FACULTY GUIDE TO
Teaching and Learning
with Technology
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Chapter 1

Planning a Technology-Enhanced Course

Introduction
This guide is designed to help you plan, design, develop and teach technology-assisted courses and programs. To give you the best and most up-to-date information, we’ve compiled recommendations and suggestions from our staff of educators and technology professionals as well as from faculty who have been through the process. We’ve included guides that illustrate pedagogical design issues; tips on planning, developing, and writing course content; as well as planning and facilitating online interaction. We’ve also included a description of various technologies to assist you in the process.

We’ve designed this guide to provide an overview of the entire process, from planning to implementation. When you’re ready to begin and want more specific information, we’ve attached an appendix that gets you up and running, including sample forms, references and rubrics. If you have any questions or concerns, or would like to discuss your unique course dynamics, feel free to call or e-mail us at any time, at etatmo@missouri.edu or (573) 882-3303.

Why use web-assisted instruction?
Technology offers solutions to a diverse set of instructional problems and instructors augment courses with the Internet and other instructional technologies for a whole host of reasons. Some examples include: large lecture courses managing hundreds of students or dozens of sections, introductory courses providing access to significant amounts of basic materials throughout the semester, courses that shift in-class quizzes to an online format allowing for more class discussion time, or courses and programs using the Internet to reach a nonresident, national, or international audience.

The following three areas are those we most often encounter on campus. Instructors want to better manage time and resources, provide engaging learning opportunities to students outside of class, or want to offer a course to a nontraditional or off-campus audience. Although there are many themes and recommendations in common, you will find specific strategies through this guide to prepare for a variety of challenges these unique set of circumstances may present.
Logistics and Management
Instructors use technology to better manage non-content related factors. Course Management Systems (CMS) such as Blackboard offer an online grade book, freeing up class time to focus on content and discussion instead of how everyone did on the test. Multi-section courses can use a CMS to easily distribute a common set of practice exercises, study guides, and practice quizzes allowing for a consistent curriculum and student outcomes, in addition to better allocation of limited resource.

Practice, Practice, Practice
Introductory courses are full of basic facts and concepts that serve as a foundation for subsequent courses in that discipline. Instructors from a variety of disciplines have shifted some of that material online through traditional lecture notes, handouts, practice quizzes, etc. Students learn the basics online through these guided exercises, simulations, or tutorials, allowing for in-class time to focus on discussion and processing of concepts.

From Mizzou to the World
As Internet access has become common in homes and businesses across the nation and the world, the reach of institutions of higher learning has increased far beyond what their “bricks and mortar” have afforded. Some departments offer entire e-learning degree programs while others offer a few key courses. Either way, the Internet allows for a broader audience base engaged through online lessons, interactive and collaborative assignments, instructional CD-ROMs, and online discussions among a community of learners.

A Spectrum of Teaching & Learning with Technology
At a basic level, the spectrum of teaching and learning with technology can be illustrated by comparing instructional technologies used in a face-to-face classroom with those in an online environment. Historically, classroom courses have used technology to make classroom management easier and not necessarily to enhance teaching and learning (e.g., overhead transparencies are easier to use than a chalkboard but don’t necessarily enhance the quality or effectiveness of the content being presented). As one might expect, the tips and tricks at this end of the technology spectrum are fairly basic. In comparison, Internet-based courses use technology instead of a classroom to reach students and subsequently, this other end of the spectrum has many tips, tricks, advantages, and possible pitfalls to be planned around (e.g., plan ahead, identify target audience attributes, facilitate online interaction and create an online learning community, use small group assignments effectively).

Over time, this simple differentiation has become less distinct. We have seen a blurring of the boundaries between time and distance, credit and noncredit, on-campus and off-campus course needs. As students and faculty come to campus with more sophisticated technology skills and expectations, courses have become more and more technology-enhanced allowing faculty to redefine the use of in-class time and re-calibrate student expectations of homework and assignments that take place outside of class.

Increasingly, traditional face-to-face courses are adopting innovative approaches and redefining the lecture hall course entirely. For example, a chemistry course might use multimedia technology to visually demonstrate chemical reactions by allowing students to manipulate atomic particles in a 3-D rendering. Alternatively, a journalism course may employ a real-time chat while the instructor lectures. Both examples integrate highly innovative uses of technology into a familiar lecture hall format.

Why does any of this matter?
The short answer is that sophisticated uses of instructional technology require planning, adopting new teaching strategies, rethinking and reevaluating assignments and interaction, and redefining what’s done in and out of the classroom. Ideally, there would be a discrete set of rules, a sort of checklist, to teaching with technology, but unfortunately there are too many variables. The tools, tips, and recommendations in this guide should provide you the necessary background to ask the right questions, formulate complete answers, and plan accordingly.
The Spectrum of Technology-Enhanced Courses at a Glance...

### Web-Assisted

Face-to-face meetings with instructional technologies supporting classroom management and logistics. For example, courses in which the students and instructor meet regularly in a lecture hall but students access the syllabus and course management tools (e.g., grade book) on the Web when outside of class. This level of the spectrum requires fairly minimal amounts of course redesign to accommodate the technology.

### Hybrid

Significant use of instructional technologies, supplementary online learning opportunities, and potentially a reduced number of face-to-face meetings. For example, students may have Web access to the course syllabus, lecture management tools, online practice quizzes, and online group discussions but still have weekly classroom meetings for application activities or in-depth discussions. May involve significant course redesign.

### e-Learning/Online Delivery

Instruction and interaction are delivered primarily via computer, video, and/or audio. Instructional content, guidance, and instructor/peer interactions occur mostly online. Occasionally, students may be required to have one or more face-to-face meetings with the instructor (e.g., physical assessments in an online nursing course). This level requires significant redesign, planning, and preparation.

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Examples at Mizzou

**Agricultural Economics** – Jan Dauve increased student engagement in his economics course by integrating student response systems (“clickers”) into his lectures. In addition to his pedagogical revisions, Jan’s subsequent research on the experience has advanced the scholarship of teaching by demonstrating best practices in using the response system.

**Art History & Archaeology** – With increased enrollment pressure, the need for consistency among discussion sections, and concerns about the effective delivery of course materials, Anne Stanton and a team of faculty and graduate students recognized their challenges. Their solution was to develop a digital image repository for use in lectures, discussion sections, and online. Student engagement outside the lectures and section meetings increased through the use of quizzes with embedded terminology and images.

**Biology** – Bethany Stone and a team of colleagues designed interactive animations of complex biological systems to help students visualize processes and relationships between biological substances and sub-cellular processes. Deployable across several courses, from General Biology to Genetics, these animations were story boarded, planned, and created by the team using multimedia authoring software.

**Journalism** – Technology resources and redesigned assignments were integrated into J2100, a foundation course in the School of Journalism. The basics of interviewing, previously covered in a paper and pencil-style assignment now involves students using digital audio-video equipment and software to produce interviews that demonstrate their skills and competencies. These video interviews provide a more authentic, “real world” demonstration of student understanding.

**Learning, Teaching & Curriculum** – Working with Academic Transformation and a departmental grant, Linda Bennett’s project focused on preparing students for digital citizenship. Collaborating with the eMINTS National Center and the Missouri Bar, she led a group of elementary school teachers in developing lesson plans to share with others who wished to help elementary students use online tools successfully and appropriately. Additionally, she created classroom projects for her own university classes – requiring students to create learning objects that infused technology and guided elementary students to be respectful and responsible digital citizens.
Mathematics – Using several educational technologies, including Camtasia Studio and a tablet PC, Jason Aubrey produced narrated animation tutorials which provide a review of basic algebra concepts as well as introduce new material such as finite mathematics and calculus. These tutorials give students an opportunity outside of class to improve their understanding through enhanced explanations, follow along with narrated practice problems, and take knowledge-check quizzes.

Nursing – Kristen Metcalf-Wilson and a team of nursing faculty replaced traditional paper-based professional nursing portfolios, a capstone requirement, with e-portfolios. Students now may store and comment on exemplary course work, professional logs, and demonstrated competencies. Nursing faculty as well as outside adjudicators review and evaluate student performance via this system, which streamlines the evaluation process and allows students to be more active and reflective in their learning.

Physical Therapy - Using a customized digital media station, Connie Blow created multimedia artifacts (e.g., digital video, audio) that were integrated into physical therapy and interdisciplinary case studies enriching the existing curriculum and encouraging more integrated approaches at teaching between physical, occupational, and speech therapies. Connie also serves as an in-house expert to other members of the department by orienting and supporting their efforts to produce and incorporate such artifacts into their curriculum.

Planning for Success: Designing Your Course Road Map

As with any new enterprise, planning is key to successfully implementing innovative components into your course, and this is especially true of e-learning courses, which require significant up-front effort. We recommend talking with your fellow faculty members, department chair, and support staff in order to develop a comprehensive strategy that will make your planning and expectations consistent with other courses in your discipline as well as better prepare students to learn via technology. For e-learning courses, plan ahead and allow at least 4-6 months for content development or adapting existing materials to online delivery. Also, make certain you take advantage of all that the campus offers. There are many excellent services available to support e-learning, please see the appendix for a complete listing of services available to instructors and students.

The Course Road map

The first step to planning your course is to create a development plan that will outline the essential components of your course. The goal of this planning exercise is to identify the scope and purpose of the course, necessary resources, types of technology (and training) needed for successful development, and advanced planning for multimedia development or collaborative course development needs.

Key Questions to Consider in Developing Your Plan

- What elements of this course are well-suited for the Internet?
- Do I have the expertise to develop all of the necessary content components or will I need additional support from peers or colleagues?
- Is there a need for additional multimedia materials (video, audio, etc.)?
- Who’s my “audience”? Keep in mind that when it comes to the Internet, students come with a variety of experiences and levels of technological understanding.
- How will students connect to the Internet? This greatly influences the speed at which students can download pages or video clips.
- How can I ensure students achieve a comfort level with the technology? Keep in mind more experienced students may be able to provide additional resources and support for you and/or their fellow students.
- How can I design my course for adult learners who may have additional demands on their time than traditional students?
- Should I have scheduled events (e.g., chat) that may be influenced by time zone differences?
**Identify Course Goals and Learning Outcomes**
In addition to guiding your course development process and decisions, this process can help you inform students how the course fits into a program or curriculum. In addition, you may identify:

- The nature, purpose, and significance of the course
- The curriculum objectives
- Your personal or professional goals for developing the course
- Potential applications of what students will learn

**Identify Course Materials and Resources**
In order to begin developing specific materials for the course, first assemble all the resources you intend to use in your course. You may need to make arrangements in advance for reading packets, document availability through the library’s electronic reserve system (E-Res), or copyright permissions.

**Identify Instructional Content**
Your readings, assignments, and learning activities are all dependant on the nature of your course content. Certain methods and approaches work best for a seminar-style course and others for a capstone or graduate course. Naturally, most of these decisions are guided by your course goals and instructional objectives but by incorporating technology into your course, you may decide to explore new methods or completely revise existing activities. Here are some additional points you might want to keep in mind about what to include in your course content and how you want to present it.

<table>
<thead>
<tr>
<th>What Do I Want Students to Know?</th>
<th>What Teaching Strategies Will Work?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A content outline might include the following:</td>
<td>Based on content and the needs of your audience, determine the most appropriate instructional strategies to convey your message. For example, the “lecture” method might be used to provide an online tutorial about the assigned subject matter. Other strategies include:</td>
</tr>
<tr>
<td>&gt; Cover the key messages you want to present or emphasize</td>
<td>&gt; Small and large group work</td>
</tr>
<tr>
<td>&gt; Determine the progression or sequence of content to be presented</td>
<td>&gt; Self-study</td>
</tr>
<tr>
<td>&gt; Decide what resources you will use to support key messages</td>
<td>&gt; Small group discussion</td>
</tr>
<tr>
<td>&gt; Develop content details, specific notes and outlines, and activity possibilities</td>
<td>&gt; Problem-based learning</td>
</tr>
<tr>
<td></td>
<td>&gt; Demonstrations (photographs or other graphics, audio and/or video)</td>
</tr>
</tbody>
</table>

**Identify Your Teaching and Interaction Style**
No matter which technology you select, how you facilitate interaction is going to depend largely on your teaching style and preferences as well as your general philosophical orientation to teaching. Another factor likely to influence interaction is the general style of your discipline. Especially if you will be teaching nontraditional or adult students, the nature of some professions require significant interaction with peers or clients which may make online interaction easier for you to facilitate. Keep in mind, there is no right or wrong teaching style. Antonio Grasha (1996), whose research area is in college teaching, discusses the following five primary teaching styles.
**Expert**

Instructor is a content expert conveying detailed knowledge and challenging students to enhance their competence. Instructor transmits information and insures that students are well prepared.

- **Advantages**: Instructor information, knowledge, and skills are transmitted to students.
- **Disadvantages**: If overused, this method may intimidate less-experienced students.
- **Works best**: For guest speakers, online lecturers.

**Formal Authority**

Instructor provides positive and negative feedback and establishes learning goals, expectations, and rules of conduct, and is concerned with "correct, acceptable, and standard" ways to do things. Provides students with structured learning.

- **Advantages**: Focus is on clear expectations and acceptable ways of doing things
- **Disadvantages**: This style can lead to rigid, standardized, and less flexible ways of managing students and their concerns.
- **Works best**: As a means to communicate and present foundational knowledge in online tutorials, or a sequence of video lectures.

**Personal Model**

Instructor oversees, guides, and directs by modeling for students and encouraging them to observe and emulate that approach. Teaching by personal example.

- **Advantages**: Emphasis on direct observation and following a role model.
- **Disadvantages**: Instructors may believe their approach is the best approach, or perhaps the *only* approach.
- **Works best**: In facilitating student development through discussion and application of course content.

**Facilitator**

Instructor guides and directs by asking questions, exploring options, suggesting alternatives, and encouraging students to develop criteria to make informed choices. Overall goal is to develop capacity for independent action, initiative, and responsibility.

- **Advantages**: Personal flexibility with focus on students' needs and goals.
- **Disadvantages**: Style is time-consuming and sometimes is used when a more direct approach is needed.
- **Works best**: As a method to guide deeper understanding of concepts and encourage student-student interaction and personal growth.

**Delegator**

Instructor is concerned with developing students’ capacity to function in an autonomous fashion. Students work independently on projects or as part of autonomous teams, with the teacher available as a resource person.

- **Advantages**: Helps students perceive themselves as independent learners.
- **Disadvantages**: Some students may not be ready for independent work and may become anxious when given autonomy.
- **Works best**: Provides environment that encourages students to take ownership of their learning and growth.
**Course Management Systems (CMS) at Mizzou**

Blackboard is a CMS that offers online collaboration and communication tools, online grade book, quizzing, and a host of other features. In addition, Sakai is open-source collaboration and learning environment software designed by and for the higher education community and currently being explored on the MU campus. MU’s partnership in the Sakai project will give the campus a better understanding of next generation online teaching and learning tools. ET@MO has developed a sample Blackboard course site for faculty to see a content-rich, pedagogically-sound example of how a course site may be constructed. We also recommend you work with an Instructional Designer to help assess the needs of your students, instructors, and content.

**Reference**

**Instructional Design Models** can assist in visualizing instructional problem and breaking them down into discrete, manageable units. An instructional design model can provide structure and meaning to an instructional design problem. The University of Colorado at Denver has a sample model online: [http://www.cudenver.edu/~mryder/itc_data/idmodels.html](http://www.cudenver.edu/~mryder/itc_data/idmodels.html).
Chapter 2

e-Learning Program Planning

E-learning is currently driving a confluence of complex issues facing higher education institutions, students, and faculty. Institutions are concerned with increasing access and revenues through increasing enrollments. Students are concerned with access to increasingly more convenient and flexible course configurations. Faculty are concerned with their role in course creation and delivery, governance and curricular oversight, and allocation of increasingly scarce resources including compensation. This section addresses the motivations and needs of these various stakeholders and suggests specific strategies in balancing administration of an e-learning program in a constantly changing landscape.

The State of e-Learning

What’s driving institutions? Higher education institutions have identified online courses as one avenue to increase access, expand market share, and increase revenues. Werf and Sabatier (2009) suggest for colleges to thrive in this technologically changing environment and to address the needs of “New Millennials,” institutions should adopt policies to enhance their ability to attract and retain students through innovative redesign of face-to-face instruction and an enhanced focus on e-learning (p.7).

What’s driving students? Pastore and Carr-Chellman (2009) suggest the primary motivation for student enrollment in online courses is the flexibility and convenience afforded with such delivery. Student acceptance of e-learning as a legitimate and convenient way to access higher education is one additional factor driving increased enrollments in online courses. Students located on a residential campus may, for a variety of reasons including scheduling conflicts, prefer an online alternative to a face-to-face course.

What are faculty concerns? Faculty perceptions of e-learning greatly influence the diffusion of innovation and acceptance of online programs. A study by Baiyun (2009) identified concerns about faculty workload as a significant obstacle to e-learning adoption. Elevated concerns over online program costs and faculty participation showed statistically significant correlations with institutional adoption of distance online courses. The author concluded that fewer concerns about cost or faculty participation, controlling for a variety of institutional characteristics such as Carnegie classification, would ultimately enhance e-learning adoption.

How to plan an effective e-learning program

The following recommendations for departments and individuals developing online courses and programs have been compiled from course instructors and student evaluations in addition to years of “lessons learned” and best practices. They are designed to help guide you in selecting an instructor and planning resource allocation.

An article titled “Is Your Psychology 102 Course Any Good?” published on The Chronicle of Higher Education website suggests a few key points of interest:

• Is the instructor full-time or part-time? Part-time faculty can have difficulties relating curricular consistency with broader departmental culture and initiatives, accessing
university resources like the library, and having a general familiarity with the university as a workplace. Hiring part-time instructors is certainly a scalable reaction to market pressures but one key suggestion from departments is to have a permanent faculty member develop the course and/or mentor part-timers during course delivery to guide instructors with institutional policies, resources, and support.

- Is the instructor tenure-track or contingent? Adjunct and graduate instructors provide a scalable solution to short term staffing issues but over the long term, having permanent faculty assigned to develop and/or teach online courses is critical to ensuring curricular consistency and connection with the department teaching philosophy. Keeping faculty engaged through professional development activities supporting effective online teaching is critical.

- Did the instructor receive pedagogical training during graduate school? Santilli and Beck (2005) found that while two-thirds of online faculty received training on specific technology tools to develop courses on their own, only one-quarter reported having received training in online course design and pedagogy (p. 158). ET@MO provides instructional design support and consultation throughout the design, development, and teaching processes (see http://etatmo.missouri.edu for more information).

**Key Considerations in Selecting an Instructor**

There are some key issues to consider when selecting faculty to develop and/or teach an online course. Clearly, experience with and knowledge of course content is critical. The following is a checklist of “what to look for” in a good online instructor.

- A basic understanding of the Internet, word processing, and e-mail (there is a significant learning curve to teaching online, and a foundation in basic technology is highly encouraged)
- Some background or experience in teaching or training
- Reliable Internet access at work or home (depending on where they intend on doing the most work on the course)
- Prior experience teaching the course in a face-to-face setting or experience with the content
- Significant time to devote to course development and ability to complete initial drafts of course content prior to the course open date (if developing the course)
- The ability to devote 10-15 hours per week to teach the course (for a 3-credit hour or equivalent), depending on the level of interaction and volume/length of assignments
- The ability to express ideas, concerns, suggestions, and answers to students succinctly and clearly, in writing
- A willingness to modify and adapt teaching methods and strategies based on student or participant feedback

Instructors are encouraged to adopt best practices, such as the American Association for Higher Education’s Seven Principles for Good Practice in Undergraduate Education, available at http://www.tltgroup.org/programs/seven.html.

**How Will the Department Ensure Course and Program Quality?**

**Plan Your Program Curriculum**

High quality e-learning courses and programs are critical to on- and off-campus students, faculty, and administrators. Kaye Shelton reviewed 13 national program review paradigms and subsequently created a Quality Scorecard for the Administration of Online Education Programs (2010) available online (http://sloanconsortium.org). The metrics address a comprehensive set of factors: institutional support, technology support, instructional design, course structure, teaching and learning, student engagement, faculty and student support, and evaluation and assessment.
For e-learning programs, it is highly recommended that units identify an academic coordi-
ator for managing the program. This individual may help to develop the courses, identify course
authors and instructors, review completed courses, and check-in on courses from time to time.
When planning a new program, other key considerations include:
• Does your program have a mission statement and curricular outcomes?
• How will the online program connect with an existing residential program? Will there be
reciprocity?
• Is the online program targeting a different student population (e.g., nontraditional
students, working adults) than a residential program?
• Will you have special hardware (e.g., laptop, web-camera, microphone), software (e.g.,
web or video editing), or Internet access (i.e., broadband/high speed) requirements to
enroll in the program?
• Will you have required campus visits for presentations, demonstrations, etc?
• Will permanent faculty oversee curriculum design and development?
• What are the plans for continuous improvement, growth in program offerings, completed
course reviews, and revision to existing courses?
• Will there be a consistent course design among all courses in the program? Who will
monitor course development?
• How will academic advisement be coordinated? Will there be a special academic advisor for
online students?
• What plans are in place to acculturate adjuncts? How will they be connected to the
department and the institution?
• How will research activities be coordinated with distance students? How will faculty mentor
students in scholarship?

Encourage Quality Course Reviews
There are national initiatives to provide a consistent approach to assuring quality online courses
such as the University of Maryland’s Quality Matters project (http://www.qualitymatters.org).
Partially funded through a U.S. Department Fund for the Improvement of Postsecondary Educa-
tion (FIPSE) grant, Quality Matters is an inter-institutional quality assurance and course im-
provement process to certify online courses and components. Several of the annotated rubric
tools can be found on the Quality Matters website at http://www.qualitymatters.org/Rubrics.
htm.

This tool assesses the:
• Overall design of the course website including navigational features
• Use of learning objectives
• Assessment strategies, policies, and tools
• Instructional materials and resources
• Learner interaction
• Course technology
• Learner support
• Accessibility

The Mizzou e-Learning site (http://elearning.missouri.edu) offers Quality Course Peer Re-
views—a service to teaching faculty to encourage peer-review, exchange of constructive feedback
on online and hybrid courses, as well as advancing the scholarship of teaching.

Measuring Effective Curriculum Design Through Student Outcomes
One of the most rewarding parts of working on new e-learning programs and initiatives is to
inform and shape an entire curriculum, from an introductory overview course to the capstone
experience—ensuring outcomes build on one another. Below are three areas most impacted by
curriculum planning.
• **How well prepared were students to take subsequent courses in the department?**
  This goes to the very heart of curriculum planning and a comprehensive approach to program design. Are we developing knowledge and skills over the program of study that capitalize on prior knowledge? Keeping an eye on the big picture is critical to program success.

• **How do student perform on their senior capstone projects?** Provide opportunities for faculty to consult one another on courses, assessments, and outcomes. Introducing basic writing skills early in a program, then in a subsequent course building on writing competencies by developing research skills, followed by advanced data analysis and peer review, and finally at the end of the program, a highly illustrative capstone project that demonstrates student competency.

• **How well do students perform on institutional general education learning outcomes?** e-Learning can be, on occasion, this “other world” for campus faculty—conducted out of sight in the anonymity of cyberspace. It is critical that online students feeling as though they are part of the Mizzou community by mainstreaming e-learning with other campus initiatives, services, programs (e.g., the Writing Intensive Program), and outcomes.

**Student E-Portfolios at Mizzou**
From a program development perspective, you may want to consider developing an e-portfolio requirement into your online program. The potential of e-portfolios providing a common platform for assessment of your students may lend additional validity and marketability of your program as well as effectively promoting and documenting student competencies. There is additional information, as well as some examples of programs using e-portfolios at Mizzou, in the Assessment section of this guide.

See Appendix for a list of campus resources and information on E-Portfolios.

**Accessing and Coordinating Resources**

Online courses require significant up-front effort. For a whole host of reasons, most online course content should be developed prior to a course’s start date. Planning ahead and providing, on average, 4-6 months for an instructor to develop content for an online course is recommended. Finalizing faculty assignments and planning departmental resource allocation in advance also helps encourage “buy-in” and a sense of ownership from support staff, teaching assistants, and instructors.

ET@MO offers a variety of support services from program and course planning to Blackboard training and support. The Instructional Design Team and Academic Technology Liaisons work one-on-one with faculty to plan online courses, interaction strategies, and develop online assignments. The Learning Technologies Team supports Blackboard in addition to other educational technologies. The META Team offers faculty one-on-one office visits to assist in using educational technologies in addition to some multimedia development services. Feel free to arrange a consultation with ET@MO via our website if you need assistance with your department’s technology efforts.

As you build an online program, make certain you are taking advantage of all that the campus offers. There are many excellent services available to support student success.

**References**


Chapter 3

Legal Issues: Copyright, Accessibility, and FERPA

There are a variety of legal issues that impact instructors in the classroom. The Internet and other digital technologies in education have impacted these same laws and our understanding of how they apply to teaching and learning. The following information is a guide to consider when distributing materials online. Feel free to contact ET@MO for additional information or with assistance in contacting university officials or departments who regularly deal with these issues.

Copyright Basics
The creator of any original work owns the copyright, and the work does not have to be registered for copyright to be effective. There also can be joint ownership for collaborators who create work together. Work also can be made for hire by an employer or person for whom the work is prepared. In this case the employer may hold the copyright. However, there is a difference between who holds the rights to contributions to a collective work versus who may hold the right to the collective work as a whole (i.e., anthology, edited volume with chapters by different authors).

<table>
<thead>
<tr>
<th>Copyright Owner Rights</th>
<th>Consequences of Infringement</th>
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<tbody>
<tr>
<td>By law, a copyright owner has specific rights to his or her work. These include the right to:</td>
<td>The consequences for copyright infringement may include penalties for actual and statutory damages. The extent of the penalties often will be determined by whether it is judged to be innocent or willful infringement. Other factors influencing outcome include the following:</td>
</tr>
<tr>
<td>» Reproduce</td>
<td>» Does a registration exist?</td>
</tr>
<tr>
<td>» Perform or display publicly</td>
<td>» Is owner contact information obtainable?</td>
</tr>
<tr>
<td>» Distribute (sale, lease, rental, gift)</td>
<td>» Did the use fall under the special nonprofit education and library remission rule?</td>
</tr>
<tr>
<td>» Prepare derivative works or adaptations</td>
<td></td>
</tr>
</tbody>
</table>

These rights are transferable in whole or in part if the copyright owner chooses to do so. However, if rights are transferred this does not necessarily mean the ownership of the work (material object) is also transferred.

Who Owns Your Course Site and Related Materials?
If created as a part of a faculty member’s employment, the e-learning course should be copyrighted to the University of Missouri Board of Curators. We recommend that you discuss creating an agreement for use of content prior to creating a Web-based course and most importantly, communicate in advance with your department regarding your course.

- Come to an agreement in advance regarding who owns the intellectual property rights for the course materials you develop as an MU instructor.
- Come to an agreement regarding how the department may use the course after you are no longer the instructor.
Fair Use: the moral of the story...
Under Fair Use guidelines, instructors may use a portion of a copyrighted work once in their classroom teaching during a course (Fair Use must stand the tests of brevity, spontaneity for teaching effectiveness, and avoiding cumulative effect that impacts a single work or author). For e-learning courses, fair use under the TEACH Act applies (see below). As a first step, always check the distributor’s “terms of use” to be sure your plans comply. If you plan to use the copyrighted work more than is allowed under Fair Use, then you will either need to find a new resource, secure copyright clearance, use E-Res through MU Libraries, or package the work in a course packet compiled and cleared through the University Bookstore.

What Should I Know About the TEACH Act?
As described in the previous paragraph on Fair Use, current copyright law gives educators the ability to use certain copyrighted works for educational purposes without securing permission or license. The Technology, Education & Copyright Harmonization Act (or simply TEACH Act) is intended to carry the spirit of these exemptions into the digital age, making it possible for an instructor to provide content online that would otherwise be provided in a classroom. Main points of the act include:

- Both digital and analog transmission of a work will be covered by the educational exemption from copyright law.
- Current law requires transmission of a work to be sent to a classroom or other place normally used for instruction. The TEACH Act will simply require that the transmission be made by or at the direction of an instructor as part of a class.
- To minimize the risk of copyright infringement through unauthorized distribution, digital works should be safeguarded from being copied. To the extent technologically feasible, transmissions of copyrighted works should be limited to students officially enrolled in the course.
- An educational institution must have nonprofit status in order to take advantage of the exemptions.

Tips and Best Practices

Campus Copyright Resources
The University Bookstore provides a service for faculty needing permissions for copyrighted materials to be included as readings within a course packet (this service is called Mizzou Media and details are online at http://www.mubookstore.com). MU Libraries provides a service for faculty needing permission to display copyrighted materials on their Web sites or courses. Each of these resources utilizes a national Copyright Clearance Center that charges a fee. Faculty also may request permission directly from copyright owners.

Electronic Reserves (E-Res) allows individual documents to be password protected so a professor can have students outside the class view one resource but not have access to other materials. More information about electronic reserves, a listing of liaison librarians, and information about a new copyright clearance service for MU faculty can be found at: Library Services for Faculty- http://eres.missouri.edu.

MU’s Information Security & Access Management team in the Division of IT addresses the campus’s role regarding the Digital Millennium Copyright Act. Check out their detailed site at https://doit.missouri.edu/about/policies/dmca.html.

Secure Permission to Use Personal Contributions
When you seek permission to use personal contributions from other faculty, students, presenters or guest lecturers, make sure you request permission to display, copy, or distribute an individual’s likeness, words, talent, actions, photographs, illustrations, and/or graphics.
Legal Issues: Copyright, Accessibility, and FERPA

For what work are you seeking permission?
Who will “own” the permission?
Who is seeking the permission?
What is the purpose for your seeking permission?
Who will be granting the permission (with signature line)?
Date of the permission signature (with signature line).

A sample permission form is included in the Appendix.

Be a Role Model for Your Students
In addition to following the legal guidelines yourself, teach your students how these issues also may apply to them. Demonstrate how to legally use others’ published and unpublished materials and student contributions. Discuss the concepts of plagiarism and intellectual property rights. Help students understand the difference between citing or showing sources in the classroom versus copying/publishing materials in print or on the Internet.

Take Advantage of Existing Options and Resources
• Do the MU Libraries already own or license the material (e.g., full-text articles)?
• Could this be handled through E-Res?
• Is this a situation with which the Libraries’ Copyright Clearance Center could assist?
• Do your textbook publishers already provide the material you need in an electronic format, or would they allow you to scan the material for use in an access-controlled environment online? (Contact your publisher’s representative. The ET@MO Learning Technology Team provides assistance in conversions and adapting existing course materials to work with publisher-provided materials.)
• Is online distribution the best means of getting this material to your students?
• If you are using student-developed materials, do you have a release form from them to re-use their work?

Safeguard Materials for which you have permission, or for which you’re claiming fair use.
• Is all the material on a password-protected site?
• Are you using conditional release features in the software to prevent guest access or access by former students?
• Are you posting the requisite copyright notice?

Post Copyright Protection Notice on Your Site
In addition to such notices as the owner of the copyright might require, recent changes in the law require a notice be posted on the course site and placed in distributed materials. We recommend you place an appropriate disclaimer in your syllabus, the Announcements section of a Blackboard course. Your statement could read like this: “Materials used in connection with the course maybe subject to copyright protection.”

Practice Common Courtesy
When using colleagues’ work, reinforce good working relationships by communicating clearly. When considering intellectual property issues that are more related to professional ethics rather than law, try reversing positions and see how you would feel if you were in the shoes of the other party. Although the Board of Curators co-owns most course materials developed throughout the University of Missouri System, remember that almost all materials are co-owned by their creator. Asking the creator of the materials for permission to copy or modify them can save a lot of upset feelings between individuals, departments, and even campuses.

Specific details to facilitate your copyright request:
• When asking others for use of their intellectual property in Blackboard or other systems such as E-Res, stress that you will credit them in a copyright notice.
• Make it clear that you will display their property in a password-protected environment. This can sometimes tip the scales in your favor, particularly with publishers.

**Campus Copyright Resources**

The University Bookstore provides a service for faculty needing permissions for copyrighted materials to be included as readings within a course packet (this service is called Mizzou Media and details are online at [http://www.mubookstore.com](http://www.mubookstore.com)). MU Libraries provides a service for faculty needing permission to display copyrighted materials on their Web sites or courses. Each of these resources utilizes a national Copyright Clearance Center that charges a fee. Faculty also may request permission directly from copyright owners.

Electronic Reserves (E-Res) allows individual documents to be password protected so a professor can have students outside the class view one resource but not have access to other materials. More information about electronic reserves, a listing of liaison librarians, and information about a new copyright clearance service for MU faculty can be found at: Library Services for Faculty- [http://eres.missouri.edu](http://eres.missouri.edu).

Information Security & Account Management, University of Missouri Division of Information Technology: [https://doit.missouri.edu/security](https://doit.missouri.edu/security).

**Accessibility**

Federal legislation, like the American Disabilities Act, Section 504 and Section 508 of the Rehabilitation Act of 1973, outlines the requirements for federal agencies to accommodate people of all abilities. For faculty, it is important to understand how these civil rights laws affect higher education and impact university services. At the course level, these laws can affect how content is delivered in the traditional or online class.

**Section 504**

Section 504 of the Rehabilitation Act of 1973 prohibits discrimination of people with disabilities when attending any organization or institution that receives federal funding. This means that students of all abilities have an equal right to attend classes or programs that are physically or electronically offered on campus.

**Section 508**

Section 508 is the portion of the Rehabilitation Act of 1973 that addresses the need for Federal Agencies, like the University of Missouri, to make electronic information accessible to people with disabilities. Section 508 most often applies to web accessibility, but also includes web services offered by the university such as course management systems or electronic library resources.

**American Disabilities Act (ADA)**

The 1990 Americans with Disabilities Act (ADA) requires that U.S. programs and services be accessible to individuals with disabilities. There are a total of 11 laws that protect persons with disabilities. A 1996 Department of Justice ruling makes it clear that ADA accessibility requirements apply to Internet resources. An individual with a disability is defined by the ADA as a person who has a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an impairment. The ADA does not specifically name all of the impairments that are covered.
Missouri Information Technology Accessibility Standards (MITAS)
The Missouri HB 201 bill requires the Missouri Technology Council and the Office of Information Technology ensure the accessibility of information technology for individuals with disabilities. The Missouri Information Technology Accessibility Standards (MITAS), http://oa.mo.gov/itsd/cio/standards/ittechnology.htm, are based on the same standards used to implement Section 508 and identify criteria specific to the accessibility of software, hardware, multimedia and documentation.

Sample Syllabus ADA Statement
If you need accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please inform me immediately. Please see me privately after class, or at my office.

Office location: ______________ Office hours: ______________

To request academic accommodations (for example, a notetaker or extended time on exams), students must also register with the Office of Disability Services, (http://disabilityservices.missouri.edu). S5 Memorial Union, 882-4696. It is the campus office responsible for reviewing documentation provided by students requesting academic accommodations, and for accommodations planning in cooperation with students and instructors, as needed and consistent with course requirements. For other MU resources for students with disabilities, click on “Disability Resources” on the MU homepage.

Tips and Best Practice
• When choosing electronic resources for your class, such as ebooks or courseware, ask how their product complies with accessibility legislation.
• Become familiar with the faculty page at MU’s Disability Services website, http://disabilityservices.missouri.edu/faculty/index.php.
• Visit the Adaptive Technology Center, http://actcenter.missouri.edu, to learn how adaptive technologies might be used to access your course materials.
• Include information about students’ rights and responsibilities in your syllabus and be aware of the rights and responsibilities of students with accommodation requests. New students may not be aware of these requirements and will need to register with Disability Services, http://disabilityservices.missouri.edu/, to receive academic accommodations facilitated by the Office of Disability Services.

Resources for More Information
• MU’s Adaptive Computing Technology Center - http://actcenter.missouri.edu
• MU Office of Disability Services - http://disabilityservices.missouri.edu
• ET@MO (syllabus statements, tools, tips) - http://etatmo.missouri.edu/toolbox/index.php
• For more information about the ADA, visit the Office of the ADA Coordinator, http://ada.missouri.edu/ or the U.S. Department of Justice Americans with Disabilities Act, ADA home page - http://www.ada.gov
• For more information about 504, see http://www2.ed.gov/about/offices/list/ocr/transition.html
Family Educational Rights & Privacy Issues

"The Family Educational Rights and Privacy Act (FERPA) is a Federal law designed to protect the privacy of a student's education records. The law applies to all schools which receive funds under an applicable program of the U.S. Department of Education." (Family Compliance Office Homepage, 11/29/2001.)

How does FERPA apply to MU students?

"Once a student reaches 18 years of age or attends a postsecondary institution, he or she becomes an "eligible student," and all rights formerly given to parents under FERPA transfer to the student. The eligible student has the right to have access to his or her education records, the right to seek to have the records amended, the right to have control over the disclosure of personally identifiable information from the records (except in certain circumstances specified in the FERPA regulations, some of which are discussed below), and the right to file a complaint with the Department. The term "education records" is defined as those records that contain information directly related to a student and which are maintained by an educational agency or institution or by a party acting for the agency or institution." (Family Compliance Office, FERPA General Guidance for Students, http://www2.ed.gov/policy/gen/guid/fpco/ferpa/students.html, 6/30/2011)

What Educators Should Know About FERPA

Due to the wording of this act (which originated in 1974, prior to the Internet) all computer files and records in courses using Blackboard or other online components are considered educational records protected by the act. Simply disclosing the fact that a particular student is enrolled in a course could violate students’ legal rights and put the faculty member – and the university – at risk of legal action. What this means in practice is that students have the right to expect that any material they submit in a course with an e-learning component—as well as their names and other identifying information—will not be viewable by guests or other individuals permitted access to the course. The exception to this is cases in which students have given explicit, written, signed consent. Verbal consent or e-mail is insufficient.

Additionally, students who have elected to have their directory information restricted may ask to have their name withheld from other members of the course. Legally and ethically, such requests must be taken seriously. This information could compromise the safety of the student; there are cases where stalkers have creatively used enrollment information to terrorize their victims. Discuss concerns with students. Find out which portions of your course are causing concerns and why. If you cannot readily fulfill the student’s expectations, look for a compromise solution.

How does it apply at Mizzou?

1. Under FERPA, it is not permissible to reveal the course or courses in which a student is enrolled (without prior written consent) to anyone except as defined in the University of Missouri’s “Collected Rules and Regulations,” 180.020 STUDENT RECORDS, section M. (http://www.umsystem.edu/ums/departments/gc/rules/information/180/020.shtml).
2. Only "Directory Information" as defined by the University may be released regarding a student. Students may elect to have their directory information withheld.
3. Since all computer files and computer generated information on a student maintained by the institution are considered educational records under the law, all data posted by or about a student in Blackboard is, at this time, considered an educational record covered by the act. (Also note that students retain copyright over materials that they post.)

Conditional Release of Materials

Instructors need to familiarize themselves with those features that allow conditional release of materials within a course. From a technical viewpoint, the main problem in relation to both copyright and FERPA is controlling access to materials. While Blackboard requires users to authenticate to the system using a valid pawprint, some instructors allow some form of guest access to their courses (e.g., guest lecturers, observers). However, these guests should not be
able to access copyrighted materials or have access to enrolled student information. Access to copyrighted materials should be restricted to enrolled students and TAs. This means that these materials should only be linked or posted to pages to which access can be controlled. When used in E-Res, copyrighted materials should also be password protected.

FERPA requirements are largely fulfilled in Blackboard if all areas in which students’ work, names, or IDs might be visible are restricted to prevent guest access. This means that Discussion and E-mail tools, Student Homepage tools, Blackboard Groups should be restricted. If you have questions about how to provide guest access to your course or what features in Blackboard can enable FERPA compliance, please visit with our ET@MO staff.

Considerations When Using Publisher or Third Party Resources

It has become quite common to read articles in The Chronicle of Higher Education or hear news stories about security breaches at colleges and universities around the country. While MU has been fortunate thus far, this is an issue the campus takes very seriously.

One way in which problems of this nature may occur is in the use of third parties to provide services. Examples include book publishers who offer online activities for students, course management software companies, online admissions processing companies, popular “blogging” or discussion board sites, etc. To guard against illegal activity and to protect privacy, it is important that MU use systems and services already approved and available from centrally-supported MU departments or, that we develop contracts that ensure vendors are aware of and responsible for meeting our data privacy requirements.

All applications and services that utilize student records need extra attention to comply with federal law and to protect sensitive information. Please utilize the resources available through the Division of IT, the Registrar’s office or ET@MO before engaging in such activities (contractual or informal) with a third party for any student related service.

Tips to Remain Compliant with FERPA Regulations

- Use existing MU services and infrastructure; don’t agree to have your student data (names, grades, discussion boards, student projects, etc.) stored outside of MU’s control
- Talk with DOIT and ET@MO about specific needs you have which are not currently available and/or supported by MU
- Protect your students’ privacy; don’t share information about students with a third party
- Keep your electronic devices (laptops, desktops, servers, PDA’s, etc.) secure, don’t leave devices where they could be stolen and hacked off site.
- Keep your own PawPrint password safe; don’t share it with peers or TA’s
- Consult with MU Administrative Services regarding contracts that involve sensitive FERPA-related information

Online FERPA Resources

- ET@MO has developed an extensive handout available at: http://etatmo.missouri.edu/toolbox/doonline/ferpaconcerns.htm
- Information on FERPA as implemented at MU is available at: http://registrar.missouri.edu
- Family Educational Rights and Privacy Act (FERPA) is available at: http://www.ed.gov/offices/OII/fpco/ferpa
Chapter 4

Developing Course Materials and Documents

This section describes various documents, resources, and materials that you may decide to integrate into your course website. Your content, discipline, and teaching style also may inform how you assemble online resources. Anything you choose to do online requires communicating to your students what you expect them to accomplish.

Syllabus

Your syllabus is the linchpin of your course. A complete syllabus should establish student expectations and describe the course in fairly specific detail. When you’re developing an e-learning course you may fear you’re being too specific, but when you don’t have face-to-face time with students, then it’s best to provide them with highly specific, process-focused information such as:

Instructor Information

When developing an e-learning course, this document can be a vital tool in letting your students know about you on a personal level. Students appreciate an opportunity to get to know their instructor, even without the typical classroom setting. You may want to include:

- Personal Introduction: One to two paragraphs about your educational background, professional interests, and/or accomplishments. A paragraph about your hobbies, interests, or family.
- Specific contact information (postal address, telephone, e-mail, fax, personal webpage).

Course Schedule

If your students will be conducting significant work online, such as group discussions, quizzes, or assignment submissions, it is vital that your schedule be as integrated as possible, reflecting due dates, where assignments should be submitted (e.g., in class, online via e-mail by noon). You may choose to include a week-by-week run-down providing:

- A brief description of content to be covered including information about any special arrangements students must coordinate.
- Assignments for each week and deadlines for completion, timelines for discussions, etc.
- Examination dates including a description of type or style of exam and length and time needed to complete, with points/percentage value. Proctor information for exams administered off-campus.

Complete Grading Information

The biggest issue for students is knowing what they need to do in order to meet your expectations on assignments. Be specific! We recommend developing grading rubrics (additional information can be found in the assessment section) to help communicate your criteria, which include:

- Possible points for each assignment, examination, student interaction, and class participation. Grading/passing scale, using points or percentages.
- Information providing advice concerning study techniques you feel might help students succeed (Note: encouragement and motivational comments are appropriate in this section).
Planning for the Writing Process
When writing material for the Internet, avoid long blocks of text. When writing content, remember that reading from a computer screen is 25% slower than from a printed page. As a result, users tend not to read long sections of text completely but rather scan the content for key words and sentences. Break material into logical chunks of no more than two to three screens worth of information, using ample content-specific headings and subheadings as cues for the content and keep paragraphs short. Experienced e-learning course instructors
recommend that you develop lesson discussion questions and activities, or relevant group activities, at the same time you are creating lesson materials. Having lesson goals and content fresh in your mind coordinates these interactive experiences. It also allows you to plan varied approaches in your role as guide and to prepare for different types of student interactions. Even though you may not wish to provide specific guidelines or questions in advance, maintaining a file of questions or activities on your computer to copy/paste into your e-mail might save you time and effort.

**Writing Lesson or Concept-Related Content**

When developing e-learning course materials, keep in mind that to reduce student confusion and questions that may arise without face-to-face contact, it's important to develop specific, self explanatory materials. You won’t have the opportunity to self-correct or explain confusing points when students access material outside the classroom setting.

A Note on Writing: Make it Your Own! As you begin developing content, avoid outlining or summarizing textbook material. Assert your presence and personality. As an experienced content expert, you add richness with personal experiences, observations, and other real-world examples. As you write, consider these tips:

- Use real-life examples, stories, problems and solutions, case studies, striking facts, or quotations to challenge students and spur interest
- Use simple language students understand and find approachable
- Treat materials as a one-on-one conversation, addressing the student as “you”

**Instructional Objectives**

With each lesson or unit, create 3-5 specific objectives you want students to accomplish. An effective instructional objective is a brief descriptive sentence of what learners will be able to do, perform, describe, measure, articulate, or explain in concrete terms, or a skill they can demonstrate or a task they can perform. Well-written objectives are consistent with the curriculum, clearly stated, and are measurable, realistic, and appropriate for learners.

Sample Instructional Objectives: In an April 2003 Gallup poll, Abraham Lincoln, Jimmy Carter, and Franklin Roosevelt were listed as three of the top ten most favored US Presidents. Below are a series of instructional objectives (as prefaced by a common “The student will...” statement). Understanding and knowledge are implied prerequisites in all of the objectives below as a required, minimal competence level for adequate performance of these objectives. These objective statements could be further refined and clarified, depending on the types of outcomes you want from your learners.

Information and Comprehension objectives are useful to assess basic knowledge of facts

- Indicate the order in which Lincoln, Carter, and Roosevelt were Presidents of the U.S.
- Associate the political affiliation of Presidents Lincoln, Carter, and Roosevelt.

Application and Analysis objectives require students to demonstrate a deeper level of understanding.

- Relate the legislative contributions of Presidents Lincoln, Carter, and Roosevelt to current legislative priorities and public perceptions of the role of the federal government.
- Debate the overall success of the administrations of Presidents Lincoln, Carter, and Roosevelt using criteria of your choice.

Synthesis and Evaluation objectives require the highest level of skill, processing, and judgement.

- From a chronological perspective, arrange major international agreements and treaties signed by Presidents Lincoln, Carter, and Roosevelt. List at least two examples of each and explain how their efforts impacted subsequent Presidents.
• In a classroom presentation to your peers, assess the impact Presidents Lincoln, Carter, and Roosevelt had on the general public’s perception of political figures and rate their relative long-term impact on the political direction of the nation.

**Commentary or Lecture Material**

This section relates to the body of information within the lesson itself. We recommend writing content in sentence format, with headings and subheadings to guide the reader. We also recommend using the second person pronoun “you” within the instruction so readers feel the material is personalized. The instruction section is an opportunity to accomplish any or all of the following:

• Expand areas not discussed in the text
• Explain or illustrate difficult concepts
• Interpret textbook or other printed materials
• Work typical exam problems not addressed by the text
• Present contrasting viewpoints
• Anticipate questions students may raise

List the corresponding or optional books, journal articles, and Internet readings including book chapters, page numbers, or Internet addresses. Whenever possible, make use of PDF files; students will be able to use Adobe Acrobat Reader (or a similar application) to more easily read or print these documents.

**Creating Assignments**

Effective assignments are activities, questions or projects that ask students to evaluate, synthesize or apply information they’ve learned. Assignments may involve group or individual activities, and all assignments should relate to lesson goals and objectives. No matter what activities you decide to develop, emphasis should always be on evoking quality responses.

**General Guidelines for Writing e-Learning Assignments**

We recommend having students submit assignments electronically, which includes individual submission to the instructor or submission to the class discussion board. If using collaborative assignments, we suggest that the grading system include a combination of individual effort grade, group grade, and peer assessment of participation. For all types of assignments, be particularly attentive to wording and directions, the instructions for lesson assignments are vital to student success. Be specific with dates, times, file formats and technology tools. The following are common examples of e-learning assignments:

• Please submit your assignment as an RTF (Rich Text Format) file attachment to a private e-mail message to the instructor no later than 5 p.m. CST on Friday, November 14.
• Group papers are due by 2 p.m. CST on Friday, November 14. The group leader should post the consensus document as an RTF file to the Group Paper forum of the discussion board.
• Discussion questions should be posted to the weekly discussion forum every Wednesday by noon CST. Review the questions of your fellow learners, selecting three to respond to by the subsequent Friday at 5 p.m. CST.

**Practice/Review Problems and Questions**

These assignments are designed to help students synthesize and practice with material covered in the lesson. Questions may take the form of worked problems with multiple-choice answer options, essays, short answers, lists, fill-ins, or text-based multiple-choice questions. Feedback should include the correct answer, guidelines to the answer or solving the problems, suggested or possible answers if personal judgments are involved, and text page references (where appropriate).
**Consider a Practice Assignment**

Incorporating a practice assignment in your course site allows students a risk-free opportunity to try out the tools that they’ll be using to complete the course. A majority of e-learning courses have as their first assignment a simple and community building activity: Post an introduction of yourself to the course discussion list telling us a little about yourself.

**Interactive Teaching Methods & Strategies**

Educational technologies can encourage and facilitate a variety of interaction and teaching styles. Instructors are particularly familiar teaching with solitary techniques where learners interact with content, such as library resources, databases, reading journals, attend to lectures, etc. This section focuses on teaching techniques that encourage and facilitate peer interaction.

Small group assignments in your course provide students an opportunity to learn from their peers, interact in a team environment, brainstorm and debate issues and ideas, and role-play. Two possible use of groups include:

<table>
<thead>
<tr>
<th><strong>Discussion Groups</strong></th>
<th><strong>Project Groups</strong></th>
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<tr>
<td>Focus on issues related to course content and require higher-order thinking skills. The instructor facilitates the discussion, guiding and encouraging participation when needed. These groups may be a required aspect of the course, accounting for some participation grade or overall value.</td>
<td>Generally small groups that interact to accomplish a shared goal (e.g., project, paper, presentation). Course projects may be submitted to the instructor while others may be used as a learning activity for the entire class possibly including a group presentation followed by a discussion moderated by instructor.</td>
</tr>
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**Using Wikis in Group Projects**

What’s a wiki? Wikis are collaboratively written, edited, revised, and managed web pages. Ideal for group research and writing projects, the history function in wikis allow instructor and students to see the contributions of each group member in minute detail. They may be deployed at the course, group, or individual level.

What’s an example of a wiki? Wikipedia is one of the most prominent wiki tools on the Internet. Entries are created and anyone can add entries, revise existing ones, etc. You might think of this tool as an exercise in “group think”.

Why use a wiki? The simple answer is that collectively developing content by constantly exchanging a Word document, for example, is cumbersome. You may find yourself asking “who has the latest version of our group project” or “did Mike comment on our draft yet?”

With these functions, wikis can be used as a knowledge management system, as a community based website, and as learner-centered project.

**Knowledge Management System:** Wikis can gather from as well as disperse knowledge to a diverse group of individuals. It provides a single location for people to share information, knowledge and ideas. It can be used to bring expertise together to create tutorials, handbooks, training materials, learning materials, student projects, etc. Wikis provides a single resource for individuals looking for information.

**Community Based Website:** With different level of access and permission control, wikis can also be built as a collaborative projects among community members in constructing a wiki site as an information hub or using it for event planning. People can be assigned to different roles, and these different roles will enable each person to contribute their parts in a single wiki space without tracking version history and ownership.

**Learner-centered projects:** Wikis can be used for project- or problem-based learning activities. Instructors provide the basic framework for students to work together on a group
case. Working together, students need determine the issues from the case description, collect resources from multiple perspectives, construct their analysis and provide possible solutions. These activities can be accomplished by collaborating in a single wiki. Students are responsible for their own assigned portion and for working together in the wiki space. The wiki can then be used as the presentation media to showcase the completed project.

**Using Blogs to Support Self-Reflection**
Blog, a shortened term for “web-log”, are online personal journals or opinion articles publicly accessed on the Internet. They can also be password protected by placing the blogs on a secure server or private network. Blogs work well in small classes. However, they have been effectively used in large classes by creating group or team blogs. Generally, blogs have frequent updates (at least once a month) and post that are displayed in descending chronological order. Blog entries can include images, recorded sound files or active links to other websites or blogs. A blogger is anyone who creates or contributes to a blog usually by sharing their ideas, feelings, hobbies, or work. Several features of blog sites, including the frequency of updated which necessitates active participation, RSS (Really Simple Syndication) feeds and archiving capabilities have made this a helpful tool for educators.

**How can we use Blogs for teaching and learning?**
Instructors have found blogs to be an effective communication mechanism to assist with a variety of outcomes. The following are examples from experienced educators:

- **Active Learning** - Peer review and feedback provide increased interactivity among students.
- **Authentic Learning** – Students can be assigned to discuss authentic problems, real world applications and questions, retaining ownership of their ideas and responses and extending the discussion outside the brick and mortar classroom. If the student gives authorization, work can be published to a wider audience allowing students to receive input and feedback from around the world. The results can foster an intrinsic motivation to write and contribute.
- **Constructive Learning** – The use of blogs to communicate during constructivist projects or problem-based learning activities enhances student expertise as they work to find solutions.
- **Cooperative Learning** – Blogs for group projects help to build a community of learners where students share ideas, diverse perspectives, and new information from study and research. Blogs may also be used to facilitate collaboration between classes on multiple campuses.
- **Journaling** - Students can express opinions and reflections in a blog. This interactive approach to journaling allows students to communicate with experts (in an open blog) and receive immediate review. Blogs used as journals are also useful for students in writing- or research-related courses for sharing ideas and drafts for peer review.
- **Portfolio** - Blogs can also be used as a form of online portfolio, documenting student growth in a class or in a program. There is personal and intellectual ownership, students can revise postings, and they can receive feedback on posted work.

**Social networking**
The popularity of social networking websites has rapidly increased in the past few years. As an example, Facebook, the largest social networking site in the world, had 500 million users as of July 2010 (New York Times, 2011). What is a social networking website? It is a website especially designed to connect people with common interests, philosophies or goals and allow people to stay in touch with one another. Member users have personal profile pages which describe the members characteristics, lists friends, group memberships or interests, political and religious affiliation, etc. Members can join groups, send email and have discussion through the site. Even with its popularity, social networking websites are still being regarded as personal social spaces rather than a teaching and learning sphere (Baran, 2010). While this may be true, there are several pedagogies that utilize social networking sites for teaching purposes.
Debating: With its real-time status updates and notification system to network members, social networking sites can be used as a good debating tool. Students can present arguments that are published for all group/class members to read. Providing support for arguments, which has been found to enhance the quality of the student statements, can be made a requirement for the students. This support can come in the form of embedded videos, documents, or images.

Community of practice: Most social networking sites offer a group page function. Students can be assigned to a group field project, such as reporting a local event. Students update what they have discovered and can receive the latest updates from others. The information can be aggregated into one single group page. In addition, it can allow experts to follow the project process and provide comments. Similarly, questions can be asked where every one can see them, eliciting responses from other group members, facilitators, instructors or experts.

Teaching with Case Studies
The Case Study Method is based on focused stories, rooted in reality, providing contextual information such as background, characters, setting, and enough specific details to provide some guidance. Cases can be used to illustrate, remediate, and practice critical thinking, teamwork, research, and communication skills. Classroom applications of the case study method include:

- Socratic cross examination
- Directed discussion or research teams
- Public hearings or trials
- Dialogue paper (e.g., 10 exchanges between two characters from opposing sides of an issue that finish with a personal opinion or reflection)

At the Fifth Annual Conference on Case Study Teaching in Science hosted by the University of Buffalo-SUNY, two broad categories of case studies were identified:

1. **Open or Closed**: Open cases are left to one’s interpretation and may have multiple correct or valid answers depending on the rationale and facts presented in the case analysis. Closed cases have specific, correct answers or processes that must be followed in order to arrive at the correct analysis.

2. **Analysis or Dilemma**: Analysis Cases (Issues Cases) are a general account of “what happened”. Dilemma Cases (Decision Cases) require students to make a decision or take action given certain information.

These two categories are helpful in planning and writing cases but obviously, there is some overlap. Case studies are written in a way that can be both an open and dilemma case, or a closed and analysis case, and so on. Do you want there to be one or many answers to a particular case study scenario? We tend to see closed cases in the medical field for obvious reasons: the correct medication must be administered to alleviate certain symptoms presented in a case because the consequences to an incorrect analysis can be dire. In other disciplines, a potential remedy or strategy may depend entirely on the students’ philosophical orientation through which they interpret the facts presented in the case: strategies to dealing with a disgruntled employee would depend entirely on management style, type of business or industry, etc.

The second category, analysis or dilemma cases, informs your writing process and also the way in which you want your students to analyze and interpret the case. An analysis case may be easier to write given that you are simply retelling facts whereas a dilemma case requires you to develop more compelling situations and characters in order to draw the students into the dilemma. These dilemma cases are particularly useful in sparking class debate, integrating information from various disciplines into an assignment (e.g., a dilemma case written around the topic of logging in the Pacific Northwest may involve interpretations based on economics, biology, sociology, and political science).
Case Study Analysis Process
Based on a variety of different case study analysis models, we’ve identified four basic stages students follow in analyzing a case study. This process does vary depending on your discipline and if you are using case studies as a part of a problem-based learning exercise.

1. Observe the facts and issues that are present without interpretation (“what do we know”).
2. Develop hypotheses/questions, formulate predictions, and provide explanations or justifications based on the known information (“what do we need to know”).
3. Collect and explore relevant data to answer open questions, reinforce/refute hypotheses, and formulate new hypotheses and questions.
4. Communicate findings including citations and documentation.

How to Write a Case Study
Effective case studies tell a story, have compelling and identifiable characters, contain depth and complexity, and have dilemmas that are not easily resolved. The following steps should provide you a general guide in identifying the various issues and criteria comprising a good case study.

1. Identify a course and list the teachable principles, objectives, topics, and issues (oftentimes, a difficult or complex concept students just don’t “get”).
2. List any relevant controversies and subtopics that further describe your topics.
3. Identify stakeholders or those affected by the issue (from that list, consider choosing one central character on which to base the case study).
4. Identify teaching methods that might be used (team project, dialogue paper, debate, etc.) as well as the most appropriate assessment method (peer or team assessments, participation grade, etc.).
5. Decide what materials and resources will be provided to students.
6. Identify and describe the deliverables students will produce (paper, presentation, etc.).
7. Select the category of case study (open or closed/analysis or dilemma) that best fits your topic, scenario, instructional objectives, teaching method, and assessment strategy. Write your case study and include teaching notes outlining the critical elements identified above.
8. Teach the case and subsequently, make any necessary revisions.

Problem-Based Learning (PBL) uses case studies in a slightly different way by providing a more specific structure for learning. The medical field uses this approach extensively. According to Barrows & Tamblyn (1980), the case problem is presented first in the learning sequence, before any background preparation has occurred. The case study analysis process outlined above is used with PBL; the main difference being that cases are presented in pieces, with increasing amounts of specific detail provided in each layer of the case (e.g., part one of the case may simply be a patient admission form, part two may provide a summary of patient examination notes, part three may contain specific medical test results, and so on).

The problem-based learning approach encourages student-directed learning and allows the instructor to serve as a facilitator. Students frame and identify problems and continually identify and test hypotheses. During group tutorials, case-related questions arise that students are unable to answer. These questions form the basis for learning issues students will study independently between sessions. It takes an alert and actively involved instructor to facilitate and to be the necessary guide for the group.

Authentic Assessment
What is authentic assessment? Authentic assessment is an attempt to measure what students can do with knowledge and skills in real-world contexts. Contrast this with traditional assessment forms that look to measure students’ knowledge and skills by requiring them to respond to test items. Traditional assessments have been designed to elicit what students “know”, at least, at the time of the test. Whereas traditional assessment serves as an indirect appraisal of how students can use what they’ve learned, authentic assessment tries to evaluate the transfer or application of knowledge and skills to situations as authentic as possible.
An example of where both traditional and authentic assessments are implemented is driver’s license testing. The written test requires examinees to demonstrate their knowledge of driving rules and procedures whereas the road test assesses their ability to drive. If you had to make a choice between driving with someone who’d passed only one of these tests, which would you choose?

Why should authentic assessment be used? Students participating in learning activities and assessments that relate closely to real life help them master the needed skills and enables them to see how the knowledge and skills can be applied to aspects of their future careers. Student performance can be enhanced by implementing assessments that do more than tell us what students know at a given point in time. Students should be measured on what they can do and allowed to both reflect and improve upon their work.

**Six Characteristics of Authentic Assessments**

Creating authentic assessments allows the instructor to determine how well students are synthesizing material and aids the students in understanding how the knowledge and skills can be applied. Wiggins (1998, p. 22) proposed that evaluations of student’s abilities can be considered authentic if they have the following six characteristics:

- **Realistic** The assessment tasks replicate the ways knowledge and skills are “tested” in the real world.
- **Problem Based** It requires students to use judgment and innovation of knowledge and skills wisely and effectively to solve unstructured problems.
- **Interactive** Instead of asking students to recite or restate what they were taught and is already known, students have to carry out exploration and work within a given discipline to construct knowledge.
- **Repetitive** Authentic assessment replicates or simulates the contexts in which adults demonstrate the knowledge and skills in the workplace, civic life and personal life.
- **Authentic** Assess students’ ability to efficiently and effectively use a repertoire of knowledge and skills to negotiate a complex task. Think game (dynamic/authentic) vs. practice (static/traditional) performance.
- **Iterative** Allows appropriate opportunities to rehearse, practice, consult resources, and get feedback on and refine performances and products. If we’re truly interested in improving performance than we have to look beyond measuring only knowledge accumulation.

**Content File Types Used in Web-enriched Courses**

There are a variety of file types that will contribute to your course website. Depending on the content and media you select to compliment your course goals, you may capture and edit video files, develop written content in HTML, or simply distribute lecture notes in PDF. The following file types are some of the most common faculty use in their course websites.

- **HTML files** are the most common files used on the Internet. Generally, we recommend generating these files for your course site because they are easily accessible for students. Many instructors write their content in Microsoft Word and save their files as a Web page or HTML.
- **Word files** are often uploaded by instructors to their course site. Students may not have a similar product or version of Word and could have difficulty opening the file. A safer alternative is to save Word files as RTF files (available in the Save As options).
- **PDF (Portable Document Format) files** are also very popular for distribution via the Internet. PDF files are excellent for disseminating papers, readings, or image-rich lecture materials.
- **PowerPoint** is another file type popular among instructors. However, PowerPoint files are often completely inaccessible if the end user does not have a compatible version and generally file sizes are much larger than is recommended. Consider exporting the text or
slides from your PowerPoint file to Word (File > Send To > Microsoft Word), which gives you the same content in a more manageable format. You can also export a PowerPoint presentation to PDF.

**Tips on Course Web Page Design**

Instructional web sites need to meet a variety of requirements. Pages must contain quality information. In addition, the site should be visually pleasing, download quickly, and have intuitive navigational features. Please note, recommendations for accessible web pages can be found in the ADA section of this guide.

**Page Layout**

All pages should share the same basic layout, graphic themes, and editorial conventions. Navigational icons should appear in the same place from one page to the next.

**Maintain Site Quality**

Use a spell checker and/or have someone else edit your text for readability and correctness. Test each link in your site frequently. Keep all of the information in your pages relevant and up-to-date. Additionally, be sure to place creation and revision dates on all of your pages. If you use Web forms, test them frequently.

**Page Width**

If you customize the dimensions and layout of an HTML document, keep page width to no more than 650 pixels to avoid scrolling from side to side and to allow pages to be printed for later reading without truncating lines or requiring adjustments of printer settings.

**Backgrounds**

If you are going to use a background, consider a pale or neutral shade. Bright backgrounds or busy background images can be difficult to read and print.

**Colors**

Colors help to emphasize critical points in the text. However, they should be used sparingly, as too many colors can be confusing or annoying, and can detract from your material. You might want to use one color for headings and another for subheadings. The key is to be consistent. Note that blues and greens are calming while reds can be startling.

**Fonts**

You also can use different fonts to break up the flow of text. You might use a sans serif font (Arial, Tahoma, Verdana, etc.) for body/paragraph text and a serif font (Times New Roman, etc.) for headings. Avoid underlining text that is not a link. Again, being consistent is important for readability.

**Use Hyperlinks Effectively**

Hyperlinks are useful for a variety of purposes including:

- Layering of information (i.e., additional materials, providing additional nonessential explanation, details, examples in text, graphics, audio or video).
- To avoid potential copyright infringement, open external links in a separate browser window.
- Linking lesson information back to previous foundational material in other lessons.

Use meaningful words and phrases for hyperlinks. Avoid using “Click Here” as the actual link text. Choose the most relevant word in the sentence as the link creating context for the link. For additional information on general style and layout issues, as well as issues specific to the Internet, the Yale Style Manual is available online at [http://info.med.yale.edu/caim/manual/contents.html](http://info.med.yale.edu/caim/manual/contents.html)
Reference


National Center for Case Study Teaching in Science at the University of Buffalo-SUNY: http://ublib.buffalo.edu/libraries/projects/cases/case.html.
Chapter 5

Classroom Technology

Student Response Systems (SRS) at Mizzou

What is a student response system?
During the past 12 years, student response systems have been available in various forms to increase the level of student engagement and to help instructors get immediate feedback regarding student comprehension. MU supports the i>clicker2 student response system from McMillan. The system includes a receiver and transmitters (“clickers” similar to a television remote control) that can be used in the classroom. Each device has several numbered and lettered buttons so that students can give responses to questions posed by the instructor. The system also includes software for the instructor that permits identification of students responding, detection of individual responses, and merging of data for charting the trends of answers. The software also allows importing questions and graphics from other programs. Grades may be exported to Excel, or Blackboard.

Do student response systems impact teaching and learning?
MU faculty who use this technology believe their students are more engaged - “...they now participate, nearly all of them, a couple of times during a class period. This is important in a large class where getting everyone involved consistently is difficult.” It is critical that instructors allow enough time in advance to prepare for different educational uses:

- Evaluation of student understanding of concepts
- Polling student views as a springboard for discussion participation, peer interaction
- Gaining attention to introduce a new topic
- Attendance check

Are student response systems for me?
If most or all of these statements are true for your situation, then SRS may be for you. Please consult with ET@MO staff if you have questions or ideas on how SRS may become part of your teaching.

- I want to make my lectures more engaging.
- I want immediate feedback from students.
- I need to more effectively reinforce key concepts with students to build upon previous knowledge and draw connections with new material.
- I want a more flexible lecture; based on student responses, spending less time on concepts students have mastered and more time on complex concepts.
- I am willing to devote class time to orienting students to the clickers.
- I am open to spending less time lecturing and more time discussing student questions.
- I have time to devote to restructuring my presentation.
How can I effectively plan and use student response systems in my class?

Start as early as possible to learn the system. Contact ET@MO to facilitate ordering a receiver from i>clicker and attend a workshop or consultation about effectively using student response systems. Contact your MU Bookstore representative so that they will know how many transmitters (clickers) to order for your class.

Practice in advance. MU faculty indicate that getting started was sometimes the most difficult part, and confirming the system is in working order is part of getting started. In planning for use during a lecture, some faculty arrange for a student assistant or a TA to help with managing the technology during class time. To be effective, however, it is important for assistants to also learn the system, as well as your expectations of their involvement.

Plan and organize how you will use the system in class. Identify your instructional style. Your mind-set is important; if you are willing to make changes from a lecture-only approach to one that includes pacing content and more student engagement, then this technology will be a great help.

Identify your purpose for using questions. You may display a question within a Word document, on overheads, or in PowerPoint slides used during lecture. Regardless of the method, the important point is that the questions are structured in a way that accomplishes your goals.

Be patient. Some MU instructors found that it helped if they viewed the new approach as a “work in progress.” Focus first on learning how to use the technology and getting comfortable with student engagement during the first semester. Then for the second semester, refine questions and new active learning methods to take full advantage of what can be done to engage students through the student response system.

Create discussion questions that lead to effective interactions. Research has shown that students respond best when questions connect to practical problems such as the following:

- Help students to reconsider prior views
- Distinguish among alternatives or promote some ideas over others
- Develop new insights that link prior and introduced ideas
- Reinforce previous knowledge or key concepts
- Coalesce previously distinct notions or restructure ideas to enhance new connections
- Apply new ideas or information to personally-relevant problems

Use active learning techniques throughout the semester. At the start of every class, post an ice breaker question for students to respond to. Allow students to discuss the question with peers nearby. Then ask them to select the best answer to the question. Repeat the same question without revealing the correct answer or with a different question, eventually leading to one that introduces the topic to be discussed during the class period.

Responses to discussion questions may be either individually focused or used as a group method to encourage peer discussion or instruction. For example, you may divide the class into small groups and allow only answers that arise from group consensus.

Expect greater response rates. Students use their registered remotes to respond to multiple choice questions. You may set up the software so that they can survey students with or without capturing student IDs (some instructors have found this approach encourages greater response rates for students who are reluctant to be identified). This may also provide avenues to help students more easily focus on content rather than individual differences (i.e., gender, physical disabilities, and language or culture differences).

During the first week(s) of class, prepare students to use the technology. MU faculty have found it very helpful for students if they use the following methods.
• Include information in the syllabus about the remotes such as why you are using the SRS and where/how they can get the remotes. Reinforce that remotes will be used frequently in class and it is the student’s responsibility to keep remotes safe and in proper working order (e.g., buying batteries).

• If you plan clicker use to be incorporated in participation points, address how calculations may accommodate occasional illness or tardiness.

• ET@MO staff are available to assist you during an in-class introduction of the system, perhaps facilitating an activity to introduce how to operate the clickers to demonstrate how the transmitters and the receivers work, and forewarn students about how to handle problems (such as lost or malfunctioning clickers) including how you will handle times when the technology does not work.

• Include information about how to register and link their identifier (name or number) to their individual remote.

• Indicate that answers from the remotes will be private, collected automatically and almost instantaneously, and consolidated into a summary of all answers for polling the class.

• If students lose clickers, they should check with the instructor; another unit may be purchased from the bookstore and the student will need to register the new ID number. Suggest lost remotes be turned into the instructor.

• Discuss academic honesty and the class honor code; sending a remote to be used by a different student in the class risks the consequences of academic dishonesty. Students should not use another person’s remote because this links answers to the wrong name and they will not receive participation points.

• Show students how they may know whether their answer has been received or not, as well as how to know if they change their answer, then demonstrate the comparative charts to show trends in class responses.

**What if student feedback isn’t what I expected?**

Reflect on your experience and make revisions. Based on mid or end of semester feedback, reflect on what has been most effective over the semester and what aspects require some rethinking.

• Keep in mind the very nature of clickers runs counter to what many students have come to expect from a college classroom: student as passive audience member.

• Revise your documentation. Once you’ve taught with the clickers for a semester, you may need to better address the importance of this interactive technology in your syllabus and opening class sessions so students become more sensitive to the benefits of active learning.

• Use the clickers often. Students will perceive value in purchasing the clicker if you use them often and in varying ways. While the clickers may not be appropriate in every class meeting, consider using an ice breaker question to tie a current event to the assigned reading.

• Devise ways to use the clickers in tandem with other technology or assessment mechanisms. If you use online quizzes for example, review the results before class and ask questions to highlight common mistakes or misconceptions.

• Consider recommending the clickers to other instructors in your department. Again, students will perceive value if the clickers are used in a variety of courses and you may also benefit student being more familiar and savvy with the technology.

• Speak to other instructors using clickers about what works well for them and their students. ET@MO is happy to help you identify these instructors or consult with you to find additional effective ways to use clickers in your course.

**How to adopt clickers for your class:** MU assistance will be available via workshops and individual consultations with ET@MO staff. Send an e-mail to ETatMO@missouri.edu and...
indicate in the note that you are interested in learning about clickers or you have used clickers before and want a consultation about how to use them more effectively.

**Reference**

ET@MO CPSrf Student Response System Overview and Resources: [http://etatmo.missouri.edu/toolbox/doconline/studentresponsesystemsresources.htm](http://etatmo.missouri.edu/toolbox/doconline/studentresponsesystemsresources.htm).


*A sample syllabus statement can be found in the Appendix.*
Customizing your Blackboard Course Site

Customizing your Blackboard course site is a critical step in effectively using a Course Management System. To arrange for a one-on-one orientation, complete our web form via our homepage at http://etatmo.missouri.edu. We have also created the ET@MO Sample Course for Instructors which provides you with a fully functional course site containing content, discussion postings, assignments, quizzes, etc. To request access to this course site, simply indicate your preference on your course request form or you may e-mail blackboard@missouri.edu.

Managing Your Course Menu

Your Blackboard site should reflect the content, tools, and activities you plan to use for your course. The buttons or links down the left-hand side of your course homepage make up the Course Navigation menu. Each button or link accesses either a Blackboard tool (a specific function of Blackboard such as Announcements, Grades, Discussion Board, etc.) or a Content Area (a location for you to post content files such as a syllabus or lecture notes, link to an online quiz, etc.).

The individual buttons of the Course Navigation menu can be customized to your needs. You can reorder them by clicking and dragging the up-and-down arrows just to the left of the button caption. You can modify existing items, and in fact you should give each item an intuitive name (e.g., rename Course Information to Syllabus or Course Documents to Lecture Outlines, depending on what you keep in these content areas). Any empty areas or areas not being used should be removed (don’t worry about losing anything—content areas or tools can be added back later).

For those Tools being used most extensively (like E-mail, Grades, Work Groups), you can add a Tool Link to the Course Navigation. A similar process is used to create a new content area.

The Content Areas of your course (Course Documents, Course Information, etc.) may contain a variety of files formats:

- Word files are familiar and can be uploaded as-is, but RTF (Rich Text Format) files maybe a safer alternative. RTF files do not transfer viruses, so—especially if students will be submitting assignments to the instructor via Blackboard—RTF files are a safe choice.
- PDF files are good for readings or other information, as they preserve the look and formatting of your documents, and students can’t easily change them.
- HTML is the gold standard and ET@MO does offer assistance in using Dreamweaver (a Web authoring application).
- PowerPoint files are difficult to share from one computer to another and instructors are encouraged to export (or “Send To”) a content outline or handout to Word, or to a PDF.
### To Add a Tool Link
1. Mouse-over the gray plus sign at the upper-left of the Course Navigation.
2. Click **Create Tool Link**.
3. Type a name for the link (e.g., “Announcements”).
4. Choose the type of link you are creating from the drop-down menu (in this example, click **Announcements**).
5. Select the **Available to Users** check box.
6. Click **Submit**.

### To Add a Content Area
1. Mouse-over the gray plus sign at the upper-left of the Course Navigation.
2. Click **Create Content Area**.
3. Type a name for the content area (e.g., “Assignments”).
4. Select the **Available to Users** check box.
5. Click **Submit**.

### Managing Content Areas
Each of the Content Areas of your course works exactly the same as all the others do. You’ll probably use **Items** most often. Or, you may organize multiple content documents into a **Folder**.

### To Create a New Item
1. Mouse-over.
2. Click an option for the content type you wish to create. For a generic item (such as a document), you might choose **Item**.
3. A new page appears with information to fill out. In the **Name** field, type a name for the item (e.g., “Week 1 Lecture Notes”).
4. Type any text for the item in the **Text** field (e.g., “Please review the attached Word document on academic integrity and intellectual property.”).
5. Choose any files you want to attach to this item by clicking the **Browse My Computer** button next to the **Attach Local File** field.
6. Under **Options**, choose **Yes** or **No** for **Permit Users to View the Content Item**.
7. If you want, you can use **Select Date and Time Restrictions** to define dates before/after which the item is/isn’t available.
8. Click **Submit**.

### To Create a New Folder
1. Mouse-over the **Build Content** button.
2. Click **Content Folder**.
3. In the **Name** field, type a name for the item (e.g., “Week 1 Documents”).
4. Type any text for the item in the **Text** field.
5. Under **Options**, choose **Yes** or **No** for **Permit Users to View the Content Item**.
6. If you want, you can use **Select Date and Time Restrictions** to define dates before/after which the item is/isn’t available.
7. Click **Submit**.

Remember that a **Folder** should contain other materials. If you don’t have anything to put in a folder, you should use an **Item** instead.

### Assignments
For those instructors interested in receiving digital assignment submissions from their students, the **Assignment** tool may be of use. Using the drop-down menu to the right of any content area page, you can add a link to a specific graded Assignment. Remember, this tool is specifically designed to facilitate file exchange from the student. If you do not wish to receive files from students, do not use this tool.
To Create an Assignment

1. Mouse-over the Create Assessment button.
2. Click Assignment.
3. In the Name and Color field, type a name for the Assignment. If you would like, this field also allows you to choose a special color for the assignment. This is optional.
4. In the Instructions field, type instructions for the assignment (e.g., “Respond to the following in a 500-word essay...”) or for the submission of the assignment (e.g., “Please submit this assignment in the RTF format by 5:00 Friday.”).
5. Under Assignment Files, click Browse My Computer to attach an external document (such as instructions or an essay prompt you have prepared in Word).
6. In the Points Possible field, type a numeric value for the assignment.
7. Under Availability, select the Make the Assignment Available check box if you want it to be available immediately. If you want to restrict the assignment’s availability, do so using the Limit Availability fields.
8. In the Due Date fields, specify a date and time after which submitted assignments will be flagged as Late (assignment will still be received, just marked as being late).

General Overview of Interactive/Communication Tools

There are several communication tools available in Blackboard.

- **The Announcement** tool is the default homepage for your course. This tool allows you to post a message to students they see when they login to your course site, making students aware of changes in the schedule, reminders, etc. Announcements are listed on the homepage for 7 days and can be setup in advance (holidays, guest lecturers, etc.) by selecting specific dates and times.

- **The Discussion Board** is an area the entire class may post a reflection, comment, question, or answers to specific questions you may have posted as part of class readings or required class discussion.

- **Messages** is an internal message delivery system. This tool is useful for instructors with a large student population and those who would prefer not to receive class e-mails in their Missouri e-mail accounts.

- **The Collaboration** tool is for synchronous (real-time) chat. This tool is most often used for “Online Office Hours” or other informal group discussion activities.

- **Group Pages** is an effective tool for facilitating small group projects. Each group may be given their own private Discussion Board, E-mail list, Collaboration tool, and File Exchange. Generally, the group Discussion Board is the most widely-used, and one benefit to using this tool is that it allows you to monitor and/or participate in the groups’ conversations.

- **Blogs** may be set up on the course, group, or individual level in Blackboard. They may be used for journaling, sharing of research and creative writing, and collaboration.

- **Wikis** are collaborative web pages. Ideal for group research and writing projects, the history function in wikis allow instructors to see the contributions of each group member in minute detail. They may be deployed at the course, group, or individual level.

General Overview of the Control Panel

The **Control Panel** is divided into different areas governing various options for your course site. **Course Tools**, for instance, contains all of the options for working with Blackboard tools, such as the Discussion Board, Announcements, Wikis, etc. **Evaluation** contains the Grade Center, Performance Dashboard, and other tools for evaluating your students’ performance.
Also in the Course Tools section is **Tool Availability**. Here, you can select which tools are accessible in the course and which will be disabled. Customize your course by disabling the tools you don’t intend to use, minimizing the risk that students unwittingly use a tool you’d not intended on them accessing.

The **Evaluation** area contains the **Performance Dashboard**. The Performance Dashboard gives a breakdown of when an individual student last accessed your course and what contributions he or she made to the Discussion Board.

The **Grade Center** is where student grades are recorded and calculated. It is laid-out similar to a spreadsheet. The column headers are the names of students, their pawprint IDs, date of last access, overall grades, weighted grade (if grades in your course are weighted), etc. You can select from additional columns that are not included by default, and you can create your own columns. Blackboard creates a column for everything created from the button. Additional columns must be created manually. Grades entered into columns in the Grade Center are figured into a student’s total grade.

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### Creating a new column in the Grade Center

1. At the top of the Grade Center, click the **Create Column** button.
2. In the **Column Name** field, type a name for the column (e.g., “Participation”).
3. Type a description into the **Description** field if you want to. If you give the column a self-evident name (e.g., “Participation”), then you may not need a description. The Description field is not required.
4. If grades in your course are weighted, choose an appropriate category for the column from the **Category** drop-down list.
5. Type a numerical value into the **Points Possible** field.
6. If you want, specify a due date in the **Due Date** field. You can click the small calendar icon to the right of the Due Date field to select a date from a visual calendar.
7. Configure the options in the **Options** section however you would like them. You may choose whether to include the column in grade calculations, whether the column is visible to students, and whether the column reports average and median scores for the class.
8. Click the **Submit** button.

To change some column information, such as the name, the number of points possible, etc., click the double-down arrow and click **Edit Column Information**. If you use the Assignment tool (more on that below), once a student has submitted an attempt, there will be a green exclamation point in the column indicating that there is a submission needing to be graded.
<table>
<thead>
<tr>
<th>Features/Teaching Implications</th>
<th>Discussion Board</th>
<th>Blog</th>
<th>Wiki</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose/Focus</strong></td>
<td>Topic driven, class-centered, discourse facilitation.</td>
<td>Author-centered.</td>
<td>Document or deliverable centered.</td>
</tr>
<tr>
<td><strong>Tone/Writing Style</strong></td>
<td>Similar to a classroom discussion; conversational; Socratic method; formal.</td>
<td>Similar to a personal journal; reflective or conversational; informal.</td>
<td>Similar to a group project; likely formal.</td>
</tr>
<tr>
<td><strong>Narrative/entry display</strong></td>
<td>By topic or thread; chronological.</td>
<td>Typically reverse chronological; most recent entries appear first.</td>
<td>Pages typically appear alphabetically.</td>
</tr>
<tr>
<td><strong>Editing Options</strong></td>
<td>Personal posts may be edited; no group/collaborative editing.</td>
<td>Personal entries may be edited.</td>
<td>Collaborative editing.</td>
</tr>
<tr>
<td><strong>Feedback/Comments</strong></td>
<td>Comment/reaction driven.</td>
<td>Allowed and encouraged but not necessary.</td>
<td>Allowed but the focus is more on collaborative editing.</td>
</tr>
<tr>
<td><strong>Grading Options</strong></td>
<td>Forum posts may be collected and graded per student; directly linked to the Grade Center.</td>
<td>Blog entireties may be collected per student assessed; directly linked to the Grade Center.</td>
<td>Wikis may be assessed; directly linked to the Grade Center. The tool provides a History feature allowing for an analysis of individual contribution.</td>
</tr>
<tr>
<td><strong>Challenges/Limitations</strong></td>
<td>With many students, the conversation may become unwieldy. Response-driven format requires continued attention and presence.</td>
<td>Blogs are inherently more user-centered so other students may not regularly access and comment on others’ posts.</td>
<td>Collaborative editing does require user responsibility. Students may need more guidance or sophisticated skills in using certain features.</td>
</tr>
</tbody>
</table>

**Examples**
- Student self-introductions to establish a sense of community.
- General course questions and comments.
- Ongoing, threaded conversations on course readings and topics highlighting diverse points of view.
- Personal journal: record, share, and reflect on field experiences or research activities.
- A structured venue for writing about course readings.
- Coordinate, compile, synthesize, and present individual or group projects or research.
- Build and share group resources and knowledge.
- Peer review, feedback, or critique.
Chapter 7

Digital Media: Audio, Video, Animations

Instructors can deploy media artifacts to accomplish specific instructional objectives by creating course-specific artifacts or by integrating existing digital media resources. Graphic, audio, and video files are useful tools in enhancing learning. Although hardware limitations and software capabilities can be an issue, if used well to enhance concepts and student learning, they offer tremendous advantages. Our staff of technology experts and experienced educators integrate pedagogical principles and the technical implications of planning for effective digital media projects.

- **Audio Files** can help students understand a concept, and recognize or differentiate between sounds. For example, when you want to hear the sound of a healthy versus irregular heartbeat in medicine or sample pronunciations when learning a new language.

- **Video Files** can, especially for visual learners, demonstrate a concept, process, or procedure. Don’t include clips from published videos unless you have obtained copyright permission.

New Blackboard tools and functionality are regularly made available, and ET@MO strives to inform the Mizzou community not only how best to implement a new technology, but more importantly, how they may relate to your existing teaching strategies and learning goals. With the addition of WIMBA Voice Tools, we see opportunities to enable increased interaction and sense of learning community in Blackboard-enhanced courses on campus. Please consider taking the time to arrange for a consultation with one of our staff to discover how these tools may improve your course.

**Tegrity**

_Tegrity_, broadly referred to as a lecture capture system, allows instructors to capture video and audio from a laptop, desktop, or classroom machine for later review by students. Students can view the files through Blackboard or download them to their iPods or other media players. In addition to lecture capture, Tegrity is useful for recording tutorials and reviews on difficult concepts. Instructors teaching online courses typically use Tegrity to record a “lecture” or presentation from their office computer.

**WIMBA Voice Tools**

WIMBA Voice Tools are a collection of Blackboard tools that allow instructors to post asynchronous audio content to students as well as lead audio-enhanced asynchronous or synchronous discussions with their classes. For use with either Mac or Windows, users will need a microphone to record audio and speakers or headphones to listen to recorded audio. To learn more about these tools, or discuss their teaching applications, please contact ET@MO to arrange for a one-on-one consultation.

**Teaching and Learning Applications**

Audio enhancements help to communicate some of the subtleties of voice communication in otherwise text-based course materials. These tools clearly enhance language instruction or other classes where the spoken word is critical to student success. Incorporating audio elements in a course may also help to address the unique learning styles and needs of students at a distance by allowing students to build closer relationships and a more effective learning community.
General Tips:
• When recording any audio, include your name in the recording.
• Keep audio recordings appropriately brief; consider scripting or outlining what you intend to address in order to keep the recording focused and easy to understand.
• To keep file sizes small, especially for distance students, consider using the default “Standard” quality setting for audio recording.
• For some uses (e.g., where pronunciation is critical), built-in microphones may not produce good results.

Asynchronous Tools
Voice Authoring in Announcements: This tool allows the instructor to post a brief audio announcement. Instructors should always review their recording before submitting the item; voice announcements cannot be edited after posting. To change one, you must delete and re-record it. This tool is accessible from the Announcement creation page.

Voice Board: Similar to the text-based threaded Discussion Board, the Voice Board allows users to combine text and audio within their postings. This tool is ideal for language practice or small group work. By setting a Voice Board to private, instructors can simulate a voice assignment drop-box where students may submit an audio assignment, journal, etc. The instructor sets the audio quality of each voice board, recording time limit (20-minute maximum), and whether the voice board is private.

Voice E-mail: This tool allows a student or instructor to send an e-mail to users within the class and include a link to a brief audio file. The e-mail may contain text in addition to an audio file link (the file itself resides on the WIMBA server and does not count towards a student’s e-mail quota).

Voice Presentation: The presentation tool allows a user to load web-ready content and add voice narration or audio explanation. This tool would be useful for virtual web tours, interactive lectures, or for student presentations. Students may be allowed to record comments to presentations.

WIMBA Podcaster: A “podcast” is a mechanism to “push” content to users who subscribe to a selected podcast. This tool would be useful to publish weekly glossary terms, study guides, and other regularly content updated.

Synchronous (Real-Time) Tool
Wimba Classroom is a synchronous tool which makes live online interaction possible. It is used for class sessions, review sessions, office hours, guest lecturers, and group meetings to name a few. Wimba Classroom allows you to interact with others in real time using audio, video, screen sharing, PowerPoint slides, whiteboard drawing, polling, and more. It can be configured to allow students as much, or as little control over the features as you like.

A Wimba session often includes participants with a variety of computer systems or Internet connections. Optimizing the Wimba classroom in advance can help minimize technical issues that might occur during the session.

Wimba Classroom requires some advanced planning for both the instructor and the students. It would be extremely beneficial for you to meet with your ATL or with ET@MO prior to using Wimba.

Tips for designing and teaching a low-bandwidth Wimba session
• Monitor the Network Status (NetStats). When students are logged into Wimba, the three bars near their name will show as green (good connection), orange (weak connection), red (bad connection or gray (no connection). This indicator can help the instructor determine if any problems that occur might be because of a poor network connection.
Set Student Privileges and Video Bandwidth to medium or low when creating the Wimba classroom.

Avoid sharing your Full Desktop in AppShare. Instead, display the shared content in "use the smaller Screen Area".

If showing multimedia during your Wimba session, determine if resource must be shown during the session or if it can be shown before or after the session. Multimedia can be shown during a Wimba session, but it will increase the bandwidth. Some students will have a better viewing experience if they watch the video outside of the Wimba session.

Limit the use of video, including participant or instructor video, in the session. Most connections, including dial up, can use the Audio and Powerpoint feature of Wimba without problem. Chat, audio and Powerpoints use much less bandwidth than web page, video or application sharing.

Creating and Using Graphic and Image Files
Graphic images can be effectively used to illustrate or highlight material. They serve to break text into more readable sections. However, avoid using them to decorate or substitute for content; they take additional time to download, some images can be confusing if used without accompanying explanatory text. Use the "ALT" tag option in your source code to specify alternate text for all images (critical if special needs students use screen reader software). For information on using copyrighted graphics, please review the information in the reference guide on copyright issues.

Saving: Be sure your images are saved in either JPG (preferable) or GIF formats. Graphics used primarily to break the flow of text should be kept small in size. Save all your images in one directory folder, separate from the actual lesson text files.

Naming: Consistency in file naming can be helpful in managing an extensive number of course files. It may be beneficial to give images a descriptive name that will help you remember it by its title.

Scanning: ET@MO offers a variety of learning opportunities on scanning.

Developing and Using Learning Objects
Learning objects illustrate or demonstrate instructional concepts. These multimedia files often include sound, motion, text, and movement. Learning objects can be used independently or grouped into larger collections of content to be reused in various learning environments. There are many examples and resources here at MU but we also recommend MERLOT (Multimedia Educational Resource for Learning and Online Teaching, http://www.merlot.org), an online repository of peer-reviewed learning objects. If you’d like more information on learning objects, please contact ET@MO or the META Team (http://meta.missouri.edu/portfolio.htm).

More information on learning objects is available in the appendix.

ET@MO Support and Guidance
Through one-on-one consultations, ET@MO assists and advises faculty in navigating the digital media landscape (including text, images, sound/audio, and video). In the past, information passed between instructor and student via the written or spoken word. However, as digital media technology becomes more commonplace, using digital media as a teaching tool has become more pervasive in the learning environment. Several examples of digital media artifacts can be found on our website.

How we can help you:
• Assist faculty to develop, create, and write assignments with digital media components.
• Orient instructors to using the equipment and related software used in creating and managing digital media.
• Guide faculty in developing appropriate grading rubrics for student-authored digital media projects.
• Visit the classroom and orient students to video composition, video equipment, and video editing software.
• Provide equipment for faculty check-out (minidv camcorders, tripods, wireless microphones, digital still cameras). Assist faculty to provide and coordinate student access to video equipment.
• Supply handouts for story boarding, video shooting tips, and sample grading rubrics and assignments.
• Provide faculty work stations (Windows PC and Apple Macintosh with relevant digital media software).

**Examples of Instructor-Created Digital Media Artifacts**

• An art historian creates a searchable database of images in Blackboard.
• A music instructor records German pronunciation of song lyrics.
• A calculus instructor creates short video segments demonstrating specific concepts.
• An occupational therapist produces a DVD of evaluation techniques for patient assessment.

**Examples of Student-Authored Digital Media Assignments**

• Business students produce a video résumé to send to perspective employers.
• Journalism students create news stories integrating text, sound, still images, and video.
• Biology student teams create an informational DVD about HIV.
• In Social Studies, students create historical documentaries integrating primary sources, eye-witness interviews, photographs, and video.
• English composition students write a paper analyzing the visual elements of a photograph and include the image in the completed assignment.

**Considerations and Advanced Planning**

• Lab space: most student computer labs are not intended for video editing. However, there are a few labs on campus that are available and ET@MO staff can help the instructors find access to an appropriate lab.
• Equipment, hardware, and software availability: particularly if your department encourages a broad use of technology throughout the curriculum, it may be necessary to coordinate projects with other instructors. Staggering assignments between courses allows students to checkout cameras and other equipment as well as schedule time to edit their project without placing too much strain on your department's technology infrastructure.
• Storage space: digital video files are very large and because projects are on-going, they need to be stored and then retrieved regularly.
• Video projects can be time consuming, instructors must be willing to allow class time for editing projects.
• Make sure the grading rubric covers both content issues and video issues. In developing
the rubric, be sure to balance the content outcomes of the project with the various
technical requirements you have included.

• If you plan on distributing digital media to students via CD/DVD, keep in mind that in
addition to the traditional course reading packets, CD and DVD duplication services
are offered anytime during the semester through Custom Publishing (e-mail contact:
mizzoumedia@missouri.edu).

Digital Audio and RSS Technology
As digital audio devices (e.g., iPod, mp3 players) have become more prevalent among the
student population, educators have experimented with the instructional applications such
devices may afford. Most prominently, Duke University distributed iPods to incoming freshman
in 2004 in a Survey of Campus Technology Use effort to identify the broad implications such
devices may have in teaching and learning (for more information on Duke’s iPod project,
visit their website http://cit.duke.edu). Through data collected in the 2004 pilot project, they
identified the most common teaching and learning applications were:

• Classroom, lecture, field note, and interview recording.

• Practice, review, and repetition of audio content for students in disciplines such as foreign
language, music, or broadcast communications.

• File storage and transfer.

Podcasting: One method used to broadcast or distribute digital media files is called
"podcasting" (often called “vodcasting” when distributing video files). Users subscribe to
a particular podcast in order to automatically update their digital media player with the
newest content (in a process similar to synchronizing a hand-held computer with your
desktop computer to update calendars, memos, and other files). Classroom applications
include podcasting lectures or providing foreign language students examples of correct word
pronunciation, subject verb agreement, or conversation skills. Instructors could also receive
student podcasts to assess language proficiency, oral arguments, new report delivery, or
dramatic performances.

RSS (Really Simple Syndication): an XML-based web content syndication format used in
podcasting. RSS was designed for sharing headlines and other Web content – sharing content
between sites. This tool is particularly noteworthy with the growing amount of content on the
web. Virtually any type of content may be included in an RSS feed, audio, video, text, graphics,
or PDF; however, not all readers handle all formats of all content (e.g., Apple iTunes works well
with several audio formats and PDF, but only works well with certain video formats and has
only limited support for text.). From its development in the late 1990’s, RSS has evolved so
that most major news sites and blogs provide an RSS feed for their audience. An RSS reader
can check these RSS feeds for changes and display the updates so that they can be read by
users. RSS often runs directly in your web browser, allowing you to access and view of the blogs
or resources you have selected. RSS technology often packages with copyrighted content or
services, so users should read details regarding possible charges or licensing agreements.

For more information on podcasting:
• http://en.wikipedia.org/wiki/Podcasting (Wikipedia is a free online encyclopedia).

Examples of RSS site descriptions can be found online:
• http://newsmonster.org (NewsMonster is a free news, weblog, and RSS aggregator that
runs in your web browse).
• http://www.webreference.com/authoring/languages/xml/rss/intro (Introduction to RSS,
WebReference.com).
Best Practices to Support Student Digital Media Projects

Digital media projects can be an effective way to encourage students to work in collaborative groups or teams. Students in the group are encouraged to discuss project goals and make critical thinking decisions about appropriate digital media materials to be included in the project. Instructors may choose to pair students according to strengths, particularly if some students are more proficient with the relevant equipment and software.

Provide Specific Directions and Expectations

The more detailed the digital media assignment, the better the final projects will be. Encourage students to focus on a specific aspect of a subject (e.g., require students focus on a specific element of HIV such as the impact on families). Also be specific about the types of media you want submitted in an assignment such as images, video, music or titles.

Provide Practice Opportunities for Students and Project Teams

To help students learn how to shoot and create video projects, allow them to explore the equipment and the software. One of the biggest obstacles students need to overcome is the feeling that they don’t know how to use video and recording equipment and software. One way to alleviate this fear is to dedicate one or two full class session where the students play with the equipment. In the first class, bring several inanimate objects to class, break the students into groups, give each group a camera and have them shoot scenes based around the inanimate object.

In the second class session, teach the students how to import and edit the video. Students learn video editing techniques by watching each others’ video. At different points during the semester, encourage the groups to share their progress with other groups.

Specify a Project Length

Short video projects between 2 to 10 minutes work best. This keeps the project manageable and allows multiple projects groups to preview their work within a single class period. Specifying brevity also encourages students to make critical decisions about the materials to include in the final project. If not given a specific length limit, students will have a tendency to include all materials and project can go for 20 to 30 minutes.

The Importance of the Project Storyboard

One of the first elements of an effective digital media project is the student-developed storyboard. This screen-by-screen, shot-by-shot outline of the project helps instructors assess students overall plan and also allows the team to plan for shooting locations, resources, team member schedules, etc. This may be submitted in combination with a fact sheet (a list of the information to be included in the project along with a bibliography). This way the instructor has an idea of the group’s thought process and the specific material that they plan to present.

The Project Process and Deadlines

Sprinkle deadlines throughout the project, including points possible for each benchmark. Production deadlines force the team to stay on track and be accountable for major components of the project. General project benchmarks are:

- Research a topic and identify/gather media such as audio or written data.
- Storyboard the project.
- Shoot video, record narration or other audio, import video and digital media files into the video editing program.
- Edit and revise the content in the video editing project.
- Output the project for viewing.
Break the video assignment into separate piece. If the final assignment is the accumulation of a semester’s work, break the assignment into 2 to 3 separate pieces (e.g., a video project on genetic diseases may be divided into three 2-minute video projects on symptoms, living with the disease, and treatments).

Managing Files for Your Course
One thing to consider when creating and managing files for your e-learning course is to have a well structured course directory. This allows you to manage, revise, review, and quickly access files relating your course. The following are tips to simplify your e-learning course development:

- Save file names without spaces or special characters (use underscores instead of spaces).
- Create short, concise file names, and remember that file names are case sensitive.
- Use folders to save related files.

We recommend creating a course folder on your own computer to save, edit, and manage all of your course content files.

Within each content folder, the various files are saved with a consistent file naming strategy. As noted earlier, none of the file names use special characters (e.g., #, &) or spaces (we’ve used underscores instead). You’ll find a variety of files, from Word documents to Rich Text Format (RTF) files. Remember to consider what types of file formats, software, and compatibility issues may affect students as they access your course content.

Best Practices: Shooting Tips, Camera Shots, and Editing
The following section describes various strategies and approaches to planning, capturing, and editing a digital media project. In addition to several still images used to illustrate various concepts, ET@MO has developed a series of companion digital media artifacts to demonstrate these techniques. Please visit our website at http://etatmo.missouri.edu for more information.

General suggestions for good shooting form
- Avoid trees or poles in the background that appear to stick out of the subject’s head
- Let the tape role for 10 seconds before the action begins• The camera person must be quiet when shooting. Being closest to the camera, their sounds will be the loudest
- Leave ample space about the subject’s head. When video is output to CD-ROM or the web, the edges of the frame are often cropped
- Leave the camera running. Sometimes the best footage is not planned

Audio levels: It is important to maintain consistent levels of audio so there are not soft spots and loud spots.

Audio and Video Redundancy: Actions in the scene are supported by the audio and conversely what is being said is supported by the image on the screen. If audio contains complex terms, ideas or facts, use text to help the viewer connect the audio and video.

Importing video: Don’t try to make editing decisions during the import process. Import all of the video and use the video program to edit and cut out unnecessary footage.

Music sets the mood: Music plays an important role in setting the mood for the video. Musician play softly under the narrator or subject. Make sure the music supports the video and doesn’t distract from the focus of the audio or video.

Transitions: Most professional-quality videos do not have fancy transitions. They have simple fade-ins, fade-outs, and cross dissolves. The viewer is focusing on video and not the transitions. Use fancy transitions when it enhances the video and not for the sake of the transition.

Voice over narration: Voice over narration is a tool to keep the viewer informed on upcoming action or information. Voice over is especially important in a documentary. Also in scenes where an expert talks about an issue, show the expert for a few seconds, then keep the voice of the expert but move to shots that demonstrate what the expert is saying.
Shooting Tips

Backgrounds: When shooting a subject, place them in front of something interesting such as a picture or building. The goal is to add depth and texture to the shot, but not so flashy it detracts from the subject. As you can see from the series of images below, using a variety of different background objects can add depth and richness to your shot.

Colors: The subject should not wear solid white, or bright colors, or clothing with patterns or stripes. Low-end video cameras have trouble accurately recording these types of colors and can give a distorted image. Solid, pale colors are best colors for shirts.

Lighting: Good strong ambient lighting is best for shooting video. Make sure the faces of subjects are smoothly lit and do not have shadows or bright spots. Avoid shooting a subject in front of a light source such as a window or a lamp. Otherwise, the camera will focus on the light source and darken the subject.

As the two images illustrate, good lighting adds depth and definition to an object whereas in the second image, poor lighting detracts from the intended purpose.

Rule of Thirds: The Rule of Thirds is important when shooting an interview or someone speaking to the viewer as an expert. When arranging this shot, imagine the screen split vertically into thirds. Place the subject slightly to the right or left of the center and have an appropriate background object occupy the center space. See the section on Backgrounds for more information.
"Rule of thirds"

1. Keep your eyes in top 1/3 of screen
2. Slightly off center
3. Where lines converge at red dots

Mentally divide frame into three sections horizontally and vertically. Then place subject on these lines to frame in an interesting way.

The 180° Rule: Imagine the action of a scene in the center of a circle. Draw a line through the point of action cutting the circle in half creating a semi-circle. The camera can be placed anywhere along the 180 degree semi-circle, enabling the viewer to stay on one side of the action.

180 degree rule*

1. Draw a line between the 2 main actors
2. Pick a side to shoot from
3. Shoot from anywhere on that side of the line, but not the other

*Not using the 180 degree rule is called "crossing the line" and will confuse your audience

Audio: Half of quality video is good audio. If the viewer cannot understand the audio, they lose interest very quickly. Most low-end camera microphones capture good audio as long as the camera is 5 to 10 feet away from the subject and the camera is pointed at them. The subject must speak slowly and clearly, especially when explaining complex or new information to the viewer.

Background Noise: Pay attention to background noise. Noises such as traffic, wind, and machines can distract from the viewer’s ability to hear the subject. Some background noise adds ambience, but too much is distracting.
**Panning and Zooming:** Avoid excessive panning and zooming. Most low-end cameras do not have smooth zooms, and the viewer feels as if on a roller coaster ride. If a pan is necessary, use a tripod and make the movement very slow and smooth.

**Wide Shot:** A wide shot or long shot is used to capture an entire scene to help the viewer understand where the action is happening. Capturing good quality audio in this shot is difficult.

**Medium shot:** A medium shot can be a transition between a wide shot and a close up. This shot can also show an interaction between two subjects.

**Close-up:** In a close-up, the subject is shown from the waist up if standing. If sitting, the shot can be waist up or the entire subject. The focus is on an individual or an action that is happening. This is the best shot to capture good audio.

![Wide Shot](image1.png) ![Medium Shot](image2.png) ![Close Up Shot](image3.png)

**Extreme Close-up:** Use this shot sparingly. The extreme close-up is used to express emotions such as fear or pain. The shot will focus on the subject's face, or an aspect such as eyes or mouth.

![Extreme Close-Up Shot](image4.png)

**Eye-line matching:** Eye-line matching is important when giving the appearance that two or more subjects are talking to eye-to-eye. Adjust the camera so the eyes of the subjects are at the same place in the shot, even if the subjects are different heights.

**Continuity of Screen Direction:** If a subject is moving across the screen through several scenes, it is important the subject enter, exit or move through the scenes in same direction.
**Inferior (top)/Superior (bottom) camera angle**: Give the appearance of strength or weakness by varying camera heights. Shoot a scene so the camera is looking down on a subject to give the idea of weakness. Shoot up at a subject to give the idea of strength.
Chapter 8

Assessment

"Without the purposeful formation of an online learning community in distance learning, we are doing nothing new and different." And, "The creation of a learning community supports and encourages knowledge acquisition. It creates a sense of excitement about learning together and renews the passion involved with exploring new realms in education." (Palloff and Pratt, 1999).

What is Assessment?
As a concept, assessment can have multiple meanings, from simply grading to program evaluation. As such, it’s a loaded word. Within a number of contexts it becomes a powerful emotional component of the teaching and learning experience. For our purposes it needn’t be so formidable. Think of it as a systemic practice that permeates the classroom experience. Objectives, assignments, motivation, and a definitive yardstick in the form of a grading rubric serve as the platform for what we commonly called assessment.

Analyze Your Assignments
What do you want from your assignments? Why are you creating them? Why are they important to you? Why are they important to the students? Is it worth your time to grade them? As you think about these questions, use the following items (from Walvoord & Anderson, 1998) as a guide to designing and constructing the assessment instruments for your course.

- Consider what you want your students to learn; select tests and assignments that both teach and test the learning you value.
- Construct a course outline that shows the nature and sequence of major tests and assignments.
- Check that the tests and assignments fit your learning goals and are feasible in terms of workload. Objectives, learning activities, and evaluations should match.
- Collaborate with your students to set and achieve goals.
- Give students explicit directions for their assignments.
- Teach what you are grading: the assignments you’ve created align with course objectives—why shouldn’t you be teaching to that knowledge you’ve identified as important to your students?
- Keep in mind, all assignments should align with your instructional objectives and outcomes.

Consider Alternative Assessment Strategies
Student self-assessment can be an important part of the total evaluation process which allows for a global look at personal growth. Self-assessment can be assigned as a component of any assignment (e.g., group assignments, presentations), at midterm, or at the end of the semester. Palloff and Pratt (1999) suggest asking how well students feel they have met the learning goals, how well they feel they performed overall, and what grade they think they have earned. They provide a helpful list of possible reflection statements for students:

- What was most and least useful in my learning process?
- Did I achieve my learning objectives?
• What did I learn about my own learning process?
• How did I change as a learner through my involvement with this course?
• Will what I have learned through this course apply in other areas of my life?
• Am I satisfied with the level and quality of my participation?
• Did I see myself as an active contributing group member in collaborative assignments?
• How would I evaluate my overall performance in this class?

Peer-assessment also provides helpful information and is particularly supportive for courses emphasizing frequent discussion or collaborative work. This form of assessment could be submitted privately to the instructor or used as feedback from each other throughout the course.

Creating and Using Grading Rubrics

Grading rubrics, which have many forms, have been around for a long time. In simplest terms, they help you score assignments objectively and consistently. Walvoord & Anderson (1998) describe the components in creating a rubric (see their book, *Effective Grading*).

Begin with a Primary Trait Analysis (PTA) which is the process of identifying the important traits you want to measure in an assignment. They are usually expressed as nouns or noun phrases, and depending on your purposes, you may have just a few traits or many. The six listed below are indicative of some traits.

For example, a paper about three of the early pioneers in photography might have these primary traits:

• Introduction
• Primary people
• Photographic processes
• Social & scientific context
• Historical analysis
• Unique contributions

Although a PTA technically is not grading, it is useful for deriving grades and can be applied in a number of ways. One approach would be to construct a two to five-level scale for each of the primary traits identified in your assignment. This strategy would provide a detailed description of the strengths and weaknesses of a student's completion of the assignment. The example below is a simple scoring rubric for evaluating class participation.

Using the PTA scale to score an assignment gives you the opportunity to define and refine the important parts of that assignment. It allows you to assess those skills, attitudes, behaviors, and knowledge associated with appropriate demonstrations of learning. If you need more detail, try describing what constitutes an “A” paper, a “B” paper and so on, taking into account your primary traits and to what degree they are important in the overall paper.

Ask your colleagues for feedback on your primary trait analyses and the scales you develop for them. Include students in your effort to develop effective assignments and grading. Approaches such as these will give you a unique perspective and serve as student motivators, giving them more ownership in the learning process.
Using e-Portfolios as an Assessment Tool

E-portfolios are a new expression of a tool that has traditionally been used in literacy, art, and writing for many years, generally in the form of a paper notebook. Students have been developing portfolios of their best work for some time, and now are using a digital collection to represent their overall educational experience. An e-portfolio is a digital collection of authentic and diverse evidence, which is drawn from a larger archive of artifacts, representing what a person or organization has learned over time and designed for presentation to one or more audiences for a particular purpose. It can contain written assignments, artwork, software, web pages, performances, and video; almost anything the student wants to use.

Why use e-Portfolios in your class or program?

E-portfolios serve as repositories of students’ best academic work, aid in authentic assessment, provide a more comprehensive overview of student learning, and allow students to demonstrate their knowledge and skills to instructors, outside adjudicators, and prospective employers. For instructors and academic units, e-portfolios allow for an alignment of student evaluation strategies and course/program goals and objectives.

What do students do to develop an e-portfolio?

- Collect a diverse, multi-media set of artifacts representing learning and experience over their academic career or a lifetime.
- Reflect on curricular, co-curricular, and non-curricular experiences and accomplishments.
- Select subsets to represent different aspects of their identities and experiences.
- Connect with multiple audiences across multiple contexts for communication, sharing, and feedback.

How are e-portfolios currently being used at Mizzou?

- College of Education: Students work on their portfolios throughout their course of study to show that they meet state and national standards. A team of faculty evaluators assesses student portfolios after students submit their final portfolio during their internship.
- Department of Art: Outside adjudication of students’ work for graduation.
- College of Business: Used in professional development program. A matrix helps students organize experiences. Used in conjunction with an e-Resume/Career fair.

How can you start using e-portfolios in your course or program?

Some items to consider when implementing e-portfolios are taking a look at your overall learning goals and standards used, how you want the e-portfolio to be structured, who the ultimate audience will be, what types of uses will the portfolio be put to and last, but not least, the technology that will be used. The staff members at ET@MO are happy to help you plan for and implement e-portfolios, contact us at ETatMO@missouri.edu. We also currently offer assistance with using websites and the Open Source Portfolio (http://portfolio.missouri.edu), should you choose to use those technologies. Sample rubrics and grading strategies can be found in the Appendix.

Reference


Chapter 9

Building a Community in the Cyber Classroom

These statements are core points in Palloff and Pratt’s book, *Building Learning Communities in Cyberspace*. They maintain that a learning community is the defining hallmark of the successful distributed/distance education effort. A collection of individuals is not a community until they see themselves as such, with common purpose and interests. Otherwise, there is no impetus to coalesce into a community. In web-assisted courses, and especially a distance course, this usually is facilitated by the instructor.

One of the myths about e-learning is that, due to time and distance, quality interactive communication does not take place among students, or between instructor and students. This need not be the case. Using the computer for significant course interaction can be an experience different from teaching a face-to-face course. This reference guide will give you information on the following issues:

- How can faculty create interactive learning environments?
- How can faculty become successful interaction facilitators?
- What interaction tools are available for distributed/distance education?
- What interactive teaching methods could be implemented in a course?

Characteristics of Effective Teaching in Any Setting

How do you engage and facilitate learning with students? One report, titled Students’ Perceptions of Effective Teaching in Higher Education, examined student feedback on what makes an effective and engaging college instructor in traditional classroom, hybrid, and online modalities. They list nine characteristics held consistently valuable across the spectrum which is provided below in the sequence specifically relating to an e-learning context (Delaney, Johnson, Johnson, & Treslan, p. 6, 2010):

1. Respectful  
2. Responsive  
3. Knowledgeable  
4. Approachable  
5. Communicative  
6. Organized  
7. Engaging  
8. Professional  
9. Humorous

Good, quality teaching, regardless of the time, place, format, or modality, enhances the student experience. Some of these characteristics are certainly easier, if not simply more familiar, in a physical classroom; but given experience, practice, and sometimes patience, they are just as attainable in the cyber classroom.

These characteristics align closely with the course design rubric created by QualityMatters (QM). Whereas the QM tool addresses the content, instructional strategies and approaches, as well as resources that comprise a well designed course, these nine characteristics relate back to the human side of teaching.

The Mizzou e-Learning staff hopes to develop and launch a series of instructor e-learning training certification courses this fall to provide faculty with opportunities to develop and practice these skills.
The Importance of Interaction
Interaction is important for quality learning. It may be defined as direct communication, with the telecommunication infrastructure (interactive video, computer, telephone, fax, or other technology tools) acting as the mediating tool. The emphasis is on communication and not technology (which is the tool for communication). There are many types of interaction. There is interaction with instructional content, among peers, or between instructor and students. Most importantly, it needs to have a purpose. This implies that a learning environment has been created and interaction strategies can be guided to support learning goals or objectives. Interaction can be particularly supportive of:

- Higher-order learning skills (i.e., analysis, synthesis, or evaluation)
- Collaboration and cooperation skills
- The sharing of new ideas
- Creative thinking
- Equalizing mutual acceptance

Rethink "In-Class" Time
You might consider expanding your thinking about how you’d like students to interact with course material. Have your students engage in first exposure to your material prior to class by reading online articles, posting their thoughts and responding to peer observations. Then be prepared to engage in the process side of the teaching/learning equation with your students in-class. Avoid using valuable contact time delivering traditional lectures that support one-way interaction.

Six Keys to Successful Interaction
Keeping students engaged and on track can be a challenge for first time e-learning instructors. Palloff and Pratt (1999) highlight six elements essential for creating a virtual learning community.

Honesty Participants must have a sense of safety and trust with one another. This allows them to post honest comments and give and receive feedback without fear of reprisal.

Respect Every member needs to feel respected as an individual. The greatest learning occurs when the instructor relinquishes strict authoritarian control.

Openness All must feel free to share thoughts and opinions without fear of retribution or damage to their course grade. Participants who can give and receive feedback in a constructive and authentic manner will foster a safe atmosphere for interaction.

Relevance Participants bring something from their life experiences relating to the subject matter. Each member takes responsibility for his or her learning, developing a sense of expertise and enriching the process for everyone. By sharing experiences, members help the entire group in the process of making meaning.

Empowerment A sense of empowerment is crucial. Actively building a sense of community and interaction into your course will yield a rich experience for you and your students.

Responsiveness All members must respond quickly and courteously. Members interact with the material and with each other to create meaning, and the sense of others being present is reinforced when participants make a habit of conversing in this environment.
Types of Student Interaction
Participants must avoid the perception that interpersonal interaction occurs mainly between instructor and students. The Internet makes it possible for students to easily interact with one another. Interaction can mean different things to different people. When we talk about interaction in e-learning courses, we refer primarily to four different types of interactions.

Learner-Content—Student becomes involved with the information presented and acquires knowledge.

Learner-Learner—Interaction occurs among learners, with or without instructor.

Learner-Teacher—Instructor assists students in interacting with content by stimulating interest, guiding learning, and providing counsel, support and encouragement.

Learner-Technology Interface—Provides necessary accessibility for receiving and participating in instruction, the connection between student(s) and instructor.

Ideally, an e-learning course should be tailored to accomplish teaching goals and objectives. Keep in mind that initially your students’ relationship with technology is the most critical of these interactions.

Instructor as Interaction Facilitator
Effective interaction must have adequate instructor preparation. Keep the following essential points in mind as you structure your online classroom.

Get to Know Your Students
Note the diversity in your cyber-classroom. Be aware of your students’ ages and/or life stages. Adult learners often have different needs and life experiences to draw upon and different demands on their time than 18-22 year-olds. Additionally, students may be able to provide resources or information or act as mentors for others with little experience. Find out what kinds of teaching techniques fellow instructors use. (Realize also that different professions often require different levels of job interaction.) Be aware of your students’ previous experiences with technology, and realize that as students consistently use the same technology tools, their comfort level increases. Consider using the Personal Homepage tool of Blackboard to encourage community building.

Communicate Your Expectations
Decide in advance what you expect from your students and what they should expect from you. Inform students about issues such as time limits for time on task, group interaction completion, and how soon you will give them feedback. How flexible will you be about students submitting work (given technology failures and life problems)? Tell your students if you will have rewards for early submission. Inform your students about your standards for success, or your rubric for judging project completion, appropriate participation, and grading (which often takes into account both the final product and individual participation).

Know the Limits of Your Expectations
Prepare students for what they might expect from the technology. New students may need to know about ways to compensate for the lack of nonverbal cues. Students also need to know your contingency plans in case the technology temporarily fails.
Encourage a Positive Interaction Environment
Since distance education often has constraints upon socialization, it is important to plan for purposeful socialization. This means creating a friendly, accepting climate in which active participation and collaboration are encouraged. Students may obtain instructor feedback, peer review on projects and assignments, or answers to questions. Instructors may obtain student feedback about managerial issues, technological tools, or teaching style. Feedback guidelines should address the following issues:

- Its appropriate form and effort
- Its immediacy or timeliness
- Constructive and relevant assessment in the review or answers to questions
- Specificity in the review or answer
- Readability or clarity of the response
- If appropriate, linkage or expanding to other content

Tips for Assembling Discussion or Project Groups
Course Management Systems offer a diverse set of tools to enable small groups. Some points to keep in mind as you structure group interaction might include:

How you will you structure groups?
How will group members be divided? Some faculty allow self-selection while others prefer to assign members based on information about background experiences.

Prepare students for working in groups
Not all students are prepared for the dynamic process in small group communication.

Assign group roles
Role assignment may be helpful with techniques like simulations, role-playing, and games. Most often, instructors teaching a distance course online find it useful to assign small groups randomly. Distance students may find it challenging to self-select groups without first meeting the other students.

Keep the same groups or mix them up?
Will you use the same groups or reassign them for different activities? Because it takes time and effort to evolve into an effective group, many faculty keep the same group assignments throughout the course, especially for complicated projects.

Create a plan for facilitating group interaction
McHenry and Bozik (1995) make several common sense suggestions for a general class which can be adapted to facilitate initial group development:

- Use other technologies to support missed interaction. Encourage members to exchange postal and/or e-mail addresses and/or telephone numbers.
- Use strategies to personalize the class setting. After initial introductions, call on group members by name.
- Effectively organize distribution of materials. Alleviate frustration by having all printed materials prepared and available to groups in advance.
- Teach students to use the technology. Encourage peers to help each other with the technical learning curve.
Carefully select students. Frustration may occur between mature, self-motivated students and those who do not take the course seriously. It may be important to monitor group discussions and guide those who try to block group progress into more constructive roles.

How will you facilitate motivation?
There are two kinds of motivation: intrinsic and extrinsic. Goal-oriented students and those who are experienced with technology may have intrinsic, or inner, motivation. However, most who initially encounter distance education and its technology, or who are inexperienced in the dynamics of group work, will need support, monitoring, facilitating, and feedback. For those who require extrinsic, or outside, motivation, you can attach a small percentage of students’ grades to participation and contribution to encourage perseverance.

How will you use discussion questions?
This includes whether or not you will utilize the discussion as a primary part of each assignment, if it will be required for grading and participation, how many postings will be required, and/or if the discussions will be with the entire class or within small working groups.

Which communication tools should you use?
A meaningful learning environment incorporates a combination of technologies to deliver instruction and foster interaction, with communication tools matching goals and design. A variety of tools are available, both synchronous and asynchronous. Some common asynchronous tools include e-mail, discussion list, news group, and closed conference. Synchronous tools include online chat, collaboration tools, and desktop video-conferencing.

Reference


Additional information and resources can be found in the Appendix.
Chapter 10

Course and Program Evaluation

Having a comprehensive evaluation strategy, especially for a new e-learning program, is key to its success. What works and what doesn’t? How can things be improved? Carefully planning and designing the different forms of evaluation or assessment so you can obtain the maximum amount of information is crucial. The outcome may be the basis for immediate and/or future decisions or policies.

Course Evaluation

The most frequent response to questions about course evaluation is that students evaluate the course at the end of the semester. However, there are other types and audiences that can provide a broader spectrum of the course’s effectiveness.

Instructor Self-Reflection: Alignment

Alignment is the practice of ensuring course outcomes, module/unit objectives, learning activities, resources and assessments are interconnected. In aligned courses, these components work together to guide the instructor and the students toward what students are expected to learn. Alignment is a very effective tool to link instruction, activities, and assessment.

While all components of a course should be in alignment, the three most significant and common are objectives, activities, and assessment.

- **Objectives**: help direct students actions and efforts in obtaining their learning goals for the course. Whether course or module/unit objectives, they specify what students will be able to do when they have completed the course. Module/unit objectives should support and reinforce course objectives.

- **Activities**: are tasks and experiences that students engage in during the course to help them achieve the stated learning objectives. These may be formal or informal methods and include discussions, presentations, written work, and reading quizzes.

- **Assessment**: is a methodical way to determine if students are achieving the learning objectives and allow for adjustments to improve learning.

Meeting learning goals is much easier if learning activities are clearly tied to learning objectives and assessments that correctly gauge student progress and learning achievements. A course that is not in alignment may experience the following issues:

- Students and instructors waste time and energy on activities that do not apply or help the student reach learning goals.

- The course may get off track and become confusing and unproductive.

- Students may become uncertain as to what they should be learning.

- Effectiveness of the instructions may be over- or under-estimated.

It is important to understand that alignment does not mean inflexible. Alignment is an iterative and continuous process in which courses are re-aligned as needed. Re-alignment may be needed if it turns out that the planned learning objectives are determined to be unrealistic. Learning objectives or assessments or both, may need to be re-evaluated when effective learning activities that provide excellent learning experiences are discovered. Another
example is when assessments indicate that students are learning but not the intended goals. Adjustment and re-alignment does not have to wait until the end of a course, but can be implemented as the course progresses. While making adjustments, it is important that students continuously move towards the ultimate learning goals of the course. This is accomplished by ensuring there is a direct correlation between what is expected, taught, and assessed.

**Formative Student Evaluation**
Receiving feedback from students should not be relegated to a single formal evaluation at the end of the semester. Formative evaluation should occur at least once during the midpoint of the course (more if necessary). ET@MO and the Teaching and Learning Council offer the MoCAT (Missouri Cares About Teaching) online system for collecting student feedback in order to improve teaching and learning. The MoCAT system allows MU instructors to create, send, and compile anonymous teaching evaluations. For more information or to arrange for an account, visit [http://mocat.missouri.edu](http://mocat.missouri.edu).

**Overall (Summative) Student Evaluation**
Summative evaluation occurs once the course is completed. It will be most effective if the evaluation tool grows out of the different variables impacting students within the course. eLearning courses present additional variables during the evaluation process. One way to conceptualize and structure the approach to evaluation is by using Michael Moore’s (1989) learner interaction model, which identifies the importance of the relationship between the learner and other variables.

**Instructor Evaluation**
Formative and summative evaluation processes are integral to instruction. Awareness of where students begin, how they grow and progress, what they are able to achieve, and how they synthesize course components are all indicators of course effectiveness.

**Department and Support Staff Evaluation**
The academic department sponsoring the course also will want to perform an evaluation similar to its standard procedure for face-to-face classes. However, during the initial offerings of Web based courses it would be helpful to familiarize colleagues with the different issues impacting online students. Another source of evaluation information comes from those departments who supported the instructor during development and/or the students enrolled in the course.

**Outside Evaluation**
Outside evaluators can provide added insight in ways to strengthen or improve the effectiveness of the course. We recommend using those proficient in the field of content as well as those proficient in designing and developing Web-based instruction.

**Program Evaluation**
Ongoing program evaluation is necessary to assess the value of investing in an e-learning program. Information from a variety of sources will help determine the program’s strengths and weaknesses.

**Student Evaluation**
Students can be a valuable resource for program evaluation. Palloff and Pratt (1999) believe the following program issues are most significant:

- Access to the program (admittance to and enrollment process for the program)
- Seamless delivery of courses (consistent navigational interface among courses, consistent and reliable offerings in the course schedule)
• Availability of immediate support (technical and campus support services)
• Breadth of the program (the numbers and types of courses available).

Faculty Evaluation
Program evaluation by faculty includes assessing the effectiveness of e-learning courses. However, another revealing area of instructor evaluation to departments and administrators is the evaluation of the course development and teaching process. Input from faculty may reveal how campus resources may strengthen and/or improve. Key issues include the availability and use of campus resources in:
   • Providing technology training and information about online teaching and learning
   • Supporting online instruction (copyright clearance center, assistance with graphics, etc.)
   • Providing student support services (library, learning center, bookstore, etc.)
   • Providing technical help for students and instructor during computing crises.

Department and Support Staff Evaluation
eLearning programs need departmental oversight and support. Evaluation begins with planning and approval of the curriculum committee and continues throughout development. In addition, campus departments that support the program with enrollment services, student advocacy, technical help, or designing, planning, development assistance are able to provide useful feedback. Outside Evaluation Evaluators from other colleges or universities also may offer suggestions about ways to strengthen processes that are going well or improve program quality. Ideally, there should be at least three administrators and faculty from similar programs at other institutions.

Reference
Chapter 11

A Survival Guide to Teaching Online

Once you have your course site developed, the fun begins! This section contains timely information to help you implement your course site and anticipate possible challenges. Hopefully, you’ve developed all your content by now, but you need to continue engaging students in the course site, especially if you are teaching a fully-online course. You need to have a regular presence so students feel there is someone on the other end.

Tips for the First Day(s) of Class

**Welcome the class.** Post a general “Welcome” announcement including how to get started in the class (e.g., read the syllabus and first unit) in addition to creating a discussion forum for “Class Introductions”. You can post a more thoughtful and complete welcome message to the class in the discussion board which may sound repetitive but consider this as an opportunity to humanize yourself in an online course as well as setting a tone for the class.

**Finalize Content.** Aside from the syllabus, you should strive to have all major assignments, grading schemes, samples, readings, unit commentary, etc., posted for students (you don’t want to be writing the course and teaching it at the same time). Once enrollments are loaded, any content released to students will be accessible as soon as they login to your course site. You may opt to date-release certain content (vigilantly check your dates for accuracy) but make sure everything loaded onto Blackboard is otherwise complete, accurate, and finalized.

**Check your links.** It’s a good policy before the course goes “live” to click around and make sure all your external (and internal for that matter) links are active and go the intended destination. Especially if you are teaching a course developed in previous semesters, taking some time to do a little quality assurance is well worth the effort.

**Tegrity.** Online classes may use Tegrity to deliver a presentation or “lecture” recorded from your computer. Best practice suggests keeping your presentation to less than 10 minutes, focusing on narrowly defined learning objectives (checkout this recording). Information and help documentation is available online.

**Setup the Discussion Board.** Aside from an introductions forum, you must setup discussion forums in which the students may communicate. Most folks add one forum per week/lesson/unit/module in addition to, for example, General Course Questions, Coffee House, or Current Events. This setup extends to private groups...

**Private Groups.** If you’re dividing your students into small discussion groups, now’s the time to create the groups and add those discussion forums. Bb9 will automatically/randomly assign group membership. We have an entire animation devoted to the topic.

**Setup "Assignments".** These are the items using the Blackboard Assignment Manager facilitating student submission of files for grading. This tool works beautifully for student-submitted papers, journals, forms, and such. Lots of step-by-step documentation is online.

**Finalize your Grade Center.** It’s a good idea to go ahead and setup columns for each of the graded assignments in the course before the course begins (note: quizzes and Assignment Manager items automatically receive a column; but for anything else, such as Participation, create a column).

**Mizzou E-Mail or Bb Mail?** The “E-Mail” tool sends messages out to a student’s Mizzou
account and your Missouri account. “Messages”, which we call Bb-Mail, is more akin to an internal e-mail system where messages reside within your Blackboard course site. Whichever tool you opt to use, add a button to the course navigation menu and make sure the other tool is not available (to avoid confusion).

**Blogs, Wikis, and WIMBA!** WIMBA VoiceTools and Live Classroom are audio-enhancement tools in Blackboard—you and/or students may record audio postings. WIMBA Live Classroom allows synchronous, webinar-style engagement opportunities (e.g., office hours, group case studies). Blogs are great for student journaling; wikis are collectively editable pages great for student group reports/projects. See examples of all three technologies in the ET@MO Sample Course for Instructors.

**Self Reflection using QM.** QualityMatters (QM) is a faculty-centered review process designed to certify the quality of online courses and components. They developed a rubric [PDF] which we use to encourage self-reflection on your course. Once you’ve taught your course, you may request peer feedback through our Quality Course Peer Review service.

**Keep up a “presence”.** Particularly over the first few weeks, you’ll want to login to the course more often to show students a real presence. You certainly don’t need to respond to every single student posting but I would skim through them and post summative comments and observations fairly regularly. There are more “survival” tips in the Faculty Guide to Teaching and Learning with Technology [PDF].

**Track Your Students.** In the Control Panel under Evaluation there is a link for the Performance Dashboard. Once students are loaded, this gives you simple tracking data on your students and in the first few weeks of class, this can be critical to establishing that students are accessing the course site and engaged in the course.

### Tips for Avoiding & Managing Overload

The following list of suggestions and tips may help you overcome some of the challenges you may encounter as a result of incorporating the use of the Internet into large enrollment classes.

1. Set aside blocks of time each week for responding to student e-mail. Be realistic about how much time you can devote to this each day. Then stick with your schedule!
2. Be honest with students about the volume of e-mail you receive daily and provide them with an honest window of expected response time back from you.
3. Tell students to be precise in creating subject lines, keeping messages short, and focusing on a single topic. Hold students accountable to your guidelines. Return files or messages that do not conform and ask they rewrite or re-save their work.
4. Post to the group – Rather than responding to each individual student contribution, respond to several at once by weaving them together and posting your answer to the class discussion board.
5. Tell students to avoid fancy formatting such as tabs, tables and fonts unless you’re certain all users can view them.
6. Model behavior you expect in your own messages, such as making contributions short and making subject lines specific.
7. Include information, within your course site, on how to access technical assistance and support.
8. Give tips on how to handle overload – students can be overwhelmed too! Multiple classes with multiple discussions generate many messages for student as well.
9. Use TAs for class support – Assign TAs to monitor and/or moderate discussion forums and respond to discussion list questions to ensure they stay on track and on task.
   - Train Teaching Assistants in the use of technology.
   - Assign Teaching Assistants to be available to help students with problems.
   - Include Teaching Assistant names, e-mails, and times they are available for assistance on your site.
**Tips for Introducing Students to the Technology**

- Let students know exactly what the minimum hardware requirements are in order to be able to access and use your site.
- Set realistic performance expectations.
- Prepare simple, easy-to-follow directions on how to use the technology.
- Emphasize that everyone has to start somewhere and mistakes will be made.
- Be honest with students about your own experiences when first learning to use technology.
- Forewarn students about potential technical difficulties such as server malfunctions, and the effect that one server going down has on another, network outages, machine problems, and slowdowns due to heavy network traffic.
- Prepare explicit directions on turning in materials to you electronically, how and when to participate in pre-scheduled online chats, and how and where to access grades or assignments.
- Encourage students to ask questions and alert you to any technical problems they are experiencing, or any problems they’re having in trying to get technical help.
- Provide multiple options for obtaining technical assistance such as trained, technologically literate teaching assistants or the help desk.
- Make sure all students are using the technology. Follow up individually with those who aren’t participating to determine what problems they may be experiencing.

**Facilitating Interaction**

It’s important to set the climate of the learning experience. Welcome each student to the course, forewarn students about your performance expectations, which should be specific about management issues for both you and the students. It’s important to know up-front that initially you may spend more time interacting with students. Some students will thrive using these tools, while others will struggle and need reassurance. Communicate information about:

- **Time limits** – for time on task, group interaction completion, and how soon you will give them feedback, etc.
- **Standards for Success** – your rubric for judging project completion, appropriate participation, and grading (balancing both final product and individual participation)
- **Participation** – if you want students to contribute, you should require regular participation.
- **Introductions** – have students introduce themselves at the start of class.
- **Discussions** – prompt frequently and occasionally summarize the discussion, especially if it is long. If you have not heard from someone in a while, use private messages to urge them to participate.
- **Questions** – encourage students to answer each other’s questions.
- **Chat** – if you are using chat, provide transcripts for students who are unable to attend.
- **Flexibility** – in submitting work, accommodating technology failures, accommodating unforeseeable problems.
- **Objectives** – clearly state your objectives and provide simple, easy-to-follow directions about expectations and how to use the electronic tools you have chosen.
- **Experts** – to provide interest and stimulate new conversational threads, invite visiting experts to join the conference and give presentations on specific topics.
- **Groups** – to get students interacting as a group, divide them into small work groups and have them address specific topics and questions together.
Establishing & Nurturing a Learning Community
Promoting and maintaining a sense of community is important in setting the stage for successful learning outcomes. In their book, Building Learning Communities in Cyberspace (1999), Palloff and Pratt list the following steps:

- Clearly define the purpose and have a distinctive gathering place for the group
- Promote effective group leadership and allow members to resolve their own disputes
- Define norms and a clear code of conduct
- Allow for and facilitate subgroups

Tips to Encourage Academic Honesty
Academic honesty and plagiarism have become more complicated issues with the explosion in access and use of the Internet. These tips are just a starting point for you to consider how to encourage academic honesty and discourage plagiarism. The Appendix section contains tips and strategies to help students critically review websites and information they find online.

- Show that you care about academic honesty. If your college or department does not promote an honor code, consider creating one for your course.
- Include information in your syllabus about intellectual property and academic honesty. Go over that information with the class.
- Provide online resources that further explain the details (and examples) of plagiarism and adhering to copyright law. This is sometimes more meaningful at the time of the assignment.
- Be a role model.
- Explain where and how you obtained your own online resources or examples.
- Exemplify and discuss ways to cite resources.
- Discuss the libraries’ role in helping access electronic reference materials.
- Prepare your TAs to be role models, and to know how to detect plagiarism in grading.
- Discuss the negative impact of online “paper mills” that allow students to purchase work instead of creating their own.
- Indicate that you utilize search engines or software to detect plagiarism.

Academic Honesty/Plagiarism Online Resources
These MU sites provide a quick reference for citation styles, MU’s description of plagiarism and the process faculty should follow, as well as links to topics related to academic honesty.

- Internet Guide: Evaluation and Citation Guides, University of Missouri – Columbia Libraries at [http://mulibraries.missouri.edu/internetguide/resource.asp](http://mulibraries.missouri.edu/internetguide/resource.asp)
- Plagiarism resources, University of Missouri Libraries [http://mulibraries.missouri.edu/distance/internet.html](http://mulibraries.missouri.edu/distance/internet.html)
Appendix A

Helpful Links

The following links lead to various teaching and learning support units available to MU faculty.

**Adaptive Computing Technology Center**
http://doit.missouri.edu/help/adaptive

The ACT Center helps people with disabilities work with standard computing technologies specializing in one-on-one training as well as experience with adaptive equipment. The ADA Coordinator offers a helpful site developed by Lee Henson: http://ada.missouri.edu

**Campus Writing Program**
http://cwp.missouri.edu

The Campus Writing Program coordinates Writing Intensive courses which help produce an educated, articulate citizenry capable of reasoning critically, solving complex problems, and communicating with clear and effective language.

**Division of Information Technology**
http://doit.missouri.edu

DoIT works in a coordinated fashion with ET@MO. Specific work groups include DoIT Training and the DoIT Help Desk. DoIT contributions to ET@MO include: faculty, staff and student support and training for campus-supported software through sort courses, workshops, and orientation sessions; stop-in support in the Memorial Union Computing Lab; and one-on-one interaction.

**Online Writery**
http://writery.missouri.edu

For students who find that they need assistance with writing, a resource is available online at MU. The Online Writery offers specific feedback on writing or advice about how to handle problems, large and small, through the use of “cybertutorials” or the “Writery Café” discussion list.

**The Learning Center**
http://learningcenter.missouri.edu

The Learning Center’s mission is to enhance students’ academic performance, deepen their satisfaction with their academic experiences, and increase the retention and graduation rates of students who participate in our sessions by offering face-to-face and electronic writing assistance for any assignment that is not from a writing intensive class. In addition to addressing content issues, writing assistants help students learn writing technologies such as e-mail, Internet information resources, and word processing. The lab provides online writing assistance, which makes services and resources available to students from their homes and from public computing sites.

**E-Res and MU Library Services Support**
http://eres.missouri.edu

MU Libraries provide many services and resources in support of distributed education activities. Besides participating with ET@MO staff in presenting workshops, subject specialists are available to assist faculty and students in searching databases, locating materials, and evaluating Web resources. The Electronic Reserve System (E-Res) is another invaluable service allowing instructors to provide online access to reserve readings.

**MU Bookstore**
http://mubookstore.com

The University Bookstores promote student learning and sustain the educational mission of the MU campus by providing academic resources, student employment opportunities, and institutional support. The site offers a searchable database for textbooks and general reading titles. Faculty can request required and optional titles for their courses using the online textbook adoption service.
Sample Personal Release Agreement

Granting Permission
I irrevocably grant to THE CURATORS OF THE UNIVERSITY OF MISSOURI ("University") and University’s assigns, licensees and successors the right to use my image, likeness, voice and/or course material, in whole or in part, individually or in conjunction with other materials, in all forms and all media including composite or modified representations. I waive the right to inspect or approve such materials created and/or used by or on behalf of University pursuant to this release. I understand that the use of my image, likeness, voice and/or course material will be primarily for the purposes of ________.

Release to Use
I release University, its officers, employees, agents, assigns, successors, licensees, and members of the Board of Curators of the University of Missouri from any claims that may arise here from, including but not limited to any claims of defamation, invasion of privacy, or infringement of moral rights, rights of publicity or copyright. University is permitted, although not obligated, to include my name as a credit in connection with the use of materials related here to. University is not obligated to utilize any of the rights granted in this Agreement.

I have read and understood this agreement and I am over the age of 18. This Agreement expresses the complete understanding of the parties.

Name: ________________________________ Date: _________________
Signature: ________________________________________________________________
Address: __________________________________________________________________

If I do not display my own work, I prefer that my work be acknowledged with my ... (check one of the following): Full name: ☐  First name: ☐  Initials: ☐  My pseudonym: ☐  No identification: ☐

Parent/Guardian Consent [include if the person is under 18]
I am the parent or guardian of the minor named above. I have the legal right to consent to and do consent to the terms and conditions of this release.

Parent/Guardian Name: ________________________________ Date: _________________
Parent/Guardian Signature: __________________________________________________________________
Parent/Guardian Address: __________________________________________________________________

A digital copy of this form is available from the ET@MO website.
## Appendix C

### Sample Evaluation and Assessment Criteria

#### Digital Media Scoring Guide

<table>
<thead>
<tr>
<th>Criteria / Element</th>
<th>Points Possible</th>
<th>Task Description</th>
<th>Points Received</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Planning, Process, &amp; Collaboration</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>15</td>
<td>Complete, accurate material addressing the goals of the project; topic is well defined; presentation of facts and issues is easy to understand.</td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>10</td>
<td>Organization enhanced the presentation; information flowed nicely from one segment to another.</td>
<td></td>
</tr>
<tr>
<td>Audience</td>
<td>7</td>
<td>Target audience has been correctly identified; content delivery addresses the needs and learning styles of the target audience.</td>
<td></td>
</tr>
<tr>
<td>Storyboard / Shooting Plan</td>
<td>10</td>
<td>Topic is refined and expressed through a scene-by-scene storyboard, script, blocking, and location selection.</td>
<td></td>
</tr>
<tr>
<td>Participation, Effort, and Cooperation</td>
<td>8</td>
<td>Participated fully in all aspects of the group project including research and video production; cooperated fully in each phase of development; prompt with assigned duties and deliverables.</td>
<td></td>
</tr>
<tr>
<td>Lack of Bias / Sensitivity</td>
<td>5</td>
<td>Academic inquiry of the material was presented effectively without bias or cruelty; did not offend the public.</td>
<td></td>
</tr>
<tr>
<td>Time Management</td>
<td>5</td>
<td>Used the time allotment wisely; trimmed unnecessary material and did not use &quot;filler&quot;.</td>
<td></td>
</tr>
<tr>
<td><strong>Digital Media and Video Criteria</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shooting Technique</td>
<td>8</td>
<td>Scenes effectively use object framing (e.g., long-shots, medium-shots, close-ups, angle of shot), blocking, setting, motion vectors, lighting, and headroom.</td>
<td></td>
</tr>
<tr>
<td>Creativity</td>
<td>5</td>
<td>Video and enhancements were truly inspired; creative without drawing away from the content subject.</td>
<td></td>
</tr>
<tr>
<td>Audio Quality</td>
<td>6</td>
<td>Audio, including slowly and clearly spoken voice-over narration, is easy to understand and effectively enhances the presentation.</td>
<td></td>
</tr>
<tr>
<td>On-Screen Prompts</td>
<td>3</td>
<td>Text is effectively used to help the audience understand the important facts or complicated concepts.</td>
<td></td>
</tr>
<tr>
<td>Media Integration</td>
<td>7</td>
<td>The video and audio support each other (video and audio redundancy).</td>
<td></td>
</tr>
<tr>
<td>Video Editing Quality</td>
<td>11</td>
<td>Use of smooth transitions (e.g., cutaway, fade) and effects enhance the video and are visually appealing to the audience without causing distraction.</td>
<td></td>
</tr>
</tbody>
</table>

**Total Points**
# Evaluation Tool for a Research Paper

This scale is from a graduate level nursing course. It is an assignment to write a quantitative research proposal and is designed to give students practice in writing, conducting, and reporting on a research activity. Though the descriptions are not broken down into discrete levels, they are detailed enough so students quickly see what is important in the paper. The point breakdowns let students know how each trait is weighted compared to the whole.

<table>
<thead>
<tr>
<th>Section Review</th>
<th>Key components</th>
<th>Total Pts</th>
<th>Total Rec’d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>The following identified/described: problem, overall findings of the literature review, theoretical framework, design, sampling plan, procedure, instruments, data analysis plan.</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Introduction / Problem Statement</td>
<td>Problem briefly described and clearly stated including an independent and independent variable, if appropriate, background information supports the problem, problem’s significance to nursing supported.</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Review of the Literature</td>
<td>Gaps/inconsistencies in knowledge identified, reflects critical thinking, relevant concepts and variables included, summary of each reviewed study reflects the essential components of the study design, critique of each reviewed study includes strengths/weaknesses, or limitations of the design; conflicts; and gaps or inconsistencies in information related to the area of interest, both conceptual and data-based literature included, at least 15 studies, primary sources mainly used, written summary synthesis of the reviewed scholarly literature, synthesis summary follows a logical sequence that leads the reader to reason(s) why the particular research project is needed, the literature review follows the purpose(s) of the study project.</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Theoretical Framework</td>
<td>Theoretical framework identified/explained, summary of key concepts/principles of the theory provided, theoretical framework provides an appropriate foundation for the study research question/hypothesis.</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Research Question</td>
<td>Clearly identified.</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Research Design</td>
<td>Clearly identified, design appropriate for the hypothesis or research question(s) posed, rationale for the selected design provided.</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Sampling plan and potential subjects</td>
<td>Plan described for selecting study participants. The following clearly identified: number of subjects to be recruited, where subjects will be recruited from, inclusion and exclusion criteria.</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Procedure</td>
<td>Process for data collection clearly described, number of data collection points appropriate for the hypothesis or research question(s), appropriate and adequate procedures described to control for external (situational) factors and extraneous (subject characteristics) factors, limitations to validity addressed, research design enables the researcher to draw causal inferences about the relationship among study variables, if appropriate.</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Instruments</td>
<td>Each instrument described including why it was selected for use, its strengths and weaknesses, tests of reliability and validity.</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Protection of human subjects</td>
<td>Issues of confidentiality and anonymity and IRB review addressed.</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Data analysis</td>
<td>Data analysis plan addresses the demographic data and other variables, rationale for selecting the specific test presented, stated that a statistician will be consulted for the project.</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Format and Grammar</td>
<td>Correct grammar, spelling, and punctuation used, APA 5th edition format followed throughout the paper, page length is within the stated parameters.</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from forms created by Cindy Russell, Sinclair School of Nursing, University of Missouri (used with permission).
## Case Study Evaluation Criteria

This is a scoring rubric used to help the nursing instructor evaluate a student’s completion of a case study assignment. It’s less descriptive of the performance levels required but still addresses the important traits (items in bold face & subheads), and it does provide an opportunity to assign points based on the student’s performance in each trait.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Comments</th>
<th>Yes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment is:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concise</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relevant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goals are:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Congruent with clients’ needs, and aspirations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Realistic and can be accomplished within the time allotted</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Therapeutic Strategies are:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inferred from assessment data and consistent with presenting problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derived from established theoretical and empirical guidelines</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detailed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriately referenced</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow-up plans are:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluated and revised appropriately</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derived from established theoretical and empirical guidelines</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detailed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriately referenced</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper is written according to APA guidelines</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Column Totals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adapted from forms created by Deborah Finfgeld, Sinclair School of Nursing, University of Missouri (used with permission)
**Overall Grading Strategy for a Course**

These approaches may also be more comprehensive than you need. An alternate strategy is to build a grading scale that is based on the PTA, but is not as detailed or comprehensive. Using a hypothetical History of Photography class as the example, our grading scale for an argumentative paper might look something like this.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
</table>
| **A** | Synthesizes available data, drawing unique conclusions/insights about photographic history.  
Draws possible logical conclusions if alternate events or people were involved.  
Goes beyond factual presentation by presenting a critical analysis of the facts and events.  
Details the importance of unique contributions. |
| **B** | Synthesizes available data, drawing unique conclusions/insights about photographic history.  
Draws possible logical conclusions if alternate events or people were involved.  
Goes beyond factual presentation by presenting a critical analysis of the facts and events.  
Details the importance of unique contributions. |
| **C** | Gives superficial treatment of main theses and concepts.  
Provides definitions and context but does so sporadically or incoherently.  
Provides social and scientific context.  
Identifies principle practitioners and contributions.  
Is accurate in all factual data. |
| **D** | Paper does not address relevant topics giving only superficial treatment to those discussed.  
Paper parrots lecture/reading material without attempting to draw out the reader’s interest.  
Major gaps exist in historical and social treatment of subject matter.  
Photographic processes and curiosity driving principal characters not apparent in narrative. |
| **F** | Narrative is plagiarized from other written sources.  
Sources not quoted.  
Language and mechanical errors abundant in grammar and syntax.  
Facts and chronology not consistent with historical record. |

The descriptions of adequate and inadequate treatment of the paper could be expanded, reduced, placed on a straight continuum, or treated in some other way to make it more relevant to your specific needs.
Appendix D

Sample Syllabus

Course Number: Name
University of Missouri

Course Description and Rationale
Insert text.

Course Goals
After completing the entire course, you should be able to:

1. Insert text.

Textbook & Other Resources

Online Course Access
You may access the course via http://courses.missouri.edu. Under course login, select Blackboard and enter your PawPrint. If you have difficulty logging in to the course or you do not see the course listed, please contact the Mizzou IT Help Desk at 882-5000. You MUST enable Compatibility View with Internet Explorer 8.

Library Resources and E-Res
Access to the library will be critical to your academic success. This course used resources and materials accessible via the Electronic Reserve System (E-Res): http://eres.missouri.edu. You may also access the University of MissouriLibrary Distance Education Support Service page at: http://mulibraries.missouri.edu/distance/.

Instructor Information

Expectations

• What to Expect from a Technology-Enhanced Course - This course is designed to meet both face-to-face and virtually. It is essential that you access the course site Monday through Friday for course announcements, interact with your small discussion group, submit assignments, take online quizzes, etc.

• What the Instructors and Your Peers Expect from You - By enrolling in this course, you have agreed to contribute to weekly discussions by accessing the Discussion Board regularly (2-3 times per week, Monday through Friday). This will require a team effort, with respect and help for each other, as we build a community of learners. We also expect that you will have a foundational understanding of Internet terms and functions. All general class correspondence should be submitted to the relevant Discussion Board forum; only personal or confidential matters should be directed to the instructor in e-mail.

• What You May Expect from the Instructor - Monitor and facilitate class discussions (Monday through Friday), respond to private questions within 24 to 48 hours, provide timely feedback on written assignments and projects, and help build a learning community.
Tegrity Information
MU has implemented the Tegrity Lecture Capture System. The system allows us to record and distribute lectures and other audio and video recordings to you in a secure environment through Blackboard. Because we will be recording in the classroom, your questions or comments may be recorded. No material will be shared with individuals outside of your class, or faculty and staff who require access for support or specific academic purposes without your express permission.

You may watch recordings online, or download them for off-line viewing on your computer, smartphone, or media player. These recordings are jointly copyrighted by the Curators of the University of Missouri and your instructor. Posting them to another website, including YouTube, Facebook, BlipTV, or any other site without express, written permission may result in disciplinary action and possible civil prosecution.

Clicker Information (for classroom-based courses)
This class uses the Classroom Performance System (CPSrf) to enhance your learning experience. Students who do not already have a response pad (clicker) will need to purchase one at the University Bookstore. Every student will need a current Activation Code available online or at the bookstore. (Codes purchased online are less expensive.)

Instructions for registering and using your pad are included with the unit. You must register using your full name and student PawPrint. (Use your PawPrint when asked for username or student id.) You will also be asked for a “class Key” for each class; this course’s key is: ______. This information must be entered correctly in order to receive points for class participation and other exercises using CPS.

You are required to bring your response pad to every class session. Attendance will be collected using the CPS in addition to participation points. If you have technical problems, or forget your clicker, contact your TA immediately.

Wimba Live Classroom
This class uses Wimba Live Classroom; a real-time, digital learning environment independent of a physical classroom. Students and instructors can participate in distance learning and collaboration regardless of their physical location using their own computer. Complete technical specifications including hardware and browser information is found online. To fully participate in a Live Classroom session, we recommend using a headset with microphone for improved audio quality. A webcam is necessary for video. Many laptops already have built-in webcams so make sure you check before purchasing a webcam. Even if your laptop does have a built-in microphone you may still wish to purchase a headset.

Weekly Schedule and Assignments
Your weekly routine: Every week, you should expect to login to the course site no fewer than 2-3 times. Each week of the course will have a corresponding instructional unit which includes your assigned reading, instructor commentary, and weekly discussion questions. You should complete your readings and review of the course commentary before posting answers/reflections to the discussion questions. In addition to posting your own original posting addressing the discussion question by Wednesdays at noon, you must comment/reflect upon the postings of your peers by noon each Friday.

<table>
<thead>
<tr>
<th>Week</th>
<th>Unit Title</th>
<th>Assignment</th>
<th>Points</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Assignments and Grading Criteria
Insert introduction. Each written assignment must be submitted through the Blackboard Assignment Manager (accessible via the Assignments button on the Course Navigation Menu) by the date/time specified and using the naming convention provided (e.g., assignment1_smith.rtf). All course assignments must be submitted as Rich Text Format, or RTF (one of the Save As options in your word processing program). Assignments will not be accepted via e-mail.
**Weekly Quizzes**
This course uses weekly online quizzes to assess your comprehension of the assigned readings. These quizzes will be available in the Quizzes area of Blackboard every Monday at 8 am until Fridays at 5 pm. Quizzes are timed and you will have 30 minutes to complete 5 multiple-choice questions (the timer, a yellow box, will be located in the upper right of your screen). You may take the quiz only once. The following are key considerations to successfully completing a quiz:

- Complete all assigned readings (textbook, journals, unit commentary, etc.) prior to accessing the online quiz.
- Force completion is turned ON: you must complete the quiz once you start it – you may NOT come back to the quiz later. If you are disconnected, send e-mail to your instructor immediately. After contacting your instructor, please send an e-mail to blackboard@missouri.edu, with your name, username, course name, the title of the quiz or assignment, and a description of the problem.
- To ensure Blackboard logs every answer, click the “Save” at the bottom of the page every two or three questions. You must click “Submit” in order to have your quiz graded.
- You MUST enable Compatibility View with Internet Explorer 8. A complete list of supported browsers is available online.

**Grading Criteria for Weekly Discussion Question Postings**
Your weekly postings will be assessed using the following guidelines. Of course, your postings are expected for each unit of the course and the final evaluation will take place the final week of class. Your original postings addressing the weekly discussion questions should be made no later than noon each Wednesday. Final postings commenting and reflecting upon the comments of your peers should be made no later than noon each Friday -- late postings will not be given credit. If you post weekly and interact with your peers, you may expect full credit unless otherwise notified.

As you can see, the following rubrics assess the quality of your postings and not the quantity (we’re not looking for “good idea” or “neat”).

<table>
<thead>
<tr>
<th>Weekly Discussion Posting Grading Criteria</th>
<th>Weekly Point Value (10)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meaningful and New Ideas:</strong> Ideas examine topic from new perspective that contributes to group understanding of topic</td>
<td>5</td>
</tr>
<tr>
<td><strong>Message Coherence:</strong> Messages explain issues, provide new perspectives, effectively question, or meaningfully elaborate on topic</td>
<td>2</td>
</tr>
<tr>
<td><strong>Relevance of Replies to Other Messages:</strong> Responses elaborate, contradict, modify, or explain the original message</td>
<td>3</td>
</tr>
</tbody>
</table>
Grading Scale

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>97-100%</td>
<td>A+</td>
</tr>
<tr>
<td>93-96%</td>
<td>A</td>
</tr>
<tr>
<td>90-92%</td>
<td>A-</td>
</tr>
<tr>
<td>87-89%</td>
<td>B+</td>
</tr>
<tr>
<td>83-86%</td>
<td>B</td>
</tr>
<tr>
<td>80-82%</td>
<td>B-</td>
</tr>
<tr>
<td>77-79%</td>
<td>C+</td>
</tr>
<tr>
<td>73-76%</td>
<td>C</td>
</tr>
<tr>
<td>70-72%</td>
<td>C-</td>
</tr>
<tr>
<td>67-69%</td>
<td>D+</td>
</tr>
<tr>
<td>63-66%</td>
<td>D</td>
</tr>
<tr>
<td>60-62%</td>
<td>D-</td>
</tr>
<tr>
<td>0-59%</td>
<td>F</td>
</tr>
</tbody>
</table>

Late Policy
Late work will automatically be lowered by 25%. Assignments more than 3 days late will not be accepted unless prior arrangements have been made. If you have circumstances that affect your ability to complete assignments, please contact me at least 3 days in advance of the due date.

Help Available
If you are having any technical difficulties (e.g., logging in, accessing the discussion board) please e-mail helpdesk@missouri.edu or contact the DoIT Help Desk at (573) 882-5000 (for out-of-area MizzouOnline students, toll-free at 866/241-5619).

Online Class Netiquette
Your instructor and fellow students wish to foster a safe on-line learning environment. All opinions and experiences, no matter how different or controversial they may be perceived, must be respected in the tolerant spirit of academic discourse. You are encouraged to comment, question, or critique an idea but you are not to attack an individual.

Our differences, some of which are outlined in the University’s nondiscrimination statement below, will add richness to this learning experience. Please consider that sarcasm and humor can be misconstrued in online interactions and generate unintended disruptions. Working as a community of learners, we can build a polite and respectful course ambience.

Academic Integrity Policy
Academic honesty is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person’s work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards academic dishonesty as an extremely serious matter, with serious consequences that range from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, or collaboration, consult the course instructor.

Academic Dishonesty includes but is not necessarily limited to the following:

- Cheating or knowingly assisting another student in committing an act of cheating or other academic dishonesty.
- Plagiarism which includes but is not necessarily limited to submitting examinations, themes, reports, drawings, laboratory notes, or other material as one’s own work when such work has been prepared by another person or copied from another person.
- Unauthorized possession of examinations or reserve library materials, or laboratory materials or experiments, or any other similar actions.
• Unauthorized changing of grades or markings on an examination or in an instructor’s grade book or such change of any grade report.

**Academic Integrity Pledge**: “I strive to uphold the University values of respect, responsibility, discovery, and excellence. On my honor, I pledge that I have neither given nor received unauthorized assistance on this work.” Students are expected to adhere to this pledge on all graded work whether or not they are explicitly asked in advance to do so.

The University has specific academic dishonesty administrative procedures. Although policy states that cases of academic dishonesty must be reported to the Office of the Provost for possible action, the instructor may assign a failing grade for the assignment or a failing grade for the course, or may adjust the grade as deemed appropriate. The instructor also may require the student to repeat the assignment or to perform additional assignments. In instances where academic integrity is in question, faculty, staff and students should refer to Article VI of the Faculty Handbook. Article VI is also available in the M-Book. Article VI provides further information regarding the process by which violations are handled and sets forth a standard of excellence in our community.

**University of Missouri Notice of Nondiscrimination**
The University of Missouri System is an Equal Opportunity/ Affirmative Action institution and is nondiscriminatory relative to race, religion, color, national origin, sex, sexual orientation, age, disability or status as a Vietnam-era veteran. Any person having inquiries concerning the University of Missouri’s compliance with implementing Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans With Disabilities Act of 1990, or other civil rights laws should contact the Assistant Vice Chancellor, Human Resource Services, University of Missouri, 130 Heinkel Building, Columbia, Mo. 65211, (573) 882-4256, or the Assistant Secretary for Civil Rights, U.S. Department of Education.

**ADA Statement (Residential Course)**
*If you need accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please inform me immediately. Please see me privately after class, or at my office.*

To request academic accommodations (for example, a note taker or extended time on exams), students must also register with the Office of Disability Services (http://disabilityservices.missouri.edu), S5 Memorial Union, 882-4696. It is the campus office responsible for reviewing documentation provided by students requesting academic accommodations, and for accommodations planning in cooperation with students and instructors, as needed and consistent with course requirements. For other MU resources for students with disabilities, click on “Disability Resources” on the MU homepage.

**ADA Statement (Online Course)**
*If you have special needs as addressed by the Americans with Disabilities Act (ADA) and need assistance, please notify the Office of Disability Services at 573-882-4696 or course instructor immediately. Reasonable efforts will be made to accommodate your special needs.*

**Intellectual Pluralism Statement**
The University community welcomes intellectual diversity and respects student rights. Students who have questions concerning the quality of instruction in this class may address concerns to either the Departmental Chair or Divisional leader or Director of the Office of Students Rights and Responsibilities (http://osrr.missouri.edu/). All students will have the opportunity to submit an anonymous evaluation of the instructor(s) at the end of the course.

**Grievance Policy**
Information concerning student grade appeal procedures and non-academic grievances and appeals may be found in the Student Handbook.
Appendix E

Campus-Supported Educational Technology Tools

The following table and descriptions list commonly used and campus supported educational technologies in addition to their primary uses. For additional assistance in selecting or using any of these technologies, please contact ET@MO and arrange a one-on-one consultation by going to http://etatmo.missouri.edu.

<table>
<thead>
<tr>
<th>Educational Technology Tools</th>
<th>Assessment</th>
<th>Assignment Submission</th>
<th>Visual Component</th>
<th>Data Collection</th>
<th>Quiz Creation &amp; Management</th>
<th>Content Creation</th>
<th>Content Distribution</th>
<th>Multimedia Demonstrations</th>
<th>Student Tracking</th>
<th>Peer Review</th>
<th>Small Group Work</th>
<th>Communication</th>
</tr>
</thead>
<tbody>
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<td>Adobe Acrobat</td>
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* Tools available in Blackboard
**Adobe Acrobat**
Adobe Acrobat creates documents in a Portable Document Format. PDF is a reliable format for electronic document exchange that preserves document integrity so files can be viewed and printed on a variety of platforms.

<table>
<thead>
<tr>
<th>Common Uses &amp; Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Preferred when formatting and layout must be maintained.</td>
<td>• Acrobat Reader (which is free via the Adobe website) is required for viewing files.</td>
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<tr>
<td>• Often provided as printer friendly version of other document types.</td>
<td>• Lengthy or image-rich documents may have a large file size.</td>
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<tr>
<td>• Embeds fonts and images for easy transfer.</td>
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<tr>
<td>• Can be protected from editing, printing, or extracting content.</td>
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</tbody>
</table>

**Content Areas and Learning Units**
Content areas are available in Blackboard and allow the instructor to present information via HTML, Word, PowerPoint, Excel and other types of files. Learning Units allow the instructor to present information in a sequential manner across several pages.

<table>
<thead>
<tr>
<th>Common Uses &amp; Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cost-effective and direct distribution and presentation of class information such as a syllabus, course goals, PowerPoint presentations and lecture notes, handouts, and study guides</td>
<td>• If students want a hard copy, they must print out the material rather than having it handed to them.</td>
</tr>
<tr>
<td>• Allows instructor to present course information in either a single page format or in a sequential learning unit.</td>
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</table>

**Assignment Manager**
The Assignment tool feature of Blackboard is a simple tool to manage assignment submissions. Each student has virtual storage space for storing and sending documents to their instructors or teaching assistants. When assignments are submitted, the student’s name as well as the time and date of submission are recorded. Tip: Be specific about the file name and format, Rich Text Format (.rtf) is best, student should use in submitting assignments.

<table>
<thead>
<tr>
<th>Common Uses &amp; Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Manage student assignment submissions.</td>
<td>• Unless instructed to use Rich Text Format (.rtf) or another file format mutually acceptable to instructor and student, files may be inaccessible for review.</td>
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<tr>
<td>• Provide written feedback for students (e.g., using the Track Changes tool in Word).</td>
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<tr>
<td>• Creates a specific location where assignments are to be turned in.</td>
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<tr>
<td>• Saves paper.</td>
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</table>

**E-Portfolios**
An electronic portfolio (E-Portfolio) is a collection of digital information such as a collection of artifacts or evidence demonstrating what one knows and can do. Electronic portfolios can be used in a wide variety of situations. For departments, they can collect student work for outcomes assessment and assist with recruitment. For instructors, they can allow them to show their teaching and research competencies, showcase their achievements, and incorporate portfolio projects for students in their curriculum.
For students, it allows them to collect and reflect on their work, share their educational and work experience in a meaningful manner and help in their search for a position. If you are interested in exploring how e-portfolios can fit with your department’s assessment needs, please arrange a consultation via our website.

**Discussion Forums**
Available in Blackboard and many stand-alone applications, discussion forums are very useful communications channels for use by the whole class.

### Common Uses & Advantages
- Most often used to establish an online learning community and closely replicate in-class discussions.
- In-depth discussion questions, case study analysis, role playing or simulation exercises can provide a means for students to share their own real-life experiences.
- Public areas can be created where students post questions, comments, and feedback to the entire class.
- Provides a forum for in-depth discussions.
- This one-to-many communication medium is useful for case study analysis, peer review, and editing.
- Because students do not have to meet at any one certain time, working on collaborative group projects is much easier.
- Students who are hesitant to speak up in a face-to-face classroom environment usually are less reluctant to contribute in this type of environment.
- Discussion forums can be archived.

### Disadvantages
- Assuring quality responses can require some additional emphasis and attention from the instructor.
- It is easy to get an overload of messages, especially in large classes.
- Discussion forums require good electronic-moderating skills. (See [http://emoderators.com/moderators.shtml](http://emoderators.com/moderators.shtml))
E-mail
Available in Blackboard as well as in stand-alone systems, private e-mail is presently one of the most commonly used technologies in education.

**Common Uses & Advantages**
- Students and instructors submit messages (e.g., questions, comments, concerns) individually.
- Students can exchange assignment files with other students or instructor.
- Instructors can communicate privately with students regarding individual performance, grades, and other confidential matters.
- It is an easy and fast communication tool.
- It incorporates helpful management features such as automatic return addressing.
- Information transferred is not limited only to text.
- It is especially useful for students who take classes while traveling.
- Best for one-to-one communication.

**Disadvantages**
- If students ask a question, the whole class doesn't benefit from the instructor’s answer.
- Students are not able to assist each other.
- Attached files can become encrypted and impossible to open with different e-mail programs.
- Formatting can disappear among different e-mail clients.
- Viruses can spread through e-mail attachments without proper virus protection.
- There may be no "tracking" feature available to see if a person received or opened an e-mail.

E-Res
The Electronic Reserve System (E-Res) is a service supported by the Libraries of the University of Missouri, and is accessible by students through the Internet 24 hours a day, seven days per week. You may place old tests, homework solutions, journal articles, book chapters, and other material that would traditionally be placed "on reserve" at the library. The advantage of using E-Res is that the libraries will research, and in some cases, pay copyright fees for you. Please see http://eres.missouri.edu for more details.

**Common Uses & Advantages**
- Posting notes or exam keys, copyrighted materials.
- Posting printed materials as PDFs via a fax machine.
- Copyright clearances handled by librarians.
- No scanning for posting printed materials.

**Disadvantages**
- Fees may be charged to the instructor or department for copyright clearance beyond a fixed maximum.
- PDF’s created through the fax/PDF gateway may be too poor for good image reproduction.
**Groups**
Blackboard Group Pages allows for small group work where only the students specified in the group and the instructor have access to those areas.

**Common Uses & Advantages**
- Projects and peer review.
- Small group discussions and file exchange.
- Allows students to have a small group area containing their own discussion board, e-mail list, chat area and file exchange.
- Facilitates small group interaction, even when face to face meetings are not possible.

**Disadvantages**
- Groups are entered and setup by the instructor.
- Area is viewable only by members of the group and the instructor, not good for whole class presentations.

**Flash**
Flash is used to create interactive and object-oriented applications for the Internet. Embedding Flash components to websites can make a dynamic environment out of an otherwise static website.

**Common Uses & Advantages**
- Develop rich media and animation.
- Deliver tutorials, video or other applications.
- Can be used in several media including websites, CDs, and DVDs.

**Disadvantages**
- Flash Player required for viewing files.
- Can have large file sizes.

**Dreamweaver**
Software primarily used to create and manage websites. There are many different HTML editors on the market to transform word processing documents into an Internet compatible format. Although you may save a Word document as a Web page, using an HTML editor such as Dreamweaver can produce a more polished and readable document.

**Common Uses & Advantages**
- Creating HTML documents for use on the Internet and course management systems.
- Used to create and manage websites.
- Easy WYSIWYG (what you see is what you get) interface allows you to create an HTML document as easy as a Word document.
- HTML documents can be viewed in any browser, on any operating system.

**Disadvantages**
- Creating complex HTML documents with graphics can be tricky for the novice user.
### Online Chat / Collaboration
Available in Blackboard, as well as stand-alone programs (e.g., AOL Instant Messenger) can be a useful community-building tool when real-time discussion is possible.

<table>
<thead>
<tr>
<th>Common Uses &amp; Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>• Most often, chats are used for small group work or online office hours.</td>
<td>• Chat requires participants to have good typing skills.</td>
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<tr>
<td>• Chat fosters immediacy, social presence, and is useful for brainstorming activities.</td>
<td>• Conversations tend to overlap, making large groups difficult to manage.</td>
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<tr>
<td>• Because chat is a completely textual communication medium classes may use them to focus on writing.</td>
<td>• Time zones can be a problem which is why most often, distance courses do not hold required chat sessions.</td>
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<tr>
<td>• Hardware and software requirements are minimal.</td>
<td>• Connection speed or reliability may be problematic depending on ISP settings or slow modems.</td>
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<tr>
<td>• As in discussion lists, they also require good electronic moderating skills on the part of the faculty (See <a href="http://emoderators.com/moderators.shtml">http://emoderators.com/moderators.shtml</a>).</td>
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</table>

### Disadvantages

### Quizzes
Available in Blackboard, the quiz tool allows you to create and administer online quizzes with a variety of question styles (multiple choice, true/false, essay, etc.).

<table>
<thead>
<tr>
<th>Common Uses &amp; Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>• Administer weekly quizzes or tests online.</td>
<td>• Can be technically challenging to manage.</td>
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<td>• Survey students’ knowledge or reading comprehension prior to coming to class.</td>
<td>• In order to produce an adequate question pool, significant up-front time must be invested writing question variations.</td>
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<tr>
<td>• Create multiple choice, true/false, short answer, matching, and essay-style quizzes (short answer and essay questions are not automatically graded).</td>
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<tr>
<td>• Online quizzes can provide immediate feedback and comments.</td>
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<td>• Scores are automatically entered into the gradebook.</td>
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<td>• Start and end times can be automated.</td>
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<td>• Reduces amount of paper copying by offering paperless, online submissions without taking class time.</td>
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<td>• Allows instructors to devote class time to discussion and processing of knowledge in the course.</td>
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**Online Gradebook**

Blackboard allows instructors to enter grades so that individual students can view their grades online. This is one of the most popular features of a course management system: making grades readily available anytime, eliminating class time to discussing grades, in addition to students who appreciate a chance to access their grades any time as well as seeing course score distributions.

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<th>Common Uses &amp; Advantages</th>
<th>Disadvantages</th>
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<tr>
<td>To post grades online so that students can easily retrieve them.</td>
<td>Complex grading schemes can be difficult to set-up using the tools available.</td>
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<td>Students no longer have to phone, e-mail, or ask their instructor for individual assignment scores or course grades.</td>
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<td>Instructors and students can see score distributions statistics for each assignment.</td>
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<td>Grades from Scantron examinations can be quickly entered into gradebook.</td>
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<td>Instructors can download the gradebook to have a backup copy on their computer.</td>
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**Respondus**

This is a powerful tool for creating and managing exams that can be printed to paper or published directly.

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<th>Common Uses &amp; Advantages</th>
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<td>Creating question pools that can be published to Blackboard.</td>
<td>Currently only available for the Windows operating system</td>
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<td>Easily move questions between Blackboard.</td>
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**Surveys**

Available in Blackboard, a survey is essentially an ungraded and anonymous quiz. You can create surveys with variety of question styles (multiple choice, true/false, essay, etc.). ET@MO can also assist you in creating online, non-CMS surveys.

<table>
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<tr>
<th>Common Uses &amp; Advantages</th>
<th>Disadvantages</th>
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<tr>
<td>Middle or end of semester surveys where students can give informal feedback.</td>
<td>Aggregate data only, there is no way to link information with a particular student who participated in the survey.</td>
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<td>Prior-knowledge surveys can assess learning knowledge base.</td>
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<tr>
<td>Allows students to give answers to survey questions anonymously.</td>
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**SafeAssign**

Plagiarism-detection software has become a popular topic of conversation on campus as the Internet has become a more popular research tool and resource for students. SafeAssign allows students to submit their papers through Blackboard to be checked against other papers; highlighting specific passages or references to be examined more closely by instructors. These flagged passages do not necessarily constitute plagiarism and by no means is SafeAssign a paper grader; it just assists students and instructors in better understanding citation and academic honesty more thoroughly.
**Scholar**

Scholar is an academic, social-bookmarking tool integrated with Blackboard. Features include searching, tagging, and sharing bookmarks between users, easily incorporating collections of bookmarks into courses, and creating custom groups of bookmarks for each course. For an overview of the capabilities of Blackboard Scholar, see the video tutorial at http://courses.missouri.edu.

**Whiteboard**

An integrated part of the Blackboard Virtual Classroom (or chat) tool, Whiteboards allow the instructor or students to draw graphics, express formulas, or in the case of the Blackboard Virtual Classroom, view PowerPoint presentations.

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<th>Common Uses &amp; Advantages</th>
<th>Disadvantages</th>
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<tr>
<td>Can be used as a virtual chalkboard, where participants in an e-learning course could be called upon to perform a task in front of their virtual peers, or for the instructor to demonstrate how he/she solved a complex problem</td>
<td>Slower connections may experience some delay if heavy graphics are used.</td>
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<tr>
<td>Ability to transfer textual and graphical content to everyone participating in the session.</td>
<td>Whiteboard can become unreadable if too many users try to use it at once.</td>
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</table>
Appendix F

Finding Reusable Instructional Materials

Some people call them learning objects¹, while others call them modules, or small knowledge chunks, or instructional objects - whatever term, the definition often becomes quite broad. Recently, the terms “open courseware” and “open content” have also been connected with this concept. An excellent document about Open Content Resources can be found at http://etatmo.missouri.edu – Teaching Toolbox – Digital Media. Whatever these digital works are called, they are intended to provide effective explanations or examples of content that can be replicated for future use. Thus finding such applicable resources can be helpful for instructors – particularly those teaching a course for the first time.

These digital materials are often held within repository databases that are organized; however the ease of searching will vary. If you have not had desired results in finding materials via a web search engine, then you might want to explore some of the repositories. Look for ones that are user-friendly; easy to navigate; have various levels of searches; allow submissions, comments or reviews; provide information to assist in evaluating quality or appropriateness for user; and present tools to create personal collections. Note also that not all materials or repositories are free. They may have differing licensing procedures and some repositories offer fee-based services that institutions can buy into at varying levels to involve their faculty, or add functionality at the local level.²

Benefits of Using Repositories

- Usually web-based and do not require special technology
- Access to a large, searchable collection of online teaching and learning materials, as well as comments and information to help evaluate
- Contributions allow faculty to gain recognition for their instructional materials
- Contributions promote the scholarship of teaching and learning in a peer-reviewed venue
- Contributions provide a way to get feedback about instructional materials.¹

Limitations of Repositories

- Some learning objects require special browser plug-ins or media players to work
- Instructors may have a difficult time finding learning objects available for specific needs; it takes time to browse
- Some collections are limited in specific content fields
- Learning objects are often designed for web-based use, in or out of the classroom.¹

¹ Note that the term “Learning Objects” is also the name of a company that produces the blog and wiki tool MU currently has installed in Blackboard. This is unrelated to the more general usage of the term being discussed in this document.
Explore Example Repositories and Resources (in alphabetical order)

- **BioResearch** - [http://biome.ac.uk](http://biome.ac.uk) (Topics - health and life sciences)
- **Fathom Archive**, Columbia University - [http://www.fathom.com/](http://www.fathom.com/) (Topics – arts and humanities, business and economics, education, global affairs, health and medicine, history and society, law and politics, science and nature, technology)
- **Forum Network** - [http://forum-network.org](http://forum-network.org) (Topics – art & architecture, culture & identity, history, PBS & NPR programs)
- **Gateway to Educational Materials (GEM) Project** - [http://www.thegateway.org](http://www.thegateway.org), sponsored by NEA (Topics – arts, educational technology, foreign languages, health, language arts, mathematics, philosophy, physical education, religion, science, social studies, vocational education)
- **Geotechnical, Rock and Water Resources Library (GROW)** - [http://www.grow.arizona.edu](http://www.grow.arizona.edu)
- **ide@s**, University of Wisconsin System and the University of Wisconsin-Extension - [http://ideas.wisconsin.edu/#](http://ideas.wisconsin.edu/#) (Topics - agricultural education, art and design education, bilingual Spanish, business and info. tech., dance, ESL, early learner, environmental education, family and consumer sci., health education, info. and tech. literacy, language arts, marketing education, mathematics, music education, personal financial literacy, physical education, professional development, science, service-learning, social studies, special education, technology education, theatre education, world languages)
- **iLumina** – [http://www.ilumina-dlib.org](http://www.ilumina-dlib.org) (Topics - science, mathematics, technology, and engineering)
- **Intute** – [http://www.intute.ac.uk/resources.html](http://www.intute.ac.uk/resources.html) (Topics - agriculture, food and forestry, architecture and planning, biological sciences, business and management, communication and media studies, creative and performing arts, education and research methods, engineering, geography and environment, humanities, law, mathematics and computer science, medicine including dentistry, modern languages and area studies, nursing, midwifery and allied health, physical sciences, psychology, social sciences, veterinary medicine)
- **Maricopa Learning Exchange** - [http://www.mcli.dist.maricopa.edu/mlx/index.php](http://www.mcli.dist.maricopa.edu/mlx/index.php) (Topics – accounting, anthropology, art, biology, business, chemistry, communication, computers, dental hygiene, economics, education, English, ESL, geography, geology, health, humanities, language, management, math, medical, music, nursing, philosophy, physics, political science, psychology, reading, religious studies, sociology, storytelling, technology, writing)
- **MERLOT** -- Multimedia Educational Resource for Online Learning and Teaching - [http://www.merlot.org](http://www.merlot.org) (Biology, business, chemistry, engineering, health science, history, information technology, mathematics, music, physics, psychology, teacher education, world languages) Note: MERLOT may be accessed from any content area in Blackboard. The MERLOT Search Tool provides access to the repository and an easy tool for linking the
Appendix

Educational Technologies at Missouri

- **MIT Libraries DSpace** - [http://dspace.mit.edu/](http://dspace.mit.edu/) (MIT research in digital form – includes preprints, technical reports, working papers, theses, conference papers, images, and more)

- **OpenCourseWare (MIT)** - [http://ocw.mit.edu/index.html](http://ocw.mit.edu/index.html) (Topics – architecture and planning, engineering, health sciences and technology, humanities, arts, and social sciences, management, science, physical education and recreation, and more)

- **The Digital Library for Earth System Education (DLESE)** - [http://www.dlese.org](http://www.dlese.org) (Topics – agricultural science, atmospheric science, biology, chemistry, climatology, cryology, ecology, educational theory and practice, environmental science, forestry, geographical sciences, geological sciences, ocean sciences)

- **The Harvey Project** - [http://harveyproject.org](http://harveyproject.org) (Topic - human physiology)

- **WolframAlpha**, knowledge engine that performs computations - [http://www.wolframalpha.com](http://www.wolframalpha.com) (Topics – mathematics, statistics and data analysis, physics, chemistry, materials, engineering, astronomy, earth sciences, life sciences, technological world, transportation, computational sciences, web and computer systems, units and measures, money and finance, dates and times, places and geography, socioeconomic data, weather, health and medicine, food and nutrition, words and linguistics, culture and media, people and history, education, organizations, sports and games, music, colors)

**Reference**

Note: This classic textbook can be read online for free. The chapters are under the Open Publication License and the book has been edited by David Wiley.
MISSION
ET@MO supports the meaningful use of technology to improve teaching and learning. With a focus on both pedagogical design and technology innovation and excellence, ET@MO staff
1) engage in relevant academic- and technology-oriented conversations, decisions, and initiatives so as to make positive contributions;
2) facilitate the use of existing resources and infrastructure for the sake of quality, consistency, and efficiency, and;
3) research, design, and implement new educational technology innovations when feasible.

PRINCIPLES AND PRACTICES
The guiding principles and practices below reflect ET@MO’s approach in meeting and above mission and working with the university community to improve teaching and learning within a framework of educational technology.

- ET@MO’s diverse staff represents experienced educators, technology experts, and support personnel who specialize in teaching and learning with technology. Staff members are available to consult and collaborate with faculty members, academic units, and other groups to discuss the needs, resources, and strategies to address various learning environments and challenges.

- ET@MO takes an approach that educational technology should be used to promote excellence and innovation in teaching and learning – not as an end unto itself.

- ET@MO works with individuals and groups in whatever manner best suits the desired learning goals and technology resources available; this process often takes into careful consideration the skills, principles, and teaching style an instructor employs to facilitate a course.

- ET@MO respects the unique voice that the faculty bring to each course based on their experiences, teaching styles, content requirements, and the needs of his or her students. ET@MO facilitates a flexible, customizable environment for faculty to make the most appropriate use of several different types of educational technologies.

- ET@MO recognizes the limits a busy schedule can place on faculty time and encourages faculty members to view courses as works in progress which are in a state of continual revision. This often means starting out small and building a complete course or program over time.

- ET@MO assists individuals in investigating and learning new educational technologies. If ET@MO staff do not have the current expertise, they will make an effort when possible, to learn along side faculty to take full advantage of new and specialized technologies.

- ET@MO assists faculty in assessing the effective use of educational technology. This process may result in subsequent modification of the current use of technology and/or identifying different pedagogical strategies to facilitate the most effective learning environment.
FACULTY GUIDE TO

Teaching and Learning with Technology

Educational Technologies at Missouri

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