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# **Module 4 Lecture - States of Consciousness**

Introductory Psychology

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# 1 Overview and Introduction

## 1.1 Textbook Learning Objectives

- Understand what is meant by consciousness
- Explain how circadian rhythms are involved in regulating the sleep-wake cycle, and how circadian cycles can be disrupted
- Discuss the concept of sleep debt
- Describe areas of the brain involved in sleep
- Understand hormone secretions associated with sleep
- Describe several theories aimed at explaining the function of sleep
- Name and describe three theories about why we dream
- Differentiate between REM and non-REM sleep
- Describe the differences between the three stages of non-REM sleep
- Understand the role that REM and non-REM sleep play in learning and memory
- Describe the symptoms and treatments of insomnia
- Recognize the symptoms of several parasomnias
- Describe the symptoms and treatments for sleep apnea
- Recognize risk factors associated with sudden infant death syndrome (SIDS) and steps to prevent it
- Describe the symptoms and treatments for narcolepsy
- Describe the diagnostic criteria for substance use disorders
- Identify the neurotransmitter systems impacted by various categories of drugs
- Describe how different categories of drugs affect behavior and experience
- Define hypnosis and meditation
- Understand the similarities and differences of hypnosis and meditation

## 1.2 Instructor Learning Objectives

- Understand how consciousness is better described as range of states, rather than simply “on” or “off”
- Know several common conditions and drugs that modify or otherwise change the state of consciousness

## 1.3 Introduction

- You ever been in the back of a classroom, watching a boring lecture, slowly feeling yourself falling asleep?
  - We’ve all been there...
  - All of us have had the \_\_\_\_\_ of being wide awake, being tired/-fatigued, being asleep, etc.
  - We’ve also likely

**! Important**

How many hours of sleep do you get each night, and do you regularly feel awake or tired?

- There are also other states of consciousness, related to use of specific substances or \_\_\_\_\_ disassociation

## 2 What is Consciousness?

### 2.1 Introduction

**! Important**

There is a more philosophical debate to have on what exactly 'consciousness' is - we are going to try to stay more focused on a factual concrete description today, but it is worth reading into more!

- **Consciousness** is our state of \_\_\_\_\_ of our environment, perceptions, and thoughts.
- When we are \_\_\_\_\_, we are usually at least reasonably conscious of our surroundings, but when we are **sleeping** we are more-or-less completely unaware
  - But between these two states, we have things like \_\_\_\_\_, day-dreaming, being intoxicated with substances, etc.

### 2.2 Biological Rhythms

- Our bodies \_\_\_\_\_ on many rhythmic biological processes:
  - Sleep and awake
  - Body temperature natural fluctuations
  - Menstrual cycles
  - Many others
- Our bodies attempt to maintain **homeostasis**, which is a restful, optimal state in which \_\_\_\_\_, cells, substances, and other bits of our body are in balance
  - All of these \_\_\_\_\_ help this process of homeostasis
- Our brain has built-in \_\_\_\_\_ called the **suprachiasmatic nucleus** in the hypothalamus

- However, one nuance of this structure is that it is connected to the detection of light (usually sunlight). Constant light or lack thereof could possible disrupt proper function.

## **2.3 Problems with Circadian Rhythms**

## **2.4 Disruptions of Normal Sleep**

## **2.5 Insufficient Sleep**

# **3 Sleep and Why We Sleep**

## **3.1 Introduction**

## **3.2 What is Sleep?**

## **3.3 Why Do We Sleep?**

## **3.4 Adaptive Function of Sleep**

## **3.5 Cognitive Function of Sleep**

# **4 Stages of Sleep**

## **4.1 Introduction**

## **4.2 NREM Stages of Sleep**

## **4.3 REM Sleep**

## **4.4 Dreams**

# **5 Sleep Problems and Disorders**

## **5.1 Introduction**

## **5.2 Insomnia**

## **5.3 Parasomnias**

## **5.4 Sleepwalking**

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*"I don't mind not knowing. It doesn't scare me." — Richard P. Feynman*

## **5.5 REM Sleep Behavior Disorder (RBD)**