OCC1 623 ASSISTIVE TECHNOLOGY

Credits: 3

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Access to the Instructors:
Office hours are by appointment only. Please email to make an appointment.

Course Description: Application of high and low-technology assistive devices to enhance performance and individual human needs, including alternative computer access, powered mobility, augmentative communication, telecommunication and environmental control, social and professional issues regarding technology service delivery.

Course Structure: The course consists of lectures, presentations by guest clinicians, case studies, group work in the format of labs as well as self-directed learning activities.

Course Objective: To examine the current knowledge and evidence about product design, development, accessibility and 'fit' of assistive technology in relation to the client's occupational needs, goals and their environmental context.

Student Learning Outcomes:
At the completion of this course, students will be able to:

Expert
1. Recognize the functional uses of current high and low assistive technology devices, including computer access, computer mice, environmental controls, adapted keyboards, switches, and communication devices.
2. Explore and appraise the appropriate functional, adaptive, and contraindicated uses of current assistive technologies incorporating prior knowledge of various musculoskeletal, neurological, and/or developmental conditions.
3. Apply this knowledge to determine suitability for clients across the lifespan, meeting occupational performance, accessibility, budgetary, and

environental (physical, social, cultural, technical) needs, i.e. the best 'fit' between client, environment, activity and assistive technology.

Communicator
    4.   Communicate knowledge of current assistive technology with respect to occupational performance needs, environmental and accessibility considerations, and long-term planning objectives.

Collaborator
    5.   Identify the role of professional and commercial resources involved in the prescription and implementation of assistive technology to facilitate collaboration and appropriate referrals.
Scholarly Practitioner
    6.   Recognize the importance of keeping up to date with the rapidly changing trends in assistive technology.
Change Agent
    7.   Understand the role of assistive technology services, policies and funding sources in the delivery of assistive devices.

Course Content
- Augmentative communications
- Computer adaptation
- Environmental or EADL controls
- Specialized wheelchair controls
- Assistive technology in pediatrics
- iPad/tablet access and applications

Required preparatory work

- Lecture notes and handouts
  Students are expected to review lecture notes and handouts on MyCourses before class. They will be posted on myCourses before each class.

- Case studies
  During the term, some lectures will include case discussions. The case studies will be available at least one week before each corresponding lecture. Students will be required to read all case studies and be prepared to discuss them in class.

- Required readings

Student Evaluations

Assignment 1: Computer access   15%
As a preparation for the lecture on Computer access (Lecture 2), students will be required to review a clinical case, experiment with the various accessibility options on their personal computer, then answer a series of questions related to the case.

Assignment 2: Tablet Access   15%
This assignment will consist of developing an OT intervention linked to the use of assistive technology. This will include the physical creation of a low-tech assistive device. Assignment criteria and requirements will be provided on myCourses.

Online Quizzes   10% (2 x 5%)
Two online quizzes will need to be completed on myCourses before the following lectures: "Specialized wheelchair controls" and "Technology for pediatrics". The quizzes will consist of 6-10 multiple-choice or short answer questions related to the readings and the cases provided for each lecture. One attempt of one hour will be given to answer each quiz. Each quiz will be due two hours prior to the corresponding lecture and will each be worth 5% of the final mark.

Group Project   60% (15% + 45%)
This self-directed group project enables students to apply, analyze, and synthesize information about assistive technology to a specific case-based context, as they implement an independent research, evaluation, and documentation of devices and their uses. The written project will consist of a case report where students will justify their choice of specific assistive technology in the context of a treatment plan.

Project due date: TBA

Plagiarism/Academic Integrity: McGill University and the Faculty of Medicine and Health Sciences value academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the [McGill University Code of Student Conduct and Disciplinary Procedures](#) and the [Faculty of Medicine and Health Sciences Code of Conduct](#)

L'université McGill et Faculte de Medecine et des Sciences de la Sante attachent une haute importance à l'honnêteté académique. Ils incombent par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le [Université de McGill Code de conduite de l'étudiant et des procédures disciplinaires](#) et [Faculté de médecine et des sciences de la santé](#).

Attendance: Students are required to attend all lectures and student project presentations (if applicable).

Language of submission: "In accord with McGill University's Charter of Student Rights, students in this course have the right to submit in English or in French any written work that is to be graded. This does not apply to courses in which acquiring proficiency in a language is one of the objectives." (Approved by Senate on 21 January 2009)

« Conformément à la Charte des droits de l'étudiant de l'Université McGill, chaque étudiant a le droit de soumettre en français ou en anglais tout travail écrit devant être noté, sauf dans le cas des cours dont l'un des objets est la maîtrise d'une langue. »

Students have the right to write essays, examinations and projects in French, however should not mix both English and French in the same portion of text.

Consequences of not completing assignments as requested: The written project will be graded with respect to specific criteria. All late submissions of the project will result in an immediate deduction of 4 marks, plus 1 mark per day (including weekends). Failure to submit a part of the project will result in '0' for that portion (eg. omission of chart).

Disability: If you have a disability, please contact the instructor to arrange a time to discuss your situation. It would be helpful if you contact the Student Accessibility and Achievement at 514 398-6009 before you do this.

Diversity Statement: The Occupational Therapy Program recognizes our responsibility to foster a learning environment where students and instructors can engage in dialogue and exchange ideas without being made to feel unwelcome or disrespected in view of their identity or beliefs. The Program intends that the instructional design of all courses minimize any barriers to participation, particularly barriers based on age, biological sex, disability, gender identity or expression, indigenous ancestry, linguistic and cultural background, race/ethnicity, religion, sexual orientation, political views/opinions/ideologies, and any other aspect integral to one's personhood. We therefore recognize our responsibility, both individual and collective, to strive to establish and maintain a respectful environment that is free from discrimination.

Copyright of course materials: Instructor generated course materials (e.g., handouts, notes, summaries, exam questions, etc.) are protected by law and may not be copied or distributed in any form or in any medium without explicit permission of the instructor. Note that infringements of copyright can be subject to follow up by the University under the Code of Student Conduct and Disciplinary Procedures

In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.

McGill University is situated on the traditional territory of the Kanien'kehà:ka, a place which has long served as a site of meeting and exchange amongst nations. We recognize and respect the Kanien'kehà:ka as the traditional custodian of the lands and waters on which we meet today.