



# On-Campus Course Syllabus

## PSY 305 L00.A

### Introduction to Neuroscience

#### Spring 2021

#### Class Information

**Day and Time:** Thursdays 8:00am to 10:45am

**Room Number:** E201

#### Contact Information

**Instructor Name:** Steve Hunter

**Instructor Email:** shunter@criswell.edu

**Instructor Phone:** 214-818-1371

**Instructor Office Hours:** Tuesdays/Wednesdays 12 to 2pm, Appointments can be conducted using virtual video platform or phone

#### Course Description and Prerequisites

A study of the neuroanatomical, neurophysiological, and neurochemical structures and processes that impact thought, emotion, and behavior. Discussions of dualism and the mind/brain connection are used to challenge and strengthen the student's Christian worldview of mental illness and spirituality. (Prerequisite: PSY 101)

#### Course Objectives

- Examine the basic foundations, principles, and concepts related to neuroscience and how it has impacted today's society.
- Understand how neurons function as cells and how they communicate with other neurons, and other major aspects of the brain.
- Identify how the brain integrates information from the rest of the body and from the external environment.
- Integrate knowledge and understanding of neuroscience into other major counseling theories.
- Apply theories and principles of neuroscience into everyday cognitive, behavioral, relational, and spiritual issues.
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#### Required Textbook

Luke, C. (2020). *Neuroscience for counselors and therapists: Integrating the sciences of the mind and brain* (2<sup>nd</sup> Ed.). San Diego, CA: Cognella. ISBN 9781516530977

#### Recommended Reading

Thompson, C. (2010). *Anatomy of the soul: Surprising connections between neuroscience and spiritual practices that can transform your life and relationships*. Carol Stream, IL: Tyndale Momentum. ISBN 9781414334158

van der Kolk, B. (2015). *The body keeps the score: Brain, mind, and body in the healing of trauma*. New York, NY: Penguin Books. ISBN 978-0143127741

## Course Requirements and Assignments

1. Twenty-five percent (25%) of the student's semester grade will depend upon the completion of a Mid-Term exam. The first section of the exam will test knowledge of psychological terms and definitions. The second section of the exam will test understanding and synthesis.
2. Twenty-five percent (25%) of the student's grade will depend upon the completion of a Comprehensive Final Exam. The first section of the exam will test knowledge of psychological terms and definitions. The second section of the exam will test understanding and synthesis.
3. Twenty-five percent (25%) of the student's grade will depend on the completion of a Research Paper and associated Class Presentation. First, the student will write a Research Paper on a topic related to the course: Behavioral Neuroscience. Students must choose a topic within the first three weeks of class that is approved by the Professor. In addition to the textbook assigned for the class, and the three recommended books for the class, the research paper should have an additional 5 sources. These sources are to be books and reputable journal articles (as opposed to "research" retrieved from the internet). The body of the paper will be approximately eight to 10 double-spaced pages, according to APA Style and Format. A sample paper and detailed instructions for APA Style and Format can be viewed at the following link:

- <https://owl.english.purdue.edu/owl/resource/560/01/>

When writing and organizing the paper, the student is to create and maintain a basic structure according to APA style. Hence, the following structure and associated questions are important to keep in mind:

- a. Introduction: \_\_\_\_\_ (10 pts.) Does the paper have a clear introduction? For example, does the paper address current statistics, current events, and current research regarding the topic in order to appropriately introduce and grab the reader's attention?
- b. Body of the Text: \_\_\_\_\_ (20 pts.) Does the paper address the most important dimensions and key concepts regarding the topic from the assigned textbooks? Are these resources cited throughout the body of the paper according to APA style? Does the student link together the author's thoughts in a clear manner without using first person, instead using third person? Does the student use substantive research/resources to support the textbooks from at least 5 additional sources—either books or journal articles (not "research" cut and pasted from online)? Does the body of the paper flow in a logical fashion using effective transition sentences to link the paragraphs together?
- c. Practical Application (20 pts.) Did the student apply the knowledge from the research in a real life situation? What was the strategy? What were the steps? Did the student protect the confidentiality of all participants? What were the results?
- d. Conclusion and Implications for the Profession: \_\_\_\_\_ (20 pts.) Did the student provide a summary of the main points, and practical suggestions for counselors, teachers, and/or ministers to keep in mind when serving individuals, couples and/or families? Did the student summarize the key insights, principles, and practical steps? In other words, does the student adequately, and effectively answer the "So what?" question for this Research Project?

- e. Grammar and Style \_\_\_\_\_ (10 Pts.) Are the sentences complete as opposed to fragmented sentences? Are there few grammatical mistakes? Are there spelling mistakes? Is there a title page, abstract, and Reference page? Is the paper written in 3rd person? Is the paper according to APA style?
- f. Presentation \_\_\_\_\_ (20 Pts.) Did the student hit the highlights for the topic? Was the presentation interesting and creative? Did the presentation finish and end in a timely fashion (30 minutes with a time for questions)? Was there a PowerPoint and handout? Did the presenter handle the questions from the class in an effective manner? Was the written portion of this Research Project presentation submitted to the professor before the time of the presentation?

The following two rubrics will also be used to score the research paper:

- <https://www.rcampus.com/rubricshowc.cfm?code=Z99W78&sp=yes&> (APA Style Rubric)
  - <http://assessment.arizona.edu/sites/default/files/CriticalThinking.pdf> (Critical Thinking Rubric)
4. Twenty five percent (25%) of the student's grade will depend on regular class attendance, class participation, and 5 quiz grades throughout the course of the semester. Some of the quizzes will be unannounced to encourage class attendance, and to encourage students to stay up with their assigned reading requirements. In addition, a final class attendance and participation grade will be worth one quiz grade (Quiz #5). This subjective grade will be assessed at the conclusion of the semester. Hence, in order for students to receive full credit for this requirement for the course, students must not only attend class, but also participate in class.
  5. Finally, it is important to note that no late work, or excuses, will be accepted. It is the student's responsibility to fulfill all requirements for the course in a timely fashion.

## **Course/Classroom Policies and Information**

This course employs a flipped classroom model. This means that time between classes is spent acquiring important knowledge, through reading the textbook and viewing videos and lectures provided online. Time during class is spent applying knowledge through discussion and activities. The flipped classroom model requires students to remain current with all reading in order to meaningfully participate.

This is a hybrid course, meaning that half of class meetings will occur live, while half of meetings will occur online using asynchronous learning. Assignments may be completed early, but any assignment turned in after the due date will be given a "0" grade. No extra credit assignments or make-up assignments will be provided for this course. For this reason, students are advised to work on assignments early each week, rather than waiting until the last minute to complete tasks.

## **Class Attendance**

Students are responsible for enrolling in courses for which they anticipate being able to attend every class session on the day and time appearing on course schedules, and then making every effort to do so. When unavoidable situations result in absence or tardiness, students are responsible for acquiring any information missed. Instructors are not obliged to allow students to make up missed work. Per their independent discretion,

individual instructors may determine how attendance affects students' ability to meet course learning objectives and whether attendance affects course grades.

## Grading Scale

A	93-100	4.0 grade points per semester hour
A-	90-92	3.7 grade points per semester hour
B+	87-89	3.3 grade points per semester hour
B	83-86	3.0 grade points per semester hour
B-	80-82	2.7 grade points per semester hour
C+	77-79	2.3 grade points per semester hour
C	73-76	2.0 grade points per semester hour
C-	70-72	1.7 grade points per semester hour
D+	67-69	1.3 grade points per semester hour
D	63-66	1.0 grade point per semester hour
D-	60-62	0.7 grade points per semester hour
F	0-59	0.0 grade points per semester hour

## Incomplete Grades

Students requesting a grade of Incomplete (I) must understand that incomplete grades may be given only upon approval of the faculty member involved. An "I" may be assigned only when a student is currently passing a course and in situations involving extended illness, serious injury, death in the family, or employment or government reassignment, not student neglect.

Students are responsible for contacting their instructors prior to the end of the semester, plus filing the appropriate completed and approved academic request form with the Registrar's Office. The "I" must be removed (by completing the remaining course requirements) no later than 60 calendar days after the close of the term or semester in which the grade was awarded, or the "I" will become an "F."

## Academic Honesty

Absolute truth is an essential belief and basis of behavior for those who believe in a God who cannot lie and forbids falsehood. Academic honesty is the application of the principle of truth in the classroom setting. Academic honesty includes the basic premise that all work submitted by students must be their own and any ideas derived or copied from elsewhere must be carefully documented.

Academic dishonesty includes, but is not limited to:

- cheating of any kind,
- submitting, without proper approval, work originally prepared by the student for another course,
- plagiarism, which is the submitting of work prepared by someone else as if it were his own, and
- failing to credit sources properly in written work.

## Institutional Assessment

Material submitted by students in this course may be used for assessment of the college's academic programs. Since programmatic and institutional assessment is done without reference to specific students, the results of

these assessments have no effect on a student's course grade or academic standing at the college. Before submitting a student's work for this type of assessment, the course instructor redacts the work to remove anything that identifies the student.

## **Institutional Email Policy**

All official college email communications to students enrolled in this course will be sent exclusively to students' institutional email accounts. Students are expected to check their student email accounts regularly and to respond in an appropriate and timely manner to all communications from faculty and administrative departments.

Students are permitted to setup automatic forwarding of emails from their student email accounts to one or more personal email accounts. The student is responsible to setup and maintain email forwarding without assistance from college staff. If a student chooses to use this forwarding option, he/she will continue to be responsible for responding appropriately to all communications from faculty and administrative departments of the college. Criswell College bears no responsibility for the use of emails that have been forwarded from student email accounts to other email accounts.

## **Disabilities**

Criswell College recognizes and supports the standards set forth in Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and similar state laws, which are designed to eliminate discrimination against qualified individuals with disabilities. Criswell College is committed to making reasonable accommodations for qualifying students, faculty, and employees with disabilities as required by applicable laws. For more information, please contact the Student Services Office.

## **Intellectual Property Rights**

Unless otherwise specifically instructed in writing by the instructor, students must neither materially nor digitally reproduce materials from any course offered by Criswell College for or with the significant possibility of distribution.

## **Resources and Supports**

Canvas and SONIS: Criswell College uses Canvas as its web-based learning tool and SONIS for student data.

Students needing assistance with Canvas should contact the Canvas Help Support line at (844) 358-6140. Tech support is available at this number, twenty-four hours a day. Students needing help with SONIS should contact the Campus Software Manager at [studenttechsupport@criswell.edu](mailto:studenttechsupport@criswell.edu).

Student Services: The Student Services Office exists to foster and encourage success in all areas of life—physical, intellectual, spiritual, social, and emotional. Students are encouraged to reach out for assistance by contacting the office at 214.818.1332 or [studentservices@criswell.edu](mailto:studentservices@criswell.edu). Pastoral and certified counseling services are also available to Criswell students. Appointments are scheduled through the Dean of Students, at [deanofstudents@criswell.edu](mailto:deanofstudents@criswell.edu).

Wallace Library: Students can access academic resources and obtain research assistance by contacting or visiting the Wallace Library, which is located on campus. For more information, email the Wallace Library at [library@criswell.edu](mailto:library@criswell.edu). Offsite login information is available in Canvas in the “Criswell Student Training Course” under “Library Information.”

Tutoring Center: Students are encouraged to consult with tutors to improve and enhance their skills and confidence in any subject matter taught at the college. Tutors have been recommended by the faculty to ensure that the tutor(s) are qualified to serve the student body. Every tutor brings experience and expertise in an effort to provide the proper resources for the subject matter at hand. To consult with a tutor, students can visit the Tutoring Center located on the second floor in room E203, or schedule an appointment by emailing [tutoringcenter@criswell.edu](mailto:tutoringcenter@criswell.edu) or by calling 214.818.1373.

### Course Outline/Calendar

Week	Dates	Learning Opportunities
1	1/21	Introductions, Syllabus Review Neuroscience: A Starting Point
2	1/28	Navigating Neuroscience (Luke, Chapter 1)
3	2/4	Structures, Systems, and Functions (Luke, Chapter 2)
4	2/11	Anxiety and Neuroscience (Luke Chapter 7) Quiz 1: Luke, Chapters 1-2
5	2/18	Anxiety and Neuroscience (cont'd)
6	2/25	Depression and Neuroscience (Luke, Chapter 8)
7	3/4	Depression and Neuroscience (cont'd) Quiz 2: Luke, Chapters 7 and 8 Review for Midterm Exam
8	3/11	Midterm Exam
9	3/18	Spring Break
10	3/25	Stress and Trauma Related Disorders (Luke, Chapter 9)
11	4/1	Stress and Trauma Related Disorders (cont'd) Quiz 3: Luke, Chapter 9 Last Day to Withdraw from the Course
11	4/8	Addictions and Substance Use Disorders (Luke, Chapter 10)
12	4/15	Addictions and Substance Use Disorders (cont'd) Quiz 4: Luke, Chapter 10
13	4/22	Research and Writing Day
14	4/29	Student Presentations Research Papers Due for Presenters
15	5/6	Student Presentations Research Papers Due for Presenters Review for Final Exam
16	5/13	Final Exam

## Selected Bibliography

- Azevedo, F. A., Carvalho, L. R. B., Grinberg, L. T., Farfel, J. M., Ferretti, R. E., Leite, R. E., Herculano-Houzel, S. (2009). Equal numbers of neuronal and nonneuronal cells make the human brain an isometrically scaled-up primate brain. *Journal of Comparative Neurology*, 513, 532–541.
- Badenoch, B. (2017). *The heart of trauma: Healing the embodied brain in the context of relationships*. New York, NY: W. W. Norton & Company.
- Bezerow, A. (2012). Why Psychology Isn't a Science. *LA Times*.
- Garrett, B. & Hough, G. (2018). *Brain and behavior: An introduction to biological psychology* (5th ed.). Thousand Oaks, CA: Sage.
- Griggs, R. (2016). *Psychology: A concise introduction* (5<sup>th</sup> ed.) New York, NY: Worth Publishers.
- Güntürkün, O., & Ocklenburg, S. (2017). Ontogenesis of lateralization. *Neuron*, 94(2), 249–263. doi.org/10.1016/j.neuron.2017.02.045
- Henriques, G. (2016). The “Is Psychology a Science?” debate: Reviewing the ways in which psychology is and is not a science. *Psychology Today*.
- Kalat, J. (2019). *Biological psychology* (13th ed.). Belmont, CA: Cengage.
- LeDoux, J. (2002). *Synaptic self: How our brains become who we are*. New York, NY: Penguin Books.
- Luke, C. (2020). *Neuroscience for counselors and therapists: Integrating the sciences of the mind and brain* (2<sup>nd</sup> Ed.). San Diego, CA: Cognella.
- Mahler, D. A., Cunningham, L. N., Skrinar, G. S., Kraemer, W. J., & Colice, G. L. (1989). Beta-endorphin activity and hypercapnic ventilatory responsiveness after marathon running. *Journal of Applied Physiology*, 66, 2431–2436.
- Pert, C. B., & Snyder, S. H. (1973). Opiate receptors: Demonstration in the nervous tissue. *Science*, 179, 1011–1014.
- Rapport, R. (2005). *Nerve endings: The discovery of the synapse*. New York: W. W. Norton.
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In the event that Criswell College has to close the campus to on-campus classes in during the SP-21 semester, this addendum specifies how your instructor intends to adjust the course in order to allow students to meet the course objectives.

The course requirements, assignments, calendar, and attendance requirements from the syllabus for this course are replicated below. Notes and changes to the information in syllabus are highlighted. Information that is no longer relevant is indicated with a ~~strike through the font~~ and *replacement or new information is placed in italics*.

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- b. Body of the Text: \_\_\_\_\_ (20 pts.) Does the paper address the most important dimensions and key concepts regarding the topic from the assigned textbooks? Are these resources cited throughout the body of the paper according to APA style? Does the student link together the author's thoughts in a clear manner without using first person, instead using third person? Does the student use substantive research/resources to support the textbooks from at least 5 additional sources—either books or journal articles (not “research” cut and pasted from online)? Does the body of the paper flow in a logical fashion using effective transition sentences to link the paragraphs together?
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The following two rubrics will also be used to score the research paper:

- <https://www.rcampus.com/rubricshowc.cfm?code=Z99W78&sp=yes&> (APA Style Rubric)
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  - h. Finally, it is important to note that no late work, or excuses, will be accepted. It is the student's responsibility to fulfill all requirements for the course in a timely fashion. **No changes to Course Requirements**

## **Remote Class Sessions: Identity and Participation Verification**

In the event that Criswell College has to close the campus to on-campus classes in during the FA-20 semester, synchronous learning will be required. Students will be required to verify their identity and their ongoing participation through completing all requirements for the course in a timely fashion. Students will be required to participate in weekly Discussion Boards posted in CANVAS each Monday morning. All Discussion Board requirements must be completed by Friday midnight of each week. Finally, will be required to attend and participate in regular ZOOM Meetings. Students will be required to turn on their video at the beginning until the end of each of ZOOM session.