



Department of College of Health Sciences

Master of Science in Occupational Therapy

## OCC 6018 | Assistive Technology

3 units (2 lecture/ 1 lab)

Summer 2024

May 7 - August 20, 2024

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Meeting days/times: TTH 9:30 am - 12:00 pm

Meeting location: Balboa #

Final Project: August 20, 2024 at 9:30 am

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### Course Instructor Contact Information

Information:	Specifics for this Course:
Instructor name and title:	Irina Silchuk-White, MS, OTR/L
Phone:	N/A
Email:	isilchuk@pointloma.edu
Office location and hours:	By appointment

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## 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.

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## OCCUPATIONAL THERAPY MISSION

The mission of the PLNU Occupational Therapy program is to produce competent and professional graduates who provide evidenced-based and occupation focused interventions that serve others as an expression of faith.

## COURSE DESCRIPTION

Low-and-high-tech adaptations for persons, tasks, environments, and/or contexts to promote optimal health and occupational performance are the focus of this course. Students will also learn and apply physical agent modalities, orthotic interventions, and 3-D printing to promote health and wellness. Small group case study presentations of person/environmental modifications will be the final project for this course.

This course focuses on low- and high-tech interventions used by occupational therapists when working with people of all ages and in all settings to promote engagement in occupations. Technology interventions taught include orthotic fabrication, modalities, activities of daily living, work, and home management aids. More complex assistive technology taught includes use of computer and mobile phone aids, 3-D printing, switches for children with disabilities, and wheelchair seating and positioning. Students' competency in use of technology will be evaluated through skill checks and responses to case studies. Additionally, the interplay the individual's capabilities and the barriers to occupational participation will be examined.

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## **RELATIONSHIP OF COURSE TO CURRICULUM DESIGN AND THREADS**

This course is foundational for subsequent program intervention courses. It is taken concurrently with Level I Mental Health Fieldwork, group processes, case-based learning seminar-3, healthcare systems and professional documentation, and an interprofessional seminar course. This course supports the curricular thread of **occupation** to promote occupational participation and occupational justice. This course expands upon foundational knowledge from applied human movement.

## **PROGRAM LEARNING OUTCOMES**

Program Student Learning Outcomes: Our educational goals describe what the MSOT students will demonstrate upon completion of their didactic and clinical coursework. The goals flow from and support the mission statement, the curricular design, threads, and curricular sequence. Program learning outcomes for this course include:

- 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.
- PLO # 3: Provide services within a client-centered and occupation-based framework, with consideration of contextual factors which influence a persons', groups' and/or populations' ability to engage in meaningful occupational tasks and roles.

## **COURSE LEARNING OUTCOMES:**

Course learning outcomes are based on ACOTE® standards:

1. Recommend and provide direct interventions and procedures to persons, groups, and populations to enhance safety, health and wellness, and performance in occupations. This must include the ability to select and deliver occupations and activities, preparatory methods, and tasks (including therapeutic exercise), education and training, and advocacy (B.4.10).
  2. Assess the need for and demonstrate the ability to design, fabricate, apply, fit, and train in assistive technologies and devices (e.g., electronic aids to daily living, seating, and positioning systems) used to enhance occupational performance and foster participation and well-being (B.4.11).
  3. Assess the need for orthotics, and design, fabricate, apply, fit, and train in orthoses and devices used to enhance occupational performance and participation (B.4.12 in part).
  4. Provide recommendations and training in techniques to enhance functional mobility, including wheelchair management (B.4.13 in part).
  5. Demonstrate knowledge and use of the safe and effective application of superficial thermal agents, deep thermal agents, electrotherapeutic agents, and mechanical devices as a preparatory measure to improve occupational performance. This must include indications, contraindications, and precautions (B.4.17).
  6. Assess, grade, and modify the way persons, groups, and populations perform occupations and activities by adapting processes, modifying environments, and applying ergonomic principles to reflect the changing needs of the client, sociocultural context, and technological advances (B.4.18).
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## **REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES**

Cook, A., Miller Polgar, J. & Encarnação, P. (2020). *Assistive technologies: Principles and practices* (5th ed.). Elsevier. 978-0323523387.

## ASSESSMENT AND GRADING

Course assessment measures used in this course include:

Course Weighting

Category	Percentage of Final Grade
Assignments (Reading/Video Reflection)	15%
Discussion Board Posts	10%
Midterm	15%
Final Project / Presentation	25%
Lab Assignments / Activities	20%
Lab Skills Checks	15%
<b>Total Percentage:</b>	<b>100%</b>

## 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.

Grading Distribution

Letter Grade	GPA	Percent Grade
A	4.00	93-100
A-	3.75	90-92
B+	3.25	87-89
B	3.00	83-86
B-	2.75	80-82

**Below a B- (80%) will require course remediation for any clinical course and Level II and III clinical competencies**

C+	2.25	77-79
C	2.0	73-76
C-	1.75	70-72
<b>Below a C- (70%) will not be a passing grade</b>		

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<b>Letter Grade</b>	<b>GPA</b>	<b>Percent Grade</b>
<b>D+</b>	<b>1.25</b>	<b>67-69</b>
<b>D</b>	<b>1.0</b>	<b>63-66</b>
<b>D-</b>	<b>.75</b>	<b>60-62</b>
<b>F</b>	<b>0</b>	<b>0-59</b>

## **GRADE INTERVENTION PROCEDURES**

Students scoring below a letter grade of B- (79.5%) in any clinical course (Community-Based Seminar, Level I and Level II Fieldwork) AND any Level II and Level III Clinical Competency will be rated as not showing evidence of necessary competency. Students will be required to contact their course faculty and develop a remediation plan\*. Refer to the MSOT Student Handbook for more information.

Students who receive a course grade of 69.4 or lower AND/OR whose cumulative GPA falls below a 3.0, will be placed on academic probation and must develop a remediation plan\*. Refer to the MSOT Student Handbook for more information.

\*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.

## **INCOMPLETES AND LATE ASSIGNMENTS**

Late submissions are not allowed unless in the event of an unusual circumstance, which will need to be approved by faculty prior to the day and time the assignment is due. If you turn in a late assignment, you will receive a 10% deduction in your grade for each day the assignment is late.

## **PLNU SPIRITUAL CARE - BALBOA CAMPUS**

PLNU strives to be a place where you grow as whole persons. 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, desire to meet with Rev. Portillo or prayer requests you can contact him directly at [KevinPortillo@pointloma.edu](mailto:KevinPortillo@pointloma.edu).

## **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 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. Faculty should follow and students may appeal

using the procedure in the university Catalog. See the [Academic Honesty Policy](#) in the Graduate and Professional Studies Catalog for definitions of kinds of academic dishonesty and for further policy information.

## PLNU ACADEMIC ACCOMMODATIONS POLICY

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities. Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center ([EAC@pointloma.edu](mailto:EAC@pointloma.edu) or 619-849-2486). Once a student's eligibility for an accommodation has been determined, the EAC will issue an academic accommodation plan ("AP") to all faculty who teach courses in which the student is enrolled each semester.

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 particular course and/or if they do not wish to utilize some or all of the elements of their AP in that course.

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.

## SEXUAL MISCONDUCT AND DISCRIMINATION

Point Loma Nazarene University faculty are committed to helping create a safe learning environment for all students. 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 help and support are available through the Title IX Office at [pointloma.edu/Title-IX](http://pointloma.edu/Title-IX). Please be aware that under Title IX of the Education Amendments of 1972, it is 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](mailto:counselingservices@pointloma.edu) or find a list of campus pastors at [pointloma.edu/title-ix](http://pointloma.edu/title-ix)

## COURSE MODALITY DEFINITIONS

1. **In-Person:** Course meetings are face-to-face with no more than 25% online delivery.
2. **Online:** Coursework is completed 100% online and asynchronously.
3. **Online Synchronous:** Coursework is completed 100% online with required weekly online class meetings.
4. **Hybrid:** Courses that meet face-to-face with required online components.

## PLNU ATTENDANCE AND PARTICIPATION POLICY

Regular and punctual attendance at all **synchronous** class sessions is considered essential to optimum academic achievement. If the student is absent for more than 10 percent of class sessions (virtual or face-to-face), 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 drop date or, after that date, receive the appropriate grade for their work and participation. In some courses, a portion of the credit hour content will be delivered **asynchronously**, and attendance will be determined by submitting the assignments by the posted due dates. See [Academic Policies](#) in the Graduate and Professional Studies Catalog. If absences exceed these limits but are due to university excused health issues, an exception will be granted.

## 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 require 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.

# COMMUNICATION STRATEGIES AND FEEDBACK

The instructor will respond to email inquiries within 24 hours M-F and within 48 hours on weekends and holidays. Graded feedback on assignments, examinations, and/or other relevant assessments will be provided within 1 week of student submission.

## ASSIGNMENTS AT-A-GLANCE

The course summary below lists our assignments and their due dates. Click on any assignment to review it.

Course Objectives Based on Curricular Threads: (At the conclusion of this course, students will be able to):	ACOTE Alignment		HOW: Student Learning Activities	DEMONSTRATE: Assessment of Student Learning (Measures 1-8: numbered below)
	ACOTE Standard	WHAT: Course Learning Outcome		
Recommend and provide direct interventions and procedures to persons, groups, and populations to enhance safety, health and wellness, and performance in occupations. This must include the ability to select and deliver occupations and activities, preparatory methods, and tasks (including therapeutic exercise), education and training, and advocacy.	B.4.10	Recommend and provide direct interventions and procedures to persons, groups, and populations to enhance safety, health and wellness, and performance in occupations. This must include the ability to select and deliver occupations and activities, preparatory methods, and tasks (including therapeutic exercise), education and training, and advocacy.		
Assess the need for and demonstrate the ability to design, fabricate, apply, fit, and train in assistive technologies and devices (e.g., electronic aids to daily living, seating, and positioning systems) used to enhance occupational performance and foster participation and well-being.	B.4.11	Assess the need for and demonstrate the ability to design, fabricate, apply, fit, and train in assistive technologies and devices (e.g., electronic aids to daily living, seating, and positioning systems) used to enhance occupational performance and foster participation and well-being.		
Assess the need for orthotics, and design, fabricate, apply, fit, and train in orthoses and devices used to enhance occupational performance and participation.	B.4.12 (in part)	Assess the need for orthotics, and design, fabricate, apply, fit, and train in orthoses and devices used to enhance occupational performance and participation.		
Provide recommendations and training in techniques to enhance functional mobility, including wheelchair management.	B.4.13 (in part)	Provide recommendations and training in techniques to enhance functional mobility, including wheelchair management.		

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## ASSIGNMENTS AT-A-GLANCE

