

The University of Texas at Tyler
Master of Occupational Therapy Program
OCTH 5247 Assistive Technology in Pediatric Occupational Therapy Practice
Spring 2022

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Course Description: Support participation in pediatric and family populations through assistive technology. Introduction model of AT assessment and decision-making. Focus on universal design and individualized technologies to support occupational performance in pediatric and family populations.

Credits: 2

Course Objectives

1. Apply frames of reference/theories specific to application of assistive technologies.
2. Articulate principles of assistive technology.
3. Design device and compensatory strategies to support pediatric participation based on client need/context.
4. Evaluate environmental modifications to support participation in pediatric population.
5. Apply foundational knowledge, previous professional experiences and new academic learning to fieldwork and community engagements to meet the needs of clients in various contexts and cultures reflecting ethical practice.

Connection to the MOT Curriculum

Clinical Reasoning & Reflective Practice Application

This course is one of two assistive technology courses. Using foundational information, clinical reasoning and reflective practice, the student will create solutions for improved occupational performance, participation and social participation in pediatric populations using assistive technology. Applying an understanding of clients and caregivers through integration of subsequent coursework, the student will develop interventions that provide assistive technology preparatory method.

Learning Activities Required for Course Credit

Readings

Competency in computer/app based technology for pediatric practice

Competency in low technology in pediatric practice

Understanding of ethical and legal responsibilities in AT

Development of assistive technology solution for pediatric case study

Connection to the MOT Curriculum

Clinical Reasoning & Reflective Practice Application

This course will synthesize knowledge gained in Occupations Evaluation, Conditions and Interventions II (Pediatric Practice). This course will provide various understanding of technology used in Pediatric practice.

Learning Activities Required for Course Credit/Grading

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|------------------------|------|
| Assignments & Projects | 60% |
| Exam 1 & 2 | 40% |
| | 100% |

Specific Content Areas

Assistive technology basics (low tech/high tech)

Ethical and legal responsibilities in AT

Mobility/Positioning

Grading Policies

Written assignments are graded on content, style, clarity, conciseness and comprehensiveness. Written assignments are expected to reflect the guidelines in the Publication Manual of the American Psychology Association (APA) 6th edition. Some of the required assignments in this course may be checked for plagiarism using Turnitin or other plagiarism software.

Class preparation: All students are expected to complete assigned readings and review online materials before taking quizzes and/or attending class.

Late assignments: Assignments are due on the date indicated in the syllabus. No late work will be accepted without prior arrangement with the instructor, and may still be subject to penalty.

Grading Scale

A=90-100% total points

B=80-89% total points

C=70-79% total points

D=60-69% total points

F= less than 60% total points

Date of Final Exam: n/a

Date to withdraw without penalty: TBA

Attendance Policy: Since oncampus meetings are limited to scheduled weekends, no opportunity exists for makeup work. Laboratory activities cannot be made up, and no points can be given for missed classes. In event of excused absence, there will be no penalty for the absence, but the student is solely responsible for obtaining information missed.

UNIVERSITY POLICIES

UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/rightsresponsibilities.php>

Campus Carry

We respect the right and privacy of students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at

<http://www.uttyler.edu/about/campus-carry/index.php>

UT Tyler a Tobacco-Free University

All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors. Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products. There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free.

Grade Replacement/Forgiveness and Census Date Policies

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. (For Fall, the Census Date is Sept. 12.) Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar. Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract. The Census Date (Sept. 12th) is the deadline for many forms and enrollment actions of which students need to be aware.

These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

State-Mandated Course Drop Policy

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

Disability/Accessibility Services

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Texas at Tyler offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has

been submitted and an appointment with Cynthia Lowery, Assistant Director of Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.uttyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150 or call 903.566.7079.

Student Absence due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Revised 05/17 Student Absence for University-Sponsored Events and Activities If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

Emergency Exits and Evacuation

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

Student Standards of Academic Conduct

Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

- i. "Cheating" includes, but is not limited to:
 - copying from another student's test paper;
 - using, during a test, materials not authorized by the person giving the test;
 - failure to comply with instructions given by the person administering the test;
 - possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed "crib notes". The presence of textbooks constitutes a violation if they have been specifically prohibited by the person administering the test;
 - using, buying, stealing, transporting, or soliciting in whole or part the contents of an unadministered test, test key, homework solution, or computer program;
 - collaborating with or seeking aid from another student during a test or other assignment without authority;
 - discussing the contents of an examination with another student who will take the examination;
 - divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructors has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student;
 - substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;
 - paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, home solution or computer program;
 - falsifying research data, laboratory reports, and/or other academic work offered for

credit;

- taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and
- misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially.

ii. "Plagiarism" includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the submission of it as one's own academic work offered for credit.

iii. "Collusion" includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.

iv. All written work that is submitted will be subject to review by plagiarism software.

UT Tyler Resources for Students

- UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu
- UT Tyler Tutoring Center (903.565.5964), tutoring@uttyler.edu
- The Mathematics Learning Center, RBN 4021, this is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.
- UT Tyler Counseling Center (903.566.7254)

ACOTE Standards

Assessment Measures

1 Assignment

2 Lab Test

3 Objective Test

4 Essay Test

5 Project

6 Presentation

7 Demonstration

8 Alternative Assessment

| ACOTE Standard | | Syllabus Objective | Assessment Measure |
|----------------|--|--------------------|--------------------|
| B.1.2 | Demonstrate knowledge and understanding of human development throughout the lifespan | 1-4 | |
| B.1.8 | Demonstrate an understanding of the use of technology to support performance, participation, health and well-being. This technology may include, but is not limited to, electronic documentation systems, distance communication, virtual environments, and telehealth technology. | 1-4 | |
| B.2.10 | Use clinical reasoning to explain the rationale for and use of compensatory strategies when desired life tasks cannot be performed. | 3 | |

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| B.5.9 | Evaluate and adapt processes or environments applying ergonomic principles and principles of environmental modification | 3,4 | |
| B.5.10 | Articulate principles of and be able to design, fabricate, apply, fit and train in assistive technologies and devices | 1,2 | |
| B.5.12 | Provide recommendations and training in techniques to enhance functional mobility | 1-4 | |
| B.5.13 | Provide recommendations and training in techniques to enhance community mobility | 1-4 | |
| B.5.14. | Provide management of feeding, eating, and swallowing to enable performance (including the process of bringing food or fluids from the plate or cup to the mouth, the ability to keep and manipulate food or fluid in the mouth, and swallowing assessment and management) and train others in precautions and techniques while considering client and contextual factors. | 1-4 | |
| B.5.23 | Grade and adapt the environment:, tools, materials, occupations, and interventions to reflect the changing needs of the client, the sociocultural context and technological advances | 1-4 | |
| B.5.24 | Select and teach compensatory strategies , such as the use of technology and adaptations to the environment, that support performance, participation and well being | 3,4 | |
| C.1.1 | Ensure that the fieldwork program reflects the sequences and scope of content in the curriculum design in collaboration with faculty so that fieldwork experiences strengthen the ties between didactic and fieldwork experiences | 1-5 | |

NBCOT Domain, Task & Knowledge

Domain 1

- 010102 Expected patterns, progressions and prognoses associated with conditions that limit occupational performance
- 010105 Influence of client factors, context, and environment on habits, routines, roles and rituals
- 010201 Therapeutic approaches, model of practice, and frames of reference
- 010203 Internal & external influences on occupational performance

Domain 3

- 030101 Influence of pediatric conditions and typical developmental milestones on areas of occupation
- 030102 Intervention activities for supporting participation in occupation based on current sensory, cognitive, motor and psychosocial skills and abilities
- 030103 Interventions methods for facilitating and inhibiting sensory, motor or perceptual processing based on pediatric conditions, tasks and environmental demands
- 030104 Intervention methods for improving ROM, strength, and activity tolerance based on pediatric conditions in order to promote occupational performance
- 030107 Assistive technology, adaptive devices and durable medical equipment based on pediatric conditions, tasks and environmental needs
- 030108 Methods for adapting intervention techniques, activities and environments in response to behaviors and developmental needs
- 030109 Intervention methods for enabling feeding and eating skills based on pediatric conditions and developmental levels
- 030110 Transfer and positioning techniques based on pediatric conditions task and environmental demands
- 030111 Prevocation and vocational interventions that support transition planning
- 030112 Seating options, positioning devices, mobility systems for pediatric conditions, developmental level and environmental demands
- 030113 Environmental modifications for maximizing accessibility and mobility within various context based on pediatric conditions, developmental level, and task demands
- 030114 Methods for adapting or grading an activity, task and an environmental based on pediatric conditions, developmental needs, and task demands
- 030115 Methods and techniques for promoting the continuation of the interventions within multiple contexts based on current pediatric conditions, developmental level and expected outcomes

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| 040201 | Influence on policy, procedures and guidelines on service delivery |
| 040202 | Licensure laws, federally mandated requirements and reimbursement policies related to occupational therapy service delivery |
| 040203 | Methods for incorporating risk management techniques and monitoring safety related to occupational therapy service delivery |
| 040205 | Scope of practice and practice standards in occupational therapy |
| 040206 | Accountability processes and procedures using relevant technology |

NBCOT Texts Commonly Used

Ayres, A. J. (2005). *Sensory integration and the child: Understanding hidden sensory challenges* (25th Anniversary Ed.). Los Angeles, CA: Western Psychological Services

Case-Smith, J., & O'Brien, J. C. (2015). *Occupational therapy for children and adolescents* (7th ed.). St. Louis, MO: Mosby Elsevier.

Cook, A. M., & Polgar, J. M. (2015). *Assistive technologies: Principles & practice* (4th ed.). St. Louis, MO: Mosby Elsevier.

Kramer, P., & Hinojosa, J. (2010). *Frames of reference for pediatric occupational therapy* (3rd ed.). Baltimore, MD: Lippincott Williams & Wilkins.

Kranowitz, C. S. (2005). *The out-of-sync child: Recognizing and coping with sensory processing disorder* (Rev. ed.). New York, NY: The Berkley Publishing Group.

Lane, S. J., & Bundy, A. C. (2012). *Kids can be kids: A childhood occupations approach*. Philadelphia, PA: F.A. Davis Company.

Mulligan, S. (2014). *Occupational therapy evaluation for children: A pocket guide*(2nd ed.). Philadelphia, PA: Lippincott Williams & Wilkins.

Schell, B. A. B., Gillen, G., & Scaffa, M. E. (Eds.) (2014). *Willard and Spackman's occupational therapy* (12th ed). Philadelphia, PA. Lippencott Williams & Williams.

