A Course Marking Roadmap

Recommendations to Guide the Development and Implementation of Open and Affordable Course Marking for the Benefit of Students, Faculty, and Institutions

MIDWESTERN HIGHER EDUCATION COMPACT

RESEARCH REPORT
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Letter to Stakeholders

Dear open educational resources stakeholder:

As we did in 2021, we are pleased to share this report developed by the Midwestern Higher Education Compact (MHEC), as part of the National Consortium for Open Educational Resources (NCOER), and by a workgroup of institutional, state, and national leaders. This report aims to provide committed stakeholders with a roadmap and set of recommendations to improve consistency and reliability for marking courses in college registration materials, so students know the costs and nature of such materials at the time they choose their classes

Open educational resources, referred to as OER, are teaching, learning, or research resources offered freely to users in at least one form, which either reside in the public domain or have been released under an open copyright license that allows for its free use, reuse, modification, and sharing with attribution (**SPARC**).

With support from the Hewlett Foundation, NCOER was created to collectively explore opportunities and address challenges related to OER implementation. NCOER is a collaborative effort among the four regional higher education compacts: MHEC, New England Board of Higher Education, Southern Regional Education Board, and Western Interstate Commission for Higher Education.

It is with MHEC's foundation in effectiveness and efficiency that it was a natural fit to explore how best to provide students with a way to make informed choices about the courses in which they enroll and the cost of associated learning materials. This initiative is designed to help collectively consider a more consistent way of marking courses for those that use OER and/or no/low-cost materials.

In addition to providing students with informed choices about the costs of learning materials at the time of registration, this work provides guidelines that contribute to the consistency of course marking efforts across the United States. Such consistency contributes to the ability to aggregate data from many institutions and conduct studies of how OER saves students money and contributes to enhanced student outcomes. This work also provides a shortcut for practitioners to help them communicate the value of course marking to other stakeholders at their institutions and to establish course marking processes more efficiently at institutional or system levels.

The compacts' constituents and OER champions, working collectively as NCOER across the nation, see firsthand the challenges of continuously communicating the value of OER despite growing evidence that OER reduces costs for students and improves their learning experience. MHEC and its sister compacts believe bringing consistency and systematic consideration to such reporting will enhance its efficacy. We ask that you read the paper that follows and consider initiating or updating course marking at your institution or in your institutional system.

Thank you for your strong commitment and support of these common principles and frameworks to improve consistency and reliability of OER course marking systems across the nation.

Sincerely,

Susan G. Heegaard, President
Midwestern Higher Education Compact

Michael Thomas, President
New England Board of Higher Education

Stephen L. Pruitt, President
Southern Regional Education Board

Demarée K. Michelau, President
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Executive Summary

OVERVIEW

In 2022, the report, ***Toward Convergence: Creating Clarity to Drive More Consistency in Understanding the Benefits and Costs of OER*** introduced a set of principles and frameworks that provide guidance for states, systems, and institutions wanting to better understand the benefits of open educational resources (OER). Building on the work of the National Consortium for Open Educational Resources (NCOER), a partnership of the nation's four regional higher education compacts, the Midwestern Higher Education Compact (MHEC) led the national effort to produce the report, which details recommendations for consistently estimating the cost savings realized by students when a course uses OER compared to traditional course material. Realizing such analyses are not possible without accurate data on course materials, MHEC then led a national effort to create this report to guide institutions and systems in developing a process for marking open and affordable courses.

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/ SPARC /

Course marking (also called attributes, designations, tags, flags, labels) are specific, searchable attributes or designations that are applied to courses, allowing students to quickly identify important information to aid in their decision making and allow them to efficiently plan their academic careers.

/ Marking Open and Affordable Courses: Best Practices and Case Studies /

DEVELOPING A COURSE MARKING PROCESS

MHEC convened the Course Marking Workgroup, a nationally representative group of institutional, system, and state experts in course marking.

The group identified and described five steps critical to the development of a course marking process:

- **Define your goal(s) and purpose(s) for course marking,** which could include cost savings, equity, OER development, state or system requirements, and other purposes specific to your institution or system.
- **Create a committee or working group** to oversee the development and implementation of course marking, including representatives that will touch all aspects of course marking.
- **Identify and develop terms and definitions for course marking,** including a review of current terms of use and consideration of the terms necessary to meet the goals of your course marking initiative.
- **Develop and document the course marking process,** including an environmental scan, a consideration of the course material workflow process, determination of tracking within organizational technologies, assignment of responsibilities for each step of the process, and documentation of the process to ensure clarity and consistency.
- **Implement and communicate the course marking process,** being sure to develop communication plans for all stakeholder groups involved in and impacted by marking of open and affordable courses.

TAKEAWAYS FROM THE RECOMMENDATIONS

The set of recommendations concludes with an acknowledgement of the importance of assessment of the course marking process to ensure the goals set at the beginning of the initiative are met by the process developed and implemented. The work is challenging, but possible. It is also foundational to an institution, system, or state's ability to calculate the cost savings and other benefits gained via open and affordable courses. The takeaways reinforced by the workgroup members related to this work include:

- Course marking has many benefits.
- Institutions and systems will have multiple motivators for developing a course marking process.
- The process will be iterative.
- Identify stakeholders and champions and articulate goals at the beginning.
- Clearly define terms and visual identifiers.

- The process may be manual at first.
- Use technology to streamline, when possible, and make it work for you.
- Keep students and faculty front of mind.
- When possible, use terms and develop processes that are consistent with those used by other institutions and systems.
- Reach out to the community.

SECTION I

Introduction

BACKGROUND

In April 2021, the Midwestern Higher Education Compact (MHEC) convened a working group of institution, state, and national leaders to help advise its efforts to develop a set of principles to improve consistency and reliability in the field for measuring cost savings and the return on investment (ROI) for the use of open education resources (OER). The result of this work was the report, ***Toward Convergence: Creating Clarity to Drive More Consistency in Understanding the Benefits and Costs of OER.*** The report outlined six principles to help define efforts to identify savings and ROI from OER investments. It also offered two frameworks for making those calculations, which can be adapted to local interests and needs.

To measure the cost savings and ROI of OER, it is necessary to understand which courses use OER. Therefore, following the cost savings and ROI work, MHEC and its compact partners in the National Consortium of Open

Educational Resources (NCOER) determined to explore more about course marking of OER in U.S.-based postsecondary institutions via a landscape analysis survey. The survey results, reported in, *Findings of the OER Course Marking Landscape Analysis Survey,* informed the discussions of an OER Course Marking Workgroup. This group of institution, system, and state experts met monthly from September 2023 to January 2024 to assist in the development of a set of recommendations for institutions and systems interested in developing course marking processes. This report serves as a summary of those recommendations.

OER COURSE MARKING WORK GROUP MEMBERS

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THE IMPORTANCE OF COURSE MARKING

Course marking is a process used regularly in postsecondary institutions to designate characteristics associated with courses to inform various stakeholders. Data on courses containing particular attributes can then be used by institutional leaders to better understand course factors associated with specific outcomes. To make use of such data for decision making related to open access to and affordability of course materials, institutions must develop a process for marking open and affordable courses. This report presents a set of recommendations to help institutions develop and implement a process that allows the institution and its students to capture and use the data.

To highlight the importance of course marking, potential positive impacts from implementing a course marking process are outlined in **Chapter 15: Effects of Course Marking Initiatives** in *Marking Open and Affordable Courses*. Course marking can give students agency. When students can readily identify course sections that use specific types of materials, they can make registration decisions based on characteristics of importance to them. Registration actions by students may then result in increased development and use of open and affordable materials when faculty, the course materials decision makers, observe data on student registration patterns. An additional benefit of this increased development and use of OER by faculty is a potential increase in their academic autonomy as they select the types of materials best suited to the courses they teach. Direct benefits to students and faculty and the benefits to an institution or system of having the data necessary to make data-informed decisions about the ROI of open and affordable course materials initiatives make implementation of a course marking process worthwhile.

AN ORIENTATION TO THIS REPORT OF RECOMMENDATIONS

While the initial focus of this work was on OER, through discussion with the Course Marking Workgroup, the decision was made to include both open and affordable course marking in the report of recommendations. As is clear in the first section on defining the goals and purposes for course marking, institutions and systems may be motivated by the desire or directive to expand OER offerings. At the same time, because OER offerings are often cost-effective for students, affordability may be a primary motivation for the work, with increased use of OER serving as just one part of that affordability goal. Therefore the term “open and affordable” is used to acknowledge that course marking can include both of these aspects and developing a process that is robust enough to capture data on both is ideal.

This report touches on the differences between policy and process. While development of an institutional or system policy related to course marking is covered briefly, the report does not provide specific recommendations for states on how to develop a course marking policy, statute, or regulation. Readers interested in that aspect of this work are referred to existing state policies to review as examples. The focus here is on the institution or system and its journey to implement course marking.

As previously mentioned, this report is the result of conversations with a workgroup of institution, system, and state experts from across the country who have implemented course marking in their settings. Based on their knowledge and expertise, data from the landscape analysis survey, and well-developed resources on the topic, the following recommendations are offered to institutions and systems embarking on development of a course marking process. The text of the report is written as if the reader is beginning the process from scratch, but the reader orientation graphic, on the next page, allows the reader to identify their position in the process and find the section(s) most relevant to their needs. The entire process is iterative, so readers may move back and forth among the report sections as needed.

THREE READER TYPES

Independent Institutions

Independent institutions must consider whether there is state policy, statute, or regulation that requires them to report course marking data in a specific manner. If no such policy exists at the state level, independent institutions have the freedom to develop their own policy and/or process for course marking.

- If a state policy/statute/regulation on course marking exists, develop an institutional policy and/or process to follow this state policy (see Section IIA).
- If an institutional policy on course marking exists, develop a process to comply with this policy (see Section IID).
- If an institutional process for course marking exists, focus on communication and next steps (see Section IIE).

Institutions in a System or Consortium

Institutions that are part of a system or consortium whose policies impact institutional policies and processes will need to collaborate with the system/consortium and other institutions when developing course marking policies and processes. This can occur via directive from the system or by grassroots champions at the institutional level.

- If a state policy/statute/regulation on course marking exists, collaborate with the system/consortium and related institutions to develop a process to follow this state policy (see Section IIA).
- If a system policy on course marking exists, develop an institutional process to follow this system policy (see Section IID).
- If a system policy does not exist, collaborate with the system and related institutions to develop a policy while exploring an institutional policy (see Section IIA).

System or Consortium

Systems or consortia may set state policy or be impacted by state policy. If such a policy is set by, or impacts, the system, the system must collaborate with its institutions to assist them in setting policies and processes that result in clear and consistent course marking across the system. The system should consider whether any of its institutions already have a course marking policy and/or process in place and, if so, work with the institutions to incorporate these processes into the system policy and process that is developed.

- If a state policy/statute/regulation on course marking exists, collaborate with system institutions to develop a process to follow this state policy (see Section IIA).
- If a state policy/statute/regulation on course marking does not exist, collaborate with system institutions to develop a system policy, taking into consideration the processes that may already be in place at institutions related to course marking (see Section IIA).
- If a system policy on course marking exists, guide institutions in process development (see Section IID).

SECTION II

Recommendations

A. DEFINE YOUR GOAL(S) AND PURPOSE(S) FOR COURSE MARKING

The first step in the course marking process is to define your goal(s) and purpose(s) for marking courses. The goal may be to respond successfully to state or system requirements to share information on the costs of course materials with students. Goal(s) may be focused on student access and success, with an emphasis on equity and/or on saving students money. An institution or system may have an initiative focused on the development of OER and/or the assessment of impacts of OER on student success. Whatever the goal(s) and purpose(s) for developing and implementing a course marking process, it is important to clearly articulate them at the beginning of the initiative. Articulating goals will serve as a guidepost for the work, motivating sometimes skeptical colleagues that it is a worthwhile endeavor and allow the team that is developing the course marking process to tie the work to larger, strategic directives.

Institutions and systems that have successfully implemented course marking have used some of the following as their goal(s) and purpose(s).

Cost Savings

A major reason for focusing on cost savings as a purpose for marking courses is to alert students to courses that meet institutional/system standards of being low-cost or no-cost, allowing them to select courses that fit their budgets. Marking such courses can also encourage faculty to seek out no- or low-cost course materials if they know students are motivated to register for such courses. Course marking allows students to have this information during the registration process, and it allows institutions and systems to better understand course registration patterns and whether they are impacted by course material costs.

Student Success and Equity

Student success and equity can also be considerations for marking courses. When courses use OER, they support educational methods where students can contribute to knowledge and see themselves in the learning. According to the EDUCAUSE brief, **7 Things You Should Know About Open Education: Practices,** "open practices provide the architecture and philosophical underpinning for fulfilling the promise of using OER to expand collaborative, inclusive, accessible, and active learning and related pedagogy." Sharing course material costs allows students to make decisions based on affordability, which can make access to postsecondary education more equitable as it increases the likelihood that more individuals can afford it. The white paper, **Student Success in Open Nebraska Courses** explores aspects of OER and student success beyond cost savings. Use of OER, and course marking of these materials, can also enhance equity for the faculty who design, adapt, and use OER, as the structure of open resources allows more individuals to be involved in content creation than does the traditional model of course materials published only by formal publishing entities and privately licensed.

OER Development

In its **Appendix B: OER Benefits**, the text, *Marking Open and Affordable Courses*, lists the many benefits of OER for instructors, students, and institutions. These benefits may encourage institutions and systems to adopt policies or reward structures for development and use of OER. But how are these policies measured or rewards conveyed? As Peter Drucker was quoted as saying, "[only] what gets measured, gets managed". Unless data are collected related to open and affordable courses, attention may not be given to the goals of cost savings and equity. Faculty, instructional designers, and others interested in developing or adapting OER may not consider it worth their time and effort if the institution or system is not highlighting its worth. Increased enrollment by students in these courses and/or specifically developed rewards for faculty and staff who develop them can only occur when courses are marked. Therefore, encouraging the development of OER and encouraging the selection of low- and no-cost course materials may be a strategic goal for an institution or system, and committing to marking courses that use these materials can provide motivation for their development.

State/System Requirement

As outlined in the **graphic on page 5**, there may be a state policy, statute, or regulation that requires institutions and/or systems to share information with students on courses that use low- and no-cost and/or OER materials. 40% of respondents, who are currently marking courses and responded to MHEC's OER Course Marking Landscape Analysis Survey, indicated that there is a state-level policy related to course marking that impacts their institution or system. 27% indicated there is a system-level policy. These data indicate that meeting state and/or system requirements is an important goal for many institutions.

40% **Respondents* who indicated that there is a state-level policy related to course marking that impacts their institution or system.**

Respondents who indicated there is a system-level policy. **27%**

***Respondents are currently marking courses and responded to MHEC's OER Course Marking Landscape Analysis Survey.**

Requirements may also include the need to share information with the state about open and affordable courses. In some instances, systems may develop a policy or requirement for institutions to do the same. These policies may be motivated by any of the items listed above, or by other reasons; and serve as motivators to systems and institutions to develop course marking policies and processes. We recommend that individuals seeking to learn more about how institutions are responding to legislative requirements visit **Chapter 2: Legislative Implications** in *Marking Open and Affordable Courses* for specific guidance.

B. CREATE A COMMITTEE OR WORKING GROUP

Members of the OER Course Marking Workgroup highlighted the importance of a working group or committee in overseeing the development and implementation of course marking. This recommendation is supported by the fact that, "effective OER committee" was identified in the OER Course Marking

Landscape Analysis Survey as a factor that is working well for institutions/systems that have successfully implemented or are in process of implementing course marking. While the OER advocate may serve as the champion and/or be assigned the task of implementing course marking at an institution or system, working with a group of individuals that represent the functions that will have the most impact on the success of such a process is more likely to result in successful implementation. The following is a suggested list of individuals and units that may be included in this working group or committee. Each institution/system must assess its own culture and situation to determine whether to include each in its committee. Individuals/units with authority over policy, processes, and technology will need to be included as well as those who are responsible for marking courses.

Potential Members of Course Marking Committee/Working Group

INDIVIDUAL/UNIT	REASON FOR INCLUSION
Course Marking Advocate*	Champion for course marking – group lead
Registrar	Registration system expertise
Full-and Part-Time/ Adjunct Faculty	Decision makers for course materials
Library Representative(s)	Knowledge of OER and course materials
Scheduling Office	Assign courses and fees
IT/Ed Tech	Manages SIS, LMS, other impacted technology
IR/Analytics	Will use the data for institutional research
Students	Will use the data for decision making
Instructional Design	Involved with OER and other course materials
Campus Store	Involvement in providing course materials
Centers for Teaching & Learning	Access to and understanding of faculty needs
Enrollment Management	Registration expertise from student perspective
College Admin	May mark the data on behalf of faculty

***The course marking advocate may be the chair or lead for institutional open education or affordable course materials committee or working group and/or an individual or unit tasked with developing a course marking process.**

In addition to these committee members, others may be included on communications and/or solicited for their perspective at various points throughout the process (see Figure 1 on p. 18). These may include academic affairs, or another senior leadership champion of the effort, student representatives who will be navigating the registration process, and any other site-specific individual or unit that will impact the success of the initiative.

C. IDENTIFY AND DEVELOP TERMS AND DEFINITIONS FOR COURSE MARKING

Once the goal(s) and purpose(s) for course marking has been defined, institutions and systems can move on to the process of identification and development of the terms and definitions for course marking. It is important to take this step to ensure the many individuals who will be involved in the process are using the same language. To do so, the language needs to be defined and documented.

1. Identify current terms of use

The first step in this process is to identify current internal terms of use. If the institution has terms it currently uses related to OER and course materials costs, these terms should take precedence and be documented in an internal dictionary. If the institution does not yet have a dictionary of terms, the next step is to develop those terms using the process outlined below. As with any terms used in postsecondary education for which there is interest in national research, the more consistent institutions and systems can be with their terminology, the easier it is for researchers and policymakers to understand the topic. Appendix A of the report ***Findings of the OER Course Marking Landscape Analysis Survey*** includes the terms institutional and system respondents to the survey reported using related to course marking. While there are a multitude of terms, some consistency related to cost identification was found, with 11 respondents defining low-cost as less than $40 and 5 more defining low-cost as less than $50. Additionally, 15 survey respondents indicated that OER is its own designation in course marking, indicating the importance of that term in this work.

2. Develop internal terms and definitions

After documenting any internal terms and definitions already in use and considering terms and definitions in regular use by other institutions and systems, the next step involves developing the set of terms and definitions to be used in your setting. The following are recommended steps in that development process:

A. DETERMINE NECESSARY TERMS

As highlighted above, some terms may be pre-determined due to their current usage at the institution or system. As the committee determines which terms are needed for the course marking process, the following are some factors to consider:

Reference the relevant policy/statute/regulation

If one of the goals of the initiative is to respond to a state policy, statute or regulation related to course marking, the committee should determine whether this policy requires the use of specific terms, in which case, these terms should be used in the ways required by the policy.

IDENTIFYING THE SCOPE OF DEFINITIONS: AN EXAMPLE FROM YAVAPAI COLLEGE

As part of their faculty resources for the institution's low-cost course materials designation, Yavapai College provides a detailed description of the process of determining whether course materials meet the $50 or less designation. The description is provided on a publicly available ***website*** *and includes the following information:*

- *A detailed list of items included and excluded from the determination.*
- *How to handle course materials used across multiple courses in a sequence.*
- *Which prices are used to determine costs (e.g., college bookstore).*
- *How to handle e-books available in the college library.*
- *How to handle courses that do not require a textbook or outside materials.*

Identify the scope of definitions

If one of the goals of the initiative is to share course materials cost information with students, the committee will need to consider the scope of the definitions. If "zero-cost" is to be a designation, what is factored into that cost (i.e., Is there no additional cost to the student to access materials? Is there no cost to the institution or system in terms of subscriptions or other fees?)? If "low-cost" or designated levels of cost are to be assigned to course materials, how will the institution or system define the dollar amount assigned to each cost level? The Yavapai College website, **Parameters for Low-Cost Course Materials Designation**, serves as an example of the types of considerations needed to define when considering the scope of cost-related definitions.

Reference terms used in the field

As mentioned previously, consistency in terminology is helpful for communication and accountability purposes. In addition to the previously mentioned Appendix A of the report, ***Findings of the OER Course Marking Landscape Analysis Survey***, the **Case Studies** section of *Marking Open and Affordable Courses: Best Practices and Case Studies* begins with a table that includes the terms used by each of the nine institutions and system case studies offered in the text. Using these as references can give grounding to committee conversations.

B. DOCUMENT THE TERMS AND DEFINITIONS

As the committee determines the terms and definitions it will use for its course marking initiative, these terms and definitions, along with any codes or attributes that will represent these terms in the institution or system's information systems, should be documented in an internal data dictionary. This dictionary should reside electronically in a place easily accessible to anyone who will need to use it as reference. It should also be reviewed annually for updating, with dates of updates referenced. For example, Washington Community and Technical Colleges includes a dictionary of terms and definitions in its **Implementation Guide of OER and Low-Cost Labeling Policies**.

This dictionary will serve as a reference to anyone involved in the act of marking courses (e.g., faculty, administrative assistants, schedulers), those involved in the technical aspects of coding the courses (e.g., registrar, infromation technology, educational technology), those involved in reporting and analyzing course marking data (e.g., institutional research and analytics), and those in decision-making roles (e.g., senior leadership). Development of the dictionary should consider the **FAIR Principles**. Data associated with these course marking terms should be findable, accessible, interoperable, and reusable. This consideration, when paired with the recommendations on communication, below, ensures that course marking is communicated appropriately to all concerned parties. While students will be users of the course marking data, this internal dictionary may not be the best tool to communicate the information to them. More information on the process of communicating terminology to students is included below.

C. COMMUNICATE THE TERMS AND DEFINITIONS

While development and implementation of the course marking policy and process will be outlined later in this set of recommendations, it is important to pause at this point to specifically consider how the terminology will be communicated to stakeholders. The internal data dictionary should be understandable to those immersed in the course marking process and data, but it may not be helpful to use the same materials to communicate the information to students, senior leaders, or policymakers. This is likely to be an iterative process in which the realities of technological capabilities inform the actualization of the course marking process. Having course marking terminology identified and defined and having a sense of how the information will be communicated will be helpful before moving into the next phase. It is important to acknowledge that this communication plan can be adapted before initiative rollout. The following are topics to consider related to communication of course marking terminology.

Prepare talking points – about benefits and concerns

Development of course marking policy and/or process will take time. While the committee is diligently working on process development and implementation, communication can begin with the many stakeholders who will be impacted by the initiative. Developing a set of talking points, like those outlined in **Chapter 6: Talking Points** in *Marking Open and Affordable Courses*, can help the committee set the message about benefits, alleviate concerns, and introduce the institution or system to the terms that will be important for the successful implementation and use of course marking. The University of Kansas provides a set of **FAQs for Marking Affordable Courses** that includes the types of talking points an institution might begin preparing at this stage of the initiative. An important point to note is that sets of FAQs should be regularly updated to ensure the information remains relevant and correct.

Identify stakeholder personas

As previously mentioned, there are many stakeholders that will need to understand the terminology of course marking for it to be useful. Representatives of these stakeholder groups are likely to serve on the course marking committee and can be of assistance in communicating information with the stakeholders they represent. For them to communicate successfully, it is important to provide these representatives with a clear plan for communicating information about the course marking initiative.

FAQS FOR MARKING OPEN AND AFFORDABLE COURSES: AN EXAMPLE FROM THE UNIVERSITY OF KANSAS

A set of Frequently asked questions (FAQs) can be a helpful tool in providing talking points and communicating to multiple audiences. Using an easily accessible FAQs list, with windows that open as the reader chooses which questions are of interest to them, allows stakeholders to see the types of questions asked by others and helps them to know what they do not yet know. The **University of Kansas FAQs** page includes general questions and questions specific to students and instructors.

General Questions

- Where did the Course Marking Project originate?
- Who served on the Course Marking Project Team?
- What other institutions have implemented course markings?
- How did the Project Team build on and learn from other institutions' experiences?
- Why $45?
- Why don't used and rentals count for course marking at KU?
- How is cost determined?
- What is the technical process behind course marking?
- How is "course materials" defined?
- How can I provide feedback or suggest improvements to the course marking design and implementation?
- What course types are marked, and why?
- What course types are not marked, and why?
- Are there improvements and further development already planned?
- When is course marking being implemented?

Student Questions

- What do I do if my course is incorrectly marked?
- Why are there so few No Cost courses?

Instructor Questions

- What if an instructor doesn't report anything?
- How can instructors and course committees lower course materials costs?
- What support is available to help instructors decrease course material costs?
- What do I do if my course is incorrectly labeled?
- I've provided my adoption information, but my course isn't correctly labeled yet.
- Are there alternative ways to report cost data to receive a marking?

Students are arguably the most important persona to consider related to course marking as they will be the largest users of the information. They may even be the impetus for course marking, with multiple examples of student organizations calling for affordability indicators and transparency of costs and at least one (**Kansas State University Student Government Association**) even serving as funder for development of OER. Communicating with students that a course marking initiative is underway can prepare them for eventual use of the data when registering. Including them, via surveys or focus groups, in defining affordability terms (e.g., low-cost) can build buy-in for the initiative. **Chapter 4: Students** in *Marking Open and Affordable Courses* shares communications considerations for students, including a sample student survey and outreach ideas.

Faculty, schedulers, and administrative assistants will be involved in identifying course materials and marking the courses with the appropriate identifiers. Timing is crucial to consider so students have the information they need at the time they are selecting their courses during registration. Full-time and part-time faculty may have different needs related to course materials selection. And it is crucial that the individuals who mark the courses understand the identifiers and their definitions. If not, the data will not be accurate for the students when they need them for decision making.

Institutional researchers and analysts will be tasked with using the course marking data for analyses that will impact decision making, such as resource allocation for open and affordable course initiatives. They may also be asked to share data with the system or state, depending on policy, statute, or regulation. For these analyses and reporting processes to be accurate and trustworthy, the IR professionals and analysts must also understand the identifiers and their definitions.

Other stakeholders may be part of the committee developing the course marking policy and/or process. There also may be stakeholders that will be less involved in the regular work of the committee, but who will be critical to a successful outcome. The committee will include representatives for various units, but how will information be communicated and buy-in be obtained from the individual faculty and staff without whose compliance the initiative may fail?

The following is a list of potential stakeholders with whom early communication is critical to success. Information in the following table, along with more detailed descriptions, can be found in **Chapter 5: Other Stakeholders** in *Marking Open and Affordable Courses.*

STAKEHOLDER	COMMUNICATION CONSIDERATIONS
Administration	Control resources and strategic direction, so they or their representative should engage with and verbally support the initiative.
Advisors	Understand students' registration behaviors and can communicate about course marking terms and identifiers directly to students.
Campus Store*	Depending on whether it is internally or externally run, it is involved in course material selection and procurement.
Marketing & Communications	Can assist in development of talking points and marketing materials to communicate about the initiative to all stakeholders.
Recruitment & Advancement	Open and affordable course initiatives and the data related to them will be of interest to prospective students and alumni and this unit can communicate about the initiative to these external stakeholders.

***If not represented in the course marking initiative committee listed in Section IIB.**

Develop visual identifiers

In addition to defined terms and their relevant attributes and codes in institutional and system information systems, visual identifiers that help students recognize the courses of interest to them will improve the use of the information by students. Consider whether there are visual identifiers already in use in the registration system. Also consider whether the identifiers for open and/or affordable courses, perhaps developed in collaboration with student representatives and marketing and communications, can be used in multiple information systems to ensure consistency and clarity in the process. The University of Kansas (KU) clearly identifies the icons used to mark "No Cost" and "Low Cost" courses and shares these with its community on its **Marking Affordable Courses at KU** website.

IDENTIFICATION OF NO COST AND LOW COST COURSES USING ICONS: AN EXAMPLE FROM THE UNIVERSITY OF KANSAS

As part of its communications around course marking, the University of Kansas provides details on ***how to identify No Cost and Low Cost courses*** *in the systems students use to search for courses. One system uses terms to mark courses and the other uses icons. Clearly connecting the icons to the equivalent terms and their definitions helps students navigate the course search process.*

The No Cost icon *is a blue book marked with a white zero "O". A course marked with the No Cost icon has zero required course materials.*

The Low Cost icon *is a blue book marked with a white capital letter "L". A course marked with the Low Cost icon has a cumulative required course material cost of less than $45*

D. DEVELOP AND DOCUMENT THE COURSE MARKING POLICY/PROCESS

Development of a course marking policy and/or process will build on the work outlined in the previous sections. Determination of whether your course marking initiative will be termed a policy or process is firstly dependent on whether the entity developing it is an institution or system. It is also dependent on whether that entity has a formal process for policy development that must be followed to ensure successful compliance by the stakeholders involved in course marking. The following section focuses primarily on development of an institutional course marking process, but touches on policy concepts related to course marking.

State policy, statute, and regulation

While this report notes that relevant state policy, statute, or regulation may be a motivator for systems or institutions to develop a course marking process, recommendations for how to write relevant legislation is beyond the scope of this report. We recommend those interested in viewing example legislation refer to the **SPARC OER State Policy Tracker** and review the legislation from Oregon, California, Washington, Texas, Colorado, Virginia, and Louisiana described in **Chapter 1: State and Federal Legislation** in *Marking Open and Affordable Courses.*

Formal system or institutional policy

Systems, their institutions, and individual institutions developing formal course marking policy will need to first identify and follow existing regulations for policy development. The working group or committee identified in **section IIA** may need to be formally recognized and granted the authority to develop the policy, if it is determined that a formal policy is required. Once this authority has been granted by administration, governance requirements, or other formal procedures, systems and institutions that require a formal policy should develop policy language in accordance with the requirements of their setting. We recommend that those interested in reviewing example system policies refer to those from **Idaho State Board of Education** and the **University of Nebraska System**. Those interested in reviewing example institutional policies may refer to those from **Northern Illinois University.** Development of this policy language may need to coincide with the course marking process development, outlined below, as the process may inform the policy, and vice versa. Iteration between the two steps may be necessary before a policy and process are ready to be communicated with the system or institutional community.

Course marking process development

For those institutions that do not need a formal institutional policy or those that already have a relevant system or institutional policy, the next step is to outline and develop your process for institutional course marking. The following steps are offered as a guide for the development of a course marking process. In situations where a system develops a course marking process it may be determined collectively or left up to individual institutions to decide if consistency in terms (see previous section on identification of terms and definitions) is required, especially when data may be shared by institutions with the system.

Conduct an environmental scan

At this stage you should have a course marking committee or working group and have identified your motivations for course marking and documented the terms you will use. Before moving on to the development of your process, it is important to conduct an environmental scan of institutional readiness for course marking. This scan should include the following:

- Review motivations for course marking.
- Review terms to be used for course marking.

- Assess capabilities of the student information system and other relevant technologies that store course and course materials information.
- Assess staff and faculty capabilities and capacity for course marking.
- Review current institutional open and affordable learning initiatives and activities.

In addition to recommending these elements of an environmental scan, Chapter 7: Preparing for Implementation in *Marking Open and Affordable Courses* provides a list of questions institutions can ask themselves to inform the scan (see call-out box). These questions will prepare the course marking committee for the work outlined in the following section. The committee should be able to answer these questions when it has completed all the steps.

QUESTIONS TO GUIDE ENVIRONMENTAL SCAN

- What will the institution be marking? (e.g., low-cost, no-cost, OER, Z-Degree)
- How will we represent these markings? (e.g., letter, icon)
- Where will these markings be visible? (e.g., independent list, location in the schedule of classes, searchability function)
- What kind of functionality is important to students' search and course registration process?
- What type of technical changes will be required? Will there be any associated costs?
- Who will oversee the technical implementation?
- Who else will need to be involved in the implementation?
- Who will develop and provide guidance on new course materials reporting processes that emerge?
- What are these new processes?
- Who will oversee the implementation of the new processes?
- What type of impact will this have on workload?
- If assessment or compliance is required, how will it be determined?
- How will new course marking be publicized? How will understanding of the course marking be ensured? Who will take point on such publicity and education?

Source: Chapter 7: Preparing for Implementation in ***Marking Open and Affordable Courses***

Determine where course marking fits into the course material work flow process

The environmental scan should have uncovered information about the current capabilities of technology and staff in relation to identification and tracking of course materials. Since each institution has its own methods, it is important to document the current process via a workflow diagram. Figure 1 provides an example workflow for institutions to use to design their own version that reflects the process as they understand it. The black text in the figure indicates questions to answer when outlining the workflow associated with course materials identification and reporting. Institutions should begin by drafting a workflow that answers these questions.

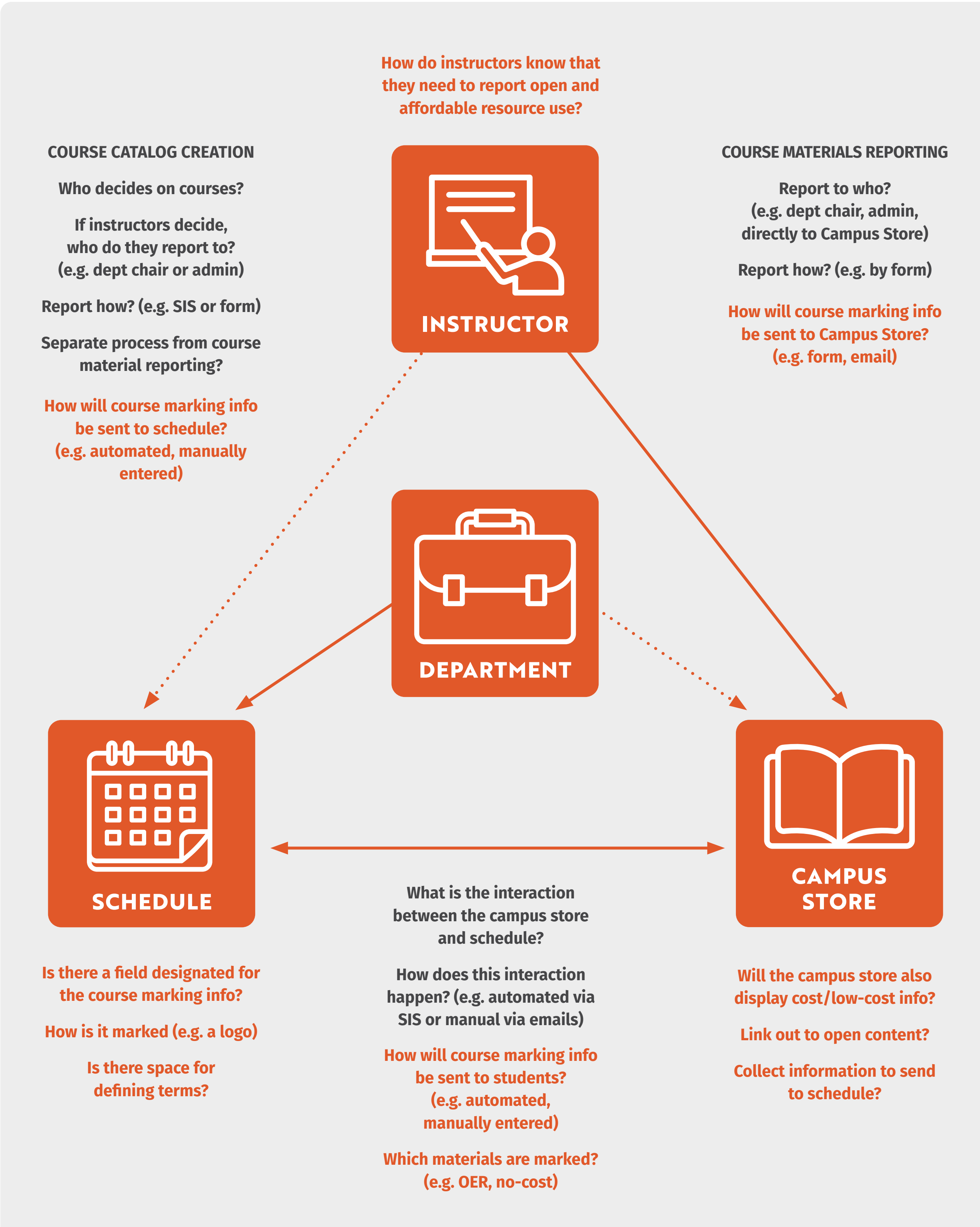

FIGURE 1: Adapted from Chapter 8: Processes in *Marking Open and Affordable Courses*

Once this workflow diagram is completed, the committee can then determine whether the open and affordable course marking process can fit into processes already in place or whether new processes will need to be developed. The orange text in **Figure 1** indicates questions specific to course marking and how that process will connect with the current processes involved in identifying and reporting course materials selection. Institutions can use this example workflow and the questions posed within it to determine and document where course marking will fit into the course material reporting process.

As with many processes, the course marking workflow should include considerations that are outside of the standard flow of information. After diagramming the ideal flow of information, the committee should identify how it will handle anomalies, such as late assignment of faculty to courses or sections, changes to the course schedule, course materials selection by instructor/section rather than course or department, and other factors. Because these factors may complicate the flow, it may be more helpful to document how they will be handled as an addendum to the workflow diagram. **Chapter 8: Processes** in *Marking Open and Affordable Courses* details such potential problem points and provides examples of institutional solutions.

Determine how course marking will be tracked using SIS & other technologies

Once the course marking workflow process has been documented, the committee can determine how the institutional student information system (SIS), and other technologies that capture and store course-related information, will be adapted to capture and store course marking data. It is critical to include the information and educational technology representatives of the committee in these discussions. Using the workflow diagram, the committee can clearly articulate the requirements and expectations related to course marking with technology professionals determining whether adaptations to the SIS are needed and, if so, whether these adaptations can be made by internal staff or whether vendor support will be needed to implement the requirements.

We recommend those interested in information about course marking in specific tools visit **Chapter 9: Student Information Systems** in *Marking Open and Affordable Courses* for a detailed description of example adaptations made to commonly used SISs (including Banner by Ellucian, Powercampus by Ellucian, Jenzabar, PeopleSoft, OpenSIS) and in-house developed systems. These resources can give institutional IT professionals guidance of how others accomplished the necessary adaptations to incorporate course marking into their institutional SIS.

Assign responsibility for each step of course marking

Once the technology adaptations necessary to accomplish course marking have been determined, all aspects of the process should be reviewed by the committee, and responsibility for these processes be assigned. Those assigned responsibility for each part of the process will have authority to work with stakeholders who will be responsible for implementation (e.g., faculty identification of open and affordable courses, administrative professionals marking of courses identified by faculty in the appropriate system, IT professionals implementing the necessary changes to the SIS and other systems).

When assigning responsibility for aspects of the process, it is important for the committee, including the representative(s) from senior leadership, to consider whether each aspect can be completed by employees as part of their current job duties or whether additional institutional resources will be needed. If additional staff are needed, recruitment, hiring, and training of these additional staff members should be included in the process description. If the duties are assigned to current employees, job descriptions and compensation of key individuals may need to be adjusted to include these new duties, depending on their scale, to ensure completion.

Transitioning from the workflow diagram and technology processes to this stage of process development should also include reflection on quality control. While identification of problem points was addressed in an earlier section, consideration of how the institution will ensure the accuracy of course marking data must also be considered. Assignment of responsibility for course marking training and establishment and implementation of data quality measures should also be completed at this stage of process development.

Document the process, including data storage and accessibility

The final stage of process development involves the combination of all the materials previously developed to create documentation of the process from start to finish. This documentation should be connected to the previously developed data dictionary, so all materials connected to course marking are accessible as one cohesive document. This documentation should include the following:

- List of committee members and roles
- Dictionary of terms and definitions
- Diagram of course marking workflow
- List of individuals responsible for each aspect of workflow, including the person(s) with authority for each aspect and individuals/roles responsible for implementing each aspect
- List of data fields and location, including who, and for what purpose(s), the data can be accessed and used

A final assignment of responsibility for regular review and update of this document should be included in the list of individuals and responsibilities. If the document is to work effectively as a resource for stakeholders involved in course marking, it must be kept up to date as the process may change over time with new technology or other aspects that impact institutional course marking.

Not all institutional stakeholders will need access to the details included in this document, so the committee may determine that the document should be designed in a way that allows for different levels of stakeholders to access the information that is necessary for them to engage with the process. For example, the Massachusetts Department of Higher Education has a **website dedicated to OER** that includes information for multiple stakeholders. It also has a **course marking implementation document** designed for use by individuals involved directly in the course marking process. Communications about the course marking process will be considered in detail in the next section.

E. IMPLEMENT AND COMMUNICATE THE COURSE MARKING POLICY AND/OR PROCESS

As highlighted previously, institutions and systems implementing course marking will have determined whether they are responding to an already existing policy, need to develop a formal policy, or are able to enact course marking of open and affordable courses through development of a process without the existence of a formal policy. The previous sections outlined recommendations for enacting course marking, with particular focus on process development. The final stage is to implement the process, with focused communication to ensure smooth implementation.

Implementation

Successful implementation of the course marking process will involve more steps at the initial launch. Subsequent iterations each term will involve repetition of only certain aspects of the process, mostly by individuals who will be repeating their previous efforts. It should be noted that new employees and/or technology updates will require revisiting implementation aspects such as technology adaptations and process training. Initial implementation will involve, at minimum, the following steps:

- Conduct user testing with a small, diverse group of students to ensure the icons, terms, and definitions associated with the course marking make sense to them and they are able to use them to identify relevant courses. Adjust the icons, terms, and definitions as needed based on the testing.

- Conduct user testing with a small, diverse group of those who will identify and mark courses and adjust the process as needed based on this testing.

- Complete necessary technology adaptations.
- Conduct a pilot test to ensure the technology is working properly.
- Provide training for all staff and faculty who will identify and mark courses.
- Roll out the process with the entire set of stakeholders who will identify and mark courses.
- Test the technology to ensure marked courses appear correctly in student-facing tools.
- Launch the course marking in student-facing tools.
- Communicate to the institutional community that course marking has been implemented.
- Review the implementation process and make notes for changes necessary for subsequent terms.

Communication

Development of communication plans for faculty, students, and the institutional community at the implementation stage are critical to project success. These plans can build on the communications outlined earlier in this report. If more courses are to use open and affordable materials and those courses are to be identified correctly, faculty need to understand their role in the process. If students are to use course marking to inform their registration process, they must be aware of it and understand what the icons and terms mean.

Communicating with faculty

Many institutions will develop their course marking process as an expansion of initiatives related to increased use of OER and/or affordable course materials. Faculty who already use OER can serve as early adopter champions who communicate with their colleagues about the terms and definitions related to the work and about the process for selecting and identifying open and affordable course materials. Communication materials for faculty should be designed to reach faculty already using these types of materials and those who are unfamiliar with open and affordable resources. The communication plan must include the terms, definitions, and faculty's role in the course marking process. It may also include information on the benefits of using open and affordable course materials.

University of Alaska Southeast created multiple tools for communicating with faculty about OER and the institution's Zero Textbook Costs course marking process. These tools include:

- **Evaluating OER**
- **Reporting Zero Textbook Cost Guidance for Faculty & Staff**
- **Creative Commons and Open Licenses**
- **Create Your Own OER**
- **OER Testimonials**
- **OER Support for Faculty**
- **Learn OER**
- **Syllabus Statements**

The institution shares information on the benefits and impacts of course materials affordability and recognizes faculty champions on its **Open UAS website**.

They also created detailed instructions for students explaining how they can find Zero Textbook Cost Sections via the resource **Zero Textbook Cost (ZTC) & Affordable Sections**.

Communicating with students

Though students may be aware of course materials costs and be interested in selecting courses and sections that utilize open and affordable course materials, they may not be familiar with the terminology associated with the topic and, until the institution implements its course marking process, will not have had access to the information in a systematic way. Therefore, it is crucial to develop a communication plan for students that explains in detail how they can find open and affordable courses during the registration process and what the terms and icons that identify these courses and sections mean. Students need to know what the course markings mean and how to use them. Salt Lake Community College collaborates with students to develop and post flyers explaining how to find low-cost or no-cost textbooks and provides a short video that walks students through the course search process in the registration system on its **Open Educational Resources webpage**.

Chapter 13: Implementation in *Marking Open and Affordable Courses* includes examples of student-focused communication materials. The chapter also provides the following suggestions for marketing the information to students.

- Incorporate information and training about the designation in student orientations and any other events where students are learning to use the class schedule.
- Present to the student government association and request their help in marketing the effort to students through their communication channels.

- Pitch articles or run advertisements in student newspapers and other publications throughout the year about the open and affordable course designation.
- Present to departments that regularly interact with students around course selection, finances, and course materials. Admissions, advising, and financial aid departments are good places to start, as well as the campus store.
- Print flyers that are distributed to students through various student support departments such as admissions, advising, financial aid, and student life.
- Print posters and flyers to disseminate around the campus.
- Present to campus residential assistants (RAs) and request they help market the effort through their communication channels.

Communicating to the institutional community

As highlighted above, faculty and students are the key personas for communicating information about open and affordable course marking. But there are many other individuals and units that play a role in implementing a course marking process. This process, motivated by the factors identified by the committee, will continue to be successful only if the institutional community is aware of, and supportive of, the efforts. Collaborating with institutional marketing and communications professionals to brand the project and develop communications plans for all stakeholders is advised to ensure everyone at the institution receives clear information so they can implement their part of the process to report and use course marking data successfully. **Chapter 12: Branding** in *Marking Open and Affordable Courses* provides resources and ideas for branding the initiative, including development of labels, design of icons, and development of messages and materials that reinforce the institutional and initiative brand.

SECTION III

Conclusion & Next Steps

The impetus for this report came from the realization that understanding the impacts of OER on cost savings and student success are impossible to calculate without first implementing a course marking process to track the use of OER at institutions and systems. The recommendations presented in this report are designed to assist institutions and systems interested in developing a course marking process for open and affordable courses. This process is a first step. Here the authors offer a brief description of the next steps in course marking and a set of key takeaways for the reader.

ASSESSMENT OF THE COURSE MARKING PROCESS

As previously mentioned, institutions and systems will have a specific set of purposes for developing a course marking system. If affordability is a goal, the resulting data can be used to calculate cost savings and ROI as outlined in the report, ***Toward Convergence: Creating Clarity to Drive More Consistency in Understanding the Benefits and Costs of OER***. Motivations such as equity and increased development of OER may also benefit from ROI calculations to ensure resources are being deployed in ways that meet the mission of the institution or system.

In addition to measurement of cost savings and ROI, an assessment of the efficacy of course marking to meet the stated goals of the institution or system is an important step in process development. Success can be measured in multiple ways depending on the goals developed early in the course marking development process. As with any initiative that utilizes institutional resources the effectiveness of course marking will need to be assessed to ensure it is meeting its goals. The assessment process can help identify areas of effectiveness and areas for improvement. **Chapter 14: Assessment** in *Marking Open and Affordable Courses* offers a detailed description of the factors to consider when developing a plan to assess the effectiveness of the newly developed course marking process. The Massachusetts Department of Higher Education's **OER Assessment KPIs Implementation Guide** provides guidance on suggested practices for reporting on progress related to OER implementation that may be helpful to those assessing the effectiveness of their OER initiatives.

TAKEAWAYS

The following list of takeaways are a reminder that this work is challenging, but possible. Working collaboratively, an institution or system can accomplish the task of developing and implementing a course marking process. Others have done it in ways that meet their unique institutional and system needs and this community serves as a resource for others embarking on the journey.

- **Course marking has many benefits** including enhancing student decision making, highlighting open and affordable courses, encouraging faculty in their creation of OER, and cost savings to students and institutions.
- **Institutions and systems will have multiple motivators for developing a course marking process** and, whatever those motivators, using them to engage the community in the process will help the initiative succeed.
- **The process will be iterative.** Moving back and forth between the steps outlined in this report is natural and expected.
- **Identify stakeholders and champions and articulate goals at the beginning.** The stakeholders hold the knowledge and expertise to develop and accomplish the goals collaboratively.

- **Clearly define terms and visual identifiers** to ensure there is understanding among those developing and implementing course marking and those who will use the information to make decisions.

- **The process may be manual at first.** Technology can assist in streamlining the process once a clear plan has been developed, but the first steps may involve manual marking of courses and those embarking on this process should understand that the time commitment is not small.

- **Use technology to streamline, when possible, and make it work for you.** Technology should serve the needs of the institution or system, not dictate the outcome. Work with IT colleagues to identify needs and find the right tools to meet them.

- **Keep students and faculty front of mind.** Faculty select and create materials for the courses they teach, and students use these materials for learning. These are the key stakeholders.

- **When possible, use terms and develop processes that are consistent with those used by other institutions and systems.** The recommendations outlined in the report, ***Toward Convergence: Creating Clarity to Drive More Consistency in Understanding the Benefits and Costs of OER*** are a place to start. Evaluation often benefits from peer comparison data, so developing a course marking process that is consistent with the processes of other institutions and systems allows for national comparisons that help the field measure its impact.

- **Reach out to the community.** Use this set of recommendations as a guide, and reach out to the generous community of experts cited here. You are not alone in this work.

Appendix: Resources for Incorporating Course Marking Into the Student Information System

Specific details on how to incorporate course marking into a student information system (SIS) will vary based on the type of SIS in use by the institution or system. Following is a set of recommendations related to this process.

Ad Hoc members of the course marking committee or working group

The report provided a list of potential members to include in a course marking committee or working Group. IT and educational technology (Ed Tech) professionals were recommended for inclusion on the committee. Additionally, when the group reaches the point at which it develops a specific plan for incorporating course marking into the SIS, IT, or Ed Tech professionals who deal directly with these tools may need to serve as ad hoc members of the committee for this portion of the work to ensure the committee shares all the necessary information for successful implementation of course marking in the institution or system's SIS. It may also be necessary to include representatives of the SIS vendor, particularly if the vendor has experience incorporating course marking into its system.

Guiding questions for the committee to discuss with IT, Ed Tech, and/or the SIS vendor

1. Are course attributes being used to track other course-related characteristics?

2. Is there a course attribute that could be used to mark affordable courses and those using OER?

    - How can multiple characteristics be identified (e.g., OER, low-cost, no-cost)?

3. Does the attribute need to be tagged in multiple locations?
   - If so, how can this be accomplished?
4. What are all the other technologies in which course marking information will need to be presented to an end user (e.g., bookstore API, course scheduling software, student CRM)?
   - Who can assist with these technology connections?
   - How can these connections be accomplished?
5. What quality control factors need to be considered and accounted for in the process?
   - Does the selected attribute tag roll over from previous terms?
   - How are late changes and other timeline-related issues resolved?
   - How are data corrected in the system?
6. What is the process for using the attribute so instructors can get the information into the system?
   - Does material exist that can be adapted for training instructors and administrative assistants who will be asked to identify these course characteristics?
7. How can the institution access/connect the attribute data to the course registration system?
8. How can the institution access the attribute data for research?

Implementation examples using various SISs

The text, *Marking Open and Affordable Courses,* includes multiple examples of course marking implementation at institutions and systems. The following is a list, with links to the information, of descriptions that may be helpful for those using these SISs. The examples were published in 2020, so updates to SIS technologies may need to be taken into consideration, but these examples give readers a place to start.

PeopleSoft
Houston Community College
City University of New York
Kansas State University

Ellucian Banner
[Kwantlen Polytechnic University]

Ellucian PowerCampus
[Nicolet College]

Jenzabar
[Mt. Hood Community College]

Internally developed or legacy SIS
[Central Virginia Community College]
[Lower Columbia College]

System with varying institutional SIS
[State University of New York]

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