

## OCC1 623 ASSISTIVE TECHNOLOGY

**Credits:** 2

**Instructor/coordinator:**

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**Access to the Instructor:** Office hours by appointment. Please email or call ahead to make 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, a computer-access lab 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 and the environmental context.

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

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

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

4. Communicate knowledge of current assistive technology with respect to occupational performance needs, environmental and accessibility considerations, and long term planning objectives.
5. Identify the role of professional and commercial resources involved in the prescription and implementation of assistive technology in order to facilitate collaboration and appropriate referrals.
6. Recognize the importance of keeping up to date with the rapidly changing trends in assistive technology.

## **Course Content**

- Augmentative communications
- Computer adaptation
- Environmental or EADL controls
- Specialized wheelchair controls
- Assistive technology in pediatrics, geriatrics and mental health

## **Course Materials**

**Required readings:** A course pack including reading materials for each of the lectures will be available for purchase at the McGill bookstore. A copy is also available on reserve at Library.

Lecture notes and handouts from lecturers will be posted before each class on WebCT.

## **Recommended readings:**

Cook, A.M. & Polgar, J.M. (Eds.) (2008). Cook & Hussey's assistive technologies: principles and practice, 3<sup>rd</sup> ed. St. Louis, MO: Mosby (copy on reserve at Library).

## **Student Evaluation**

Assignments on readings: 50%

Assignments consist in short reports based on clinical case histories and reading material. Five will need to be completed during the course. These are meant as preparation for the content provided in class, in order to promote class participation

and are due before the start of the corresponding lecture. The clinical cases will be discussed during the class.

Group project: 50%

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.

**Consequences of not completing assignments as requested:** Late submissions will be penalized 5% per day, including weekends.

**Site visits:** Some of the lectures may take place at the Technical Aids Department of Centre de Réadaptation Constance Lethbridge and Centre de Réadaptation

**Plagiarism/Academic Integrity:** "McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see [www.mcgill.ca/students/srr/honest/](http://www.mcgill.ca/students/srr/honest/) for more information.)

"L'université McGill attache une haute importance à l'honnêteté académique. Il incombe 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 Code de conduite de l'étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le site [www.mcgill.ca/students/srr/honest/](http://www.mcgill.ca/students/srr/honest/))."

**Attendance:** Students are required to attend all lectures and student project presentations.

**Right to submit in English or French written work that is to be graded:** In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

*"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)."*

**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 Office for Students with Disabilities at 398-6009 before you do this.

**Technology in Class:** Your respectful attentive presence is expected, therefore while you are permitted to use your laptop in class, it is understood that you will not be using your laptop or cell-phone for social purposes during class time (e.g. email, msn, sms). Your cell phone should be on silence during class time and phone calls should only take place during the break or after class

**Dress Code:** Professionalism with respect to dressing is encouraged throughout the course of the semester. It is each student's responsibility to have appropriate attire during all class assignments and learning activities.

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