



CENTRE FOR INNOVATION
IN TEACHING AND LEARNING

Content Author's Guide 4th Edition

Copyright ©Centre for Innovation in Teaching and Learning, 2009, 2011, 2013, 2016

TABLE OF CONTENTS

I. PURPOSE OF THIS GUIDE.....	3
II. ORGANIZATION AND ADMINISTRATION	4
Introduction – Centre for Innovation in Teaching & Learning (CITL).....	4
Working with CITL to Develop an Online Course.....	5
Team-Based Approach.....	5
Requesting Development/Redevelopment of an Online Course	7
Notification of Acceptance	8
Course Development Timelines.....	8
Time Content Author Can Expect to Commit	8
Remuneration for Course Developments/Redevelopments	9
Course Agreement (Contract).....	9
Use of Materials Published by Others	9
Use of Resources in your On-Campus Course	10
III. COURSE DEVELOPMENT AND DESIGN	10
Course Development Process	10
Phase 1: Preplanning.....	11
Phase 2: Needs Analysis	14
Phase 3: Design.....	16
Phase 4: Development.....	19
Phase 5: Implementation and Evaluation.....	19
Phase 6: Maintenance	20
Redevelopment of Online Courses	22
IV. FACULTY SUPPORT	22
Professional Development Resources.....	23
Services for Faculty	23
Appendix A – Quality Guidelines for Online Courses	23

I. Purpose of this Guide

Welcome! Whether you are a content author or an instructor interested in developing an online course with Centre for Innovation in Teaching & Learning (CITL), you will no doubt have a number of questions. This guide will answer many common questions and provide an overview of the resources available at CITL. It will also outline CITL's policies and procedures for designing and developing an online course.

Use this guide as a reference while you are preparing your course. Our role at CITL is to work with you to create high quality, media rich, interactive courses that reflect the innovative reputation of Memorial University, and enhance student engagement and learning. We hope this reference guide will provide you with the necessary information about our processes and procedures in developing an online course. Thank you for going on this journey with us.

II. Organization and Administration

Introduction – Centre for Innovation in Teaching and Learning (CITL)

Centre for Innovation in Teaching & Learning (CITL) is responsible for the development and delivery of online courses and programs, as well as administering the technologies that support and enhance teaching and learning both on campus and online at Memorial University. The delivery of distance education at Memorial began operation over 45 years ago to provide continuing education and professional development opportunities to people in rural and remote areas of the province. Since then, the unit has grown to 90 plus full-time employees and offering over 450 online courses.

Online learning refers to a situation whereby the instructor is separated from the students in space and/or time. All online courses developed and redeveloped with CITL for Memorial University use a learning management system, Desire2Learn (D2L). Desire2Learn is a web-based platform whereby students can access course information and materials at any time. As well, most interactions with the instructor, fellow students and course content take place asynchronously (not at the same time) using the communication tools within Desire2Learn.

When it comes to the service and delivery of online courses and programs, Memorial is recognized as an award-winning leader in Canada. To its student clients, Memorial's online offerings present an educational solution from a top comprehensive residential Canadian university. More specifically, the service offers students:

- The flexibility of managing the demands of school, work, and family by creating individual schedules that work for them;
- The convenience of completing their education from the comfort of home or wherever they are; and,
- Nationally recognized and credible education from Memorial's high academic caliber.

Online Learning at Memorial

In developing a service model for online learning, CITL looked inward at its ability to meet expectations of its clientele: "What do we need to do to service learners at home?" The services offered are based on a "self-service model" that is student centered. Utilizing an information management system to streamline the exchange and collection of information, a duplication of tasks is reduced and overall client services are improved, such as streamlined student services and a successful fostering of relationships with faculty.

Today's students are as varied as the places in which they live. By applying innovative thinking and technology, online learning provides the flexibility learners need to fit education into their lives and offers all the benefits of a residential university, online.

Working with CITL to Develop an Online Course

Advances in technology and emphasis on a more student-centered approach have changed the way courses are constructed. Quality courses are media rich and interactive rather than just text on the web. Working with a course development team at CITL can help you:

- Plan sufficient time to prepare the course for delivery in the scheduled semester;
- Promote the course as an online offering;
- Design and develop a course that meets learning objectives;
- Prepare a course that is effectively and efficiently supported while being delivered;
- Select and/or create the most appropriate multimedia resources and interactive learning opportunities to facilitate student learning;
- Obtain copyright permission to use articles and other resources that have not been developed by you or Memorial University; and
- Become familiar with the technologies being used in the course and the pedagogical elements related to online learning.

Team-Based Approach

We use a collaborative team based approach to develop online courses. A typical course development team, as depicted in Figure 1, consists of a content author (a faculty member or per-course instructor who has a contract with CITL for the development of a online course), an instructional designer, an assistant to the instruction designer, a multimedia/graphics developer, a video and audio producer/director, copyright officer, and an information services librarian from one of Memorial University's libraries. Other team members, such as a computer programmer, are added as necessary.



Figure 1: Course Development Team

Course Development Team Roles and Responsibilities

- Content Author

The content author (CA) is the expert in the subject matter who is contracted by CITL to work with the course development team to develop the online course. The CA's primary role is to select course resources and write the course content, including a course syllabus that outlines the course expectations or requirements. The CA works collaboratively with a senior instructional designer to determine course learning objectives, instructional format, learning activities and assessment strategies.

- Instructional Designer

The instructional designer (ID) will help define the scope of the course and plan the course content and activities in a pedagogically sound manner that can provide an enriching, quality learning experience for students. They can help to:

- Define learning outcomes and learning objectives;
- Determine course evaluation components;
- Organize the content in a clear, concise manner that allows the student to work efficiently;
- Coordinate copyright with our copyright office of any items (i.e., charts, tables, graphical images, readings) for the course;
- Plan activities and assessment strategies that achieve the course learning objectives;
- Plan learning activities that address a variety of learning preferences and needs;
- Select the most appropriate asynchronous/synchronous tools and multimedia resources for your course and storyboard content for development of these resources; and
- Provide best practices on designing, developing, facilitating and managing the course.

The ID will assume the role of team lead to keep the development project on task by coordinating work loads, addressing problems or delays as required, and ensuring timelines are met.

- Multimedia/Graphics Developer

The multimedia/graphics developer creates dynamic digital animations, simulations, games and various interactive media to address instructional challenges or concepts that are difficult to learn or require the aid of the media to fully enhance or explain the material. These media enhance student motivation by making content more engaging. The multimedia/graphics developer works from detailed storyboards developed by the instructional designer with the content author.

- Video and Audio Producer/Director

Use of video and audio can greatly enhance any course by enlivening the material, demonstrating processes or explaining concepts. The producer/director will work with you and the instructional designer to produce the video and audio material for incorporation in the course.

- Assistant to the Instructional Designer

The assistant to the instructional designer's (AID) primary role is to work with the instructional designer in the design and development of the course. AIDs:

- Assist with research and feasibility analysis of new technologies to enhance delivery of course components;
- Explore and recommend solutions to designing content for accessibility and to address design problems where possible;
- Design and implement style sheets and style guides to ensure quality of presentation;
- Develop resources to guide the course development team and instructors through the process of online development;
- Work with the team in the early stages of course development to identify multimedia objects and incorporate these objects in the course (for example, animations, simulations and slide presentations);
- Work with copyright office to ensure credit lines for items cleared for copyright are accurately sourced and recorded;
- Format course materials in the online environment to allow optimal student learning with ease through converting text into tables, working with charts or other graphical representations, and coding content in the learning management system;
- Edit content according to selected writing style preference; and
- Provide assistance and support with technical issues and integration of learning management system components during the course development and the pilot stage (the first semester the course is delivered).

Requesting Development/Redevelopment of an Online Course

CITL accepts requests for development/redevelopment throughout the academic year. The director of CITL will send out semesterly reminders to the academic units along with the request form.

Content authors interested in developing/redeveloping an online course should complete the request form and seek signatures for departmental approval for delivery from the department head or designate and dean/director's recommendation for development. The department will review the request in relation to their plans for course developments and the impact on their resources.

The completed request form, accompanied by a course syllabus, can be forwarded to CITL for consideration. The request form includes such details as a projected 3-year plan for offer, and an indication of how the course development aligns with the department's strategic goals.

For more information on the process or for specific inquiries, please contact the manager of course development. Contact information is provided at the end of the document.

Notification of Acceptance

Requests for online development are reviewed with the university's and the faculty's strategic directions in mind. While CITL will do its best to support all development requests, the ability to do so is dependent on the time and resources available.

Content Authors are sent a formal letter indicating whether the request has been accepted or not via internal mail within one month from receipt of new development request.

If accepted, the manager of course design will contact the CA to confirm the request and the proposed timeline for first offer. If not accepted, the director's office provides feedback and would welcome the resubmission.

Once the development is confirmed, the CA will be assigned a development team to take him/her through the development cycle.

Course Development Timelines

The course development process takes approximately 9 months; however some well-prepared CAs have developed faster than this. The process includes mapping out the development deadlines and 3 months for content development by the content author. All milestones or phases along with the timeline of when work is to be completed (as agreed by the content author and senior instructional designer) will be outlined in the Agreement (Contract) to ensure the course is fully completed at least 4 weeks before its first semester offering.

Time Content Author Can Expect to Commit

Due to the growing demand on CITL services, it is critical that the CA commit and schedule time weekly to work on the development of the online course. Time will be required to:

- Build a collaborative relationship with the development team;
- Map out the course in a pedagogically sound manner;
- Research and write content;
- Prepare student assessments;
- Select course resources;
- Review multimedia content storyboards;
- Review and test online content including multimedia; and
- Learn new technologies.

The amount of time commitment needed each week will vary depending on the stage of course development, familiarity with the content area, experience in developing a course for online delivery, facilitating online learning and/or using educational technologies.

Remuneration for Course Developments/Redevelopments

Because content authors are usually doing online course development/redevelopment in addition to regular teaching and research activities, remuneration for the development/ redevelopment of a course is provided. Details concerning payment amounts and options will be discussed during the Agreement (Contract) meeting after your course is accepted for development.

If you require additional information prior to submitting your course development request, please contact the manager of course design and maintenance. Contact information is provided at the end of the document.

Course Agreement (Contract)

A signed Agreement (Contract) is required for the development of each online course. The Course Agreement (Contract) outlines the copyright arrangements between Memorial University and the content author(s), agreed timelines for development, and remuneration.

Quality Matters Guidelines

Memorial University recognizes the need to utilize quality guidelines in the development of online courses and has adopted the Quality Matters guidelines for this purpose (refer to Appendix A). Quality Matters (QM) is designed to certify the quality of online and blended courses. QM is a leader in quality assurance for online learning, and has received national recognition for its approach and continuous improvement in online learning and student learning. QM subscribers include community and technical colleges, colleges and universities, K-12 schools and systems, and other academic institutions. There are currently 461 worldwide subscribers.

The Quality Matters rubric is based in research and is continuously reviewed and updated by the Quality Matters team. The rubric is intended to inform the course development process, serving as guidelines for development.

Use of Materials Published by Others

As more textbook publishers and post-secondary institutions develop digital resources that can be shared and open educational materials become available, it may be possible to find existing resources for your course. Providing a link to copyrighted materials is always preferable to posting the materials directly within the Desire2Learn course site.

Fair Dealing has made it a little easier to access and use materials for educational purposes, however, the content author is still responsible for assuring that all materials/resources used in the course that might be protected by copyright are identified and provided to the copyright officer in time to seek appropriate permission. The copyright clearance process can take some time, so the sooner a submission is made the better. This process includes the completion of an online Copyright Clearance Request Form available at

<https://citl.mun.ca/copyrightforms/Content/>

Use of Resources in your On-Campus Course

Content authors are strongly encouraged to use any resources developed for the online course in their on-campus teaching. That being said, some clearances may only be for online delivery; therefore additional clearance may be needed for on-campus use. Contact the copyright officers for more information. Contact information is provided at the end of the document.

III. Course Development and Design

Course Development Process

There are many course development instructional design models that can be used when developing a course for online delivery, such as the Dick & Carey Model, ADDIE Model, Kemp Model, ICARE Model, ASSURE Model and rapid prototyping. These models usually outline the various stages that should be considered when developing a course.

For a summary of the design models and underlying learning theories/practices, visit the following websites:

- Instructional System Design (ISD)
<http://www.nwlink.com/~donclark/hrd/sat.html>
- Martin Ryder, School of Education, University of Colorado at Denver
http://thingsorganic.tripod.com/Instructional_Design_Models.htm
- The Theory Into Practice (TIP) Database
<http://www.instructionaldesign.org/index.html>

CITL's course development process includes six instructional design phases as shown in Figure 2. This section describes each phase in detail.

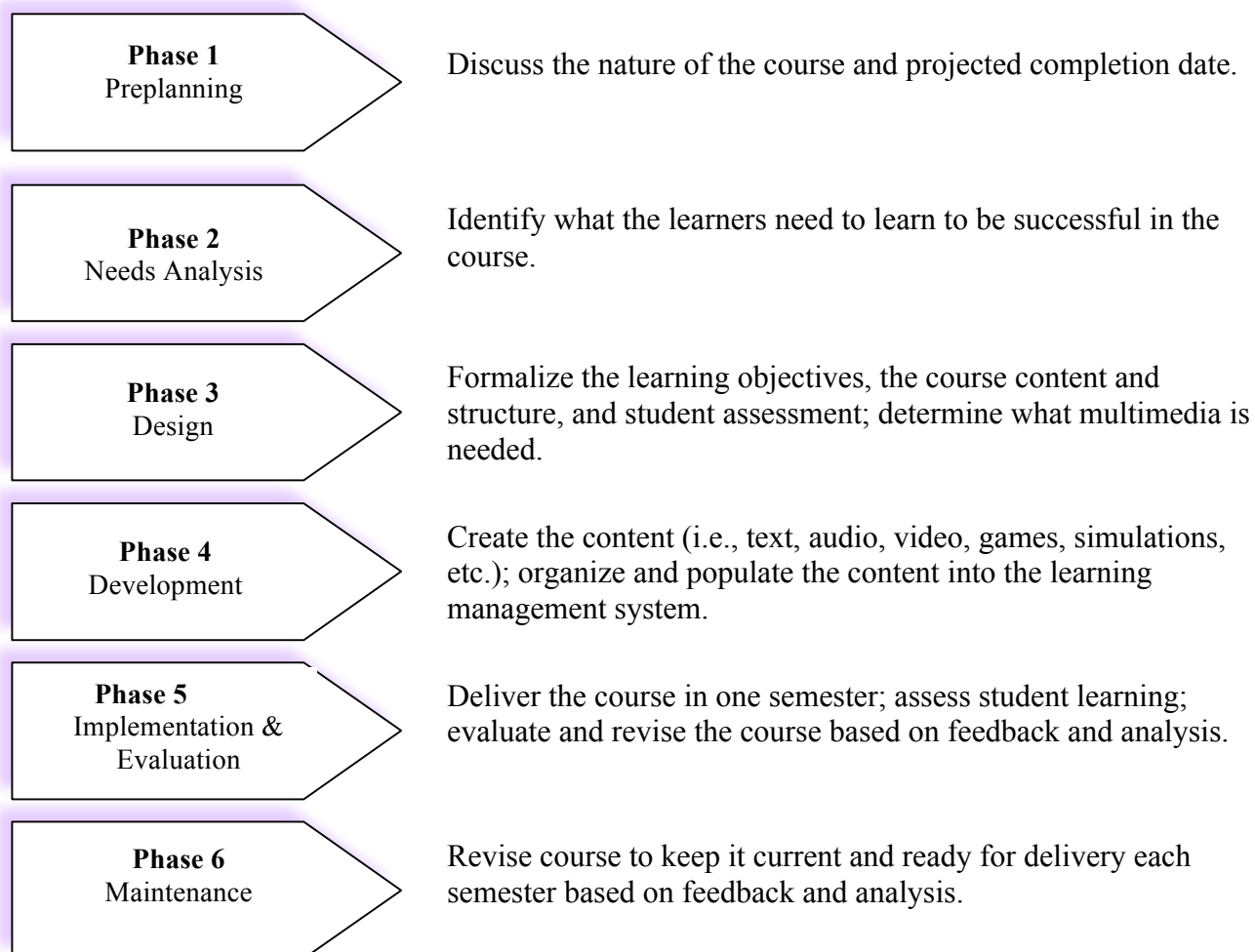


Figure 2: Instructional Design Phases

Although the phases are presented in a linear format, in practice there may be some overlap. For example, what learners need to learn to be successful in the course is identified in Phase 2. However, it may be discussed in Phase 1.

Phase 1: Preplanning

The instructional designer will set up preliminary meetings to discuss the course development process, define deadlines, course goals, teaching and learning philosophy, vision for the course, major topics, learning or teaching challenges, assessment strategies, resources available and the course development process.

Further meetings will be arranged to introduce the other team members (assistant instructional designer, multimedia/graphics developer, video and audio producer/director, copyright officer, and information services librarian).

Regardless of whether a course is taught on campus or online, the course outcomes, in terms of quality and knowledge acquisition, should be the same. Some considerations that will be discussed during the preplanning phase are listed in Table 1 below.

Consideration	Description
1. Planning	<p>Detailed planning for your course is needed prior to writing your course content. Upfront planning may save you hours down the road. How much time will you need? What is included? Why? How does your content impact learners? What assessment strategies are used? What tools will you use? Detailed planning is essential to ensure the quality of the course and optimum student satisfaction.</p> <p>As well, having the course ready on time will allow the instructor to focus on interacting with students and providing student feedback on evaluation components.</p>
2. Role of Instructor and Student	<p>Developing a online course often requires rethinking of the instructor’s role in the learning process and presentation of course content. In face-to-face settings, the instructor is often the focal point of the class with the emphasis on dissemination of information and/or delivering the content via lecture. Online courses, by their nature, require students to accept more responsibility for their own learning. Students have to read, reflect, discuss, contribute to, and assess their learning experiences. The role of the instructor is more of a facilitator or guide. Instructors are guiding the students through the course content and learning experience, and students are empowered to accept responsibility for their learning.</p>
3. Instructor versus Content Author	<p>Online courses may be taught by the content author, as well as other instructors or faculty members. Therefore, the course must be robust enough that any suitably qualified person assigned by the academic department can teach the course with a minimum of orientation. Some flexibility will be embedded into the course for both instructors and students. However, instructors are not expected nor permitted to edit and update course requirements, learning notes, or learning activities without written consent of the content author. The instructor is expected to teach the course as developed by the content author.</p>
4. Content Design	<p>Content must be robust enough to enable students to work on their own. Providing lecture or learning notes on course topics is beneficial, and opportunities should be provided for students to check their understanding and receive quick feedback.</p>

Consideration	Description
	<p>Textbooks are valuable, but course content should not be tied closely to the textbook chapters and page numbers. Following this practice, less time will be required to update your course when a new textbook edition is released.</p> <p>Electronic readings and resources are available at Memorial University's libraries for online students and instructors.</p>
5. Writing Content	<p>Use consistent tone, voice and tense when writing the course content.</p> <p>Consider breaking the content into small sections and adding appropriate headings and subheadings. This will make it easier for learners to read the content.</p> <p>Select a standard style such as APA or MLA style.</p>
6. Multimedia	<p>Multimedia, such as animations, audio and video, can greatly enhance learning. For example, video can be used to demonstrate a process that may have taken place in a lab or to convey some of the soft skills needed to facilitate a group discussion. Therefore, multimedia should be considered early in the design and development process. How can multimedia be used to present content so the course is not only text on the web? How can it be used to learn or teach a challenging concept and engage the learner?</p>
7. Copyright Clearance	<p>Identify materials/resources that might be protected by copyright as early in the course development as possible. The process of securing permissions may be lengthy.</p>
8. Interactivity	<p>Online learning can be isolating for the students and instructor. Planning activities that are interactive and that foster collaboration and teamwork among students can help minimize those feelings of isolation.</p>
9. Asynchronous Communication	<p>Most interactions between the instructor and students or among students will take place asynchronously (not at same time) using course mail or the discussion forum tool. This allows both the instructor and the students to engage in the course when it is convenient for them. At the outset of the course development</p>

Consideration	Description
	process, it is imperative to consider how much communication is required to meet the objectives of the course. Otherwise, time management may become challenging for both the students and the instructor.
10. Synchronous Communication	While most communication and interaction will take place asynchronously, there are online tools that can be used to facilitate synchronous or simultaneous communication. Online chat or voice over IP, such as Online Rooms (powered by Blackboard Collaborate), can be used to replicate office hours or allow for group collaborations. While synchronous tools are useful, they do decrease the flexibility the students and instructor have in choosing when to facilitate or learn online. Considerations must be given to whether synchronous communication is required and the most appropriate technology to use. Consider your target students. Are they available for synchronous sessions?

Table 1: Considerations for Developing an Online Course

Once there is a clear sense of how the course may be organized and what types of media may be used, the instructional designer will complete an Internal Course Development Checklist outlining the course details. An Agreement (Contract) meeting will be coordinated with the content author, the instructional designer, and the manager of course design.

Agreement (Contract) Meeting

The purpose of the Agreement (Contract) meeting is to discuss the specifics of the course development Agreement (Contract), such as ownership of content and payment options, along with any issues surrounding defined deadlines. The Agreement (Contract) will not be signed during this meeting but will be sent later to the content author to review and sign.

CITL will begin work on the course once a signed Agreement (Contract) is in place.

Phase 2: Needs Analysis

Needs analysis involves identifying the potential learners and what they need to learn to be successful in the course. This will help greatly when selecting resources, planning activities that are challenging and stimulating, choosing technologies to use, and presenting course content.

Content Authors are encouraged to examine the skills, knowledge and expectations of the learners likely taking the course and whether the course is part of an online degree program or core to a program only available on campus.

As well, it is important to consider where the learning will take place. In this case, students may be learning at a distance from the instructor. Therefore, there is a need to consider what resources students have access to and what resources need to be provided (i.e. tutorials). Consideration should be given to the characteristics of online students at Memorial University and the needs of online learners in general. Both are discussed below.

Characteristics of Online Students

Students at Memorial who choose an online learning modality do so primarily for:

- Scheduling convenience;
- Flexibility that allows a learner to enhance their education while balancing other life responsibilities; and
- Credibility of Memorial's accredited programs, award winning faculty, and history of being a top comprehensive residential university.

These online learners can be more distinctly identified as traditional (under 25 years of age) or mature students (25 and over). Memorial's online learning complement typically consists of an equal split of traditional and mature students.

The majority of traditional students register for an online course to augment their current on-campus class schedule. Today, these students are tasked with multiple responsibilities of working part-time job(s), extracurricular activities, and heavy social schedules while maintaining full-time studies. Online learning provides these students with the scheduling convenience of working part-time, picking up electives or repeating a course while on work-term. These students are also less adverse to technology adoption and at times prefer the independence and comfort that accompanies online learning. Commonly referred to as "millennials", born post 1982, these students outpace their parents in the use of new technology and are accustomed to email, chat rooms, and text messaging. This means they are more apt to relate to the written rather than the spoken word, especially when presenting instructions.

Mature learners are focused on completing online programs to enhance their professional or personal development. These learners are typically employed full-time (inside or outside the home) and enrolled in part-time studies. Their primary reason for choosing online is the flexibility of the modality and Memorial's reputation for its program offering and online delivery service. Either life responsibilities or distance are preventing these students from attending on-campus courses. Financial constraints are also strong considerations for these students. Unlike the typical traditional student, only a small, if any, portion of the week for the +25 year old online student is dedicated to leisure activities. The majority of their time is dedicated to family, work and study.

A successful online course should address the variety of learner needs and preferences. Below is a useful resource to provide some additional perspective on the adult learner:

- Pate, G., Du, J., & Havard, B. (2004). Instructional design: Considering the cognitive learning needs of older learners [Electronic version]. *International Journal of Instructional Technology and Online Learning*, 1(5).
http://www.itdl.org/Journal/May_04/article01.htm

Needs of Online Students

Similar to the content author, online learners must have basic computing skills and be familiar with using email, navigating the Internet and using common software packages such as word processing software. They also need regular access to a computer with an Internet connection. CITL provides:

- Assistance for students in determining if online learning is suitable for them and whether they have the computer skills and hardware/software required;
- Real time chat support; and
- Support with Desire2Learn, including:
 - Technical problems related to Internet connectivity
 - Hardware/software configuration issues (popup blockers, browser tune up)
 - Understanding the organization of the course and participation requirements
 - Accessing online exams/quizzes
 - Submitting assignments.

In terms of the content and processes within a course, online students need:

- Clearly defined instructions and expectations regarding the requirements for success in the course — this includes an outline of what is expected to be completed in each week of the semester along with any grading rubrics for assessments;
- A list of prior knowledge or special technology hardware/software that is essential;
- Opportunities for interaction with course content, classmates, and the instructor;
- Timely, clear and constructive feedback from the instructor;
- Content written in a manner that is encouraging and motivating for learners; and
- Activities that provide quality learning experiences and make use of technology when it enhances learning experiences.

You should work closely with the senior instructional designer during this phase. The senior instructional designer will have suggestions, strategies and solutions to help you effectively meet the needs of the learner and course goals.

Phase 3: Design

During the design phase, the content author works closely with the instructional designer to map out the course structure and learning environment. This generally includes doing the following:

1. Learning Objectives

Define specific learning objectives for each major topic. What should students know and understand at the end of each major topic? Consider all three domains of learning: cognitive, psychomotor and affective. Use verbs that reflect learning in the higher levels of the taxonomies for these domains. Here is a list of resources for you to review. Clearly defining learning objectives is the key to designing and developing a quality course.

- Learning Domains or Bloom's Taxonomy
<http://www.nwlink.com/~donclark/hrd/bloom.html>

- Revised Bloom's Taxonomy <https://tlc.iitm.ac.in/PDF/Blooms%20Tax.pdf>
- Krathwohl's Taxonomy of Affective Domain
<http://www.educ.ualberta.ca/staff/olenka.bilash/best%20of%20bilash/krathwol.html>
- Harrow's Taxonomy of Psychomotor Domain
<http://cehdclass.gmu.edu/ndabbagh/Resources/IDKB/harrowstax.htm>
- Psychomotor Domain Taxonomy
http://www.nwlink.com/~donclark/hrd/Bloom/psychomotor_domain.html

2. *Student Assessment*

Student assessment is an important part of any course, whether it is taught online or on campus. Student assessment serves two purposes:

1. To verify students' understanding of the learning objectives, and
2. To gather feedback on the instruction and organization of the course content.

Considerations:

What activities are appropriate to assess the students' knowledge and achievement of the objectives? Will you include online mini-quizzes and/or learning journals that encourage students to reflect, assess their progress and analyze their experiences? What will be the grading criteria/standards and how will the final grades be calculated?

The following is a list of assessment methods that can be used as alternatives to the standard assessment method of essay assignments and unit, midterm and final exams. Regardless of the assessment method chosen, you should clearly communicate the description, instructions and grading criteria.

- Take home exams
- Presentations
- Case studies
- Individual/group learning activities
- Electronic portfolios
- Learning journals (electronic journals, blogs)
- Student webpage projects
- Discussion forum participation

Assignments for an online course should be *electronically submitted to the instructor and returned to the students within the learning management system, Desire2Learn*. When using postal mail, students are often near completion of their course before receiving feedback. If using exams, time zones must be considered as students are from all over the world.

The instructional designer and assistant to the instructional designer will review the different tools available and the variety of ways for instructors to provide feedback electronically to students. Training can be provided.

3. *Outline Content*

List the major topics, subtopics and themes. Organize content into modules or units and define the learning objectives for each module/unit.

Note any concepts or areas that are particularly challenging to teach or students typically have difficulty learning. These concepts may require particular attention when designing the learning resources and activities.

4. *Learning Resources*

Consider what teaching and learning resources are currently available (published texts, online or print journal articles, Internet sites, photographs, charts, graphics, video/audio clips and animations) and how they will be used. By searching for and selecting resources early in the design process, copyrighted resources can be identified and the process of obtaining permission can begin.

Also, choose the multimedia resources that will need to be developed to enhance learning. The instructional designer will collaborate with you to storyboard the content for these multimedia resources.

5. *Learning Activities*

Include learning activities that have students apply the knowledge and skills outlined in the learning objectives. Consider how you can actively engage the students in learning. What will you have students do, other than read, to enrich the content and make it more meaningful? How will you enable students to share, contribute and build knowledge throughout the course? Consider both individual and small group activities. Consider the number of activities you would like students to do in a one-semester course.

The content author should be prepared to reflect on his/her own teaching practice and identify what works for the content and objectives. Think of the online environment and multimedia tools that can be used.

6. *Schedule*

Develop a schedule of when specific units and learning activities should be completed. This will help students plan and manage their time effectively. Students are more comfortable when the schedule is known.

Phase 4: Development

Now that the course structure is framed, the content is written, and the resources, learning activities and assessment strategies have been identified, it is time to build the course. This usually includes uploading content and resources into the learning management system, Desire2Learn, and developing the required multimedia pieces.

As well, a course syllabus should be developed. Online students should be given a course syllabus or outline on the first day of classes just the same as on-campus students. A syllabus should include:

- Your name, a short biography, office hours and contact information;
- Instructions that state when you will answer student messages and how quickly students can expect a response;
- Everything you normally would say during the first day of class;
- A detailed description of course expectations or requirements, such as group and individual learning activities, assignments (how and when to submit) and quizzes/examinations;
- How to access online resources and any online synchronous real-time sessions;
- Contact information for technical support so students can get timely assistance and decrease the number of requests you will have to manage;
- Description or required statement on academic dishonesty; and
- Description or required statement on Netiquette (guidelines for communicating properly online)

During the development phase, the content author will also explore the tools being used in the course and best practices in facilitating and managing an online course.

Phase 5: Implementation and Evaluation

A new online/redeveloped course is piloted in the first semester it is delivered. The course is implemented and formatively evaluated.

The instructional designer and assistant to the instructional designer will continue to work closely with the content author and instructor to assist with any problems or issues during the pilot semester. It is an opportunity to receive feedback from the instructor and possibly from students so the course can be edited accordingly.

The course development team ensures the specifics of the course are available to CITL's delivery and support teams, so they are aware in case students contact them for assistance during the pilot.

Phase 6: Maintenance

Once the course has been delivered for one semester and is verified as complete by the instructional designer, content author and assistant to the instructional designer, it then moves to the support of the course maintenance team.

Maintenance of the course refers to making the minor revisions required to keep a course up-to-date and ready for delivery each semester.

Content authors are encouraged to manage their own minor revisions; however, a course maintenance assistant is available if assistance is needed.

The course maintenance assistants work to ensure everything is ready when the course is about to be delivered. The course maintenance assistant:

- Compiles key course information (i.e. evaluation scheme, contact info, text book, office hours) for student delivery and support;
- Copies course components to the Desire2Learn course site for the next semester;
- Codes/edits content in HTML format;
- Checks copyright masterlist spreadsheet to ensure items cleared have correct credit lines and locations in the course are accurately recorded.
- Checks or inserts link to reserves with the library;
- Checks link to multimedia or uploads multimedia resources into Desire2Learn (i.e. animated diagrams, audio or video clips); and
- Provides faculty support with using Desire2Learn tools.

When there is a request to add additional content to an existing site, or there is an inquiry about a possible new evaluation technique, the course maintenance assistant will refer the faculty member to an instructional designer for support. It's important that changes do not impact the integrity of the development and design of the course.

Minor Revisions

Minor revisions are defined as:

- Revisions required due to textbook edition changes;
- Clarification of a concept or procedure that has presented either instructional or learning challenges in previous offerings;
- Correction of erroneous information;
- Updating of links;
- Deletion of outdated material; and
- Revisions required due to copyediting.

As per the development *Agreement*, only content authors can change the content of a course. Instructors who are not the content author are encouraged to discuss suggested minor revisions of the course with the content author.

If revisions are accepted and require assistance of the course maintenance team, the content author is to inform CITL in writing indicating that permission is granted, and advising if he/she would like to approve the completed revisions and if a new version of the course 'Master' is to be created.

To ensure ample time is provided to complete minor revisions before the next offering, the content author or the instructor is encouraged to track changes throughout the semester when the course is delivered and submit the revisions early. If minor revisions are substantial, the course maintenance assistant may require a full semester to make the revisions.

Course Instructors

Upon reviewing the course site, the course instructor may contact the course maintenance assistant to discuss or provide changes to the:

- Biographical and contact information;
- Description of the evaluation components - not the value or type of assessment (i.e., an assignment cannot be changed to an invigilated exam. However, the instructor may submit new assignment and test questions but their values must remain the same);
- Instructor's welcome message; and
- Course web links

These changes will be accepted according to the dates(s) outlined in an email sent to the instructor before the course is delivered.

Redevelopment of Online Courses

After a period of five years, a course is eligible for a complete revision. At that time, CITL or the content author may initiate a redevelopment by applying through the regular course development/redevelopment request process outlined in the Requesting Development/Redevelopment of an Online Course section of this guide.

IV. Faculty Support

Professional Development Resources

To develop an online course you need to be familiar with some computer-based technology. You need to be comfortable with common software packages such as word processing software, email and using the Internet.

At a minimum, you must be able to:

- Send and receive email;
- Attach files;
- Copy and paste text;
- Organize files into folders;
- Search the Internet;
- Download an image; and
- Download a file

The resources available on CITL's Technology Resources webpage will help you become acquainted with the variety of tools in D2L. <http://blog.citl.mun.ca/technologyresources/>

There are other professional development resources at Memorial University if you would like to become more efficient in basic computing or learn about online teaching and learning. Table 2 lists some of the resources available.

Division	Service(s)	URL and Contact Information
CITL	Workshops, programs and consultations on teaching with technology, and pedagogical issues. Faculty have access to instructional designers in the Teaching and Learning Exchange	https://www.citl.mun.ca/TeachingSupport/ Location: ED 1001 Email: tlx@mun.ca
Memorial University Libraries	Guides and tutorials on finding electronic resources and evaluating Internet resources, along with assistance on preparing library/information assignments for your course	Information Services http://www.library.mun.ca/
Information Technology Services	Assistance with basic computer set up and use	www.mun.ca/computing Telephone: 864-4595 Email: help@mun.ca Help Desk at HH-2012

Table 2: Professional Development Resources at Memorial University

Services for Faculty at CITL

CITL’s Support Centre is primarily focused on providing support services for the use of educational technology in online and on-campus courses to both faculty and students. These services range from examination services to technical support for online and on-campus courses. Client support specialists are available 7 days a week and would be pleased to answer any questions you may have, or redirect your call to another staff member as appropriate.

Please visit our web site at <https://www.citl.mun.ca/support/> for complete information on our full range of services available to faculty, staff and students.

CONTACT INFORMATION

General Inquiries

You can contact us in any of the following ways:

- By Phone - Local: 864-8700 (option 3) Toll Free: 1-866-435-1396
- By Fax - 709-864-4070
- Support Centre
<https://www.citl.mun.ca/support/>

Manager, Course Design and Maintenance, Ruth Hickey

rbhickey@mun.ca

864-2836

Manager, Media Services, Donna Downey

donnad@mun.ca

864-4061

Manager, Client Relations, Colleen Collett

ccollett@mun.ca

864-6940

Copyright Officers

Dallas Clairmont

dclairmo@mun.ca

864-7578

Nancy Simmons

nsimmons@mun.ca

864-2089

Quality Guidelines for Online Courses

Appendix A

Memorial University recognizes the need to utilize quality guidelines in the development of online courses, and has adopted the Quality Matters rubric for this purpose.

Quality Matters (QM) is designed to certify the quality of online and blended courses. QM is a leader in quality assurance for online learning, and has received national recognition for its approach and continuous improvement in online learning and student learning. QM subscribers include community and technical colleges, colleges and universities, K-12 schools and systems, and other academic institutions. There are currently 461 worldwide subscribers.

These Quality Matters guidelines are based in research and is continuously reviewed and updated by the Quality Matters team. These guidelines are intended to inform the course development process, serving as guidelines for development.

(1 - Critical, 2 – Highly Recommended, 3 – Recommended)

General Standard 1: Course Overview and Introduction		Importance
1.1	Instructions make clear how to get started and where to find various course components.	1
1.2	A statement introduces the student to the purpose of the course and to its components; in the case of a hybrid course, the statement clarifies the relationship between the face-to-face and online components.	1
1.3	Etiquette expectations (sometimes called “netiquette”) for online discussions, email, and other forms of communication are stated clearly.	3
1.4	The self-introduction by the instructor is appropriate and available online.	3
1.5	Students are asked to introduce themselves to the class.	3
1.6	Minimum student preparation, and, if applicable, prerequisite knowledge in the discipline are clearly stated.	3
1.7	Minimum technical skills expected of the student are clearly stated.	3
General Standard 2: Learning Objectives (Competencies)		Importance
2.1	The course learning objectives describe outcomes that are measureable.	1
2.2	The module/unit learning objectives describe outcomes that are measurable and consistent with the course-level objectives.	1
2.3	All learning objectives are stated clearly and written from the students’ perspective.	1
2.4	Instructions to students on how to meet the learning objectives are adequate and stated clearly.	1
2.5	The learning objectives are appropriately designed for the level of the course.	2

General Standard 3: Assessment and Measurement		Importance
3.1	The types of assessments selected measure the stated learning objectives and are consistent with course activities and resources.	1
3.2	The course grading policy is stated clearly.	1
3.3	Specific and descriptive criteria are provided for the evaluation of students' work and participation.	1
3.4	The assessment instruments selected are sequenced, varied, and appropriate to the content being assessed.	3
3.5	"Self-check" or practice assignments are provided, with timely feedback to students.	3
General Standard 4: Resources and Materials		Importance
4.1	The instructional materials contribute to the achievement of the stated course and module/unit learning objectives.	1
4.2	The relationship between the instructional materials and the learning activities is clearly explained to the student.	1
4.3	The instructional materials have sufficient breadth, depth, and currency for the student to learn the subject.	2
4.4	All resources and materials used in the course are appropriately cited.	1
General Standard 5: Learner Engagement		Importance
5.1	The learning activities promote the achievement of the stated learning objectives.	1
5.2	Learning activities foster instructor-student, and if appropriate to the course, student-student interaction.	1
5.3	Clear standards are set for instructor responsiveness and availability (turn-around time for email, grade posting, etc.)	2
5.4	The requirements for student interaction are clearly articulated.	2
General Standard 6: Course Technology		Importance
6.1	The tools and media support the learning objectives, and are appropriately chosen to deliver the content of the course.	1
6.2	The tools and media support student engagement and guide the student to become an active learner.	1
6.3	Navigation throughout the online components of the course is logical, consistent, and efficient.	1
6.4	Students have ready access to the technologies required in the course.	2
6.5	The course components are compatible with current standards for delivery modes.	3
6.6	Instructions on how to access resources online are sufficient and easy to understand.	3
6.7	The course design takes full advantage of available tools and media.	3

General Standard 7: Learner Support		Importance
7.1	The course instructions articulate or link to clear description of the technical support offered.	2
7.2	Course instructions articulate or link to an explanation of how the institution's academic support system can assist the student in effectively using the resources provided.	3
7.3	Course instructions articulate or link to an explanation of how the institution's student support services can help students reach their educational goals.	3
7.4	Course instructions answer basic questions related to research, writing, technology, etc., or link to tutorials or other resources that provide the information.	3

General Standard 8: Accessibility		Importance
8.1	The course incorporates accessibility standards and reflect conformance with institutional policy regarding accessibility in online and hybrid courses.	1
8.2	Course pages and course materials provide equivalent alternatives to auditory and visual content.	2
8.3	Course pages have links that are self-describing and meaningful.	2
8.4	The course ensures screen readability.	3