Title

A "Just-in-Time" Pragmatic Approach to Creating Quality Matters-Informed Online Courses

Authors

Angela Murillo
Indiana University–Indianapolis (IUPUI)
School of Informatics and Computing, Department of Library and Information Science
apmurill@iu.edu

Kyle M. L. Jones
Indiana University–Indianapolis (IUPUI)
School of Informatics and Computing, Department of Library and Information Science
kmlj@iupui.edu

Correspondence

All correspondence should be directed to Dr. Murillo via e-mail at apmurill@iu.edu.

Citation

This is a preprint. If you choose to cite this work, please use the following citation:

> Murillo, A., & Jones, K. M. L. (2020). A "just-in-time" pragmatic approach to creating Quality Matters-informed online courses. *Information and Learning Sciences*. https://doi.org/10.1108/ILS-04-2020-0087

Abstract

Purpose:
Quality Matters is one of the most widely regarded standards for online course design. Due to the COVID-19 pandemic, many instructors have needed to quickly convert face-to-face classes into an online environment. However, many instructors do not have online education expertise. Standards such as Quality Matters can help guide the creation of quality online course environments. This paper provides a research-based and pragmatic approach for creating QM-informed online courses.

Design/methodology/approach
The Quality Matters Standards Rubric consists of eight General and 42 Specific Review Standards. Each standard was analyzed to determine the ease of implementation and implementation approach for a Quality Matters-informed online course template.

Findings:
Of the 42 specific review standards, 16 (38%) are easily achievable, 20 (48%) are achievable, but required some intervention, and six (14%) are difficult to achieve through a course template.

Practical Implications:
This study provides guidance for implementing Quality Matters-informed online course design. As many instructors without an instructional design or online education background now need to conduct online classes, Quality Matters provides structure and guidance to assist with creating high-quality learning environments. As receiving formal Quality Matters certification is time-consuming and requires peer-review, this research provides guidance to create Quality Matters-informed online courses in a timely manner.

Originality/value:
This study is particularly timely due to the Covid-19 pandemic and will help prepare instructors for any second-wave scenarios. Furthermore, through providing guidance on the creation of Quality Matters-informed online course design, this paper will help instructors have a greater chance of instructional success for online course delivery.

Keywords:
Quality Matters, Online Education, Distance Education, Online Instructional Design, Standards, Course Design

Paper type:
Research paper

Introduction

Due to the impact of the COVID-19 pandemic, K-12 teachers and higher education faculty have been required to quickly convert face-to-face courses into an online environment. While instructors may feel very comfortable teaching face-to-face, many have never taught online, nor do they feel comfortable teaching online (Baran and Correia, 2014). Successfully teaching online requires knowledge of online instructional design and advanced knowledge of education technologies, such as learning management systems; many instructors do not have these important skills and experiences (Kalivoda et al., 2003). Therefore, quickly converting course from face-to-face to online can be difficult, time-consuming, and lack quality (Lloyd et al., 2012). Best practices and online teaching standards are needed to help new online instructors achieve instructional success.

One of the most widely regarded standards for online course design is the Quality Matters (QM) Rubric (MarylandOnline, 2020a). QM is a research and standards-based online education and course design quality assurance system. QM provides systematic best practices for online course design through the implementation of eight General and 42 Specific rubric standards (MarylandOnline, 2020b). Fully implementing certified QM standards requires a certified QM Peer Review, which is quite a time-consuming task. However, faculty can rapidly implement a Quality Matters-informed course design to build and improve their online course environments.

With COVID-19 as the backdrop, this paper provides research-based and pragmatic recommendations and best practices for QM-informed online course design. The paper introduces readers to QM and highlights why the QM standards are worth consideration, even when rapidly developing an online course. The paper highlights which QM rubric standards are achievable, resources for meeting the standards, and practical recommendations. Further, the paper relays lessons learned by the authors, who are both QM Certified Peer Reviewers and online educators, as they implemented the standards into a QM-informed online course template. Finally, it provides recommendations for continuing to improve online education should instructors find themselves doing so in the long-term.

Literature Review: Instructional Design and Standards in Online Education

Knowledge of instructional design is vital to the successful development of online courses (Gunawardena et al., 2006; Wiesenberg and Stacey, 2005). Online course environments are complex, technologically-mediated learning experiences (Puzziferro and Shelton, 2008). When creating online courses, educators must learn new technologies, redevelop course materials, and apply new pedagogical strategies (Samarawickrema and Stacey, 2007). Creating online learning environments requires skills for which few educators have had formal training (Kalivoda et al., 2003). The COVID-19 pandemic has further complicated this lack of formal training, with educators quickly transitioning to online.

Standards can be incorporated to assist educators with online course development. One of the most widely known and well-respected standards-based online course design and evaluation tools is Quality Matters (Puzziferro and Shelton, 2008). The Quality Matters (QM) Rubric has become the national standard for evaluating the quality of online courses, and QM Rubrics exist both for Higher Education (HE) and K-12. QM was developed in 2003 when a consortium of Maryland colleges received a grant to create an online course quality assurance program. In 2006, QM became a self-supporting organization that certifies online courses and trains faculty in QM (Bento and White, 2010).

The HE QM Rubric consists of eight General Standards (GS) with 42 Specific Review Standards (SRSs) within the GSs (Appendix A). The standards are summarized below.
- GS1 Course Overview and Introduction: requires clear communication and instructions to course components, expectations, policies, technical requirements, and student and teacher introductions.

- GS2 Learning Objectives: requires measurable course-level and module-level learning objectives, and a stated relationship between the learning objectives and course activities.
- GS3 Assessment and Measurement: requires alignment between assessments and learning objectives, grading policies, evaluation criteria, and feedback.
- GS4 Instructional Materials: requires alignment between instructional materials and learning objectives, activities, and instructional materials.
- GS5 Learning Activities and Learner Interaction: requires alignment between learning activities and learning objectives, active learning, and instructor and learner interaction.
- GS6 Course Technology: requires alignment between course technology and learning objectives, varied technology, and stated data privacy information.
- GS7 Learner Support: requires a clear articulation of technical support, accessibilities policies, academic support services, and student services.
- GS8 Accessibility and Usability: requires a course design that facilitates ease of use and readability, accessible text, images, and learning management system pages, and multimedia.

The QM Rubric inform online course design, and once a course is developed, the QM Rubric can also be used to evaluate the quality of the online course design. The QM Rubric can be used informally for unofficial reviews or formally for official reviews and certification.

Implementation of QM standards does not ensure the quality of the content of a course or the effectiveness of an instructor; however, following the QM standards does provide the students with a well-designed online course that enables and creates ideal conditions for learning (Hoffman, 2012). Additionally, QM standards assist in understanding and implementing accessibility standards, which are vital in online learning environments (Blauvelt, 2014). QM-informed online course templates can be created in learning management systems for QM implementation across a department or school. Research has shown that when QM-informed online course templates are utilized, both faculty and student perceptions of the quality of online courses improve (Huun and Hughes, 2014).

Research Design: Examining Quality Matters (QM) Standards
The overarching purpose of this study was to determine how we, as an online department, could implement standardized, research-based design into our courses. We determined that we could potentially achieve this goal by creating a QM-informed online course template, but first, we needed to determine how best to implement QM standards. Therefore, we considered the following research questions:
- Which QM standards are easiest to implement, and why?
- How can we best implement the QM standards into the online course template?

To conduct this analysis, we reviewed each of the 42 QM standards. The QM standards review included examining each QM standard, determining ease of implementation, and determining the best implementation action.

We first independently reviewed each QM standard. We then determined the ease of implementation and an agreed-upon implementation approach for each standard. For each standard, we measured the ease of implementation, *(0)* indicates easily implementable, *(1)* indicates structurally or partially implementable, and *(2)* indicates difficult to implement. The review process was iterative; some standards took multiple discussions to determine the best approach. Once it was determined how best to implement each standard, the QM-informed online course template was created by creating content, structural placeholders and examples, and instructions for instructors to add content to the template.

The examination of the 42 QM specific review standards determined the ease of implementation and implementation actions to create the QM-informed online course template. The standards review and

subsequent creation of the QM-informed online course template took place over an academic year. The purpose of the creation of the QM-informed online course template was to achieve a department-wide implementation for undergraduate and graduate courses.

Findings: Quality Matters (QM) Standards Ease of Implementation and Implementation Actions
The QM standards review guided the creation of the QM-informed online course template for departmental implementation. The following provides a summary of the findings regarding ease of implementation and implementation actions conducted to create a QM-template. Additionally, the detailed results of this analysis and the implementation actions for each standard are available in Appendix B.

Of the 42 specific review standards, 16 (38%) are easily achievable, 20 (48%) are achievable, but required some intervention, and six (14%) are difficult to achieve through a course template.

General Standard 1 requirements include:
   1.1 How to get started and where to find course components *(0)*
   1.2 Purpose and structure of the course *(1)*
   1.3 Expectations for online discussions, email, and other forms of interaction *(0)*
   1.4 Course and institutional policies *(0)*
   1.5 Technology requirements and information about how to obtain the technologies *(0)*
   1.6 Expectations for computer skills and digital information literacy *(0)*
   1.7 Expectations for prerequisite knowledge or required competencies *(1)*
   1.8 Instructor self-introduction *(0)*
   1.9 Student self-introduction *(0)*
These standards were easy to implement through the creation of a Course Homepage and an Introductory Module. For 1.1, we added instructions on getting started with the course and included information on how to find course components, such as the syllabus and grades. For 1.2, an example one-paragraph course description was placed on the Course Homepage, and an example of course structure was added to the Introductory Module. For 1.3, we added expectations for email and communication to the Course Homepage, and best practices for participating in online discussions to the Introductory Module. For 1.4, course, school, and campus policies were added. For 1.5 and 1.6, we included basic technology and digital skill requirements and how to find technical assistance in the Introductory Module. A placeholder was added for any additional technology needs. For 1.7, we added an example of prerequisite knowledge and required competencies. For 1.8, we added a professional instructor video introduction to the Course Homepage. For 1.9, we created a required discussion assignment for student introductions.

General Standard 2 requirements include:
   2.1 Measurable course learning objectives *(1)*
   2.2 Measurable module/unit-level learning objectives, consistent with course-level objectives *(1)*
   2.3 Prominently located and clearly stated learning objectives, written from the learner's perspective *(1)*
   2.4 Clearly stated relationship between learning objectives and learning activities *(1)*
   2.5 Learning objectives suited to the course level *(2)*
These standards were difficult to implement directly; however, we were able to create structural placeholders and examples to prompt instructors. For 2.1, we added a placeholder for student learning objectives, an overview of assessments, and the grading scale on the Course Homepage. For 2.2, we included a placeholder for module-level learning objectives in an example Module. For 2.3, a placeholder was included on the Course Homepage to ensure that the learning objectives were prominently located, and student-centric examples were provided. For 2.4, example learning objectives and related assessments

were included on the Course Homepage. For 2.5, there was no direct way to achieve this standard through a template, given that this is course dependent.

General Standard 3 requirements include:
> 3.1 Assessments measure the achievement of a stated learning objective *(1)*
> 3.2 Clearly stated course grading policy *(0)*
> 3.3 Clearly stated criteria for evaluation of learners' work and connection to grading policy *(1)*
> 3.4 Assessments are sequenced, varied, and suited to the course level *(2)*
> 3.5 Learners have opportunities to track learning progress with timely feedback *(2)*

Except for 3.2, the standards were difficult to implement directly; therefore, we included placeholders and examples to guide instructors. For 3.1, we created an example to demonstrate the relationship between learning objectives and assessments on the Course Homepage. For 3.2, the default grading scale was added to the Course Homepage. For 3.3, models for evaluation, including checklists and rubrics, were added. For 3.4 and 3.5, there was no direct way to achieve these standards through a template. However, for 3.5, we added example text regarding how to check instructor feedback and typical turnaround time for assignments.

General Standard 4 requirements include:
> 4.1 Instructional materials contribute to the achievement of the learning objectives *(2)*
> 4.2 Relationship between instructional materials and learning activities is clearly explained *(1)*
> 4.3 Source references and permissions for instructional materials are provided *(1)*
> 4.4 Instructional materials represent up-to-date theory and practice *(2)*
> 4.5 A variety of instructional materials are used in the course *(1)*

These standards were difficult to implement directly; therefore, we included structural placeholders and examples where possible. For 4.2, we included an example table showing the relationship between the learning objectives and assessments on the course homepage. For 4.3, we added a placeholder for source references and permissions. For 4.5, we added examples of various instructional materials in the course template. For 4.1 and 4.4, we determined that there was no direct way to achieve these standards through a template, as both are course-specific.

General Standard 5 requirements include:
> 5.1 Learning activities promote the achievement of the learning objectives *(1)*
> 5.2 Learning activities provide opportunities for interaction and active learning *(1)*
> 5.3 Clearly stated plan for learners-instructor interaction *(1)*
> 5.4 Clearly stated requirements for learner interaction *(1)*

While these standards' implementation actions will depend on the course, the structural implementation of these standards with example text was achievable. For 5.1, we added the relationship between the assessments and learning objectives on the Course Homepage. For 5.2, we added examples of activities that promote interaction. For 5.3, we added expectations for email and communication with the instructor and example text for learner-instructor interaction. For 5.4, we added requirements for learner interaction.

General Standard 6 requirements include:
> 6.1 Course tools support learning objectives *(2)*
> 6.2 Course tools promote engagement and active learning *(1)*
> 6.3 A variety of technologies are used in the course *(1)*
> 6.4 Course provides learners with information regarding data protection and privacy *(0)*

Except for 6.4, the standards were difficult to implement directly; therefore, we included placeholders and examples to guide instructors when possible. For 6.1, we determined that there was no direct way to achieve these standards through a template. For 6.2, examples were included in the template for readings, media, lectures, discussions, and assignments to indicate what constitutes learner engagement and active

learning. For 6.3, examples were included to demonstrate available technologies. For 6.4, we added specific language regarding student data privacy and links to technology privacy policies to the template.

General Standard 7 requirements include:
    7.1 Technical support offered and how to obtain it *(0)*
    7.2 Institution's accessibility policies and services *(0)*
    7.3 Institution's academic support services and resources *(0)*
    7.4 Institution's student services and resources *(0)*
These standards were easy to implement through the template. For 7.1-7.4, we inserted specific language to ensure that technical support, accessibility policies, academic support services, and student support services were clearly articulated or linked to the appropriate resources.

General Standard 8 requirements include:
    8.1 Course navigation facilitates ease of use *(0)*
    8.2 Course design facilitates readability *(0)*
    8.3 Accessible text, images, documents, LMS pages, and web pages *(1)*
    8.4 Alternative means of access to multimedia content *(1)*
    8.5 Multimedia facilitate ease of use *(0)*
    8.6 Technology vendor accessibility statements *(1)*
This standard was relatively easy to achieve. For 8.1, we added a navigational sidebar, a numerical system for modules, and headings and subheadings for ease of course navigation. For 8.2, we incorporated headings and built-in text formatting to facilitate readability. For 8.3 and 8.4, since the content will vary, we added information regarding how to create accessible content and multimedia content. For 8.5, the course template included the navigation sidebars, contextual links, and labels to assist with ease of use. For 8.6, we added common technology vendor accessibility statements and a placeholder to prompt instructors to add accessibility statements for any additional technologies.

Recommendations and Conclusion
The purpose of this study was to determine the utility of Quality Matters for departmental implementation and to examine the strengths and weaknesses or difficulties of the standards. While we used Canvas[1] to create the template, these findings can assist with implementing QM standards regardless of the use of a learning management system. These findings provide guidance for QM-informed online course or template design. Templates can be useful for instructor reuse, department, or school-wide implementation. Additionally, the findings can inform the rapid-implementation of QM-informed online courses by recommending suggested implementation actions for each QM standard (Appendix B).

We recommend that educators consider easily implementable standards that can be achieved through canned language, informational items, and navigation. The inclusion of course introductions, course structure, communication expectations, policies, and technology requirements will satisfy the requirements for much of Standard 1. The simple addition of the grading policy will fulfill Standard 3.2, and rubrics or grading criteria will satisfy Standard 3.3. The inclusion of information regarding data protection and privacy will satisfy the standard 6.4. Standard 7 is easily achieved by adding language or links for institutional services, academic support services, and student resources, such as technical support and accessibility policies. Much of Standard 8 is achievable by creating course sites with easy navigation and readability by including sidebars, numeric systems for modules, and text-headings, and ensuring accessibility of all content.

---

[1] https://www.instructure.com/canvas/

For Standards 2-6, ensuring that all program, course, and module-level objectives align, are measurable, and are achievable through assessments, instructional materials, learning activities, and course technology would assist with achieving these standards. Ensuring that all source materials are cited would satisfy Standard 4.3. Standard 5 focuses on learning activities and interactions; therefore, ensuring active learning and requirements for learner interactions can achieve this standard. Standard 6 focuses on how technology supports engagement, therefore including technologies that promote active learning and engagement would assist in achieving this standard.

For standards that are course dependent, we have included suggestions such as the inclusion of example text, videos, or media, which provides the instructor with further guidance. These standards require specific involvement from the course instructor to implement as they are contextual and specific course curriculum.

QM incorporates many critical aspects of online education that may be overlooked by educators who do not have experience teaching online or are trying to quickly convert face-to-face classes to online classes. For example, educators who have not developed online courses may have never had to considered accessibility and usability. QM ensures that educators consider course navigation, readability, and accessibility of all objects through Standard 8. Additionally, QM ensures that instructors include information about how students can protect their data and privacy, which instructors may not consider without the prompt of Standard 6.4.

While Quality Matters certification requires a formal peer-review process, educators can informally achieve QM-informed course design through course modifications, as described in this paper. These modifications will significantly improve the online learning experience for both instructors and students. This review of the QM-standards provides educators guidance on how best to create QM-informed online courses. A QM-informed template approach provides reusability and departmental-wide implementation and assists a quick conversion to online education while ensuring a standards-based online course design, which is vital due to the COVID-19 pandemic.

Acknowledgements

References

Baran, E. and Correia, A.-P. (2014), "A professional development framework for online teaching", *TechTrends*, Vol. 58 No. 5, pp. 95–101.

Bento, R.F. and White, L.F. (2010), "Quality Measures that Matter", *Issues in Informing Science and Information Technology*, Vol. 7, pp. 061–072.

Blauvelt, E. (2014), "Get Rid of the Gray: Make Accessibility More Black and White!", *Internet Learning*, Vol. 3 No. 1, pp. 17–24.

Gunawardena, C.N., Ortegano-Layne, L., Carabajal, K., Frechette, C., Lindemann, K. and Jennings, B. (2006), "New Model, New Strategies: Instructional design for building online wisdom communities", *Distance Education*, Vol. 27 No. 2, pp. 217–232.

Hoffman, G.L. (2012), "Using the Quality Matters Rubric to Improve Online Cataloging Courses", *Cataloging & Classification Quarterly*, Routledge, Vol. 50 No. 2–3, pp. 158–171.

Huun, K. and Hughes, L. (2014), "Autonomy among Thieves: Template Course Design for Student and Faculty Success", *Journal of Educators Online*, Journal of Educators Online, Vol. 11 No. 2.

Kalivoda, P., Broder, J. and Jackson, W.K. (2003), "5: Establishing a Teaching Academy: Cultivation of Teaching at a Research University Campus", *To Improve the Academy*, Vol. 21 No. 1, pp. 79–92.

Lloyd, S.A., Byrne, M.M. and McCoy, T.S. (2012), "Faculty-Perceived Barriers of Online Education", *MERLOT Journal of Online Learning and Teaching,* Vol. 8 No. 1, pp. 1–12.

MarylandOnline. (2020a), "Higher Ed Course Design Rubric | Quality Matters", *Course Design Rubric Standards*, available at: https://www.qualitymatters.org/qa-resources/rubric-standards/higher-ed-rubric (accessed 8 May 2020).

MarylandOnline. (2020b), "Home | Quality Matters", *QualityMatters*, available at: https://www.qualitymatters.org/ (accessed 6 May 2020).

Puzziferro, M. and Shelton, K. (2008), "A Model for Developing High-Quality Online Courses: Integrating a Systems Approach with Learning Theory", *Journal of Asynchronous Learning Networks*, Journal of Asynchronous Learning Networks, Vol. 12 No. 3–4, pp. 119–136.

Samarawickrema, G. and Stacey, E. (2007), "Adopting Web-Based Learning and Teaching: A case study in higher education", *Distance Education*, Vol. 28 No. 3, pp. 313–333.

Wiesenberg, F. and Stacey, E. (2005), "Reflections on Teaching and Learning Online: Quality program design, delivery and support issues from a cross-global perspective", *Distance Education*, Vol. 26 No. 3, pp. 385–404.

Appendix A: Specific Review Standards from the QM Higher Education Rubric[2]

General Standards	Specific Review Standards
1. Course Overview and Introduction	1.1 Instructions make clear how to get started and where to find various course components.
	1.2 Learners are introduced to the purpose and structure of the course.
	1.3 Communication expectations for online discussions, email, and other forms of interaction are clearly stated.
	1.4 Course and institutional policies with which the learner is expected to comply are clearly stated within the course, or a link to current policies is provided.
	1.5 Minimum technology requirements for the course are clearly stated, and information on how to obtain the technologies is provided.
	1.6 Computer skills and digital information literacy skills expected of the learner are clearly stated.
	1.7 Expectations for prerequisite knowledge in the discipline and/or any required competencies are clearly stated.
	1.8 The self-introduction by the instructor is professional and is available online.
	1.9 Learners are asked to introduce themselves to the class.
2. Learning Objectives (Competencies)	2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable.
	2.2 The module/unit-level learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.
	2.3 Learning objectives or competencies are stated clearly, are written from the learner's perspective, and are prominently located in the course.
	2.4 The relationship between learning objectives or competencies and learning activities is clearly stated.
	2.5 The learning objectives or competencies are suited to the level of the course.
3. Assessment and Measurement	3.1 The assessments measure the achievement of the stated learning objectives or competencies.
	3.2 The course grading policy is stated clearly at the beginning of the course.
	3.3 Specific and descriptive criteria are provided for the evaluation of learners' work, and their connection to the course grading policy is clearly explained.
	3.4 The assessments used are sequenced, varied, and suited to the level of the course.
	3.5 The course provides learners with multiple opportunities to track their learning progress with timely feedback.
4. Instructional Materials	4.1 The instructional materials contribute to the achievement of the stated learning objectives or competencies.
	4.2 The relationship between the use of instructional materials in the course and completing learning activities is clearly explained.

---

[2] https://www.qualitymatters.org/sites/default/files/PDFs/StandardsfromtheQMHigherEducationRubric.pdf

	4.3 The course models the academic integrity expected of learners by providing both source references and permissions for use of instructional materials.
	4.4 The instructional materials represent up-to-date theory and practice in the discipline.
	4.5 A variety of instructional materials is used in the course.
5. Learning Activities and Learner Interaction	5.1 The learning activities promote the achievement of the stated learning objectives or competencies.
	5.2 Learning activities provide opportunities for interaction that support active learning.
	5.3 The instructor's plan for interacting with learners during the course is clearly stated.
	5.4 The requirements for learner interaction are clearly stated.
6. Course Technology	6.1 The tools used in the course support the learning objectives or competencies.
	6.2 Course tools promote learner engagement and active learning.
	6.3 A variety of technology is used in the course.
	6.4 The course provides learners with information on protecting their data and privacy.
7. Learner Support	7.1 The course instructions articulate or link to a clear description of the technical support offered and how to obtain it.
	7.2 Course instructions articulate or link to the institution's accessibility policies and services.
	7.3 Course instructions articulate or link to the institution's academic support services and resources that can help learners succeed in the course.
	7.4 Course instructions articulate or link to the institution's student services and resources that can help learners succeed.
8. Accessibility and Usability	8.1 Course navigation facilitates ease of use.
	8.2 The course design facilitates readability.
	8.3 The course provides accessible text and images in files, documents, LMS pages, and web pages to meet the needs of diverse learners.
	8.4 The course provides alternative means of access to multimedia content in formats that meet the needs of diverse learners.
	8.5 Course multimedia facilitate ease of use.
	8.6 Vendor accessibility statements are provided for all technologies required in the course.

Appendix B: Ease of Implementation and Implementation Action

Ease of Implementation	Specific Review Standards	Implementation Action
Easy to Implement (0)	1.1 Instructions make clear how to get started and where to find various course components.	Course Homepage included a "How to Get Started list" to prompt students to find important course components, such as the Syllabus and Introductory Module.
	1.3 Communication expectations for online discussions, email, and other forms of interaction are clearly stated.	Course Homepage and syllabus included general expectations for email communication. The Introductory Module included a "How We Will Conduct Class in an Online Environment" and a "Participating in Online Discussions" page.
	1.4 Course and institutional policies with which the learner is expected to comply are clearly stated within the course, or a link to current policies is provided.	Course, school, and campus policies were added to the Syllabus portion of the template.
	1.5 Minimum technology requirements for the course are clearly stated, and information on how to obtain the technologies is provided.	The Introductory Module included a "Find Out About What Technology You'll Need" page. This page included basic technology needs and requirements pertinent to all courses, and how to obtain technologies. This page also included example text for specific needs of a course to prompt instructors to update for their course-specific needs.
	1.6 Computer skills and digital information literacy skills expected of the learner are clearly stated.	Included in the "Find Out About What Technology You'll need page. (See 1.5)
	1.8 The self-introduction by the instructor is professional and is available online.	Course Homepage included a professional instructor self-introduction video.
	1.9 Learners are asked to introduce themselves to the class.	A discussion assignment "Introduce Yourself and Meet Your Peers" to the Introductory Module.
	3.2 The course grading policy is stated clearly at the beginning of the course.	The default grading scale was added to the Course Homepage and Syllabus portion of the template.
	6.4 The course provides learners with information on protecting their data and privacy.	We added language on student privacy and links to technology privacy policies in the Introductory Module page "Find Out About What Technology You'll Need."

	7.1 The course instructions articulate or link to a clear description of the technical support offered and how to obtain it.	We added a description of technical support and how to obtain it to the syllabus portion of the template and the Introductory Module page "Find Out About What Technology You'll Need."
	7.2 Course instructions articulate or link to the institution's accessibility policies and services.	We added institutional accessibility policies and services, both instructions and a link to the Syllabus portion of the template.
	7.3 Course instructions articulate or link to the institution's academic support services and resources that can help learners succeed in the course.	We added the institution's academic support services and resources, both instructions and a link to the Syllabus portion of the template.
	7.4 Course instructions articulate or link to the institution's student services and resources that can help learners succeed.	We added the institution's student services and resources, both instructions and a link to the Syllabus portion of the template.
	8.1 Course navigation facilitates ease of use.	We created easy to use navigation by adding a sidebar, numerical system in the modules, and use of headings and subheadings in the modules. Additionally, we removed any unnecessary items to the navigation sidebar for ease of use.
	8.2 The course design facilitates readability.	We added headings and built-in text formatting to facilitate readability.
	8.5 Course multimedia facilitate ease of use.	We created navigation sidebars, contextual links, and labels to assist with multimedia ease of use.
Structurally or partially achievable, but requires intervention from the instructor for full implementation (1)	1.2 Learners are introduced to the purpose and structure of the course.	An example one-paragraph description of the course was added to the Course Homepage. An example of course structure, units and modules, and topics were added to the Introductory Module page "Learn about the Purpose and Structure of the Course."
	1.7 Expectations for prerequisite knowledge in the discipline and/or any required competencies are clearly stated.	An example of prerequisite knowledge and competencies was added to the Syllabus portion of the template.
	2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable.	An example table that included the relationship between the Course Learning Objectives and Assessments was created and placed on the Course Homepage. Additionally, we modeled measurable learning objectives with our examples.

	2.2 The module/unit-level learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.	An example of module-level learning objectives was added to the Module Overview pages. Additionally, we modeled measurable module-level learning objectives with our examples.
	2.3 Learning objectives or competencies are stated clearly, are written from the learner's perspective, and are prominently located in the course.	Learner perspective learning objectives were included at both the Course-Level and Module-Level. (See 2.1 and 2.2)
	2.4 The relationship between learning objectives or competencies and learning activities is clearly stated.	An example table that included the relationship between the Course Learning Objectives and Assessments was created and placed on the Course Homepage (See 2.1). An example of module-level learning objectives was added to the Module Overview pages, which should indicate all activities for the module. Note: Assessments and Module activities account for all learning activities in a course.
	3.1 The assessments measure the achievement of the stated learning objectives or competencies.	An example table that included the relationship between the Course Learning Objectives and Assessments was created and placed on the Course Homepage. (See 2.1)
	3.3 Specific and descriptive criteria are provided for the evaluation of learners' work, and their connection to the course grading policy is clearly explained.	Models for evaluation, including checklists and rubrics, were included in the course template.
	4.2 The relationship between the use of instructional materials in the course and completing learning activities is clearly explained.	An example table that included the relationship between the Course Learning Objectives and Assessments was created and placed on the Course Homepage. (See 2.1) An example of module-level learning objectives was added to the Module Overview pages (See 2.2). Additionally, the Module Overview page provided an example of the assigned readings and module activities.
	4.3 The course models the academic integrity expected of learners by providing both source references and	In the example Module, a Readings and Media page was created and included a placeholder for source references and

	permissions for use of instructional materials.	permissions needed for instructional materials.
	4.5 A variety of instructional materials is used in the course.	In the example Module, we included various types of instructional material as a model.
	5.1 The learning activities promote the achievement of the stated learning objectives or competencies.	An example table that included the relationship between the Course Learning Objectives and Assessments was created and placed on the Course Homepage. (See 2.1)
	5.2 Learning activities provide opportunities for interaction that support active learning.	In the example Module, we included examples of various types of activities that promote interaction.
	5.3 The instructor's plan for interacting with learners during the course is clearly stated.	In the Introductory Module and Syllabus, we added expectations for email and communication with the instructor.
	5.4 The requirements for learner interaction are clearly stated.	In the Introductory Module, we added two pages that discuss requirements for learner interaction, "How We Will Conduct "Class" in an Online Environment" and "Participating Successfully in Online Discussions."
	6.2 Course tools promote learner engagement and active learning.	In the example Module, we included readings, media, lectures, discussion, and assignments to indicate what constitutes learner engagement and active learning.
	6.3 A variety of technology is used in the course.	We included examples of a variety of technologies throughout the course template, including wiki pages, discussion pages, video lectures, and surveys to demonstrate a variety of learning technologies.
	8.3 The course provides accessible text and images in files, documents, LMS pages, and web pages to meet the needs of diverse learners.	We provided a model and information regarding how to create accessible content.
	8.4 The course provides alternative means of access to multimedia content in formats that meet the needs of diverse learners.	We added a variety of multimedia content formats throughout the course template to provide a model.
	8.6 Vendor accessibility statements are provided for all technologies required in the course.	We added vendor accessibility statements for commonly used technologies to the Introductory Module, "Find Out About What Technology You'll Need," and included a placeholder for any additional technologies.

Most difficult to Implement (2)	2.5 The learning objectives or competencies are suited to the level of the course.	There is no direct way to achieve this standard through a template. But we did incorporate alignment of Course Learning Objectives with the Revised Bloom's Taxonomy[3] so that instructors can consider the cognitive complexity of their learning objectives.
	3.4 The assessments used are sequenced, varied, and suited to the level of the course.	There is no direct way to achieve this standard through a template since the assessments will be varied based on the course.
	3.5 The course provides learners with multiple opportunities to track their learning progress with timely feedback.	While we can describe what time feedback entails and provide training for instructors on how to provide feedback in multiple ways, there is no direct way to achieve this standard through a template because it is dependent on the assessments and activities of a course.
	4.1 The instructional materials contribute to the achievement of the stated learning objectives or competencies.	There is no direct way to achieve this standard through a template since it is dependent on the specific learning objectives of a course and the course-specific instructional materials.
	4.4 The instructional materials represent up-to-date theory and practice in the discipline.	There is no direct way to achieve this standard through a template since it is disciplinary and course-specific.
	6.1 The tools used in the course support the learning objectives or competencies.	There is no direct way to achieve this standard through a template since the technology tools needed will depend on the course objectives.

---

[3] https://www.celt.iastate.edu/teaching/effective-teaching-practices/revised-blooms-taxonomy/