

Springfield Technical Community College
Academic Affairs

Course Number: BIO-2-- BIO-203 Class/Lect. Hours: 3 Lab Hours: _____ Credits: 3 Dept.: Biology, Science Technology Engineering Mathematics

OBJECTIVES/COMPETENCIES

Course Objectives	Competencies
<p>By the end of the course, you should have a basic mastery of:</p> <ol style="list-style-type: none"> 1. brain circuits, specifically the role of neurotransmitters underlying different aspects of addiction processes know from research. 2. principles of drug pharmacology. 3. mechanisms of action for the most common drugs of abuse. 4. contribution of genetics and epigenetics in vulnerability to addiction and addiction-related processing. 5. behavioral effects of addiction and why persons with addiction disorders have difficulty stopping their behavior. 6. treatment approaches to addiction rehabilitation, inclusive of strengths and limitations of these current approaches to investigate processes mediating addiction. 7. current controversies in the addiction field. 	<ol style="list-style-type: none"> 1. Define brain circuits. 1. Define neurotransmitters. 1. Explain the connection amongst brain structures and innate chemicals (neurotransmitters) on behaviors. 1. Identify significant neurotransmitters know from investigations to impact addiction. 2. Define drug and drug pharmacology. 2. Explain the principles of drug pharmacology. 3. Define drug mechanism of action. 3. Describe the mechanism of action of common drugs of abuse. 4. Define genetics and epigenetics relative to drug addiction. 4. List ways the sciences of genetics and epigenetics contributes to the basic understanding of addiction-related processing. 5. Explain the behavior effects of addiction.

Course Objectives	Competencies
	<ol style="list-style-type: none">5. Explain the principles underlying the difficulty in stopping addictive behaviors to drug addiction.6. List treatment approaches/models to addiction rehabilitation.6. Identify strengths of current approaches to investigate processes mediating addiction.6. Identify limitations of current approaches to investigate processes mediating addiction.6. Explain when these current approaches are effective and why.7. List some current controversies in the addicting field.7. Describe how current controversies in the addiction field impact the perpetual issue of drug addiction.