the discrepancies between data and how the media portray them. Students will be able to point out the use of proper controls and sample size. Ethical considerations of using humans and animals in research will be explored.

**GS Criteria**

- Explain the various methods of inquiry used in the social and behavioral sciences and describe how the contributions of these fields complement inquiry in other areas.
- Identify and explain major foundational theories and bodies of work in a particular area of social and behavioral sciences.
- Describe the ways in which many different factors may interact to influence behaviors and/or institutions in historical or contemporary settings.
- Explain how social and behavioral science researchers use concepts, theoretical models and data to better understand and address world problems.
- Recognize social, cultural, political and/or ethical implications of work in the social and behavioral sciences.

**What components of the course will help students achieve the domain criteria selected above?**

HHD 200 will explore the interrelationship for multiple factors that shape behavior around addiction including psychological, social, and family factors. We cover key theories from these three areas including attachment, systems, life course, and ecological frameworks. These theories will assist in modeling how addiction may function in families, in society, and psychologically. Students will integrate these theories to better understand the world and social institutions in which they live. The topic of addiction will be covered at both the micro level (how it works in the brain and body) and the macro level (how it affects families, work, and the community) so that students can see the influences at the individual, group, organizational, local, and national level. The class discussions and debates will assist students in applying their knowledge to understand social cultural and ethical implications of addiction in society.

**Integrative Studies**

Explain how the intellectual frameworks and methodologies of the two Knowledge Domains will be explicitly addressed in the course and practiced by the students. This course will rely on the biopsychosocial model which attributes addiction to multiple levels of organization from molecules (bio); to behaviors, expectations, and perceptions (psycho); to the population impacted (social). For example, altered brain chemistry during addiction induces compulsive drug seeking despite negative consequences (Bio/Psych). Enriched environments (positive social interactions) produce chemical changes in the brain that protect individuals from addiction (Bio/Social). Peer pressure can initiate and reinforce addictive behaviors (Psych/Social). These connections will be emphasized throughout lectures and assignments as described in the assessment section. Demstrate that each of the two domains will receive approximately equal attention, providing evidence from course topics, assignments, or other course components, and that students will integrate material from both domains.

**Course topics mapped to domain:**
- (GS/GN) Defining addiction (1 week)
- (GS) Psychology of addiction – learning, memory, and expectancy (1 week)
- (GN) Animal behavior and the brain – animal models, brain anatomy, reward system (1 week)
- (GN) Neural communication (1 week)
- (GN) Classes of drugs (2 weeks)
- (GN/GS) Nature vs Nurture (1 week)
- (GN/GS) Mental health comorbidities (1 week)
- (GS) Effects of families (1 Week)
- (GS/GN) Treatments and Quitting (2 weeks)
- (GS) Impact on society (1 week)
- (GS) Policy (1 week)
- GN=9 weeks GS=9 weeks

**Assignments mapped to domain:**
- (GN/GS) Topic mapping. Students will reflect on course lecture topics and readings (books, 12 step manuals, research papers) and categorize the content within a Venn Diagram of the biopsychosocial model to visualize domain overlap. We are currently exploring books that were written by physicians and scientists that have been themselves affected by addiction. These authors can provide information about all three aspects of addiction.
- (GN/GS) Debates. The first debate for this course will challenge students to question whether addiction should be categorized as a “disease” based on the effects of addiction on the body, behavior, interpersonal relationships, and society. Another debate will be
open to the campus community, and will examine the criminalization of substance use and behavioral addictions.

(GN/GS) Visual media. Students will design public service announcements and infographic posters to help the campus and local community better understand specific types of addictions at each level of the biopsychosocial model.

(GS) Support group observation. With permission, students may also be asked to attend a family support group and/or an addiction recovery open support group in order to make social connections.

(GN/GS) Defining addiction. Throughout the semester, students will draft and continuously revise a unified definition of addiction taking into consideration behavior, biology and interpersonal relationships.

(GN/GS) Two drugs and a behavior. Students will be asked to become experts on the biological mechanisms, psychological and physiological symptoms, withdrawal symptoms, specific behaviors, and treatments for two drugs of abuse and one behavior that may be considered addictive. They will be assessed through a written assignment and an essay on the exam.

**Briefly explain the staffing plan.** Given that each Inter-Domain course is approved for two Knowledge Domains, it will be taught by an instructor (or instructional team) with appropriate expertise in both domains.

On our campus, we plan on having a biology and HDFS instructor team teach the course. Each will play equal roles and attend all lectures. We feel that it will benefit the students to experience the commentary that might ensue from professionals with differing backgrounds. However, this course could be taught by teams or individuals that have experience in teaching the basics of neuroscience, psychology, and psychology. This could include individuals or combinations of individuals from Psychology, Biology, Biobehavioral Health, Human Development and Family Studies, and Rehabilitation programs.

**Describe the assessments that will be used to determine students’ ability to apply integrative thinking.**

Most of the assignments have been designed to test integrative thinking:

Examples of assignments have been outlined previously and include:

(GN/GS) Topic mapping. Students will reflect on course lecture topics and readings (books, 12 step manuals, research papers) and categorize the content within a Venn Diagram of the biopsychosocial model to visualize domain overlap. We are currently exploring books that were written by physicians and scientists that have been themselves affected by addiction. These authors can provide information about all three aspects of addiction.

(GN/GS) Debates. The first debate for this course will challenge students to question whether addiction should be categorized as a “disease” based on the effects of addiction on the body, behavior, interpersonal relationships, and society. Another debate will be open to the campus community, and will examine the criminalization of substance use and behavioral addictions.

(GN/GS) Visual media. Students will design public service announcements and infographic posters to help the campus and local community better understand specific types of addictions at each level of the biopsychosocial model.

(GN/GS) Defining addiction. Throughout the semester, students will draft and continuously revise a unified definition of addiction taking into consideration behavior, biology and interpersonal relationships.

(GN/GS) Two drugs and a behavior. Students will be asked to become experts on the biological mechanisms, psychological and physiological symptoms, withdrawal symptoms, specific behaviors, and treatments for two drugs of abuse and one behavior that may be considered addictive. They will be assessed through a written assignment and an essay on the exam.

**Campuses That Have Offered () Over The Past 4 Years**

| semester | AB | AL | BK | BR | BW | CR | DS | ER | GA | GV | HB | HN | HY | LV | MA | NK | PC | SH | SL | UP | WB | WC | WS | XC | XP | XS | YK |
|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|

**Potential Impact**

**Pre-Requisites**

is listed as a pre-requisite or concurrent course for the following courses:

Note: Not all courses may be listed here, due to lionpath requirement incompletion.

No pre-requisites or concurrent courses found
HHD 200 Addiction Science to Society

Days and Times

3 hr/week

Location

Classroom to accommodate about 30 students. We suggest capping at 30, in order to maintain quality discussion.

Instructors

Jessica Petko (Biology) and Amber Seidel (HDFS)

Qualified faculty from biology, psychology, human development and family studies, biobehavioral health or related fields could individually or team-teach the course.

Contact Information:

Possible texts

Addiction by By William Berry and Rowena Ramnath
Publisher: Cognella Academic Publishing
Print ISBN: 9781516551255, 1516551257
eText ISBN: 805502A, 9781516560530, 1516560531
Edition: 2nd
Copyright year: 2013

Advances in the Neuroscience of Addiction by Cynthia M. Kuhn
Publisher: CRC Press
Print ISBN: 9780849373916, 0849373913
eText ISBN: 9781420007350, 1420007351
Edition: 1st
Copyright year: 2010

The Biology of Desire by Marc Lewis
This text includes stories from addicts intermixed with the biology of addiction. This book would be a good reading for topic mapping.
Year: 2016
ISBN-10: 1610397126
Addiction is commonly defined as a set of compulsive behaviors that cannot be stopped despite negative consequences. The term itself is controversial and defined differently by various disciplines. This has resulted in skewed perceptions of addiction by society as a whole. This course aims to inform students on the biological, psychological, and sociological viewpoints of addiction and how they interact to form an integrated perspective (the biopsychosocial model). By understanding the current knowledge on the biological and psychological bases of addiction, students will be better prepared to make knowledgeable decisions on their own behaviors, understand the behavior of others, and generate informed opinions on the social aspects of addiction. We will begin by comparing and contrasting the different ways addiction has been defined in various fields and exploring the debate on which substances/behaviors are actually considered addictive. Throughout the course, students will broadly explore basic concepts in biology (cells, neural communication, brain anatomy, use of animal models, pharmacology, genetics, epigenetics, and comorbidity), psychology (memory, conditioning, reward, expectancy, bias, and mental health) and sociology (family systems theory, stress theory, developmental theory, feminist theory). These concepts will be practically applied to various questions concerning 1. The status of addiction as a disease. 2. How addiction is or should be treated. 3. The effects of addiction on family and society. 4. Policies concerning the criminalization of drugs and compulsive behaviors. In addition, methods and data from primary research in all three domains of the biopsychosocial model will be analyzed. Several assignments using various forms of communication will serve to illustrate the connections and assess integrated learning.

Course Goals (Aligned to General Education Objectives)

**Integrative thinking:** This course will rely on the biopsychosocial model which attributes addiction to multiple levels of organization from genetics, molecules, and neuronal function (bio); to behaviors, expectations, and perceptions (psycho); to the population impacted (social). For example, altered brain chemistry during addiction induces compulsive drug seeking despite negative consequences (Bio/Psych). Enriched environments (positive social interactions) produce chemical changes in the brain that protect individuals from addiction (Bio/Social). Peer pressure can initiate and reinforce addictive behaviors (Psych/Social). These connections will be emphasized throughout lectures and assignments as described in the assessment section.

**Effective communication:** Students will engage in visual, oral, and written communication through written responses to readings, debates, generating public service announcements and infographics, and class discussions.

**Critical and analytical thinking:** Students will explore questions such as: Do addicts have control over their behavior? Should addicts be criminalized? Is addiction a disease? Answers require multiple lines of evidence to be pulled together from each branch of the biopsychosocial model to make a clear and coherent argument.
**Social responsibility and ethical reasoning:** Students will be encouraged to critically examine their own values and impressions of addictions to answer ethical questions like those posed in the previous section. Students will be better prepared to participate in a community affected by addiction.

**Course Objective (Aligned to Domain Objectives)**

*Explore the defining characteristics of an addiction and what types of things can be addicting.* This will allow students to evaluate and re-evaluate their definition of addiction in light of newly gained knowledge. They will switch from a definition that is based on personal experience and bias to one based on evidence.

*Explain methods and evaluate data from the fields of biology, psychology, sociology, and family studies as they relate to addiction.* Students will learn about how addiction is studied in the lab using animal models that measure behaviors and molecules. This information is then correlated to human behavior. We will discuss the key parts of the brain and the molecular basis for addictive behaviors. Students will analyze research regarding peer, family, and societal influence on individuals’ participation in addiction behaviors. Research regarding the effect of an individual’s participation in addictive behaviors on family, peers, and society will also be examined.

*Gain experience using biological, psychological, sociological data to make evidence-based arguments about scientific and social aspects of addiction.* Emphasis will be placed on proper use of the scientific method, places to find valid evidence in the literature, the difference between correlation vs experimentation, and the proper usage of variables and controls.

*Identify societal, philosophical, and ethical implications of discoveries and their potential to address contemporary problems.* One core component of the class will be using biological data to create arguments on how society should view and address addiction.

*Identify and discuss social theoretical perspectives as they relate to addiction and family relationships.* We will explore multiple theories including, family systems theory, stress theory, developmental theory, and feminist theory.

*Compare and contrast the effects of nature and nurture on the likelihood someone will become addicted.* We examine data that shows propensity for addiction is heritable and how researchers might find the specific genes responsible. The effect of environment on the biology of the organism (epigenetics) to either increase or decrease likelihood of addiction will also be investigated.

*Outline the biopsychosocial model and how topics explored in the course overlap and connect these three modes of study.* Throughout this course students will be encouraged to map out topics discussed in class and from readings in order to make connections between the biological, psychological, and sociological aspects of addiction.

*Apply information from theory and research to serve the individual, family, and society.* Students will describe the social and legal institutions which regulate the use of the most common drugs and available
addiction treatments services. They will also engage in projects related to awareness, intervention, and treatment.

**Grading**

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<td>Treatment Paper</td>
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**Topic mapping.** Students will reflect on course lecture topics and readings (books, 12 step manuals, research papers) and categorize the content within a Venn diagram of the biopsychosocial model to visualize domain overlap. We are currently exploring books that were written by physicians and scientists that have been themselves affected by addiction. These authors can provide information about all three aspects of addiction.

**Debates.** The first debate for this course will challenge students to question whether addiction should be categorized as a “disease” based on the effects of addiction on the body, behavior, interpersonal relationships, and society. Another debate will be open to the campus community, and will examine the criminalization of substance use and behavioral addictions.

**Visual media.** Students will design public service announcements and infographic posters to help the campus and local community better understand specific types of addictions at each level of the biopsychosocial model.

**Support group observation.** With permission, students may also be asked to attend a family support group and/or an addiction recovery open support group in order to make social connections.

**Defining addiction.** Throughout the semester, students will draft and continuously revise a unified definition of addiction taking into consideration behavior, biology and interpersonal relationships.

**Two drugs and a behavior.** Students will be asked to become experts on the biological mechanisms, psychological and physiological symptoms, withdrawal symptoms, specific behaviors, and treatments for two drugs of abuse and one behavior that may be considered addictive. They will be assessed through a written assignment and an essay on the exam.
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<td>What can you be addicted to?</td>
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<td>Behavioral Theories of Addiction – learning, memory, expectancy, and associated behaviors</td>
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<td>Animal Behavioral Models and the Brain</td>
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<td>Book Discussion 1</td>
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<td>Week 5</td>
<td>Neural Communication</td>
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<td>Classes of Drugs</td>
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<td>Classes of Drugs</td>
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<td>Introduce Media assignment – Groups</td>
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<td>Week 7</td>
<td>Neural communication and Drugs</td>
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<td>Week 8</td>
<td>Book Discussion 2</td>
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<td>Week 9</td>
<td>Why doesn’t everyone get addicted?</td>
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<td>Nature vs Nurture</td>
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<td>Week 10</td>
<td>Mental Health &amp; Addiction - Debate 1: Is addiction a disease?</td>
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<td>Week 11</td>
<td>Impact of Addiction on Family</td>
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<td>Week 12</td>
<td>Trying to Quit – The Cycle of Addiction</td>
<td>Media Project Due</td>
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<td>Withdrawal</td>
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<td>Modeling relapse in animals</td>
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<td>Week 13</td>
<td>Quitting – Medication and Behavioral Therapy</td>
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<td>Difficulties of behavioral vs drug addictions</td>
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<td>Week 14</td>
<td>Impact of Addiction on Society</td>
<td>Papers due about visiting a treatment program</td>
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<td>Venn Diagramming Addiction to Biopsychosocial Model</td>
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<td>Week 15</td>
<td>Addiction Policy (Maybe a police officer visit?)</td>
<td>Debate 2</td>
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<td>Debate 2 – Should Addiction be Criminalized</td>
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<td>Finals</td>
<td>Exam III</td>
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HHD 200 Addiction Science to Society

**Days and Times**

3 hr/week

**Location**

Classroom to accommodate about 30 students. We suggest capping at 30, in order to maintain quality discussion.

**Instructors**

Jessica Petko (Biology) and Amber Seidel (HDFS)

Qualified faculty from biology, psychology, human development and family studies, biobehavioral health or related fields could individually or team-teach the course.

**Contact Information:**

**Possible texts**

Addiction by By William Berry and Rowena Ramnath  
Publisher: Cognella Academic Publishing  
Print ISBN: 9781516551255, 1516551257  
eText ISBN: 805502A, 9781516560530, 1516560531  
Edition: 2nd  
Copyright year: 2013

Advances in the Neuroscience of Addiction by Cynthia M. Kuhn  
Publisher: CRC Press  
Print ISBN: 9780849373916, 0849373913  
eText ISBN: 9781420007350, 1420007351  
Edition: 1st  
Copyright year: 2010

The Biology of Desire by Marc Lewis  
This text includes stories from addicts intermixed with the biology of addiction. This book would be a good reading for topic mapping.  
Year: 2016  
ISBN-10: 1610397126  
Course Description

Addiction is commonly defined as a set of compulsive behaviors that cannot be stopped despite negative consequences. The term itself is controversial and defined differently by various disciplines. This has resulted in skewed perceptions of addiction by society as a whole. This course aims to inform students on the biological, psychological, and sociological viewpoints of drug and behavioral addictions and how they interact to form an integrated perspective (the biopsychosocial model). By understanding the current knowledge on the biological and psychological bases of addiction, students will be better prepared to make knowledgeable decisions on their own behaviors, understand the behavior of others, and generate informed opinions on the social aspects of addiction. We will begin by comparing and contrasting the different ways addiction has been defined in various fields and exploring the debate on which substances (ex. illicit drugs, caffeine, sugar)/behaviors (ex. gambling, gaming, sex, phones) are actually considered addictive. Throughout the course, students will broadly explore basic concepts in biology (cells, neural communication, brain anatomy, use of animal models, pharmacology, genetics, epigenetics, and comorbidity), psychology (memory, conditioning, reward, expectancy, bias, and mental health) and sociology (family systems theory, stress theory, developmental theory, feminist theory). These concepts will be practically applied to various questions concerning 1. The status of addiction as a disease. 2. Types of addictions and how they differ from compulsions. 3. How addiction is or should be treated. 4. The effects of addiction on family and society. 5. Policies concerning the criminalization of drugs and compulsive behaviors. In addition, methods and data from primary research in all three domains of the biopsychosocial model will be analyzed. Several assignments using various forms of communication will serve to illustrate the connections and assess integrated learning.

Course Goals (Aligned to General Education Objectives)

Integrative thinking: This course will rely on the biopsychosocial model which attributes addiction to multiple levels of organization from genetics, molecules, and neuronal function (bio); to behaviors, expectations, and perceptions (psycho); to the population impacted (social). For example, altered brain chemistry during addiction induces compulsive drug seeking despite negative consequences (Bio/Psych). Enriched environments (positive social interactions) produce chemical changes in the brain that protect individuals from addiction (Bio/Social). Peer pressure can initiate and reinforce addictive behaviors (Psych/Social). These connections will be emphasized throughout lectures and assignments as described in the assessment section.

Effective communication: Students will engage in visual, oral, and written communication through written responses to readings, debates, generating public service announcements and infographics, and class discussions. With input and approval from professors, media projects will be shared on social media outlets and displayed on campus with appropriate permissions.

Critical and analytical thinking: Students will explore questions such as: Do addicts have control over their behavior? Should addicts be criminalized? Is addiction a disease? Answers require multiple lines of
evidence to be pulled together from each branch of the biopsychosocial model to make a clear and coherent argument.

**Social responsibility and ethical reasoning:** Students will be encouraged to critically examine their own values and impressions of addictions to answer ethical questions like those posed in the previous section. Students will be better prepared to participate in a community affected by addiction.

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**Course Objective (Aligned to Domain Objectives)**

**Explore the defining characteristics of an addiction and what types of things can be addicting.** This will allow students to evaluate and re-evaluate their definition of addiction in light of newly gained knowledge. They will switch from a definition that is based on personal experience and bias to one based on evidence.

**Explain methods and evaluate data from the fields of biology, psychology, sociology, and family studies as they relate to addiction.** Students will learn about how addiction is studied in the lab using animal models that measure behaviors and molecules. This information is then correlated to human behavior. We will discuss the key parts of the brain and the molecular basis for addictive behaviors. Students will analyze research regarding peer, family, and societal influence on individuals’ participation in addiction behaviors. Research regarding the effect of an individual’s participation in addictive behaviors on family, peers, and society will also be examined.

**Gain experience using biological, psychological, sociological data to make evidence-based arguments about scientific and social aspects of addiction.** Emphasis will be placed on proper use of the scientific method, places to find valid evidence in the literature, the difference between correlation vs experimentation, and the proper usage of variables and controls.

**Identify societal, philosophical, and ethical implications of discoveries and their potential to address contemporary problems.** One core component of the class will be using biological data to create arguments on how society should view and address addiction.

**Identify and discuss social theoretical perspectives as they relate to addiction and family relationships.** We will explore multiple theories including, family systems theory, stress theory, developmental theory, and feminist theory.

**Compare and contrast the effects of nature and nurture on the likelihood someone will become addicted.** We examine data that shows propensity for addiction is heritable and how researchers might find the specific genes responsible. The effect of environment on the biology of the organism (epigenetics) to either increase or decrease likelihood of addiction will also be investigated.

**Outline the biopsychosocial model and how topics explored in the course overlap and connect these three modes of study.** Throughout this course students will be encouraged to map out topics discussed in class and from readings in order to make connections between the biological, psychological, and sociological aspects of addiction.
Apply information from theory and research to serve the individual, family, and society. Students will describe the social and legal institutions which regulate the use of the most common drugs and available addiction treatments services. They will also engage in projects related to awareness, intervention, and treatment.

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**Debates.** The first debate for this course will challenge to students to question whether addiction should be categorized as a “disease” based on the effects of addiction on the body, behavior, interpersonal relationships, and society. Another debate will be open to the campus community, and will examine the criminalization of substance use and behavioral addictions. Other debate prompts could include current topics such as supervised injection sites and the use of addictive substances as medical treatments.

**Visual media.** Students will design public service announcements and infographic posters to help the campus and local community better understand specific types of addictions at each level of the biopsychosocial model.

**Support group observation/ Interview with a professional.** With permission, students may also be asked to attend a family support group and/or an addiction recovery open support group in order to make social connections. Alternatively they may choose to interview a law enforcement officer, health care professional, chemical dependency counselor, or other professional that encounter addicts or their family members on a regular basis.

**Defining addiction.** Throughout the semester, students will draft and continuously revise a unified definition of addiction taking into consideration behavior, biology and interpersonal relationships.

**Two drugs and a behavior.** Students will be asked to become experts on the biological mechanisms, psychological and physiological symptoms, withdrawal symptoms, specific behaviors, and treatments for two drugs of abuse and one behavior that may be considered addictive. They will be assessed through a written assignment and an essay on the exam.
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