Course Description

Examines the physiological correlates of behavior. Explores current problems, theories, and techniques in physiological psychology with emphasis on central nervous system mechanisms.

Course Textbook


Course Learning Outcomes

Upon completion of this course, students should be able to:

1. Analyze the study of physiological psychology from historical beginnings to current understandings in the field. Relate these discoveries across a timeline of events to detail physiological understanding of the human brain.
2. Discuss and describe the structures, regions, and functions of the human brain and associated sensory systems.
3. Describe the contributions of theorists, research methodology, and advances to the field of biological psychology.
4. Evaluate the relationship between the structure and function of movement to symptoms of disorders such as apraxia, Parkinson’s disease, and Huntington’s disease.
5. Compare and contrast the data and hypotheses about the functions of sleep and normal sleep stages as well as how sleep can be altered abnormally by variables such as sleep deprivation, change in circadian rhythms, effects of exercise and mental activity, and sleep disorders.
6. Evaluate the research on the importance of the brain areas in eating and drinking and the differences between obesity, anorexia nervosa, and bulimia.
7. Compare and contrast the components of emotion and describe the main theories that have been used to explain emotion and the functions, structures, and main regions of the brain essential to emotion expression, as well as any cultural differences in expression.
8. Analyze research on etiological and psychopharmacological findings related to Autistic spectrum disorders, Anxiety Disorders, PTSD, OCD, Schizophrenia, Alzheimer’s disorder, ADHD, Major Depressive Disorder, Bipolar Disorder, and addictions. Analyze one neurological or psychological disorder in a research paper using scholarly sources to test a hypothesis related to a physiological aspect of that disorder.

Academic Integrity

Honesty and integrity are taken very seriously at Waldorf University. All students should be familiar with the Waldorf University Academic Integrity Policy (found in the current Student Handbook) and the consequences that will result from breaches of this policy.

Credits

Upon completion of this course, the students will earn three (3) hours of college credit.

Course Structure

1. **Study Guide**: Each unit contains a Study Guide that provides students with the learning outcomes, unit lesson, required reading assignments, and supplemental resources.
2. **Learning Outcomes**: Each unit contains Learning Outcomes that specify the measurable skills and knowledge students should gain upon completion of the unit.
3. **Unit Lesson**: Each unit contains a Unit Lesson, which discusses lesson material.
4. **Reading Assignments**: Each unit contains Reading Assignments from one or more chapters from the textbook.
5. **Learning Activities (Non-Graded)**: These non-graded Learning Activities are provided to aid students in their course of study.
6. **Discussion Boards**: Discussion Boards are a part of all Waldorf courses. Information and specifications regarding these assignments are provided in the Course Policies listed in the Course Menu bar.
7. **Unit Assessments**: This course contains one Unit Assessment, to be completed at the end of Unit VII. The assessment is composed of written response questions.
8. **Unit Assignments**: Students are required to submit for grading Unit Assignments in Units I-VI and VIII. Specific information and instructions regarding these assignments are provided below. Grading rubrics are included with each assignment. Specific information about accessing these rubrics is provided below.
9. **Ask the Professor**: This communication forum provides you with an opportunity to ask your professor general or course content related questions.
10. **Student Break Room**: This communication forum allows for casual conversation with your classmates.

### Unit Assignments

#### Unit I Analytical Essay

Write a one page essay to summarize the structure and function of neurons and synapses and their relationship to the history of behavioral neuroscience and animal research.

All sources used, including the textbook, must be referenced; paraphrased and quoted material must have accompanying citations.

Information about accessing the Grading Rubric for this assignment is provided below.

#### Unit II PowerPoint Presentation

Choose a psychotropic drug (e.g., antidepressant, anxiolytic [anti-anxiety medication], stimulant, or antipsychotic drug), and analyze it from a psychopharmalogical point of view. It may also be helpful to visit your local pharmacist or physician to discuss the drug with him or her as you may integrate his or her insights into your presentation.

Create a PowerPoint Presentation with a minimum of eight slides. You will need to indicate and perhaps even include a visual to make the following points about your drug:

- Name of drug (brand and generic).
- Classification of drug.
- Approved reasons prescribed (diagnoses or symptoms).
- How the drug is administered (e.g., pill, IV).
- Neurotransmitter(s) targeted.
- Effect of drug in brain on neurotransmitter, receptors etc.
- Effect on synaptic transmission (e.g., antagonist or agonist)
- Discuss pathways or how it affects neurons in the brain as applicable.
- Visual of how it works in the brain (mechanism of action).
- Insights or comments obtained from a local pharmacist or provider who prescribes this drug.

Information about accessing the Grading Rubric for this assignment is provided below.

#### Unit III Article Critique

For this assignment, choose a peer-reviewed article to critique related to physiological psychology and one of the sensory systems in Chapter 6 or 7 using a research method or strategy discussed in this unit or Chapter 5. Use the databases within the Waldorf Online Library. The purpose of this assignment is for you to practice reviewing articles that contribute to the industry. The authors of these articles are researchers and professionals who have shared or experimented with ideas that demonstrate potential to improve the industry. As a professional in the industry, it is in your best interest to review the literature and trends. This provides you with the opportunity to read about what was successful and how it was accomplished. Plus, it allows you to analyze what was unsuccessful, how you can improve it, or at least how you can avoid repeating the mistakes of others. Use these skills to contribute to research papers and other scholarly writings.
you have not already, hopefully, you will contribute to the industry by publishing an article and sharing with your community of peers.

Click here for an introduction to the library, and here to access a tutorial regarding the basics of database resources in the Waldorf Online Library.

As you read the article you choose for this assignment, consider the following questions: How could the topic of this article apply to your personal or professional life? How could it apply to an organization you have observed?

The article you choose must meet the following requirements:

- be peer reviewed,
- relate to the concepts within this course, and
- be at least five pages in length.

The assignment that you submit must meet the following requirements:

- Be at least two pages in length.
- Identify the main topic/question.
- Discuss the research method(s) used, its strengths and limitations, as well as the results of your study.
- Critique the article and share your thoughts—what appears to be valid and invalid?
- Include whether or not you agree with the author’s assertions. Why, or why not?

The focus should be on critique of the research methods; however, the topic should coincide with vision, audition, the body senses, and chemical senses from this.

Format your Article Critique using APA style. Use your own words, and include citations and references as needed to avoid plagiarism.

Information about accessing the Grading Rubric for this assignment is provided below.

**Unit IV Case Study**

**Sleep Disorder Case Study**

Choose a sleep disorder, and create an original case study based on your disorder. This Case Study should be based on a fictional patient with the sleep issues characterized within your chosen disorder. You should present scholarly discussion(s) to your patient explaining the disorder to him or her, with appropriate references and citations in APA style to support your points. Also provide your patient with two evidence-based treatments to choose from, and include references and citations to support them (at least three references required in APA style).

Your Case Study should be a minimum of one page, Times New Roman 12 pt. font, with appropriate APA style writing. Should you have any questions about the assignment, contact your professor.

Information about accessing the Grading Rubric for this assignment is provided below.

**Unit V PowerPoint Presentation**

Choose obesity, binge-eating disorder, anorexia, or bulimia as a topic, and create a PowerPoint Presentation about the disorder from biopsychosocial point of view. Be sure to use scholarly outside references to support your points. Include a biological emphasis regardless of your personal opinion/perspective on etiology, which you can also express within the assignment. Your PowerPoint Presentation will need to include causes (etiology) and treatment options that are evidence-based and supported by scholarly references. Be sure and include physiological emphasis in your submission.

Your presentation should be at least 10 slides, business professional, with appropriate APA style writing. You should have at least one slide displaying your references (not included in the minimum slide count).

Information about accessing the Grading Rubric for this assignment is provided below.
Unit VI Article Review

Choose forms of learning, types of memory, brain damage, or learning disabilities as a topic, and locate an article from the Waldorf Online Library that relates to the topic.

Your paper will need to include causes (etiology) and treatment options that are evidence-based and supported by scholarly references. Be sure and include physiological emphasis in your submission.

Your paper should be at least one page, with appropriate APA style writing.

Information about accessing the Grading Rubric for this assignment is provided below.

Unit VIII Article Critique

Choose from one of the following disorders covered in Unit VIII.

- Anxiety Disorders
- Autistic Disorder
- Attention-Deficit/Hyperactivity Disorder
- Stress Disorders
- Drug Abuse

Your paper will need to include causes (etiology) and treatment options that are evidence-based, supported by scholarly references. Be sure and include physiological emphasis in your submission.

The assignment that you submit must meet the following requirements:

- Identify the main topic/question.
- Discuss the research method(s) used, its strengths and limitations, as well as the results of your study.
- Critique the article and share your thoughts—what appears to be valid and invalid?
- Include whether or not you agree with the author’s assertions. Why, or why not?

Your paper should be at least two pages, with appropriate APA style writing.

Information about accessing the Grading Rubric for this assignment is provided below.

Submitting Course Papers/Projects

Once you have completed your papers/projects, submit your completed papers/projects by uploading through the Assignment tab in each unit. Do not e-mail your paper directly to your professor. By using the Assignment tab, your record will automatically be updated to indicate you have submitted your papers/projects and the assignment will be provided to your professor for grading. Instructions for submitting your assignment can be found under the Assignment tab in each unit.

APA Guidelines

Waldorf University requires that students use APA style for papers and projects. Therefore, the APA rules for formatting, quoting, paraphrasing, citing, and listing of sources are to be followed. Students can find Waldorf’s Citation Guide in the myWaldorf Student Portal by clicking on the “Citation Guide” link under the “Resources” heading. This document includes examples and sample papers.
Grading Rubrics

This course utilizes analytic grading rubrics as tools for your professor in assigning grades for all learning activities. Each rubric serves as a guide that communicates the expectations of the learning activity and describes the criteria for each level of achievement. In addition, a rubric is a reference tool that lists evaluation criteria and can help you organize your efforts to meet the requirements of that learning activity. It is imperative for you to familiarize yourself with these rubrics because these are the primary tools your professor uses for assessing learning activities.

Rubric categories include: (1) Discussion Board, (2) Assessment (Written Response), and (3) Assignment. However, it is possible that not all of the listed rubric types will be used in a single course (e.g., some courses may not have Assessments).

The Discussion Board rubric can be found within Unit I’s Discussion Board submission instructions.

The Assessment (Written Response) rubric can be found embedded in a link within the directions for each Unit Assessment. However, these rubrics will only be used when written-response questions appear within the Assessment.

Each Assignment type (e.g., article critique, case study, research paper) will have its own rubric. The Assignment rubrics are built into Blackboard, allowing students to review them prior to beginning the Assignment and again once the Assignment has been scored. This rubric can be accessed via the Assignment link located within the unit where it is to be submitted. Students may also access the rubric through the course menu by selecting the “Grades” link.

Again, it is vitally important for you to become familiar with these rubrics because their application to your Discussion Boards, Assessments, and Assignments is the method by which your instructor assigns all grades.

Communication Forums

These are non-graded discussion forums that allow you to communicate with your professor and other students. Participation in these discussion forums is encouraged, but not required. You can access these forums with the buttons in the Course Menu. Instructions for subscribing/unsubscribing to these forums are provided below.

Click here for instructions on how to subscribe/unsubscribe and post to the Communication Forums.

Ask the Professor

This communication forum provides you with an opportunity to ask your professor general or course content questions. Questions may focus on Blackboard locations of online course components, textbook or course content elaboration, additional guidance on assessment requirements, or general advice from other students.

Questions that are specific in nature, such as inquiries regarding assessment/assignment grades or personal accommodation requests, are NOT to be posted on this forum. If you have questions, comments, or concerns of a non-public nature, please feel free to email your professor. Responses to your post will be addressed or emailed by the professor within 48 hours.

Before posting, please ensure that you have read all relevant course documentation, including the syllabus, assessment/assignment instructions, faculty feedback, and other important information.

Student Break Room

This communication forum allows for casual conversation with your classmates. Communication on this forum should always maintain a standard of appropriateness and respect for your fellow classmates. This forum should NOT be used to share assessment answers.
Grading

Discussion Boards (8 @ 2%) = 16%
Unit VII Assessment = 10%
Article Critiques (2 @ 11%) = 22%
PowerPoint Presentations (2 @ 10%) = 20%
Unit I Analytical Essay = 10%
Unit IV Case Study = 11%
Unit VI Article Review = 11%
Total = 100%

Course Schedule/Checklist (PLEASE PRINT)

The following pages contain a printable Course Schedule to assist you through this course. By following this schedule, you will be assured that you will complete the course within the time allotted.
# Course Schedule

By following this schedule, you will be assured that you will complete the course within the time allotted. Please keep this schedule for reference as you progress through your course.

## Unit I

**Introduction, Structure, and Functions of Cells of the Nervous System**

<table>
<thead>
<tr>
<th>Review</th>
<th>□ Unit Study Guide</th>
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<tbody>
<tr>
<td>Learning Activities (Non-Graded)</td>
<td>See Study Guide</td>
</tr>
<tr>
<td>Read</td>
<td>□ Chapter 1: Introduction</td>
</tr>
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<td>□ Chapter 2: Structure and Functions of Cells of the Nervous System</td>
</tr>
<tr>
<td>Discuss</td>
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<td>□ Discussion Board Comment: Comment on another student’s Discussion Board response by Tuesday, 11:59 p.m. (Central Time)</td>
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<tr>
<td>Submit</td>
<td>□ Analytical Essay by Tuesday, 11:59 p.m. (Central Time)</td>
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### Notes/Goals:

## Unit II

**Structure of the Nervous System and Psychopharmacology**

<table>
<thead>
<tr>
<th>Review</th>
<th>□ Unit Study Guide</th>
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<tbody>
<tr>
<td>Learning Activities (Non-Graded)</td>
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</tr>
<tr>
<td>Read</td>
<td>□ Chapter 3: Structure of the Nervous System</td>
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<td>□ Chapter 4: Psychopharmacology</td>
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<tr>
<td>Discuss</td>
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<td>Submit</td>
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### Notes/Goals:

## Unit III

**Methods and Strategies of Research, Vision, Audition, the Body Senses, and the Chemical Senses**

<table>
<thead>
<tr>
<th>Review</th>
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<tbody>
<tr>
<td>Learning Activities (Non-Graded)</td>
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<tr>
<td>Read</td>
<td>□ Chapter 5: Methods and Strategies of Research</td>
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<td></td>
<td>□ Chapter 6: Vision</td>
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<tr>
<td></td>
<td>□ Chapter 7: Audition, the Body Senses, and the Chemical Senses</td>
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<td>Submit</td>
<td>□ Article Critique by Tuesday, 11:59 p.m. (Central Time)</td>
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### Notes/Goals:
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<tr>
<th>Unit IV</th>
<th>Control of Movement, Sleep, and Biological Rhythms</th>
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<tr>
<td>Review:</td>
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<th>Unit V</th>
<th>Reproductive Behavior, Emotion, and Ingestive Behavior</th>
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<tr>
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<td>![Check List] Chapter 11: Emotion</td>
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<td>![Check List] Chapter 12: Ingestive Behavior</td>
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<tr>
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<td>Review:</td>
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<td></td>
<td>![Check List] Learning Activities (Non-Graded): See Study Guide</td>
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<tr>
<td>Read:</td>
<td>![Check List] Chapter 13: Learning and Memory</td>
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<tr>
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<td>![Check List] Chapter 14: Human Communication</td>
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<td>Submit:</td>
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| Notes/Goals: |
# PSY 4021, Physiological Psychology

## Course Schedule

<table>
<thead>
<tr>
<th>Unit VII</th>
<th>Neurological Disorders, Schizophrenia, and the Affective Disorders</th>
</tr>
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</table>
| **Review:** | ☐ Unit Study Guide  
☐ **Learning Activities (Non-Graded):** See Study Guide |
| **Read:** | ☐ Chapter 15: Neurological Disorders  
☐ Chapter 16: Schizophrenia and the Affective Disorders |
| **Discuss:** | ☐ **Discussion Board Response:** Submit your response to the Discussion Board question by Saturday, 11:59 p.m. (Central Time)  
☐ **Discussion Board Comment:** Comment on another student’s Discussion Board response by Tuesday, 11:59 p.m. (Central Time) |
| **Submit:** | ☐ **Assessment** by Tuesday, 11:59 p.m. (Central Time) |

**Notes/Goals:**

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<th>Unit VIII</th>
<th>Anxiety Disorders, Autistic Disorder, ADHD, Stress Disorders, and Drug Abuse</th>
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| **Review:** | ☐ Unit Study Guide  
☐ **Learning Activities (Non-Graded):** See Study Guide |
| **Read:** | ☐ Chapter 17: Anxiety Disorders, Autistic Disorder, Attention-Deficit/Hyperactivity Disorder, and Stress Disorders  
☐ Chapter 18: Drug Abuse |
| **Discuss:** | ☐ **Discussion Board Response:** Submit your response to the Discussion Board question by Saturday, 11:59 p.m. (Central Time)  
☐ **Discussion Board Comment:** Comment on another student’s Discussion Board response by Tuesday, 11:59 p.m. (Central Time) |
| **Submit:** | ☐ **Article Critique** by Tuesday, 11:59 p.m. (Central Time) |

**Notes/Goals:**