



Master of Science in Occupational Therapy Program

ANA 6009, Applied Neuroanatomy & ANA 6009L.

Number of Units: 3 credit units

Spring 2025

Meeting days/times: Mondays, 1:00-2:30 pm; Labs: Fridays, 9:00am-11:00am; Exams:
Wednesdays, 7:30-9:00 am

Meeting location: Virtual with weekly synchronous meeting

Final Exam/Presentation: May 7, 2025

Information	Specifics for the Course
Instructor title and name:	Dr. Will Brooks, Ph.D.
Phone:	N/A
Email:	wbrooks@pointloma.edu
Office location and hours:	Virtual as requested; email your faculty

PLNU Mission

To Teach ~ To Shape ~ To Send

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

Course Description

This course focuses on the relationship of the human nervous system to performance of occupations. Specific neurological systems covered will include sensory, motor, limbic, cognitive, visual, and vestibular and triventricles that correlate to common conditions seen by occupational therapists. Cases and lab experiences will assist the student in integrating neurologic concepts.

Prerequisite(s): Successful completion of ANA 6000, ANA 6001, or ANA 6005/ANA 6005L. ANA 6005/ANA 6005L is required for students in the MS Occupational Therapy program.

Successful completion of this course is necessary to progress to OCC 6027.

Relationship of Course to Curriculum Design

This course is the 2nd in a 2-part basic science series. It is taken concurrently with the following courses: OCC 6007, Human Occupations Across the Lifespan, OCC 6008, Applied Human Movement, OCC 6008L, Applied Human Movement Lab; OCC 6010, Research Methods-1; OCC 6011, Mental Health Conditions, Assessments, and Interventions; OCC 6011L, Mental Health Conditions, Assessments, and Interventions Lab, and OCC 6012, Case-Based Learning Seminar-2. This course supports the curricular thread of occupation. The foundational knowledge gained in the course prepares students to succeed in OT coursework across the curriculum.

Program and Course Learning Outcomes

This course contributes to the acquisition of skills and knowledge necessary for achievement of the following program learning outcomes:

PLO # 1: Use critical reasoning to provide evidence-based occupational therapy services across the lifespan, in a variety of service delivery models, health care settings, and community-based systems.

Course Learning Outcomes

Course learning outcomes used are ACOTE Standards and students will be using concepts and skills that will be introduced and/or be expected to master.

1. Demonstrate knowledge of the structure and function of the human body to include the biological and physical sciences, neurosciences, kinesiology, and biomechanics (B.1.1 in part).
2. Analyze the effects of disease processes including heritable diseases, genetic conditions, mental illness, disability, trauma, and injury on occupational performance (B.3.5).
3. Administer selected standardized and non-standardized assessments using appropriate procedures and protocols (B.4.5 in part).

Required Texts and Recommended Study Resources

Lundy-Ekman, L. (2017). *Neuroscience: Fundamentals for rehabilitation* (6th ed.). Elsevier. 9780323792691.

Course Credit Hour Information

Note: Online and blended classes only. Fill in the blanks.

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU credit hour policy for a ___unit class delivered over ___ weeks. Specific details about how the class meets the credit hour requirement can be provided upon request.

Assessment and Grading

Assessment Methods

Assessment methods include team-based learning quizzes, written examinations, discussion board posts, lab skill checks (Level 1), and graded case studies.

Grading

Grading will be based on the PLNU grading scale below. Grades will be rounded down from .1-.4; and rounded up from .5 to .9.

Assignment Distribution by Percentage:

TBL Quizzes	15%
Discussion Board Posts	10%
Exam #1	20%
Exam #2	20%
Final Exam	20%
Level I Lab Practical	15%

PLNU Grading Scale:

A=93-100

B-=80-82

D+=67-69

A-=92-90

C+=77-79

D=63-66

B+=87-89

C=73-76

D-=60-62

B=83-86

C-=70-72

F=0-59

Grade Intervention Plan

Scoring below a letter grade of a C (73%) in any didactic course is not considered to be a passing grade.

All students must develop a remediation plan if their grades do not meet the expected threshold. A remediation plan is a cooperative effort between the student, course instructor, and the faculty advisor to establish specific learning activities and plan to ensure competency and successful progression in the program.

Potential consequences of the above may include any of the following:

- Need to repeat a Level II or Level III clinical competency.
- Inability to take the next course in a sequence for which this course is a pre-requisite.
- Academic warning.
- Academic probation.
- Need to join the next cohort of students.

Refer to the OT Student Handbook, found on the MSOT Program website for more information.

Content Warning

I acknowledge that each of you comes to PLNU with your own unique life experiences. This contributes to the way you perceive various types of information. In Applied Neuroanatomy, all the class content, including that which may be intellectually or emotionally challenging, has been intentionally curated to achieve the learning goals for this course. The decision to include such material is not taken lightly. These topics include viewing human prosections from human cadavers, and discussion of various neurological disorders. If you encounter a topic that is intellectually challenging for you, it can manifest in feelings of discomfort and upset. In response, I encourage you to come talk to me or your friends or family about it. Class topics are discussed for the sole purpose of expanding your intellectual engagement in the occupational therapy profession, and I will support you throughout your learning in this course.

Trigger Warning

I acknowledge that each of you comes to PLNU with your own unique life experiences. This contributes to the way you perceive several types of information. In Applied Neuroanatomy, we will cover a variety of topics, some of which you may find triggering. These topics include viewing human prosections from human cadavers, and discussion of various neurological disorders. Each time this topic appears in a reading or unit, it is marked on the syllabus. The experience of being triggered versus intellectually challenged are different. The main difference is that an individual must have experienced trauma to experience being triggered, whereas an intellectual challenge has nothing to do with trauma. If you are a trauma survivor and encounter a topic in this class that is triggering for you, you may feel overwhelmed or panicked and find it difficult to concentrate. In response, I encourage you to take the necessary steps for your emotional safety. This may include leaving class while the topic is discussed or talking to a therapist at the Counseling Center. Should you choose to sit out on discussion of a certain topic, know

that you are still responsible for the material; but we can discuss if there are other methods for accessing that material and for assessing your learning on that material. Class topics are discussed for the sole purpose of expanding your intellectual engagement in the profession of occupational therapy, and I will support you throughout your learning in this course.

Incompletes and Late Assignments

All assignments are to be submitted/turned in by the by the designated due date and time of day, typically 11:59 pm. Each day an assignment is late, your grade will be reduced by 10%. Incompletes will only be assigned in extremely unusual circumstances.

PLNU Spiritual Care

Balboa Campus:

PLNU strives to be a place where you grow as a whole person. To this end, we provide resources for our graduate students to encounter God and grow in their Christian faith. At the Balboa campus, we have an onsite chaplain, Rev. Kevin Portillo, who is available during class break times across the week. If you have questions, a desire to meet or share any prayer requests with Rev. Portillo, you may contact him directly at KevinPortillo@pointloma.edu.

In addition, there is a quiet space for meditation located in the chapel on the second floor.

State Authorization

State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another state after admission to the program and/or enrollment in an online course, continuation within the program and/or course will depend on whether Point Loma Nazarene University is authorized to offer distance education courses in that state. It is the student's responsibility to notify the institution of any change in his or her physical location. Refer to the map on [State Authorization](#) to view which states allow online (distance education) outside of California.

PLNU Copyright Policy

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

PLNU Recording Notification

To enhance the learning experience, please be advised that this course may be recorded by the professor for educational purposes, and access to these recordings will be limited to enrolled students and authorized personnel.

Note that all recordings are subject to copyright protection. Any unauthorized distribution or publication of these recordings without written approval from the University (refer to the Dean) is strictly prohibited.

PLNU Academic Honesty Policy

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. For all student appeals, faculty and students should follow the procedures outlined in the University Catalog. See [Graduate Academic and General Policies](#) for definitions of kinds of academic dishonesty and for further policy information.

During the first week of class, you will be asked to submit an Academic Honesty Verification Statement. Submitting the statement is a requirement of this course. By submitting the Academic Honesty Verification Statement, you will be verifying all assignments completed in this course were completed by you. Carefully review the Academic Honesty Statement below.

Statement: "In submitting this form, I am verifying all the assignments in this course will be completed by me and will be my own work."

Artificial Intelligence (AI) Policy

You are allowed to use Artificial Intelligence (AI) tools (e.g., ChatGPT, Gemini Pro 1.5, GrammarlyGo, Perplexity, etc.) to generate ideas, but you are not allowed to use AI tools to generate content (text, video, audio, images) that will end up in any work submitted to be graded for this course. If you have any doubts about using AI, please gain permission from the instructor.

[APA Style: How to Cite ChatGPT](#)

PLNU Academic Accommodations Policy

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities in accordance with the Americans with Disabilities Act (ADA). Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center (EAC@pointloma.edu or 619-849-2486). Once a student's eligibility for an accommodation has been determined, the EAC will work with the student to create an Accommodation Plan (AP) that outlines allowed accommodations. The EAC makes accommodations available to professors at the student's request.

PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their AP in that course. Accommodations are not retroactive so clarifying with the professor at the outset is one of the best ways to promote positive academic outcomes.

Students who need accommodations for a disability should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. It is the student's responsibility to make the first contact with the EAC. Students cannot assume that because they had accommodations in the past, their eligibility at PLNU is automatic. All determinations at PLNU must go through the EAC process. This is to protect the privacy of students with disabilities who may not want to disclose this information and are not asking for any special accommodations.

Language and Belonging

Point Loma Nazarene University faculty are committed to helping create a safe and hospitable learning environment for all students. As Christian scholars we are keenly aware of the power of language and believe in treating others with dignity. As such, it is important that our language be equitable, inclusive, and prejudice free. Inclusive/Bias-free language is the standard outlined by all major academic style guides, including APA, and it is the expected norm in university-level work. Good writing and speaking do not use unsubstantiated or irrelevant generalizations about personal qualities such as age, disability, economic class, ethnicity, marital status, parentage, political or religious beliefs, race, gender, sex, or sexual orientation. Inclusive language also avoids using stereotypes or terminology that demeans persons or groups based on age, disability, class, ethnicity, gender, race, language, or national origin. Respectful use of language is particularly important when referring to those outside of the religious and lifestyle commitments of those in the PLNU community. By working toward precision and clarity of language, we mark ourselves as serious and respectful scholars, and we model the Christ-like quality of hospitality.

If you (or someone you know) have experienced other forms of discrimination or bias, you can find more information on reporting and resources at www.pointloma.edu/bias.

Sexual Misconduct and Discrimination

In support of a safe learning environment, if you (or someone you know) have experienced any form of sexual discrimination or misconduct, including sexual assault, dating or domestic violence, or stalking, know that accommodations and resources are available through the Title IX Office at pointloma.edu/Title-IX. Please be aware that under Title IX of the Education Amendments of 1972, faculty and staff are required to disclose information about such misconduct to the Title IX Office.

If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact Counseling Services at counselingservices@pointloma.edu or find a list of campus pastors at pointloma.edu/title-ix or as shown in the PLNU Spiritual Care section of this syllabus.

If you (or someone you know) have experienced other forms of discrimination or bias, you can find more information on reporting and resources at www.pointloma.edu/bias

PLNU Course Modality Definitions

1. Online Courses: These are courses with class meetings where all instruction and interaction is fully online.

- a. Synchronous Courses: At least one class meeting takes place at a designated time.
 - b. Asynchronous Courses: All class meetings are asynchronous.
2. Hybrid Courses: These are courses with class meetings that take place both in the classroom and online synchronously and/or asynchronously.
 3. In-Person Courses: These are courses that meet in person with the instructor and students in a physical classroom setting. With approval by the area dean, this may include up to 25% of qualified class interactions through a Learning Management System (such as Canvas).

PLNU Attendance and Participation Policy

Regular and punctual attendance at all class sessions is considered essential to optimum academic achievement. Therefore, regular attendance and participation in each course are minimal requirements.

If the student is absent for more than 10 percent of class sessions, two classes for a 16-week course and 1 class for a quad course, the faculty member will issue a written warning of de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university withdrawal date or, after that date, receive an "F" grade.

Students who anticipate being absent for a class should contact the instructor prior to the anticipated absence for approval to miss the class. Acceptable absences include illness, family emergencies, family deaths, and/or a significant life event impacting ability to attend class. Students are to develop a plan with the course faculty to complete the required coursework and/or complete alternative assignments assigned. Acceptance of late work and/or absences which do not meet the "acceptable criteria" is at the discretion of the instructor and does not waive attendance requirements.

Refer to [Academic Policies](#) for additional detail.

Synchronous Attendance/Participation Definition

For synchronous courses that have specific scheduled meeting times (including in-person, hybrid, and synchronous online courses), absences are counted from the first official meeting of the class regardless of the date of the student's enrollment. For courses with specific attendance requirements, those requirements are outlined in the course syllabus.

Online Asynchronous Attendance/Participation Definition

Students taking online courses with no specific scheduled meeting times are expected to actively engage throughout each week of the course. Attendance is defined as participating in an academic activity within the online classroom which includes, but is not limited to:

- Engaging in an online discussion
- Submitting an assignment
- Taking an exam
- Participating in online labs
- Initiating contact with faculty member within the learning management system to discuss course content.

Note: Logging into the course does not qualify as participation and will not be counted as meeting the attendance requirement.

Use of Technology

In order to be successful in the online or hybrid environment, you'll need to meet the minimum technology and system requirements; please refer to the [Technology and System Requirements](#) information. Additionally, students are required to have headphone speakers, microphone, or webcams compatible with their computer available to use. Please note that any course with online proctored exams requires a computer with a camera (tablets are not compatible) to complete exams online.

Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

GPS Academic Resources

PLNU offers the following free academic resources virtually for Graduate Professional Studies (GPS) Students. Visit myPLNU through the links below for more information.

- [The GPS Writing Center](#) offers:
 - **Zoom Writers Workshops** offered each quad on a variety of helpful topics.
 - **One-to-one appointments** with the Writing Coach
 - **Microlearning YouTube Video Library** for helpful tips anytime
 - [Research Help Guide](#) to help you start your research.
 - The physical office is located on the third floor of the [Mission Valley Regional Center](#) off the student lounge.
- [Academic Writing Resources Course](#): Found on your Canvas Dashboard, this course is non-credit with 24/7 access, no time limits, and self-paced content. [Watch a quick video run-through](#) and take time now to explore!
- Grammarly: Students have unlimited FREE access to Grammarly for Education, a trusted tool designed to help enhance writing skills by providing real-time feedback, identifying areas for improvement, and providing suggestions. Grammarly's Generative AI is NOT available with our student accounts.
- [Tutoring](#): Students have access to 24/7 live or scheduled subject tutoring through Tutor.com, including a Paper Drop-Off Service with feedback within 12 hours.

We are here to support you! Contact us anytime: GPSWritingCenter@pointloma.edu

Assignments At-A-Glance

The course summary below lists this course assignments. See Canvas for specific details about assignments and due dates.

Course Learning Objectives: At the conclusion of this course, students will be able to:	Course Curricular Thread (s)	ACOTE Standard Measurement of Learning	HOW? Student Learning Activities	DEMONSTRATE: Assessment of Student Learning
Demonstrate knowledge of the structure and function of the human body to include the biological and physical sciences, neurosciences, kinesiology, and biomechanics.	Occupation	B. 1.1	Course readings. Narrated PPT lectures. Synchronous class discussions. Formative case study discussions.	Team-based learning quizzes. Unit exams.
Analyze the effects of disease processes including heritable diseases, genetic conditions, mental illness, disability, trauma, and injury on occupational performance.	Occupation	B. 3.5	Course readings. Narrated PPT lectures. Synchronous online class discussions. Formative case study discussions.	In-person lab skill checks. In-person lab exam. Team-based learning quizzes and written unit exams.
Administer selected standardized and non-standardized assessments using appropriate procedures and protocols.	Occupation	B.4.5 (in part)	Course readings. PPT lectures. Video instruction. Synchronous in-person labs.	In-person level 1 skill checks.