OTHA 1409 - Human Structure and Function in Occupational Therapy 1F1 Course Syllabus

Description

Study of the biomechanics of human motion. Emphasis on the musculoskeletal system including skeletal structure, muscles and nerves, and biomechanical assessment procedures.

Prerequisites BIOL 2401, BIOL 2402, ENGL 1301, PSYC 2301, PSYC 2314, HUMA 1301, OTHA 1360, OTHA 1341, OTHA 1405, OTHA 1415, OTHA 2360,

Corequisites OTHA 2335

Semester Offered
Summer Flex
Credits 4
Lecture Hours 2
Lab Hours 5
Extended Hours 0
Contact Hours 112
State Approval Code 51.0803
Instructor Name April Kruger, BAAS, COTA/L
Semester/Year Summer I Flex 2025

Meeting Time and Location
MW 12:30pm-4:30pm, Th: 8:00am-12:00pm - In classroom PSC 1122

Alternate Operations During Campus Closure

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Panola College to move to altered operations. During this time, Panola College may opt to continue delivery of instruction through methods that include, but are not limited to: online learning management system (CANVAS), online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor Panola College's website (www.panola.edu) for instructions about continuing courses remotely, CANVAS for each class for course-specific communication, and Panola College email for important general information.

Student Basic Needs

Unexpected circumstances may arise, but Panola College offers various resources to support students. If you need mental health services or are facing challenges with transportation, affording class materials and supplies, or accessing food regularly—issues that may impact your class performance—please visit panola.edu/resources.

Class Attendance

Regular and punctual attendance of classes and laboratories is required of all students. When a student has been ill or absent from class for approved extracurricular activities, he or she should be allowed, as far as possible, to make up for the missed work. If a student has not actively participated by the census date, they will be dropped by the instructor for non-attendance. This policy applies to courses that are in-person, online, hybrid, and hyflex.

Attendance in online courses is determined by submission of an assignment or participation in an activity. According to federal guidelines, simply logging into a distance learning course without participating in an

academic assignment does not constitute attendance. Distance learning is defined as when a majority (more than 50%) of instruction occurs when the instructor and students are in separate physical locations. Students must engage in an academic activity prior to the course census date.

When an instructor feels that a student has been absent to such a degree as to invalidate the learning experience, the instructor may recommend to the Vice President of Instruction that the student be withdrawn from the course. Instructors may seek to withdraw students for non-attendance after they have accumulated the following number of absences:

Fall or spring semesters:

3 or more class meeting times per week - 5 absences

2 class meeting times per week - 3 absences

1 class meeting per week - 2 absences

The student is responsible for seeing that he or she has been officially withdrawn from a class. A student who stops attendance in a class without officially withdrawing from that class will be given a failing grade; consequently, the student must follow official withdrawal procedures in the Admissions/Records Office.

Please note: Health Science and Cosmetology courses may require more stringent attendance policies based on their accreditation agencies. Please see the addendum and/or program handbook for further information concerning attendance.

Pregnant/Parenting Policy

Panola College welcomes pregnant and parenting students as a part of the student body. This institution is committed to providing support and adaptations for a successful educational experience for pregnant and parenting students. Students experiencing a need for accommodations related to pregnancy or parenting will find a Pregnancy and Parenting Accommodations Request form in the Student Handbook or may request the form from the course instructor.

Artificial Intelligence (AI) Course Policy

Use of generated AI Permitted under some classroom circumstances with permission.

There are situations throughout the course where you may be asked to use artificial intelligence (AI) tools to explore how they can be used. Outside of those circumstances, you should not use AI tools to generate content that will end up in any student work (assignments, activities, discussion responses, etc.). In such cases for Option #2, no more than 25% of the student work should be generated by AI. Use of any AI-generated content in this course without the instructor's consent qualifies as academic dishonesty and violates Panola College's standards of academic integrity.

Instructional Goals and Purposes

Identify human skeletal structure by bones, bony landmarks, and muscles; analyze human motion by muscle function, innervation, and kinetics related to functional outcomes; identify normal and abnormal movement as related to occupational performance; and evaluate joint range of motion and muscle strength.

This course teaches students about the person subsystem and specific client factors that influence occupational performance. Through team-based learning instruction, students collaboratively develop the clinical reasoning skills required to demonstrate activity analysis in areas of occupation, performance skills, performance patterns, context(s) and environments, and client factors, including accurately assessing muscle strength and range of motion, to implement targeted interventions to improve occupational performance. Students learn about the body mechanics required to perform safe and effective basic patient transfers. Through role-playing, students demonstrate therapeutic use of self, the ability to describe OT's unique nature and benefits, and how to safely manage patient interactions.

Learning Outcomes

Identify human skeletal structure by bones, bony landmarks, and muscles; analyze human motion by muscle function, innervation, and kinetics related to functional outcomes; identify normal and abnormal movement as related to occupational performance; and evaluate joint range of motion and muscle strength.

Specific Course Objectives (includes SCANS)

After studying all materials and resources presented in the course, the student will be able to:

B.1.1. Human Body, Development, and Behavior	Demonstrate knowledge of: • The structure and function of the human body that must include the biological and physical sciences, neurosciences, kinesiology, and biomechanics. • Human development throughout the lifespan (infants, children, adolescents, adults, and older adults). Course content must include, but is not limited to, developmental psychology. • Concepts of human behavior that must include the behavioral sciences, social sciences, and science of occupation.
B.3.12. Functional Mobility	Provide training in techniques to enhance functional mobility, including physical transfers, wheelchair management, and mobility devices.
B.3.3. Standardized and Nonstandardized Screening and Assessment Tools	Contribute to the evaluation process of client(s)' occupational performance by completing an occupational profile and administering standardized and nonstandardized screenings and assessment tools as delegated by the occupational therapist. Explain the importance of using psychometrically sound assessment tools when considering client needs, and cultural and contextual factors.

Note: Alphanumeric codes, descriptions, and objectives, as indicated above, are retrieved from the Accreditation Standards for an Associate-Degree-Level Education Program for the Occupational Therapy Assistant.

Citation: Accreditation Council for Occupational Therapy Education. (2023). 2023 Accreditation Council for Occupational Therapy Education (ACOTE®) Standards and Interpretive Guide. https://acoteonline.org/accreditation-explained/standards/

SCANS implemented in these course objectives include:

SCANS	**SCANS**
Basic Skill Competencies	**Workplace Competencies**
A. i, ii, iii, iv, v	A. i, iii, iv,
B. i, ii, iii, v	B. i, ii, iv
C. I, iii,	C. i,ii,iii,iv
	D. iii

Course Content

A general description of lecture/discussion topics included in this course are listed in the Learning Outcomes / Specific Course Objectives sections of this syllabus.

Students in all sections of this course will be required to do the following

1. Understand and comply with all instructional policies and procedures in the current Panola College *OTA Student Policy Manual* and the Panola College *Student Handbook,* including but not limited to attendance, assignment submission, makeup exams, professional and ethical behaviors, attendance, etc.
2. Have access to a computer with high-speed internet service, printer, and scanning device with the necessary compatible software for course content retrieval and document submissions.
3. If a student's course grade is less than 75% at midterm, the student may be required to schedule an academic advising session with the course instructor. As a part of the academic advising session:
    a. The student will create a measurable academic success plan for remediation with the instructor's guidance.
    b. The academic success plan will remain in effect until the end of the semester.
    c. Subsequent advising sessions will be mandatory at a rate established by the instructor in the first academic advising session.

Methods of Instruction/Course Format/Delivery

OTHA 1409 utilizes a web-enhanced course format with instructional principles rooted in the Team-Based LearningTM framework. According to the Team-Based LearningTM Collaborative (TBLC), "Team-Based Learning is an evidence-based collaborative learning teaching strategy designed around units of instruction, known as 'modules,' that are taught in a three-step cycle: preparation, in-class readiness assurance testing, and application-focused exercise."

Students must complete preparatory materials before class, including text readings, presentations, discussion postings, videos, and other materials. The digital content can be presented in Canvas, Intedashboard, EHRgo, Simucase, ICE videos, OTU, and other online technologies/learning modalities. At the start of each in-person class, students participate in Readiness Assurance Testing (RAT) as individuals (iRAT) and as a team (tRAT), followed by application-focused activities, exercises, and labs. Major exams, practical skills exams, and lab practicals cover content from multiple related modules.

Major Assignments/Assessments

The following items are assigned and assessed during the semester and used to calculate the student's final grade.

Assignments

Individual Assignments & Application Activities

- Individual Application-Focused Activities/Exercises/Labs/Reflections

Team/Group Assignments

- Team Application-Focused Activities/Exercises/Labs

Assessments

Individual Assessments

- Content Exams
- Practical Content Exams
- Individual Readiness Assessment Tests (iRATs)
- Practical Patient Skills Exams

Team Assessments

- Team Readiness Assessment Tests (tRATs)

Course Grade

The following learning tasks will be assigned and assessed during the semester and used to calculate the student's final grade.

Individual Assignments / Assessments	80%
Practical Content Exams (Assesment)	
Content Exams (Assessment)	
Practical Patient Skills Exams (Assessment)*	
Individual Readiness Assessment Tests (Assessment)	
Individual Assignments & Application Activities (Assignment)	
Team Assignments/Assessments	20%
Team Readiness Assessment Tests (Assessment)	
Team Labs & Application Actrivities (Assignments)	

Numeric grades in the course will be converted to Letter Grades according to the following conversion chart:

% Score	Letter Grade
90-100	A
80-89	B
75-79	C
60-74	D
Below 60	F

Note 1: No assignment or final scores will be rounded.

Note 2: All rules and regulations printed in the College catalog, the Panola College *Student Handbook,* and the OTA Student Policy Manual will be reinforced throughout this course.

Note 3: The OTA Program will not tolerate any form of academic dishonesty defined in the Panola College *Student Handbook* or unethical behaviors defined in the OTA Program's Student Policy Manual. Any student participating in academic dishonesty or unethical behaviors will receive a zero (0) on the assignment or exam and may be subject to further disciplinary action.

***Note 3**: Technical skills must be mastered to progress in the OTA curriculum. **Students must demonstrate a basic level of proficiency by earning at least 75% on practical patient skills exams. Not achieving this level of mastery results in automatic failure of this course.** Students have three attempts to earn a passing grade for each practical patient skills exam. Maximum scores decrease by 10% each re-take (for example, skill test #1 max score = 100%, skills test #2 max score = 90%, skill test #3 max score = 80%). If a student does not pass a practical patient skills exam by their third attempt, the final course grade will reflect the non-passing score of the final attempt.

Students are required to:

1. Comply with all Instructional Policies and Procedures in the Panola OTA Student Policy Manual (attendance, late submission, make-up exams, professional and ethical behaviors, and others).
2. Complete all pre-class assignments before class.
3. Actively participate in class discussions and experiences.
4. Take the initiative to obtain all materials missed due to absence.
5. Take the initiative to schedule any additional practice, tutoring, or instruction time needed with the course instructor.

Texts Materials, and Supplies

Short, Nathan, Vilensky, Joel, and Carlos A. Suarez-Quian. (2022). **Functional Anatomy for Occupational Therapy.** Books of Discovery. ISBN 978-0998785011

Biel, Andrew. (2023). Student Workbook for Biel's Trail Guide to The Body. 6th edition. Books of Discovery. ISBN 978-0991466672

*Books will be used throughout the curriculum.

Required Readings

As assigned in CANVAS

Recommended Readings

As assigned in CANVAS

Other

- Courses conducted via video conferencing may be recorded and shared for instructional purposes by the instructor.
- For current texts and materials, use the following link to access bookstore listings: https://www.panolacollegestore.com.
- For testing services, use the following link: https://www.panola.edu/student-services/studentsupport/academic-testing-center.
- If any student in this class has special classroom or testing needs because of a physical learning or emotional condition, please contact the ADA Student Coordinator in Support Services located in the Charles C. Matthews Student Center or go to https://www.panola.edu/studentservices/student-support/disability-support-services for more information.
- Withdrawing from a course is the student's responsibility. Students who do not attend class and who do not withdraw will receive the grade earned for the course.
- Student Handbook: https://www.panola.edu/ (located on at the bottom under student)

SCANS Criteria

1. Foundation skills are defined in three areas: basic skills, thinking skills, and personal qualities.
    a. Basic Skills: A worker must read, write, perform arithmetic and mathematical operations, listen, and speak effectively. These skills include:
        i. Reading: locate, understand, and interpret written information in prose and in documents such as manuals, graphs, and schedules.
        ii. Writing: communicate thoughts, ideas, information, and messages in writing, and create documents such as letters, directions, manuals, reports, graphs, and flow charts.
        iii. Arithmetic and Mathematical Operations: perform basic computations and approach practical problems by choosing appropriately from a variety of mathematical techniques.
        iv. Listening: receive, attend to, interpret, and respond to verbal messages and other cues.
        v. Speaking: Organize ideas and communicate orally.
    b. Thinking Skills: A worker must think creatively, make decisions, solve problems, visualize, know how to learn, and reason effectively. These skills include:
        i. Creative Thinking: generate new ideas.
        ii. Decision Making: specify goals and constraints, generate alternatives, consider risks, and evaluate and choose the best alternative.
        iii. Problem Solving: recognize problems and devise and implement plan of action.
        iv. Visualize ("Seeing Things in the Mind's Eye"): organize and process symbols, pictures, graphs, objects, and other information.
        v. Knowing How to Learn: use efficient learning techniques to acquire and apply new knowledge and skills.
        vi. Reasoning: discover a rule or principle underlying the relationship between two or more objects and apply it when solving a problem.
    c. Personal Qualities: A worker must display responsibility, self-esteem, sociability, self management, integrity, and honesty.
        i. Responsibility: exert a high level of effort and persevere toward goal attainment.
        ii. Self-Esteem: believe in one's own self-worth and maintain a positive view of oneself.
        iii. Sociability: demonstrate understanding, friendliness, adaptability, empathy, and politeness in group settings.
        iv. Self-Management: assess oneself accurately, set personal goals, monitor progress, and exhibit self-control.
        v. Integrity and Honesty: choose ethical courses of action.
2. Workplace competencies are defined in five areas: resources, interpersonal skills, information, systems, and technology.
    a. Resources: A worker must identify, organize, plan, and allocate resources effectively.
        i. Time: select goal-relevant activities, rank them, allocate time, and prepare and follow schedules.
        ii. Money: Use or prepare budgets, make forecasts, keep records, and make adjustments to meet objectives.
        iii. Material and Facilities: Acquire, store, allocate, and use materials or space efficiently. Examples: construct a decision timeline chart; use computer software to plan a project; prepare a budget; conduct a cost/benefits analysis; design an RFP process; write a job description; develop a staffing plan.
    b. Interpersonal Skills: A worker must work with others effectively.
        i. Participate as a Member of a Team: contribute to group effort.
        ii. Teach Others New Skills.
        iii. Serve Clients/Customers: work to satisfy customer's expectations.
        iv. Exercise Leadership: communicate ideas to justify position, persuade and convince others, responsibly challenge existing procedures and policies.
        v. Negotiate: work toward agreements involving exchange of resources, resolve divergent interests.
        vi. Work with Diversity: work well with men and women from diverse backgrounds. Examples: collaborate with a group member to solve a problem; work through a group conflict situation, train a colleague; deal with a dissatisfied customer in person; select and use appropriate leadership styles; use effective delegation techniques; conduct an individual or team negotiation; demonstrate an understanding of how people from different cultural backgrounds might behave in various situations.

c. Information: A worker must be able to acquire and use information.
    i. Acquire and Evaluate Information.
    ii. Organize and Maintain Information.
    iii. Interpret and Communicate Information.
    iv. Use Computers to Process Information. Examples: research and collect data from various sources; develop a form to collect data; develop an inventory record-keeping system; produce a report using graphics; make an oral presentation using various media; use on-line computer databases to research a report; use a computer spreadsheet to develop a budget.
d. Systems: A worker must understand complex interrelationships.
    i. Understand Systems: know how social, organizational, and technological systems work and operate effectively with them.
    ii. Monitor and Correct Performance: distinguish trends, predict impacts on system operations, diagnose deviations in systems' performance and correct malfunctions.
    iii. Improve or Design Systems: suggest modifications to existing systems and develop new or alternative systems to improve performance. Examples: draw and interpret an organizational chart; develop a monitoring process; choose a situation needing improvement, break it down, examine it, propose an improvement, and implement it.
e. Technology: A worker must be able to work with a variety of technologies.
    i. Select Technology: choose procedures, tools or equipment including computers and related technologies.
    ii. Apply Technologies to Task: understand overall intent and proper procedures for setup and operation of equipment.
    iii. Maintain and Troubleshoot Equipment: Prevent, identify, or solve problems with equipment, including computers and other technologies. Examples: read equipment descriptions and technical specifications to select equipment to meet needs; set up and assemble appropriate equipment from instructions; read and follow directions for troubleshooting and repairing equipment.