

STUDENT ACCESSIBILITY SERVICES HANDBOOK FOR FACULTY AND STAFF

Working Together for Accessible Education

Created March 2014



UNIVERSITY
OF MANITOBA

| Student Accessibility Services

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We would like to extend our sincere gratitude to Queen's University Disability Services (branch of the Health, Counselling and Disability Services Department) and Library Services for Students with Disabilities that generously gave us permission to adapt their comprehensive *Instructor's Handbook: Accommodating Students with Disabilities* available at <http://www.queensu.ca/hcds/ds/instructors/handbook/index.html>

Queen's University handbook served as inspiration for our own, specifically the organization of the material and content found in particular sections (Introduction, Administration, Accommodations, What To Do If... and Instructional Strategies For Students).

Preface

This handbook is intended as an information and resource guide for academic staff members at the University of Manitoba. It may also be a useful guide for senior and academic administrators and members of staff who wish to learn more about services at the University for students with disabilities. Besides describing Student Accessibility Services (SAS) procedures and supports for students, the handbook also emphasizes the need for all members of the University community – students, academic staff members, staff and administrators – to be responsible for the accommodation of students with disabilities and to assist in the societal task of eliminating all types of environmental barriers to education for students with disabilities. “We are not alone in our desire to assist persons with disabilities in their search for independence, self-respect, and hope for a better future.”¹

Student Accessibility Services provides services and support to approximately 1200 students each year². In this handbook, we will discuss the diverse disabilities that are represented within that population, including Deaf and hard of hearing, blindness and visual impairments, mobility impairments, chronic illness, medical conditions, learning disabilities, ADHD, Asperger Syndrome, psychological and psychiatric disorders, and temporary disabilities. Alongside this, we will describe reasonable accommodations that are commonly put in place in learning environments (e.g. classroom, labs, practicum etc.,) and for tests and examinations for each of those populations.

Student Accessibility Services strives to use Universal Design principles as a guiding force for the office. “Universal Design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.”³ “Universal Instructional Design (UID) is the process that involves considering the potential needs of all learners when designing and delivering instruction.”⁴ Wherever possible, Student Accessibility Services tries to incorporate the seven principles of UID at the University of Manitoba. The seven principles are: 1) be accessible and fair, 2) be flexible, 3) be straightforward and consistent and, 4) be explicit, 5) be supportive, 6) minimize unnecessary physical effort, and 7) accommodate students and multiple teaching methods.⁵

As the guiding principles for Student Accessibility Services, Student Accessibility Services strives to assist the University community to consider design of places, spaces, course material and online content at the outset to include and be welcoming to all UM learners, students, academic staff members and staff.

¹ Coordinator of Services to Students with Disabilities, [Student-Faculty Handbook for Accommodating Students with Disabilities](#) (Fredericton: University of New Brunswick, 1999) 1.

² This includes both students who are registered with Student Accessibility Services and students who consulted with the office but who have not registered.

³ Ron Mace, “About UD,” 2008, The Centre for Universal Design, 7 March 2014 <ncsu.edu/ncsu/design/cud/about_ud/about_ud.htm>.

⁴ “Introduction to Universal Instructional Design (UID) at the University of Guelph,” University of Guelph, 28 January 2014 <uoguelph.ca/tss/uid/uidbrief.cfm>.

⁵ “Universal Instructional Design Principles at the University of Guelph,” University of Guelph, 28 January 2014 <<http://www.uoguelph.ca/tss/uid/uidprinciples.cfm>>.

University Documents

The University of Manitoba has a policy and procedure document on providing accessibility for students with disabilities available at umanitoba.ca/admin/governance/governing_documents/students/281.html and http://www.umanitoba.ca/admin/governance/governing_documents/students/906.html

The policy states that:

- 1.1 The University of Manitoba strives to ensure an accessible learning and working environment and is thereby committed to providing reasonable accommodation of the needs of persons with documented disabilities.
- 1.2 The purpose of this policy is to support an accessible learning environment where students with disabilities, who are admitted to the University of Manitoba, can gain access to all programs for which they are academically qualified.

In January 2011 the University of Manitoba Senate Executive Committee established an *ad hoc Committee of Senate Executive to Examine Accommodation of Students with Disabilities and Governance Procedures Related to Academic Requirements*. The February 2012 final report of the Committee is available here <umanitoba.ca/admin/governance/media/senate_agenda_apr_2012.pdf>

Student Accessibility Services is working with the Implementation Working Group and members of the university community to respond to the many recommendations; the creation of this handbook is one such example.

Student Accessibility Services

Student Accessibility Services is the office charged with the responsibility of determining and providing reasonable accommodation to students. The mission of Student Accessibility Services is to collaborate with the University of Manitoba to ensure equal access for students with disabilities by:

- providing supports and programs that recognize our diverse student environment;
- promoting partnerships between students, academic staff members and staff; and
- educating the university community about accessibility.

Student Accessibility Services provides support and advocacy for students with disabilities such as: hearing, injury-related, learning, mental health, medical, physical, visual or temporary disabilities. Student Accessibility Services acts as a liaison between students and the faculty and staff of the University of Manitoba as well as service agencies within the province of Manitoba. Student Accessibility Services offers accommodations and programs to support students while they are at the University of Manitoba. All supports must be recommended and verified by a registered health professional. Student Accessibility Services offers support and accommodations based on a student's individual needs and the academic standards of the university program.

Student Accessibility Services Office Staff

Student Accessibility Services operates out of two main office spaces: the Student Accessibility Services Exam Centre located at 155 University Centre and the advising offices located at 520 University Centre, (shared with Student Advocacy and the English Language Centre). Accessibility Advising is also available at the Bannatyne Campus and William Norrie Campus; contact the Student Accessibility Services office for information on scheduling and availability at these two campuses.

The following team has undertaken the mission of the unit and is poised to respond to students' requests for accommodations and other related services:

- the Coordinator;
- four full time Accessibility Advisors;
- the Test/Exam Administrator, and Test/Exam Assistant;
- the Student Advocacy and Accessibility Office Assistant;
- the Assistive Technologist
- the Program Assistant
- invigilators;
- American Sign Language/Signed English interpreters;
- computerized/professional note-takers;
- academic attendants;
- a group of committed volunteers and Peers.

Admission to the University

All students, those with and those without a disability, must meet the same criteria for admission to the University, and once admitted are assumed to be academically qualified to participate in the educational process of the University.

Admission to some professional faculties and in particular those subject to external accreditation, can be determined in part through the use of Essential Skills and Technical Abilities documents. These documents outline the necessary skills and abilities needed to perform the jobs for which the educational program prepares the student. Should a student's disability provide a barrier to these essential skills and abilities that cannot be accommodated for or adapted around, that student may not be permitted admission to the program.

Registration with Student Accessibility Services

Students must meet with an Accessibility Advisor to determine an individual accommodation plan for their academic program while registered at the University of Manitoba. Follow up appointments are scheduled as necessary to complete funding paperwork, adjust accommodations, and to provide a 'check-in' and support for the student. Advisors provide in-person appointments, drop-in appointments, phone, video, email and texting support.

Once registered with Student Accessibility Services, students are required to re-activate their registration each term in order to confirm to our office their continuing desire for the accommodations already in place.

All students wishing to register with Student Accessibility Services must have documentation from a registered health professional in order to verify their disability.

Documentation of Disability

Documentation is in the form of a written statement from a registered health professional such as a student's physician, registered psychologist or psychiatrist. This documentation will be kept on file in Student Accessibility Services in accordance to the Personal Health Information Act (PHIA). The purpose of the documentation is as evidence of a disability and to make better informed decisions with respect to accommodations. Generally, students bring their documentation to Student Accessibility Services for their intake appointment, or as soon after as can be managed.

Student Accessibility Services provides a medical verification form for students to bring to their registered health professional. This form can be found at the following link: umanitoba.ca/student/saa/accessibility/pdf/Medical_Questionnaire.pdf or at the Student Accessibility Services office.

Intake Session

The goals of the initial assessment interview are:

- a) to review the documentation of a disability to ensure that it is adequate
- b) to develop a plan of accommodation.

The first includes the receipt, by the Accessibility Advisor, of documentation from a registered health professional specifying the presence of a disability.

Medical, family, work, and educational histories, as well as previous accommodations received in secondary or other post-secondary schools, are reviewed. Academic goals, current curriculum requirements as identified by the student and barriers to participation in any aspect of university life which may be posed by the educational or physical environment are also investigated. Documentation of the disability is reviewed, updates or further information is requested if necessary, and current status is evaluated.

A plan of action is designed to provide an opportunity for the student with a disability to participate fully and equally in university life. Typically, the plan includes accommodations for the disability, referrals to other services or departments, financial assistance, and related liaison if needed. Accommodations are not made until documentation from an accredited health professional is on file; they are developed with flexibility and consideration of the individual and the specific course requirements involved.

Accommodations can be reviewed any time a student's medical condition, diagnosis, accommodation needs or academic requirements change, or when their documentation of disability expires. This is done in a meeting with the student and their Accessibility Advisor and any appropriate staff or faculty depending on the individual situation.

Once the accommodations have been determined, letters of accommodation are created in the SAS scheduler and an email of notification is sent to the course instructors, with copies being available to the student. The following is a sample letter of accommodation (please note that this is an example only; accommodation plans are individualized and each student's plan can include a different list of accommodations):

May 14, 2014

To the attention of: Instructor

RE: Jon Student

Student ID#: 55T

The University of Manitoba has designated Student Accessibility Services (SAS) to facilitate the implementation of accommodations for students with documented disabilities. Please be aware that the information in this letter is confidential under the Personal Health Information Act (PHIA) and The Freedom of Information and Protection of Privacy Act (FIPPA).

The student's accommodations are as follows:

Classroom Accommodation

- Notetaker - Volunteer - The student is expected to attend classes unless they have "Occasional Missed Classes" as an accommodation*
- Accessible PDF Course Material*

Exam Accommodation

- Student Accessibility Services Space for Tests/Exams*
- Computer use for test/exam*
- Extended Test/Exam Time: 50%*
- Private room*
- Spell/grammar check*
- Assistive Technology for Tests/Exams*
- Dragon Naturally Speaking*
- Kurzweil*

Instructors are asked to request volunteer note-takers on behalf of SAS for their classes.

Sample Announcement:

“Student Accessibility Services requires volunteer note-takers for this class. If you would like to volunteer, and receive a reference letter for your time, please login to JUMP and click on the Student Accessibility Services link on the right hand side of the page. Volunteering is now easier than ever, you can upload notes directly to JUMP with the SAS scheduler. Thank you.”

A PowerPoint slide with this information is available on the SAS website.

If you would like more information about course accessibility or have questions about the information in this letter, please contact myself or the Student Accessibility Services office at 204-474-7423. Thank you.

Sincerely,

*SAS Advisor
Contact info”*

Renewal of Accommodations and Continued Services

Once students have read the syllabus and any other materials that outline the course objectives and have identified difficulty with an aspect of the learning environment (curricular expectations are part of the environment as well as technology and buildings), they are advised to speak with their instructors and their Accessibility Advisor. This will facilitate understanding of their needs, answer questions the academic staff member may have, and allow sufficient time to ensure that accommodations can be arranged.

Once the student has registered with Student Accessibility Services and provided consent, a letter of accommodation will be sent to each instructor and Accommodation Team/Liaison in that faculty/school. If the instructor has any questions or concerns or disagrees with the accommodations listed by Student Accessibility Services, these should be raised with the Accessibility Advisor and/or the student, to facilitate the most appropriate resolution which allows the student to demonstrate knowledge to the instructor's satisfaction.

Confidentiality and Release of Information

When students register with Student Accessibility Services, they will be asked to read the Student Accessibility Services Confidentiality and Consent Form and provide consent, (if applicable), for provision of accommodations. Student Accessibility Services follows the standards set in the FIPPA and PHIA documents, and specific medical information, such as a student's diagnosis, will not be shared with academic staff members or staff outside of Student Accessibility Services unless the situation requires it and the student has provided written consent to do so.

No information, written or verbal, can be released to a third party without the written consent of the student. This applies to academic staff members and office staff of the entire university, not only Student Accessibility Services.

Students' disabilities are personal health information; it is their information to share or not as they see fit, and the same applies to the use of accommodation for those disabilities. It is not appropriate to reveal the use of accommodation on exams or in other settings to other students, or when providing a reference for a student to either another program or an employer. If the accommodations are appropriate, the student's performance is achieved in a fair and equitable fashion and reflects ability to the same degree any student's performance reflects individual ability. Therefore, there is nothing to be gained by divulging the use of accommodations, and there is much to be lost in the student's trust, privacy and right to confidentiality of such information.

If you need to discuss disability-related information with a student, please ensure that you do so in a way that ensures that the student's personal or medical information is not revealed to other people. It is often best to meet with the student privately since he or she is the ultimate expert in understanding his or her own needs. The student may be able to suggest ideas, which have worked in other courses as well.

Student Accessibility Services Programs

Student Accessibility Services provides a number of programs to assist our students with their disability-related academic needs. Programs are developed according to the needs of the student population.

These currently include the:

- Academic Attendant Program
- Acceptance & Commitment Therapy (ACT) for Anxiety Program
- ASL/Signed English Interpretation
- Assistive Technology Program
- Classroom Equipment Program
- Coaching Program
- Professional and Computerized Note Taker Programs
- Volunteer Note Taker Program

Further information about these programs is available on the Student Accessibility Services website at umanitoba.ca/student/saa/accessibility/.

Please note that tutoring is available to all students through the UMSU Registry and the Academic Learning Centre (umanitoba.ca/student/academiclearning/). Student Accessibility Services assists students in applying for tutoring funding and helps them to use the new registry.

Please also note that since many students who suspect they have a learning disability or who were diagnosed as children with a Learning Disability arrive at the University of Manitoba without documentation, current confirmation of a diagnosis and need for accommodations is necessary.

Comprehensive assessments can be accessed through psychologists in the community or requested through the University of Manitoba's Learning Disability Services Clinic. Information about the LDSC can be obtained through the Student Counselling Centre, located at 474 University Centre.

Academic Accommodations

The presence of a disability may require that students carry out academic tasks in a different fashion than most of us have come to expect. For the purpose of this document, a student with a disability is a person who experiences a mental, intellectual, physical or sensory impairment for which they may require accommodation.

Accommodation addresses the removal of barriers which are not essential aspects of the learning process. It does not address treatment or remediation of the primary structural or functional impairment. Academic accommodations are intended to facilitate equal participation in the learning environment and the demonstration of knowledge, to enable students to perform the essential requirements of their courses or programs, unobstructed by participation restrictions resulting from the interaction of the person with their environment. At no time should academic accommodation undermine or compromise the bona fide academic requirements that are established by an academic staff member of the University.

Participation as a student often requires sustained sitting or standing, listening and concentrating, fairly continuous handwriting or keyboarding, and reading fine print, distant projections or blackboards, and computer screens. Laboratory work poses additional requirements for positioning and dexterity. Library research requires reaching overhead to handle heavy texts, prolonged reading and visual scanning of electronic documents, standing in line to print/photocopy materials, or accessing reserve readings in a limited time period, among other tasks. A structural or functional impairment can affect these or other academic tasks, restricting a student's participation in their curriculum.

Fairness in Accommodation

The question of fairness often arises in providing some students with alternate means of performing academic tasks. As mentioned previously, accommodations for a disability are never intended to give an advantage, but to provide an equal opportunity for students who need to do certain tasks in a different fashion. Students must still meet the essential requirements of the curriculum. They must

- a. gain the required knowledge,
- b. demonstrate that knowledge to the satisfaction of the instructor and
- c. apply that knowledge appropriately.

Individualized Accommodations

Accommodations are designed to meet various needs posed by different disabilities. What is appropriate for one student may not be appropriate for another as disabilities are unique. The accommodations discussed below are the ones that are widely accepted by post-secondary institutions in Canada. In situations where standard accommodations do not address the disability-related barriers, non-standard accommodations may be put in place following consultation between the student, Student Accessibility Services, the academic staff member, and any other appropriate University staff. The Student Accessibility Services staff members are always pleased to work with academic staff members to find appropriate means of developing the most suitable accommodations.

Types of Accommodations

There are three main types of accommodations:

- **Test/Exam Accommodations**
These are accommodations that pertain to the environment, format, and testing method for tests and exams.
- **Classroom/Course-Related Accommodations**
These are accommodations that pertain to the physical environment of the classroom, instructional strategies, and alternate formats of the course materials and requirements.
- **Campus Accommodations**
These are accommodations that pertain to physical accessibility of and transportation on the campus. For further information about campus accommodations, please contact Student Accessibility Services.

A Welcoming Culture in the Classroom

It is important to promote a climate, which values diversity and includes all members of the university community without discrimination on the basis of disability. That climate is affected by informal violations of the students' right to privacy, such as discussions in labs or other group settings where a student may be exposed to pejorative remarks about "Special Needs students."

A student's dignity is violated when comments of this nature are made, and it undermines the climate for everyone if some members are made to feel unwelcome. In addition, students who are disabled feel ostracized and harassed for needing to do certain tasks in a different way. Discussions with or about students with disabilities should be conducted in private, according them the same respect as a colleague with a medical condition or other private matter requiring individual attention. Please bear this in mind when discussing students and accommodation issues.

General Guidelines

- A person with a disability is a person first. For example, an appropriate term would be "person with a disability," not "disabled student."
- Your ideal role is to assist the student in finding practical solutions to specific requirements. It is important that professors and teaching assistants not lower their expectations of a student due to assumed limitations.
- At the beginning of term, it would be helpful for you to invite any students who require accommodations because of a disability to meet privately with you. Some students are self-conscious about their disability, or prefer others not know about it, and may be more willing to seek assistance if they believe you will be receptive. This announcement should be made both orally and included in the course outline.
- Good teaching strategies will benefit all students in your class, including students with disabilities.
- If you are unsure about how to offer assistance, please contact Student Accessibility Services for support.

- Treat a person with a disability as a healthy person. Because an individual has a disability does not mean the individual is sick. Many disabilities have no accompanying health problems.
- Recognize that disabilities vary across a spectrum of severity.
- Focus on the student's capabilities and individuality.
- Envision integration.

Syllabus Statement

Student Accessibility Services recommends that all University academic staff use the following statement on their course syllabi to inform students of the academic staff member's willingness to provide reasonable accommodations:

The University of Manitoba is committed to providing all students equal access to learning opportunities. "This means that our classroom, our virtual spaces, our practices, and our interactions should be as inclusive as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to universal learning."⁶

Student Accessibility Services (SAS) is the office that works with students who have permanent, chronic, or temporary disabilities to provide and/or arrange reasonable accommodations.

- Students who have, or think they may have, a disability (e.g. mental health, attentional, learning, vision, hearing, physical, medical or temporary), are invited to contact Student Accessibility Services to arrange a confidential discussion at (204) 474-7423 (V), (204) 474-9790 (TTY) or student_accessibility@umanitoba.ca .
- Students registered with Student Accessibility Services and who have a letter requesting accommodations are encouraged to contact the instructor early in the semester to discuss the accommodations outlined in their letter.

Additional information is available at the Student Accessibility Services website umanitoba.ca/student/saa/accessibility/.

⁶Mark Sample, "Accessibility Statements on Syllabuses," 9 September 2013, The Chronicle of Higher Education, 28 January 2014 <chronicle.com/blogs/profhacker/accessibility-statements-on-syllabuses/52079>.

Impact of Disability for Students

This section explores the different areas of disability and how each impacts students. Please note that this gives a general idea of what symptoms and barriers are caused by each disability, but that each student is affected by and responds to their disability in different ways. There is also often a range of severity within each disability, resulting in varied needs between students with the same diagnosis.

The information given in this section is not intended to aid you in figuring out a student's diagnosis, but to give you a more in-depth understanding of why specific accommodations are applied. If you have any questions about the information presented here, an Accessibility Advisor with Student Accessibility Services will be happy to discuss them with you.

Disability Categories

For the purposes of this handbook, Student Accessibility Services has divided the disability information into the following categories:

- Mental Health Disorders
- Attention Deficit Disorder
- Learning Disabilities
- Chronic Illnesses
- Mobility Impairments
- Visually Impaired or Blind
- Acquired Brain Injury
- Deaf or Hard Of Hearing
- Aspergers Syndrome
- Temporary Disabilities

There can be many differences between individuals within each category of disability. The degree and impact of disability varies from person to person. As well, a person may have more than one disability.

Student Accessibility Services prepares an annual report on accommodation of and services provided for each of the main categories of disabilities. The annual reports are available on the Student Accessibility Services website <umanitoba.ca/student/saa/accessibility>

It is important to note that instructors are not provided with a students' diagnosis or specific medical information in order to protect the students' confidentiality as per PHIA and FIPPA regulations.

Students with Mental Health Disorders

Psychiatric conditions may result in several symptoms which require accommodation in academics. The most frequently occurring conditions are anxiety disorders (e.g., panic disorder, posttraumatic stress disorder, generalized anxiety disorder) and mood disorders (e.g., depression, bipolar disorders), which are also very common in the general population. It is also possible to see some conditions on campus which are less common in the general population, such as brief psychotic disorder and schizophrenia, as these often have their onset in young adulthood.

Mental health disorders interfere with a student's ability to concentrate at various times. This may be due to primary symptoms of fatigue, limited ability to focus and sustain attention, internal events such as disturbing or obsessive thoughts, or medication side effects.

Productivity is also affected with psychiatric conditions as the ability to consistently engage in studies and attend class varies with the course of the condition. In some cases, the very nature of the material covered in class may have a profound effect on the student's ability to participate, as certain subjects trigger difficult emotional responses. The work may be very good when the student is able to participate, and careful pacing with flexible deadlines may be required when the condition worsens.

It is important to note that an anxiety disorder in this context is distinctly different from the "anxiety" experienced by most students at exam time. Anxiety disorder may include panic attacks with difficulty breathing, rapid heart rate, sweating, and a profound fear of impending disaster. Students with anxiety disorders may actually lose consciousness in exam settings. It is an ongoing, long-term condition not easily remediated with strategies such as study and exam-writing skills, relaxation techniques, or improved confidence; it is probably being treated with psychotherapy and medication as well as lifestyle management.

Similarly, depression as a primary impairment is distinct from "the blues," situational depression or bereavement and grief reactions. The latter occur in the normal range of human experience, and are more readily addressed with supportive counselling, changes in the situation, the passage of time, or a combination thereof. Clinical depression, on the other hand, can be very persistent, lasting months or years, affecting the student's appetite, sleep pattern, engagement in activities, concentration and productivity. There is often a biochemical imbalance which requires a combination of medication and therapy before improvement is seen.

An excellent resource regarding students with psychiatric illness in post-secondary education is the Canadian Mental Health Association's publication *Your Education*, available online (www.cmha.ca/youreducation/introduction.html). Another excellent book for help in understanding these conditions is *College Students in Distress: A Resource Guide for Faculty, Staff and Campus Community* by Bruce S. Sharkin, available at the U of M Elizabeth Dafoe Library.

Instructional Strategies

- Note-takers and taping of lecture material may be helpful in ensuring the student does not miss information when attendance, attention and concentration are affected.
- Hard copies of notes, overheads, and handouts are useful in reinforcing ideas covered in class.
- Awareness of material that may be emotionally evocative for the student and a sensitive approach, including some explanation of topics to be addressed, may help the student deal more effectively with the information.

Communication Strategies

- Privacy and an absence of background noise are helpful in communicating with students with psychiatric impairments.
- Providing information in writing for future reference may help compensate for limited short-term memory and attention.

Technological Accommodations

- Students with psychiatric impairments benefit from using computers and online services from home for research and obtaining notes whenever possible, as this allows for more individualized pacing of work, a less stressful environment, and fewer intrusions from other people, which may be anxiety-inducing.

Assignment Accommodations

- Flexibility in deadlines is important in helping students with psychiatric impairments to do their best work.
- Awareness in dealing with emotionally sensitive course material is helpful in facilitating the student's successful participation in class and in assignments.

Examination Accommodations

- Extra time on exams and tests allows students with psychiatric impairments to compensate for time lost to intrusive thoughts, lack of focus, slowed mental processing or medication side effects.
- Separate space for writing exams, either privately or semi-privately, is helpful in reducing the stress of the exam environment and reducing the potential for reaction to being in a highly controlled setting with many other people, which is aversive to many students with these conditions.
- Computers may help students organize and re-organize work more efficiently when thought processes are disrupted frequently in an exam period.

For assistance on how to incorporate the above strategies into your course and/or to receive assistance with applying universal instructional design techniques in the classroom, please contact The Centre for the Advancement of Teaching and Learning (CATL) at:
http://intranet.umanitoba.ca/academic_support/catl/

Students with Attention Deficit Disorder (ADD)

It is estimated that “approximately 3-5 per cent of the Canadian population suffers from ADHD/ADD.”⁷ It was previously thought that ADD was a disorder of childhood only, but recent research indicates that some children do not outgrow their extreme difficulties with inattentiveness, hyperactivity and/or impulsivity. While ADD is a heterogeneous disorder, with each individual having a particular blend of symptoms, research indicates that neurological dysfunction, and probably biochemical imbalance, underlie problems maintaining attention, controlling restlessness and acting with sufficient forethought. It is important to know that a valid diagnosis of ADD requires a psychologist or physician to determine that these problems are:

- extreme in frequency and impact compared to normal fluctuations in attention, activity level and impulsivity
- produce clinically significant impairment in more than one life area

⁷ Learning Disabilities Association of Manitoba, “FAQs,” Learning Disabilities Association of Manitoba, 5 March 2014 <damanitoba.org/about-learning-disabilities/faqs/>.

- evident and linked to poor functioning in early childhood
- NOT attributable to a primary emotional or psychological problem (although coexisting anxiety or depression is not uncommon)
- NOT attributable to problems with motivation or substance abuse

Many students with ADD find that their problems with inattention, restlessness and disorganization are helped by medication. Counselling to improve self-management strategies and study skills is also often useful, as is therapy aimed at reducing co-existing depression.

Instructional Strategies

Using some instructional strategies for course preparation, presentation of lectures, developing assignments and exams will not only help the students with ADD in your classes to succeed, but will be useful to all your students. In general, strategies which provide structure and organization are central. Furthermore, although the instructor is not obliged to "entertain" the students, any efforts to provide variety and novelty in teaching methods will be helpful in maintaining attention to the material. As is true for students who have a learning disability, it is recommended that instructors:

- select well-organized texts with aids such as chapter summaries, glossaries, indexes
- make book lists and other materials available well in advance
- provide a role model for organization: present overall plans for the course, unit and lecture
- use the "tell them what you are going to tell them, tell them, tell them what you told them" approach
- indicate main points before viewing videos or films
- clearly indicate the main points of your lecture, using written and oral techniques to emphasize them
- emphasize the relationships between ideas, using visual as well as verbal methods (e.g. concept maps, diagrams)
- use overhead projections, diagrams and charts whenever possible to supplement your oral presentation of information
- explain assignments clearly, both orally and in writing, with set deadlines
- modify test questions to avoid double negatives, extremely complex sentence structure, and questions embedded within questions
- encourage group work when feasible (e.g. brainstorming, assignments)

Communication Strategies

Some students with ADD are reluctant to discuss their disability with their instructor, often because of negative past experiences with teachers, sometimes based on their own struggles to accept their disability. Disclosing a disability and discussing it can make a student feel nervous, alienated and even ashamed. It is helpful at the beginning of the course to invite any students with disabilities to introduce themselves to you individually during office hours. Then you may find out, in a non-challenging way, as much as the student can tell you about his or her learning style, strengths and weaknesses, and recommended accommodations. It is important to treat these conversations as well as any documentation about students as strictly confidential.

Some students may not yet be aware of having ADD, but you may observe significant problems with attention, "careless" mistakes, extreme restlessness or "fidgetyness", organization and time management. In this case, it may be helpful to privately discuss your observations with the student, suggest available learning support such as tutoring if appropriate, and/or consult with the Accessibility Advisor about a referral. Finally, it is important to be aware that the student has responsibilities as well, including: to attend classes and to fulfil the essential requirements of the course. While most students with ADD struggle with organizational and time-management skills, it is nonetheless their responsibility to meet the demands of their course load, via support available at Student Accessibility Services, perhaps by reducing their course load, careful course selections and so on. Sometimes, just like their non-disabled classmates, students with ADD don't meet their responsibilities. It may be useful to consult with the Accessibility Advisor at this point, but typically, the properly accommodated student should have normal consequences for missing deadlines, handing in poor quality work, etc.

Technological Accommodations

Allow taping of class lectures for students who have difficulty processing auditory information and/or listening and writing at the same time.

Assignment Accommodations

It is helpful to give students written and oral information about their assignments; to be very clear regarding expectations; to provide examples of good and poor quality products; to be willing to discuss the assignments and look over drafts (class size permitting); and to offer choices whenever possible (e.g. oral presentations, essays, group format, etc.). It is typically not helpful for students with ADD to get extensions on their assignments since this usually just pushes forward their "time crunch". Students who are struggling with the work load may do better to take fewer courses at a time, often supplementing these with summer courses.

Examination Accommodations

Typical accommodations include:

- extra time for tests and exams (or frequent breaks)
- writing exams in a smaller room with fewer distractions
- writing exams alone to allow for talking aloud, even fewer distractions
- access to a computer to allow for spell checking, sequencing written material, legible results
- consideration (no penalty) for spelling or grammar mistakes when a spell checker was not used
- a reader to read aloud the test questions and, infrequently, a scribe to write answers

For assistance on how to incorporate the above strategies into your course and/or to receive assistance with applying universal instructional design techniques in the classroom, please contact The Centre for the Advancement of Teaching and Learning (CATL) at:
http://intranet.umanitoba.ca/academic_support/catl/.

Students with Learning Disabilities

It is estimated that learning disabilities occur in 10% of the general population. Due to early recognition and support in the school system, more students with learning disabilities are successful in gaining admission to post-secondary institutions. This creates a challenge for instructors since learning disabilities are diverse and, at times, difficult to understand.

It helps to know what a learning disability is, and what it is not. Individuals with learning disabilities have problems processing certain types of information, such as visual or auditory, due to a known or assumed permanent neurological deficit. The difficulties taking in, retaining and/or expressing information are NOT due to: low intelligence, poor educational backgrounds, poor motivation, emotional problems, or vision or hearing impairments. For a diagnosis of a specific learning disability to be made, a significant discrepancy between academic achievement and assessed intellectual capacity must be seen, with deficits in one or more of the following:

- receptive language (reading, listening)
- language processing (conceptualizing, integrating)
- expressive language (writing, spelling, talking)
- mathematical computations and reasoning

It is important to recognize that students with learning disabilities are not of low intelligence or overall cognitive ability, but struggle to process certain types of information as accurately and efficiently as their peers. Given appropriate accommodations, the impact of a student's processing impairments can be lessened, and a more valid measure of his or her knowledge and ability can be obtained. For example, a student with a learning disability who reads extremely slowly will need extra time for examinations and reserve readings.

Diagnosis and Testing Process

Learning disabilities must be diagnosed by a professional, typically a registered clinical psychologist, on the basis of standardized test results. Thorough testing and empirically-based criteria identify information processing deficits that may be impeding a student's ability to perform at a level commensurate with general intellectual functioning. Students at the University of Manitoba who self-identify as having a learning disability must submit a recent and comprehensive psycho-educational assessment report documenting their diagnosis. Additional assessment may be required for inadequate or incomplete documentation.

Due to the demand for assessment, there may be some delay in getting confirmation of a learning disability, and this can result in diagnoses and recommendations for accommodations not being made until late in the academic year or even postponed until a subsequent academic year. Once a student has been referred for assessment, they are scheduled for an intake interview that explores a range of background factors, including previous diagnosis/testing, academic functioning (reading, writing, speaking, listening, math, memory, other), organization and time management, laterality, spatial skills, attention and concentration, hyperactivity and impulsivity, school history, medical and developmental history, personal and social information, and family information, among other factors.

If the interview suggests that the student has a long-standing pattern of markedly uneven abilities likely due to information-processing problems (rather than low ability, inadequate education, psychological

problems, sensory impairments), then he or she completes seven hours of standardized psychometric tests which measure:

- Intelligence (Verbal-conceptual, Perceptual-organizational, Sequential symbolic-numerical)
- Motor Speed
- Processing Speed (Sequential information, Spatial information)
- Memory Skills (Verbal, Visual, Attention and concentration, Long-term)
- Attention and concentration
- Personality and emotional factors
- Arithmetic (Written, Mental)
- Reading (Decoding, Speed, Vocabulary, Comprehension, Word Discrimination)
- Writing (Basic Skills, Expression, Speed, Handwriting)
- Spelling

If assessment results indicate the presence of a specific learning disability, then recommendations for appropriate accommodations are made, consistent with identified areas of weakness. For example, the amount of extra time needed is based on results of normed tests of processing speed, writing speed, and reading speed. Many students also receive recommendations for learning support counselling, remediation work and/or counselling to reduce the impact of contributing emotional factors. Although the underlying information-processing problem in a learning disability is permanent (neurologically based), most students benefit from guidance on how to use their cognitive strengths to help offset their weaknesses; applying a range of compensatory and/or learning strategies. Students with learning disabilities can work with the Academic Learning Centre to develop and strengthen techniques that allow them to perform more effectively at university. For some students with learning disabilities, having reading materials (books, articles, etc.) available in electronic format is another useful resource.

Instructional Strategies

Using some instructional strategies for course preparation, presentation of lectures, preparing assignments and exams will not only help the students with learning disabilities in your classes succeed, but will be useful to all your students.

- select well-organized texts with aids such as chapter summaries, glossaries, indexes
- make book lists, assignments and other materials available well in advance
- provide a role model for organization: present overall plans for the course, unit and lecture
- preview the material to be covered, provide the information, and then review the most salient points
- indicate main points before viewing videos or films
- clearly indicate the main points of your lecture, using written and oral techniques to emphasize them
- emphasize the relationships between ideas, using visual as well as verbal methods (e.g. concept maps, diagrams)
- use overhead projections, diagrams and charts whenever possible to supplement your oral presentation of information (lecture)
- explain assignments clearly, both orally and in writing, with set deadlines and criteria for grading / evaluation

- modify test questions to avoid double negatives, extremely complex sentence structure, and questions embedded within questions
- encourage group work when feasible (e.g. brainstorming, assignments)
- do not pressure students to read aloud

Communication Strategies

Some students with learning disabilities are reluctant to discuss their disability with their instructor, fearing that they may be somewhat diminished in the eyes of their instructors. This is sometimes based on negative past experiences with teachers, or the result of their own struggles to accept their disability. Disclosing a disability and discussing it can make a student feel nervous, alienated and even ashamed. It is helpful at the beginning of the course to invite any students with disabilities to introduce themselves to you individually during office hours. Then you may find out, in a non-challenging way, as much as the student can tell you about his or her learning style, strengths and weaknesses, and recommended accommodations. It is important to treat these conversations as well as any documentation about students as strictly confidential. The decision to disclose rests with the student, not the instructor, however well intentioned.

Some students may not be aware of having a learning disability, but you may observe a significant discrepancy between their apparent understanding of material and their ability to express that knowledge on tests or assignments, or their ability to learn from readings versus lectures, labs, etc. In this case, it may be helpful to privately discuss your observations with the student, suggest available learning supports such as tutoring if appropriate, and/or consult with the Student Accessibility Services for a referral.

While some students with learning disabilities struggle with organizational and time management skills, it is nonetheless their responsibility to meet the demands of their course load, via learning support available at Student Accessibility Services; possibly a reduced course load, careful course selections, coaching, and so on. Sometimes, just like their non-disabled classmates, students with learning disabilities don't fulfil their responsibilities. It may be useful to consult with the Accessibility Advisor at this point; however, the properly accommodated student should have normal consequences for missing deadlines, handing in poor quality work, etc.

Technological Accommodations

- Allow recording of class lectures for students who have difficulty processing auditory information and/or listening and writing at the same time.
- Permit the use of spelling aids or calculators for students who understand the concepts, but struggle with sequential processing and rote memory.

Assignment Accommodations

It is helpful to give students written and oral information about their assignments, to be very clear regarding expectations, to provide examples of good and poor quality products, to be willing to discuss the assignments and look over drafts (class size permitting), and to offer choices whenever possible (e.g. oral presentations, essays, group format, etc.). Students who chronically struggle with the work load

may do better to take fewer courses at a time, or extend their degree program over an additional year or two.

Examination Accommodations

A number of exam accommodations are typically recommended for students with learning disabilities. These recommendations are based on psychometric findings, demonstrating, for example, slow processing, reading and/or writing speed. It is the responsibility of each department and/or academic staff member to determine the essential requirements of a course and consult with Student Accessibility Services whether the recommended accommodations affect these requirements.

Typical accommodations include:

- Extra time for tests and exams
- Writing exams in a smaller room with fewer distractions
- Writing exams alone to allow for talking aloud, even fewer distractions
- Access to a computer to allow for spell checking, sequencing written material, and production of legible results
- Consideration (no penalty) for spelling or grammar mistakes when a spell-checker was not used
- Assistive technology to read aloud the test questions answering multiple choice questions on the exam paper.

An additional resource available for download is *Creating Opportunities for Successful Learning: A Handbook for Faculty on Learning Disability* found at uoguelph.ca/tss/resources/pdfs/lophandbook.pdf

For assistance on how to incorporate the above strategies into your course and/or to receive assistance with applying universal instructional design techniques in the classroom, please contact The Centre for the Advancement of Teaching and Learning (CATL) at:
http://intranet.umanitoba.ca/academic_support/catl/.

Students with Chronic Illnesses

Chronic illness may include conditions such as cancer, chronic fatigue syndrome, Crohn's disease, diabetes, HIV, lupus, multiple sclerosis, rheumatoid arthritis, or other long-term illnesses. Such conditions are often worsened by stress and require careful pacing of a student's workload to minimize the possibility of an exacerbation of the disease. In some cases, a period of exacerbation results in permanent damage. Chronic illnesses share several symptoms which require accommodation in an academic setting:

- Fatigue and limited physical endurance, due to the drain of energy on the person's body or the presence of chronic pain
- Fluctuating capacity to participate in daily activities due to exacerbations and remissions of the disease itself
- Difficulty concentrating due to emotional factors, medication side effects, or pain
- Difficulty with mobility due to inflammation of joints, limited nerve function, or decreased strength
- Periods of diminished productivity through the day, in the morning while waiting for medication to take effect, or late in the day after several hours of pain

- Frequent absence from class due to all of the above

Chronic illness is particularly frustrating when students feel well enough to attempt their studies much of the time, and then meet with limitations when their illness coincides with time needed for preparing assignments, deadlines or exams. The students are able to continue on a limited basis or resume their studies, so a withdrawal is not necessary, but some flexibility is appropriate.

Instructional Strategies

- Students with chronic illness often require note-takers to ensure that they have a complete set of notes to study from despite absence or difficulty copying all lecture material.
- Hard copies of notes or overheads, handouts, references, etc. are very useful as students try to keep up.
- It may be necessary that you help keep the student up-to-date on course material.

Communication Strategies

- Students with chronic illness are often tired and physically uncomfortable, so conversations may be more effective in a private setting, with less ambient noise, while also providing a confidential environment. This may increase students' comfort, help them relax, and facilitate better communication.

Technological Accommodations

- The use of computers is helpful to students with chronic illness, since it allows them to produce written work with as little physical exertion as possible and permits energy-saving shortcuts to editing and on-screen enlargement. Having a computer lab for exams and computers at home facilitates individualized pacing of their work by removing the constraints of working on the same schedule as peers in exams or on assignments.
- Access to library or Internet resources from home via modem or Ethernet connection facilitates individualized pacing of work and reduces the need to come to campus, saving both energy and time.
- Recording of lectures may help the student to review material presented quickly without taking additional time in class.

Assignment Accommodations

- Tutoring may be required at various times, either to supplement missed lectures or to explain material students could not attend to at a particular time due to their illness.
- Flexibility with deadlines is often necessary.

Examination Accommodations

- Extra time on exams or tests to allow for washroom breaks, position changes to alleviate pain and pacing of work to avoid excessive fatigue are often necessary.

- Writing exams or tests in an area separated from the class helps by decreasing the environmental distractions to be screened out, thereby reducing fatigue and allowing students to demonstrate their knowledge effectively.

For assistance on how to incorporate the above strategies into your course and/or to receive assistance with applying universal instructional design techniques in the classroom, please contact The Centre for the Advancement of Teaching and Learning (CATL) at:
http://intranet.umanitoba.ca/academic_support/catl/.

Students with Mobility Impairments

Mobility disabilities can be the result of injuries to the spinal cord, arthritis, neurological conditions such as muscular dystrophy or cerebral palsy, or even missing limbs. Students may or may not use mobility aids such as wheelchairs, canes, crutches, braces, and prostheses. There may be resultant limitation of speed, strength, endurance, dexterity and/or coordination, particularly fine motor coordination.

Physical barriers to students with mobility impairments exist at almost every post-secondary institution in Canada. For example, students attending the University of Manitoba may have difficulty getting to class due to inclement weather conditions.

Instructional Strategies

- Know what parts of your building and classroom can be used by persons using a wheelchair. Be ready to offer assistance if necessary. Bear this in mind when scheduling special events, such as films or lectures in alternate locations.
- Students will need more time to travel between classes and might be late arriving.
- Students may be using the on campus transportation provided by Physical Plant which can be delayed.
- Students may also request a change in lecture or tutorial section for this same reason.
- Students may need a place to sit in the front of the classroom. Proximity to an exit is also important for safety reasons.
- If the mobility impairment makes it difficult to take notes, the student may require a note-taker.

Communication Strategies

- Assume a position that will allow eye contact with the individual on the same level. Pull up a chair and sit down.
- Remember that the wheelchair or walker is a part of the personal space of the individual.
- Be aware, when possible, of the wheelchair user's capabilities. Some users can walk short distances with assistance. They may use a wheelchair to conserve energy and to move about more quickly.
- Be clear and concise when giving directions to a person with a mobility problem. Indicate the distance and any physical barriers that may hinder travel. For instance, a one-inch curb can stop some wheelchairs and two steps without railings can stop an otherwise ambulatory individual.
- Recognize that students with mobility impairments may require a seat in the front of the classroom. Proximity to an exit is also important for safety reasons.
- Do not touch a wheelchair without being asked to do so.

Technological Accommodations

- A variety of technological devices such as alternative keyboards and voice input systems enable persons with disabilities to have better access to and use of information resources needed to complete course requirements.

Assignment Accommodations

- Allow for flexibility with deadlines. Many students with physical disabilities contend with issues outside of the classroom such as arrangements for transportation to and from the library, medical care, attendant care for daily living needs, etc. All are very time consuming, so extensions on assignments may be required.
- Provide advance notice for field placements so that the student can make appropriate travel arrangements. You may need to allow for alternative field assignments if those in place are not accessible.

For assistance on how to incorporate the above strategies into your course and/or to receive assistance with applying universal instructional design techniques in the classroom, please contact The Centre for the Advancement of Teaching and Learning (CATL) at:
http://intranet.umanitoba.ca/academic_support/catl/.

Students who are Blind or have Low Vision

Not all individuals who are legally blind are completely without sight. In fact, individuals are considered legally blind when visual acuity is 20/200 or less, that is, ten percent of "normal" vision. Approximately ninety percent of those who are legally blind are classified as having low vision. People with low vision differ greatly in what they are able to see. Some are able only to see shadows, some are able to distinguish colors and still others may possess enough visual acuity to be able to read a blackboard or textbook with special glasses or a monocular. Some people retain adequate vision if they read in excellent light and rest their eyes frequently, or, for others, if the print is enlarged. Others may have little difficulty seeing objects at a great distance, but may be unable to see an obstacle immediately in front of them. Such a problem as this is due to a restricted field of vision.

Individuals who are completely blind may have visual memory and its strength depends on the age when vision was lost. They may rely completely on brailled text or voice reproduction of written material. If you are uncertain how much sight individuals have, or how much assistance they may need with a particular task, you should not hesitate to ask them.

Instructional Strategies

- Permit the student to sit near the front of the classroom. Some people with low vision benefit from being close to the blackboard. Other students need to record lectures and therefore must be close to the person who is speaking. In both cases, it is important that material written on the blackboard or overhead be read aloud.

- If the classroom is in a laboratory setting, a "buddy system" may be most beneficial for the student. This will permit the person to obtain the required information and still work within a safe environment.
- The U of M strives to be as inclusive as possible; however there are safety concerns in some laboratory settings where students cannot be accommodated. Please contact the office if you have a concern in your lab.
- Provide a verbal explanation for visual aids (e.g., graphs, charts, diagrams) and verbally emphasize important information.

Communication Strategies

- Approach the individual so that you are facing him or her, identify yourself, and ask if you can be of assistance. However, do not proceed unless the individual says you can. If you are not sure of exactly what to do, ask the person to explain how you should proceed.
- Make sure that your attitude can be heard in your voice. Put your smile, welcome, and helpfulness in your voice.
- When you are leaving the room, say so.
- Speak to the individual as you would to any other person. Find out what he or she wants in obtaining a useable format.
- Speak to the person directly, not through his or her companion.
- If the individual asks to be guided to a particular area, stand next to him or her, slightly ahead and ask him or her to take your arm. Do not grab the arm of the person who is blind. This is dangerous and can be frightening. Identify any objects as you encounter them, including steps and curbs.
- When giving directions to a person who is blind, be as clear and specific as possible. Describe the surroundings and make sure to point out obstacles in the direct path of travel. Be careful of using descriptions containing numbers or feet or yards/meters (for example, fifty feet ahead). If you are unsure of how to direct someone who is blind, simply ask the person how you should describe things.
- When guiding a person who is blind to a chair, guide his or her hand to the back of the chair and tell the person if the chair has arms.
- Be aware of a service animal and the fact that space will need to be made available for the animal in corridors, aisles, etc. Do not touch or pet a service animal, even if it begs for attention. Service animals are not pets; when in the harness, the animal is working. The service animal is responsible for the safety of its owner. Interference could lead to unnecessary disaster.
- Do not assume that the individual knows his or her way around the building/classroom.
- Feel free to use words like "look", "see", or "read"; people who are blind use these words too!

Technological Accommodations

- If the student uses adaptive equipment which permits him or her to read printed materials or to work on a computer, you may find it helpful to understand its operation. This, of course, is not essential; however, feel free to ask the student to explain the operation of the equipment to you. Upon request, the Assistive Technologist at Student Accessibility Services would be pleased to demonstrate the equipment available.

Assignment Accommodations

- Provide the student with ample notice when assigning research papers. The student may require assistance finding and translating material into alternate format, such as large print, Braille or electronic format, as well as proofreading the final product.
- Class assignments or instructions should be outlined orally.

For assistance on how to incorporate the above strategies into your course and/or to receive assistance with applying universal instructional design techniques in the classroom, please contact The Centre for the Advancement of Teaching and Learning (CATL) at:
http://intranet.umanitoba.ca/academic_support/catl/.

Students with Acquired or Traumatic Brain Injury

Acquired Brain Injuries (ABI) are the result of damage to the brain from internal causes. Traumatic Brain Injury (TBI) can be the result of a blow to the head or of the head being rapidly moved or shaken, often resulting in lost consciousness. Not all blows to the head will result in a brain injury, and some seemingly minor injuries can cause brain injury. Both ABI and TBI cause damage to brain tissue, and any associated brain swelling or bleeding can increase and complicate the initial damage.

Causes of ABI can include:

- Alcohol, solvent and drug abuse
- Oxygen deprivation
- Stroke
- Tumors
- Aneurysm
- Abnormal blood vessels in the brain
- Infections to the brain
- Medical conditions such as Parkinson's Disease, Multiple Sclerosis, and Alzheimer's Disease

Causes of TBI can include:

- A motor vehicle accident
- Collisions during sports
- Falls
- Assaults
- Shaking
- Whiplash

The effects of ABI and TBI can vary greatly depending on the severity of the damage to the brain and the areas of the brain that are impacted. Some effects will be permanent, while many can improve over time.

There are many cognitive, physical, psycho-social, behavioral and emotional effects of ABI and TBI. Each student's experience will differ in terms of the combination of symptoms, the severity of the symptoms, and the extent of their recovery. Common symptoms following ABI and TBI are:

- Difficulty with short- and/or long- term memory
- Fatigue
- Decreased concentration and attention
- Lack of initiative and motivation
- Irritability and increased sensitivity to stress
- Inappropriate behavior and poor social skills
- Decreased response speed
- Difficulty with problem solving, planning and sequencing
- Depression, anxiety and low self-esteem
- Impulsivity
- Loss of taste and smell
- Dizziness and difficulty with balance
- Epilepsy and seizures
- Headaches
- Decreased or altered vision
- Chronic pain
- Paralysis
- Difficulty with reading and writing (information processing or the physical act of reading and writing)

More in-depth information about ABI and TBI can be found on the Manitoba Brain Injury Association website at www.mbia.ca.

Students with brain injuries can experience many barriers to their academic success, especially when they are still learning what their symptoms are and how to manage them. It is important to note that having a brain injury does not necessarily impact a student's academic potential, although it may cause them to have difficulty processing academic information and expressing their knowledge. Each individual will require a unique set of accommodations, and it may take time and multiple changes or additions to the list of accommodations for the student and Accessibility Advisor to devise the right combination of accommodations and supports that will lead to their success.

Instructional Strategies

Using the following instructional strategies for course preparation, presentation of lectures, preparing assignments and exams will not only help the students with brain injuries in your classes succeed, but will be useful to all your students.

- select well-organized texts with aids such as chapter summaries, glossaries, indexes
- make book lists, assignments and other materials available well in advance
- provide a role model for organization: present overall plans for the course, unit and lecture
- preview the material to be covered, provide the information, and then review the most salient points
- indicate main points before viewing videos or films
- clearly indicate the main points of your lecture, using written and oral techniques to emphasize them
- emphasize the relationships between ideas, using visual as well as verbal methods (e.g. concept maps, diagrams)

- use overhead projections, diagrams and charts whenever possible to supplement your oral presentation of information (lecture)
- explain assignments clearly, both orally and in writing, with set deadlines and criteria for grading/evaluation
- modify test questions to avoid double negatives, extremely complex sentence structure, and questions embedded within questions

Communication Strategies

- Some students with ABI or TBI may be reluctant to discuss their disability or its effects due because they are concerned with the stigma associated with it (and may have had negative experiences while disclosing in the past). It is helpful at the beginning of each term to invite all students with disabilities to introduce themselves to you during your office hours. Privacy and an assurance of confidentiality are helpful in creating a non-threatening environment to encourage open communication with students with brain injuries.
- While some students with ABI and TBI struggle with organizational, sequencing and time management skills, it is nonetheless their responsibility to meet the demands of their course load, via learning support available at Student Accessibility Services; possibly a reduced course load, careful course selections, coaching, and so on. Sometimes, just like their non-disabled classmates, students with ABI and TBI don't fulfil their responsibilities. It may be useful to consult with the Accessibility Advisor at this point; however, the properly accommodated student should have normal consequences for missing deadlines, handing in poor quality work, etc.
- Providing information in writing for future reference may help compensate for limited short-term memory and attention.

Technological Accommodations

- Allow recording of class lectures for students who have difficulty processing auditory information and/or listening and writing at the same time.
- Students with ABI or TBI benefit from using computers and online services from home for research and obtaining notes whenever possible, as this allows for more individualized pacing of work, a less stressful environment, and fewer interruptions.
- Some

Assignment Accommodations

- Flexibility in deadlines is important in helping students with ABI and TBI to do their best work.
- Alternatives to group work may be helpful to allow a student with ABI/TBI to work at their own pace, and to avoid interpersonal conflicts if the student has difficulty with social skills.

Examination Accommodations

- Extra time on exams and tests allows students with brain injuries to compensate for time lost to difficulty with information retrieval, lack of focus, or slowed mental processing.
- Supervised breaks during exams allow students to alleviate mental fatigue and 're-set' their concentration

- Separate space for writing exams is helpful in reducing the stress of the exam environment and external distractions.
- Only one exam in a 24- or 48- hour period. This can be helpful to help students who have difficulty with memory and information retrieval as it allows the student to focus their studying on one subject at a time. It can also be helpful in avoiding the extreme mental fatigue that can be caused by intense periods of studying and the increased amount of time the student uses to write their exams.
- Computers may help students organize and re-organize work more efficiently when thought processes are disrupted frequently in an exam period and when information processing is difficult. Assistive software may be helpful in reading questions aloud to students and organizing thoughts for long-answer or essay-style exams.

For assistance on how to incorporate the above strategies into your course and/or to receive assistance with applying universal instructional design techniques in the classroom, please contact The Centre for the Advancement of Teaching and Learning (CATL) at:

http://intranet.umanitoba.ca/academic_support/catl/.

Students who are Deaf or Hard of Hearing

Hearing loss may range from a mild to a profound impairment. For example, a "hearing impairment" may extend from a mild hearing loss in one ear to complete Deafness. An individual may be unable to hear certain pitches, environmental sounds or everyday speech. In fact, by some estimates, hearing loss is the most prevalent chronic health problem in this country, affecting 1.5 million Canadians.

Hearing impairments can have dramatic ramifications on communication. For those born with profound deafness, language development may not reflect intelligence or knowledge, as each word must be taught separately, along with its meaning. Communication by the Deaf occurs through American Sign Language (ASL), Signed English, lip-reading, speech, and/or writing. Lip reading can only convey 30-50% of spoken information. The most commonly used method of communication among the Deaf is ASL, a language unto itself, with its own grammatical structures, and is the basis on which a very strong Deaf culture is predicated. Members of this culture do not consider themselves to be disabled by their deafness and use of ASL.

Instructional Strategies

Many students who are hard of hearing rely on lip-reading. Students who read lips will seat themselves in the best position in order to watch as you speak. Please do not speak with your back to the class. Avoid pacing around the room as it is difficult to lip-read a moving target. Speak in a normal (and not exaggerated) manner; use of short and simple sentences is best.

- Use visual aids whenever possible. A blackboard outline may be helpful and will help the student focus on the topic of the discussion. People who are hard of hearing need to know what subject matter is to be discussed in order to pick up words which help them follow the conversation.
- It may be necessary to repeat answers or discussion given by other students in the class for students who have hearing impairments, particularly if the speaker does not speak clearly or is seated in another part of the room.
- Write important announcements and instructions on the blackboard.

- Encourage the student to request repetition if he or she has missed something or to clarify with you after class.
- If videos or slides are used, provide the student with a summary.
- Some students may do well in a quiet room but encounter difficulties with noise when the air conditioning is on. A particular room may be appropriate as a learning environment in one season but not in another.
- If the classroom is in a laboratory setting, a "buddy system" may be most beneficial for the student. This will permit the person to obtain the required information and still work within a safe environment.
- Lab instructors should write down all instructions, especially about lab safety, and clearly label instruments, machines and chemicals.

Communication Strategies

- Approach the individual so that he or she can see you. Ask if you can be of assistance.
- Since there are varying degrees of hearing impairment, please ask the student to tell you what he or she cannot hear.
- Face the individual when you speak to him or her, even when others are present. If an interpreter is present, look and speak at the person who is Deaf or hard of hearing and not at the interpreter.
- Since many individuals who are hard of hearing rely on lip-reading and facial expressions, do not speak with your back to the class at any time. Ensure adequate light falls on your face and keep hands, glasses, and other objects away from your mouth when talking.
- Speak clearly and naturally, though perhaps more slowly than usual. You do not need to shout, exaggerate, or over pronounce words. Pausing slightly after technical terms is helpful.
- If the person does not understand you, rephrase your sentences or questions using different words. Use paper and pencil if necessary. Getting the message across is more important than the medium used.
- Use body language and facial expressions to supplement your communication.
- Reduce the background noise level, if possible.
- Do not make assumptions. Not everyone with a hearing loss uses American Sign Language or is able to read lips.
- Do not assume that you understand and are understood. Use open-ended questions which must be answered by more than "yes" or "no".
- Be patient.

Technological Accommodations

- Cooperate if you are requested to use an FM amplification system. It uses a wireless microphone system and receiving unit that should not interfere with your lecturing style. You may feel slightly uncomfortable in the beginning, but it will greatly increase the learning opportunity for the student.

Students with Asperger Syndrome (AS)

Asperger Syndrome has recently been dropped by the DSM-V as its own disorder and is now classified under the broader heading of Autism Spectrum Disorder, (ASD). People with autistic behaviors who have developed language at the normal age may still be diagnosed with AS, but under the broader

heading of ASD. Often a child is already in school before AS is diagnosed or sometimes the person may be diagnosed later in their teens or adult years. There is debate in clinical circles about whether Aspergers Syndrome and "high-functioning" autism are really distinct disorders and there is even less agreement on what are the best assessment tools for AS. Cognitive, communication and motor skills are usually assessed and attention is paid the person's history and overall ability to function independently. Related disorders and those with similar symptoms including Tourette's Disorder, Obsessive Compulsive Disorder, Schizophrenia, Depression, ADHD and other learning disabilities must be considered as well. There is a high rate of co-morbidity among people with AS.

Common issues for someone with AS will be mild to severe impairments in social interactions and understanding, restricted and repetitive activities and interests and deficits in communication. People with AS tend to struggle with social interactions because of their extreme literal-mindedness. They typically have difficulty inferring meanings from tone or context, facial clues or body language. Putting themselves in someone else's shoes is not an ability most students with AS will have. Loud or disruptive behavior can be difficult to curb because of this. Many students with AS will simply have a difficult time understanding that their actions affect people around them. Often, students with AS have a high level of anxiety, and seek to involve themselves in areas they already know or feel comfortable with.

Many students with AS have difficulty speaking to instructors, participating in group work, getting involved in extra-curricular activities, organizing their schedules and maintaining a broad level of interest. They tend to be focused on a few key interests to the detriment of other components of a university degree.

One characteristic of people with AS is a heightened attention to detail that contrasts somewhat with the usual focusing on the gist or wider picture. Their restricted focus, coupled with a good rote memory, may result in their having a thorough, detailed knowledge base related to their main interest. When this interest is linked with a viable career choice, such as information technology, engineering and sciences (among others), students with AS can excel in academics and careers in related fields.⁸

Summary of difficulties:

- Communication difficulties: conversation skills, interpreting non-verbal clues, understanding sarcasm or metaphor, making and maintaining eye-contact
- Social difficulties: engaging with and relating to others, understanding humour, preference to be left alone, frustration and impatience with others
- Poor organization and time-management
- Difficulty prioritizing and focusing on tasks
- Difficulty understanding abstract thought
- Poor concentration
- Difficulty adjusting to change
- Response to some subjects: lack of interest/motivation or distress/agitation

⁸ T. Lockett, and S. Powell, "Students with Autism and Asperger's syndrome," in S. Powell, ed., *Special Teaching in Higher Education* (Sterling, VA: Kogan, 2003) 159-176.

Instructional Strategies

Instructional strategies that provide structure and organization are extremely beneficial for students with AS. A clear understanding of course requirements help students maintain focus and direction, as does consistency and routine. While group work is not a strength of students with AS, when it is necessary, keeping these students in the same group repeatedly will help them build trust with classmates and will go a long way in drawing out a positive participation in classroom activities. Assigning group members that are particularly conscientious students that may more easily accept somewhat discordant behavior will also help mitigate and check disruptive situations from happening. Many other strategies are consistent with Universal Design concepts which are helpful for all students but particularly for students with organizational deficits. Some common tips are:

- select well-organized texts with aids such as chapter summaries, glossaries, indexes
- make book lists and other materials available well in advance
- provide a role model for organization: present overall plans for the course, unit and lecture
- use the "tell them what you are going to tell them, tell them, tell them what you told them" approach
- indicate main points before viewing videos or films
- clearly indicate the main points of your lecture, using written and oral techniques to emphasize them
- avoid cold-calling in class
- allow breaks during class

Communication Strategies

Most students with AS will not feel comfortable disclosing their disability to their instructors. Be sure to discuss issues arising in the class with students alone and well away from other students. While it is helpful at the beginning of the course for students with disabilities to introduce themselves to you, most with AS will not. Ask students to see you during office hours where issues can be discussed in private. Try to avoid using idioms, metaphors and sarcasm during lectures and in private conversation. It is important to be blunt, direct and to the point; provide direct feedback and set clear boundaries. While most students with AS struggle with organizational and time-management skills, it is nonetheless their responsibility to meet the demands of their course load, via support available at Student Accessibility Services, perhaps by reducing their course load, careful course selections and so on.

Technological Accommodations

Students with AS will often benefit from access to adaptive technology such as screen reading software and voice-recognition software as well as software designed to assist students with organizational components of their degree. The use of laptop computers is also highly beneficial for studying, writing papers and keeping organized.

Classroom and Assignment Accommodations

Students with AS often require consideration for extended time for assignments. Classroom accommodations can be as simple as a seat near the door if breaks are needed. Sometimes the proximity to groups of people, classroom or technology noise, or distraction can warrant breaks from

the classroom to relieve anxiety. Occasionally students will monopolize class discussion with repetitive questions related to, or not, the topic at hand. In this case, it is helpful to set clear boundaries on how many questions are acceptable. Reminding students to seek out instructors during office hours to supplement lectures is also recommended.

Examination Accommodations

Typical accommodations include:

- extra time for tests and exams (or frequent breaks)
- writing exams in a smaller room with fewer distractions
- writing exams alone to allow for talking aloud, even fewer distractions
- access to a computer to allow for spell checking, sequencing written material, legible results

Other helpful accommodations and Strategies

General or peer tutoring, reduced course load, peer or professional note-taking, counseling support, a quiet retreat area, assistance negotiating needs during fieldwork or practicum placements and the Academic Attendant (AA) Program. The AA program is designed to provide students with assistance on campus, especially in the classroom. AAs will most often accompany students to class and will act as a note taker and intermediary between student and instructor as students with AS may have difficulty speaking to instructors. AAs will also review pertinent information from lectures and assist students in homework scheduling, essay structuring and research. Students with AS will also get assistance from their AAs in behavior matters. The AA is someone on campus that the student can trust and help answer academic and non-academic questions that arise for all students during the school year.

For assistance on how to incorporate the above strategies into your course and/or to receive assistance with applying universal instructional design techniques in the classroom, please contact The Centre for the Advancement of Teaching and Learning (CATL) at:
http://intranet.umanitoba.ca/academic_support/catl/.

Students with Temporary Disabilities

A temporary disability is any physical impairment, generally as a result of surgery or an injury such as a break or sprain, for which the effects will not persist beyond one year. Effects can include:

- Pain
- Difficulty with concentration
- Side effects from medication
- Decreased mobility

Temporary students may or may not use mobility aids such as wheelchairs, canes, crutches, and braces. There may be resultant limitation of speed, strength, endurance, dexterity and/or coordination, particularly fine motor coordination. If the effects of the injury or surgery persist beyond a year, or if complications cause permanent impairment, the student may then be reclassified as having a permanent disability.

Instructional Strategies

- Know what parts of your building and classroom can be used by persons using a wheelchair. Be ready to offer assistance if necessary. Bear this in mind when scheduling special events, such as films or lectures in alternate locations.
- Students will need more time to travel between classes and might be late arriving.
- Students may be using the on campus transportation provided by Physical Plant which can be delayed.
- Students may also request a change in lecture or tutorial section for this same reason.
- If the mobility impairment makes it difficult to take notes, the student may require a note-taker.

Communication Strategies

- For a student using a wheelchair or who is unable to stand for extended periods of time, assume a position that will allow eye contact with the individual on the same level. Pull up a chair and sit down.
- Remember that the wheelchair or walker is a part of the personal space of the individual. Do not touch a wheelchair without being asked to do so.
- Be aware, when possible, of the wheelchair user's capabilities. Some users can walk short distances with assistance. They may use a wheelchair to conserve energy and to move about more quickly.
- Be clear and concise when giving directions to a person with a mobility problem. Indicate the distance and any physical barriers that may hinder travel. For instance, a one-inch curb can stop some wheelchairs and two steps without railings can stop an otherwise ambulatory individual.
- Recognize that students with mobility impairments may require a seat in the front of the classroom. Proximity to an exit is also important for safety reasons.

Technological Accommodations

- A variety of technological devices such as audio recorders and voice input systems enable persons with temporary disabilities to have better access to and use of information resources needed to complete course requirements.

Assignment Accommodations

- Allow for flexibility with deadlines. Many students with temporary disabilities contend with issues outside of the classroom such as arrangements for transportation to and from the library, medical care, frequent medical appointments, difficulty typing or sitting for extended periods of time, etc. All are very time consuming, so extensions on assignments may be required.
- Provide advance notice for field placements so that the student can make appropriate travel arrangements. You may need to allow for alternative field assignments if those in place are not accessible.

Examination Accommodations

Typical accommodations include:

- Extra time for tests and exams (or frequent breaks)
- Writing exams in a smaller room with fewer distractions
- Writing exams alone to allow for computer use and even fewer distractions
- Access to a computer to allow the student to type rather than write their exams, as well as use assistive technology (ex. Speech-to-text software)

For assistance on how to incorporate the above strategies into your course and/or to receive assistance with applying universal instructional design techniques in the classroom, please contact The Centre for the Advancement of Teaching and Learning (CATL) at:
http://intranet.umanitoba.ca/academic_support/catl/.

Conclusion

This handbook was a recommendation of the *ad hoc Committee of Senate Executive to Examine Accommodation of Students with Disabilities and Governance Procedures Related to Academic Requirements* (a.k.a. Cooper Commission) and is intended to serve as a resource to academic staff and staff at the University of Manitoba. Student Accessibility Services appreciates the support and guidance that academic staff and administrative staff provide to students and their interest in the services available through the office. SAS hopes that this document will serve as a reference guide for the University of Manitoba and encourage all university members to consider the needs of those who are differently abled. SAS encourages students, academic staff and staff to contact the office with questions at any time.

Appendix A: Classroom and Other Academic Accommodations

The following accommodations are the most common ones used in the classroom or in regards to course assignments. It is not an exhaustive list as students' unique needs can require non-standard accommodations.

Accommodation	Description	Types Of Disability That Commonly Require This
Academic Attendant	This program offers on-campus and in-class assistance for students struggling with professor-student interaction, group-work and in-class presentations, note-taking, organizational study assistance, lecture reviews, and interaction with university staff.	Students who have a combination of difficulty <ul style="list-style-type: none"> • in social situations, • with social interactions • with concentration, time management and organization • processing information are the largest users of this program.
Alternate Format	<p>The post-secondary learning experience is largely dependent on a student's ability to possess and to gather information from academic materials: course textbooks, course packs, lecture notes, research materials and exam papers. For students with a print disability, this means being able to secure the same materials made available to classmates, in an alternate format suited to their learning needs. Students with print disabilities do not have equal access to printed materials as their peers who do not have a print disability. Students with a print disability may request academic materials (textbooks, reserve readings, class handouts, etc.) in alternate format. Alternate formats include Braille, digital audio (CD MP3 format), audio cassette (nearly obsolete), Large Print, tactile graphics, and e-text. E-text is the most commonly used alternative to print materials in the post-secondary sector. E-text formats range from Word, Word Perfect, PDF and others. Other formats include eBraille and KESI format.</p> <p><i>Acquisition of Alternate Format materials:</i> Requests for textbooks or course materials in alternate formats are</p>	A print disability is defined as a disability that prevents or inhibits the student from reading print. This includes students who are blind or have low vision, students with specific types of learning disabilities, and students with a physical disability that causes them to be unable to hold or manipulate a book.

	<p>processed by the Student Accessibility Services Assistive Technologist, who can be reached at the Student Accessibility Services Exam Centre at 155 University Centre. Most alternate format production is sent to Media Production Services Unit for production to e-text, audio and braille. However for last minute requests and articles, Student Accessibility Services provides in-house production for students.</p> <p>PLEASE NOTE</p> <p>Because of the substantial time involved in ordering and producing texts in alternate formats, it is essential for students to have access to a list of required course texts and readings as early as possible in advance of the start of a course. It is the responsibility of the instructor to provide students with course outlines and reading lists as soon as possible so that students can make arrangement for material to be transcribed into an alternate format. Reading lists should indicate whether readings are mandatory, preferred or supplementary in order to determine priority of transcription. It is the students' responsibility to provide the Assistive Technologist with course outlines and their Aurora booklist.</p>	
<p>American Sign Language (ASL) - Signed English Interpretation</p>	<p>Professional interpreters are provided by Student Accessibility Services. Consultation on how to work with interpreters in your class is provided by Student Accessibility Services with the letter of accommodation. Because of the work involved, a minimum of two interpreters is usually required for a lecture, for back-up support of terminology as well as relief from the fatigue of continuous interpretation.</p> <p>Services are provided for students in the classroom, for meetings with instructors or other students, for laboratory and tutorial sessions, and for other academic situations as needed.</p> <p>PLEASE NOTE</p> <p>Material for use by interpreters should be prepared well in advance, and must be provided to the interpreters by the professor/instructor</p>	<p>The use of sign interpreters is a highly specialized accommodation for students who are Deaf or hard of hearing and whose first language is American Sign Language.</p>

	several days before the class. This allows the interpreters to become familiar with any specialized terminology, develop signs for which there may be no ASL equivalent, and decide which interpreter will handle each section of material.	
Assistive/Adaptive Technology	<p>Available software that Student Accessibility Services offers includes:</p> <ul style="list-style-type: none"> • Kurzweil 3000 and Read and Write Gold (These programs convert text to speech and have tools to help with research, note taking, and organization skills), • JAWS, Window Eyes and VoiceOver (These are ‘screen-reading’ programs that convert what a sighted person sees on the computer screen to speech) • Dragon Naturally Speaking and Dragon Dictate (These programs convert speech to text.) <p>Currently, the assistive technology is available for student use in the Exam Centre and in the adaptive technology lab in Elizabeth Dafoe Library. Further information about the software provided can be found on the Student Accessibility Services website at umanitoba.ca/student/saa/accessibility/programs-and-services.html#Assistive-Technology</p>	<ul style="list-style-type: none"> ➤ Most often used by students who have difficulty understanding, retaining and processing written information and who more easily process and understand aurally. ➤ Most often used by students with visual disabilities. ➤ Most often used by students with learning or physical disabilities.
Audio-Recorded Lectures	<p>Audio-recording lectures can allow the option to listen to the lectures again at the student’s own pace. It is the student’s responsibility to record the lectures.</p> <p>*For courses in which classroom discussions may involve other students’ personal information, audio-recording of the lectures will not be allowed. If this is the case in your course, please refer the student back to his/her Accessibility Advisor for other options.</p>	Used by students who have difficulty with concentration, memory, information processing, and note taking. Can be an effective learning tool for any student who learns better aurally.
Computer Use	The use of a computer can compensate for decreased manual dexterity by employing different muscles than those used in handwriting, distributing the work of writing to both hands, providing opportunity for adaptive positioning, and producing a consistently legible copy. Students are able to concentrate on content instead of the appearance of the document, without the	<ul style="list-style-type: none"> ➤ Manual dexterity is affected by various conditions, including arthritis, learning disabilities, injuries or illnesses that compromise muscle performance.

	<p>pain or fatigue of hand muscles affected by impairment.</p> <p>Computers are sometimes used for enlarging print during the writing and reading process, using voice output and/or refreshable Braille to edit what they have written, and to facilitate the efficient use of a scribe while dictating answers during exams.</p> <p>Computers are also used to compensate for difficulty with attention to detail, such as perfunctory spelling checks.</p>	<ul style="list-style-type: none"> ➤ Students with visual impairments require the use of a computer for these reasons. ➤ Attention to detail may be affected by medication side effects, cognitive processing speed, attention deficit disorder, or chronic pain.
Classroom Accessibility	<p>Student Accessibility Services strives to ensure that classrooms are physically accessible to all students. When a classroom may create a barrier for students with decreased mobility, Student Accessibility Services will arrange for temporary adjustments to the classroom, advocate for a classroom change, or request that changes or repairs be done. This can include checking for elevator access and function, installing accessible doorknobs, requesting push-button installation, placing accessible tables and chairs, etc.</p> <p><i>Classroom Ergonomics</i></p> <p>Student Accessibility Services can place various ergonomic aids in the classroom to help them avoid this. These aids can include:</p> <ul style="list-style-type: none"> • Height- Adjustable Tables • Adjustable Chairs • Podiums • Seating Support 	<p>This is most often used by students with decreased mobility or temporary physical disabilities.</p> <p>For students whose disability prevents them from sitting for long periods of time, who may need to change position frequently, and/or who find that the regularly provided classroom furniture causes discomfort or pain.</p>
Course Notes In Advance	<p>Having notes in advance (e.g. PowerPoint slides or the instructor's lecture notes) can help with preparation before class, increase comprehension during the lecture, and provide a framework for note taking.</p>	<p>For students who have difficulty with attention, information processing while note taking, and memory.</p>
Deferred Exams	<p>One the day of an exam, students whose symptoms will prevent them from showing their knowledge on an exam may choose to request a deferral from the professor or the department/faculty. As</p>	<p>Most often used by students whose symptoms are triggered by stress, or for whom episodes of illness or exacerbated symptoms are not</p>

	with all other students requesting deferrals, Student Accessibility Services students are required to provide medical documentation specific to the exam date unless their previously provided medical documentation already supports the occasional need for deferrals.	predictable.
Descriptive Video	This is an on-screen transcription of what is heard and seen in videos. If you are using videos in your lectures or as part of the course materials, please check that they have a descriptive video option and ensure that this is turned on when presenting the video. If there is no descriptive video option, the video will need to be transcribed prior to the presentation of the video in class if at all possible. Please contact Student Accessibility Services for more details if you have a student in your class requiring descriptive video.	Most often used by students who are Deaf or hard of hearing.
Extensions on Assignments	All students are required to use organizational and time management skills to complete assignments on time whenever possible. However, extensions are occasionally requested for disability-related reasons. Should an extension not be possible, please contact the student's Accessibility Advisor to discuss alternative arrangements.	Used by students whose disability interferes with concentration, decreases processing, reading or writing speed, or whose symptoms 'flare up' periodically,
FM Systems	Personal frequency modulation (FM) systems consist of a transmitter microphone used by the professor and a receiver used by the student. The receiver transmits the sound to the student's ears or, if the student wears a hearing aid, directly to the hearing aid.	Students who are Deaf or hard of hearing.
Library and Research Assistance	Workshops on how to use UM Libraries, electronic periodical indexes, and the Internet are scheduled in the fall and winter terms. These workshops are designed to meet the needs of individuals with disabilities. Handouts and library promotional materials are provided in alternate formats. Further information can be found on the U of M Libraries website at umanitoba.ca/libraries/ . Students needing regular or ongoing disability-related support for research purposes may be eligible for an Academic Attendant (see above).	Most often used by students with visual, learning, and physical disabilities.
Missed Classes	Attendance at lectures can be impacted by disability, and this	Students who are typically eligible for this

	<p>accommodation may be added to encourage flexibility when students miss classes for disability-related reasons.</p>	<p>accommodation are those who have frequent medical appointments or who are experiencing side effects of medication and/or symptoms of fluctuating intensity such as anxiety, depression or pain.</p>
<p>Note taking</p>	<p>Effective note taking can form a large portion of the method of obtaining information in the university environment. Note taking involves listening actively and observing, processing the information, recording the relevant information in written form and finally, reviewing the information. Each process is essential and if a student with a disability is unable to perform certain components, his or her chances at succeeding in an academic environment will effectively be reduced.</p> <p>Student Accessibility Services offers three types of note-taking services:</p> <ul style="list-style-type: none"> • <u>Computerized note takers</u> take typed, close-to-verbatim notes, for students who cannot hear the lecture. Everything that is heard will be captured in real time using a laptop computer to ensure equal access for the hard of hearing student. Students view the computer/laptop screen to follow the lecture in real time. Services are provided for students in the classroom, for meetings with instructors or other students, for laboratory and tutorial sessions, and for other academic situations as needed. • <u>Professional note takers</u> take typed or handwritten notes for students who cannot take their own notes due to their disability. Notes are given to the student after class or via email. The Professional Note-taking program consists of paid note-takers who are generally students and are not registered in the class for which they are note taking. • <u>Volunteer note takers</u> are students who share their in-class notes with a Student Accessibility Services registered student. Students whose disability makes it difficult for them to take notes in class can be provided with Volunteer Note-Takers in their classes. The instructor will be alerted via the letter of 	<p>Students who typically require note taking services are those with fine motor difficulties, learning disabilities, attention deficit disorders, decreased concentration, hearing impairments and visual impairments.</p> <p>➤ This service is available only for students who are Deaf or hard of hearing.</p>

	<p>accommodation to make an announcement to request volunteer note-takers. Interested students are to contact the Student Accessibility Services office to register as a volunteer. Volunteers must upload their notes to the UM Learning Management System, (i.e. D2L). Students login to the Student Accessibility Services course to receive their notes. Volunteers who provide notes for one academic year can apply to have this volunteer commitment reflected on their co-curricular record. If the Student Accessibility Services student wishes, they can arrange to share notes from someone else in the class on their own.</p>	
Practicum/Clinical Accommodations	<p>Students in practicum/clinical-based programs may require accommodations in the clinical setting. As clinical settings vary greatly, individualized accommodation plans can be created by the Accessibility Advisor, the student, and the clinical/practicum coordinator to address the needs of each student. In some faculties, this plan will be created with the support of the Accommodation team.</p>	All disability types.
Reserved Seating	<p>Some students may require reserved seating in the classroom in order to maximize their classroom experience.</p> <p>*Please note that reserved seating may also be provided for Computerized Note Takers, Professional Note Takers, or Academic Attendants attending class with or for students with disabilities.</p>	<p>Students who are deaf or hard of hearing, visually impaired or who have difficulty with concentration and distractibility may choose to sit at the front of the class. Some students may place themselves close to an exit because of their anxiety or need of quick access to a washroom. Students with breaks, sprains or mobility aids may need to sit at the end of a row or near an accessible classroom entrance. Reserved seating signs may also be placed at the accessible tables in the classroom to indicate priority seating for students with physical disabilities.</p>

Appendix B: Test & Examination Accommodations

Student Accessibility Services schedules and administers the mid-terms and final examinations for students requiring academic accommodation. Students must book their mid-terms two weeks in advance, and book for December final exams by November 15 and March 20 for April final exams. Mid-terms and/or exams may be booked on the Student Accessibility Services website at: umanitoba.ca/student/saa/accessibility/forms/exam.html or in person at the Student Accessibility Services Exam Centre at 155 University Centre.

This is not an exhaustive list of accommodations that can be offered to students for their tests and examinations as students' unique needs can require non-standard accommodations.

Accommodation	Description	Types Of Disability That Commonly Require This
Alternate formats	Students may require that exams be transcribed into alternate formats (Braille, large print or electronic file). The Student Accessibility Services Assistive Technologist arranges for test material to be provided in alternate format, and will require the test material in an electronic version (Word or Accessible/Searchable PDF) well in advance to ensure that the alternate format test is ready for the scheduled test date.	Students who typically require this service are those with visual or learning disabilities.
Alternate Testing Methods	Students may need to discuss an alternate format for their tests (i.e. possibility of split, take home or oral tests). Should the student be eligible for this accommodation, please contact the students' Accessibility Advisor to discuss.	Students who experience clinical anxiety or for whom extended periods of concentration are difficult may be better able to express their understanding of the course material by writing a take home test as opposed to a time-limited exam. Oral tests are typically used for students who are better able to express themselves verbally because of anxiety or a learning disability.
ASL-Signed English Interpreted Test	Students may require an ASL or Signed English interpreter to be available to them during tests/exams in order to communicate questions to the professor or for changes to the exam to be communicated to the student in ASL.	This service is available only for students who are deaf or hard of hearing.

Assistive Technology	<p>The following computer software is available for student use during tests and exams, provided that it is one of their accommodations:</p> <ul style="list-style-type: none"> • Kurzweil 3000, • Read & Write Gold • Dragon Naturally Speaking and Dragon Dictate • Jaws • Window Eyes • VoiceOver • ZoomText <p>Other assistive equipment can be available to students for tests/exams, including CCTVs, podiums, ergonomic chairs and height adjustable tables.</p>	<p>Text-to-speech software like Kurzweil or Read & Write Gold is often used by students who process auditory information more efficiently than written information. This software ‘reads’ the text of an exam or test to the student, reducing or eliminating the need to read it.</p> <p>Jaws and Window Eyes are ‘screen readers’ that verbalize what is showing on the computer screen as well as any actions or keystrokes made by the user. ZoomText enlarges text on the screen. These programs are for students with visual disabilities.</p> <p>CCTV is another way for students with visual disabilities to have the text of their exam enlarged.</p>
Calculator	<p>Students are allowed the use of a calculator during exams that require mathematic calculations. This generally does not include the use of calculators with storage or memory capabilities.</p> <p>PLEASE NOTE: Please contact the student’s advisor if you feel that the use of a calculator for your exam disrupts the integrity of the exam.</p>	<p>This accommodation is available only to students with math-related processing disabilities.</p>
CCTV Use	<p>This is a paper magnification device provided by our office for use during tests and exams.</p>	<p>Students who are visually impaired and who require magnification of written text.</p>

<p>Computer Use</p>	<p>The use of a computer can compensate for decreased manual dexterity by employing different muscles than those used in handwriting, distributing the work of writing to both hands, providing opportunity for adaptive positioning, and producing a consistently legible copy. Students are able to concentrate on content instead of the appearance of the document, without the pain or fatigue of hand muscles affected by impairment.</p> <p>Computers are sometimes used for enlarging print during the writing and reading process, using voice output and/or refreshable Braille to edit what they have written, and to facilitate the efficient use of a scribe while dictating answers during exams.</p> <p>Computers are also used to compensate for difficulty with attention to detail, such as perfunctory spelling checks.</p> <p>Some students use assistive software to help them write their exams. Please refer to the section below about assistive technology for more information.</p> <p>PLEASE NOTE: For security reasons students are not permitted to use their own computers for examinations, with the exception of students using Exam Soft in the Faculty of Law. The Student Accessibility Services Exam Centre provides computers for midterm and final exams scheduled with Student Accessibility Services. In addition, access to the internet is not available through these computers, and functions such as spelling and grammar checkers are inactivated (unless the student has the use of spelling/grammar checkers as an accommodation).</p>	<ul style="list-style-type: none"> ➤ Manual dexterity is affected by various conditions, including arthritis, learning disabilities, injuries or illnesses that compromise muscle performance. ➤ Students with visual impairments require the use of a computer for these reasons. ➤ Attention to detail may be affected by medication side effects, cognitive processing speed, attention deficit disorder, or chronic pain.
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<p>Environmental and Ergonomic Accommodations</p>	<p>Student Accessibility Services has many options for students needing environmental and ergonomic adaptations during to the test/exam environment. These can include (but are not limited to):</p> <ul style="list-style-type: none"> • Height-adjustable table • Adjustable/Ergonomic chair • Footrest • Podium • Lighting • Couch • Access to a washroom 	<p>Students whose disabilities require close access to bathroom facilities include those with medical conditions and clinical anxiety.</p> <p>Students with medical conditions, injuries, or who are recovering from surgery may require access to hot & cold packs to relieve swelling, pain, or fatigued or cramped muscles.</p> <p>Students with visual disabilities or sensitivities to certain types of lighting may require alternatives to the lighting typically found in exam settings.</p> <p>Students with decreased mobility, injuries, or chronic medical conditions may require specialized or ergonomic seating to avoid or decrease pain and increase overall comfort.</p> <p>Podiums can be provided to students with injuries, decreased mobility, or chronic illnesses. This allows for them to stand either periodically or throughout their exam if sitting for extended periods is uncomfortable or painful.</p>
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<p>Extra Time For Tests/Examinations:</p>	<p>Up to 100% extra time (double time) can be provided, depending on the specific needs of each student. In most cases, Student Accessibility Services space is provided for students needing extra time.</p> <p>Recommendations made by Student Accessibility Services for each student will be applied to midterm and in-class tests. Extra time should be provided proportionately as indicated in the documentation regarding that student's accommodations. For example, if a student receives an extra hour on a three-hour exam, he or she would require an extra twenty minutes on a one-hour test. This may not apply in the case of students for whom the duration of the examination poses a difficulty. Limited sitting tolerance may not affect in-class tests as much as three-hour exams, for instance.</p>	<p>Limited endurance due to chronic pain from surgery, traumatic brain injury, neurological or rheumatoid conditions can require the use of extra time so that a student may change position frequently or rest the affected body parts. Students who need this type of accommodation are often distracted from concentrating on course material by the constant presence of pain, side effects of pain medications, and the procedures required to relieve or prevent accumulated effects of pain. Students with learning disabilities can use extra time to compensate for extremely slow reading speed (despite average or better comprehension), for profound difficulty with coordination of handwriting, and to implement compensatory strategies in organizing and writing down their ideas. (See section on Students with Learning Disabilities.)</p> <p>Extra time can allow students with ADHD who struggle with distractibility and difficulty concentrating to take breaks and use other time-and organization-management strategies to complete their exams.</p> <p>Extra time can also allow students to employ anxiety management techniques, such as deep breathing or stretching. Students may not always require the extra time allotted for their examinations.</p>
<p>One Test/Exam per Day or Per 48-Hour Period</p>	<p>Students may only be able to write one test per 24- or 48-hour period. Arrangement of deferrals or writing early may be requested of the instructor/Faculty.</p>	<p>Typically assigned to students who struggle with mental or physical fatigue and decreased concentration.</p>
<p>Reader for test material</p>	<p>This involves a Student Accessibility Services staff member reading the test material aloud to the student. No additional information or clarification is given by the Student Accessibility Services staff member other than what is provided on the test.</p>	<p>This accommodation is typically used by students who experience difficulty processing written material visually, as in the case of some Learning Disabilities and decreased vision.</p>

Scribe	<p>A Student Accessibility Services staff member transcribes the students' test/exam answers as dictated by the student. No additional information is included by the Student Accessibility Services staff member other than what is dictated. Sometimes, a scribe is necessary only for the completion of an electronic scoring sheet.</p>	<p>For students who experience difficulty writing, as in the case of some Learning Disabilities, attentional disabilities, decreased mobility and decreased vision.</p>
<p>Separate space (provided by Student Accessibility Services)</p>	<p>There are 3 types of separate space provided by Student Accessibility Services: group, semi-private and private. Each of these is put in place for students who require an environment with reduced distraction.</p> <p>The use of <u>group space</u> indicates the need to write separately from the class to avoid the disruption of the class leaving. This does not mean the student needs to be alone.</p> <p>The use of <u>semi-private space</u> means the student can use a quiet space that is not necessarily entirely alone, but needs to be at least as quiet as a standard exam setting; without the noise from the hall, adjacent offices, or public areas interfering with the student's concentration. The management of external distraction can be important for some students using this type of space.</p> <p>A recommendation for a <u>private space</u> means that the student needs to write alone. This is to provide a space that is as quiet as possible, and free of visual distraction. The management of external distraction is extremely important for students using this type of space.</p>	<p>All students using exam-related accommodations are provided Student Accessibility Services space to write, as this avoids singling out the student receiving accommodations and therefore infringing on the student's right to confidentiality.</p> <p>Decreasing distraction also helps students for whom concentration is difficult due to symptoms or the side-effects of medication. This includes students with ADHD, chronic pain and anxiety. The level of impact of distraction on each student is considered in determining the appropriate type of space to be provided.</p> <p>Some students with psychiatric disorders like Schizophrenia or Tourette Syndrome or with other disabilities that affect concentration may require private space to speak aloud to themselves during the exam. Private space is required in this instance to avoid disrupting other students and to eliminate possible suspicion of academic dishonesty.</p> <p>Students with chronic illnesses, decreased mobility and temporary disabilities may need to move or stretch throughout their exam. Private space allows them to move around without feeling singled out by their actions or disturbing other students.</p>

Spell/Grammar check	Spelling/Grammar checkers found in word processing software are enabled for the student.	Typically used by students for whom spelling and grammar are impacted by difficulty concentrating, or difficulty with sequential processing and rote memory.
Supervised Breaks	This involves pausing a student’s exam time for a maximum of 15 minutes (for a 3-hour exam) to take a reprieve from exam writing (this can include washroom breaks). Students remain under the supervision of Student Accessibility Services staff and do not have access to their exams during their breaks.	<p>This accommodation is typically used for students with ADHD or with physical disabilities to avoid mental or physical fatigue.</p> <p>Students who experience panic attacks may use breaks to engage in symptom management techniques without losing time on their exam.</p> <p>Students with medical conditions or anxiety that causes increased use of bathroom facilities may use supervised breaks so that the time required to travel to and use the facilities does not interfere with their ability to complete the exam.</p>