

An Essential Guide to Teaching at KU

A HANDBOOK OF RESOURCES

INTRODUCTION	3
ESSENTIAL PRACTICES	5
Aligning goals, assignments and practices	5
Writing a syllabus	6
Developing assignments and tests	7
Giving students feedback on learning	12
Inclusive teaching	16
Engaging students	18
Motivating students to learn	30
Using educational technology	33
Facilitating learning outside of class	36
Obtaining student feedback	40
BEYOND THE ESSENTIALS	41
Helping students think like a scholar	41
Mentoring students and advising independent work	42
Teaching graduate students	43
Working with GTAs	44
Teaching large classes	45
Teaching studio or one-on-one classes	47
Teaching quantitative courses	49
Online teaching	50
Evaluating degree-level and general education learning	53
KU POLICIES AND PROCEDURES	55
Communication guidelines	55
Course enrollment	58
Attendance at classes, studios and labs	58
Privacy of student information	59
Withdrawing from courses	59
Academic misconduct	60
Grading strategies and decisions	61
Emergency preparedness	63
REPRESENTING TEACHING	66
Three perspectives	66
Preparing to represent your teaching	67
Teaching reviews	69
Course portfolios	74
Faculty mentoring	75
APPENDIXES	
A: Self-assessment tool for diversity, equity and inclusion	77
B: Sample teaching forms	83
C: Teaching-related worksheets for promotion and tenure	89
D: Documents for University review	103
E: Examples of rubrics	113

An Essential Guide to Teaching at KU: A Handbook of Resources

Primary authors:

Paul Atchley

Dan Bernstein

Judy Eddy

Andrea Follmer Greenhoot

Joshua Potter

Doug Ward

Contributing authors:

Ruth Ann Atchley, Kristine Bruss, Sarah Bunnell, Cynthia Colwell, Ann Cudd, Estela Gavosto, Kim Glover, Derek Graf, Mark Haug, Meghan Kuckelman, Carl Luchies, Ward Lyles, Tracy Russo, Dan Spencer, and Val Smith

Reviewers:

Caroline Bennett, Sally J. Cornelison, Dietrich Earnhart, Alison Gabriele, Kim Glover, Kip Haaheim, Scott Jenkins, Bonnie Johnson, Nancy Kinnersley, Julie Loats, Robert Rowland, Emma Scioli, Linda Stone-Ferrier, Michael Vitevitch, Susan Williams

Editor:

Judy Eddy, Center for Teaching Excellence

Special thanks to Paul Atchley for the many ways he helped guide the development of this project

A publication of the Center for Teaching Excellence
University of Kansas
Budig Hall
1455 Jayhawk Blvd. #135
Lawrence, KS 66045-7573
Phone 785.864.4199 • cte@ku.edu • www.cte.ku.edu

The University of Kansas prohibits discrimination on the basis of race, color, ethnicity, religion, sex, national origin, age, ancestry, disability, status as a veteran, sexual orientation, marital status, parental status, gender identity, gender expression and genetic information in the University's programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Director of the Office of Institutional Opportunity and Access, IOA@ku.edu, 1246 W. Campus Road, Room 153A, Lawrence, KS 66045, (785) 864-6414, 711 TTY.

Introduction

Few activities are more satisfying than creating a community in which people grow intellectually and become life-long learners. Being in the company of people learning and being engaged with great ideas is an ideal way to spend time, but there's much more to teaching than just the time spent in a classroom, laboratory, studio or field site. Most of our attention focuses on time with students in scheduled meetings, but such contact time is only one component of teaching. We decide what the intellectual goals for learners will be, identify materials students can use, plan what to do during contact time, and create ways for students to learn on their own outside of class. Teaching occurs outside scheduled times and places, and advising is another feature of teaching. Whether through independent reading or discovery research, teachers provide feedback and structure that make learning richer and more focused. Teaching is more enjoyable when it's well constructed and well received, and we hope these materials support those aims.

We also create opportunities for learners to demonstrate their understanding, knowledge and skills through projects, papers, performances and answers to questions. Successful students can use ideas and skills in ways that weren't directly taught to them, and it's important to create variations in performance requirements that sample an ideal range of this transfer of learning to new situations. Once feedback is given to students, effective teachers examine patterns of learning to identify topics or skills that need different preparation in the next course offering.

Being a complex craft, teaching evolves over time, with additional layers of skill and nuance being added with successive offerings of a class. Even very good classes, successful in generating learning, continue to develop as teachers learn from how students respond to their instruction. It's good to start simply in teaching, by offering clear, interesting, and useful skills and knowledge to students. More features of learning and more complex measures of understanding can evolve over time, and iterative refinement in teaching is one important source of the enjoyment we experience. This guide allows teachers to find useful strategies for both framing a course initially and for refining it over time.

Overall, we hope we present an inclusive model of teaching that helps KU faculty members be effective in achieving their teaching goals.

Andrea Follmer Greenhoot
Director and Gautt Teaching Scholar,
Center for Teaching Excellence
Professor, Department of Psychology

TEACHING AS SCHOLARSHIP

Anthropologist Mary Huber studied scholars to identify common elements of intellectual work. Scholars engage in inquiry that is informed by prior work, use methods characteristic of the field of study, and bring forward evidence appropriate to the question. Scholars also explicitly reflect on what is learned from their inquiry, and they make their work visible so colleagues can learn from, build upon and critique each other's findings.

Teaching can be conducted as an inquiry into learning if it follows this pattern. A scholarly teacher reads about teaching methods and results and implements practices that enhance learning. A scholar/teacher treats students' performance as evidence of how well the practices have helped students learn, and those results inform decisions about how to teach in the future. In a community of scholar/teachers, these examples of practices, results and reflections are visible objects of intellectual analysis. Scholarly discourse around effective teaching is an ongoing feature of such a community.

Just as with research, the best teaching is carefully analyzed and shared with colleagues. At its best, teaching is conducted as intellectual inquiry.

Using This Guide

This guide focuses on ways that college teachers provide maximum benefit to learners, so it's intended for an audience of university faculty members who will organize and offer courses. Teachers who are early in their careers will begin by considering the section on *Essential Practices*, as it describes some of the fundamentals of professional course delivery. An experienced teacher would also do well to look at this segment, using the topics as a reminder of those aspects of teaching that constitute the foundation of a good course. Not every course nor every instructor will always have all the features of that foundation, but it's a good model to keep in mind.

Many of us will be fortunate to have long careers in college teaching, and there will be time to offer a variety of courses and to develop some courses over many offerings. The section on *Beyond the Essentials* describes a variety of ways that learning can be promoted and that teaching can be enriched. It benefits us to have good ideas for continuing development of courses, as upgrades to practices help keep teaching fresh and enjoyable.

The next chapter, *KU Policies and Procedures*, provides an overview of this topic. The section begins with a discussion of civility and responsibilities for learning, and it includes excerpts of key policies from the *University Senate Rules and Regulations*.

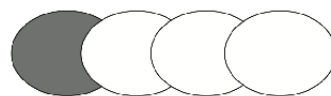
All faculty members will find the section on *Representing Teaching* to be useful, as it offers an outline for efficient but rich ways to show others how we teach and how our students learn. We've tried to make this chapter similar to a workbook that allows the gradual development of a narrative about teaching and learning, using primarily materials that are existing products of courses delivered. This outline is useful for self-development as a teacher, but it also generates appropriate documentation useful in the context of KU's evaluation of teaching.

It's important to remember that there are mutual responsibilities for learning, with both students and faculty members participating in this process. For our part, faculty members have a responsibility to create learning environments with clear and appropriate intellectual goals and adequate resources to support learning. This includes identifying criteria for success in learning and maintaining well-crafted and up-to-date teaching practices that are known to optimize learning. Professional quality teaching must be more than merely making knowledge and skills available, as teachers should inquire to see how much learning is actually taking place. When we employ the best practices our profession provides, that doesn't diminish students' responsibility to engage fully in the learning opportunities we construct.

For their part, students must make available enough time to allow for full preparation and study in addition to required class, lab or practicum time. They have a responsibility to use that time to read, to inquire, to work with colleagues, to write, and to think about their work. Without that commitment, teaching will ultimately be unsuccessful, and even the best instructional design and effort will not generate meaningful understanding, skill or knowledge.

This guide focuses on the teacher's potential participation in the learning process, as that is the component of education that we control. At a minimum, faculty members can embrace the need to provide professional instruction, but we can also work with our larger community to promote the fullest engagement and participation in educating our students. When we all do our part, we create a richer academic community and a successful learning environment.

Essential Practices



ALIGNING GOALS, ASSIGNMENTS AND PRACTICES

Course design involves identifying goals, planning what to teach and opportunities students will have for learning, and how you'll evaluate whether students are meeting course goals. Designing a course can be done adeptly with **backward design**: determine concepts you want students to master, then plan how you'll determine whether they have learned the concepts. This approach guides which resources and methods you use to facilitate learning.

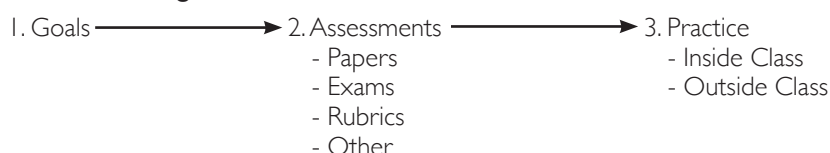
As you plan, you may experience some tension about how much you should cover in your course. Identifying key course topics can help you achieve balance. Three questions from Wiggins and McTighe (1998) can help you identify these key topics:

1. To what extent does the idea, topic, or process represent a "big idea" having enduring value beyond the classroom?
2. To what extent does the idea, topic, or process reside at the heart of the discipline?
3. To what extent does the idea, topic, or process offer potential for engaging students?

Consider students' goals and characteristics. Students may take your course to understand principles, learn to communicate effectively, learn to organize ideas or interpret data, or understand how researchers gain knowledge. Use this information, along with course goals, to guide your course structure and teaching pace.

After you choose material, establish criteria for obtaining evidence of learning. **A key feature of backward design is that understanding increases across time, as students process, reassess and connect information.** Therefore, assessments to measure increasing levels of understanding should be conducted throughout the semester by various means such as discussions, tests and quizzes, and projects in which students analyze their own understanding. Once you decide upon course concepts and assessment criteria, focus on which teaching strategies will help students reach course goals; key concepts, rather than a methodology, drive teaching.

Backward Design



WHAT DOES ALIGNMENT MEAN?

When we speak of alignment, we're talking about connecting course goals and course practices. We may have clear course goals, but they may not relate to the way we structure a course. Instructors may insist that their goal is to encourage application and analysis, but then test students only on fact memorization.

If your goal is to encourage critical thinking, then a course activity aligned with that goal may be having students practice reading and analyzing dissenting viewpoints. If your goal is to help students become effective consumers of research, then aligned assignments may be reading and integrating scientific research. In this way, relationships between our goals and our practices are transparent and reinforced.

A key part of Holly Storkel's success as a teacher has been how she carefully aligns course goals with students' assignments and her teaching practices. At the end of a course, she examines student work to identify specific skills students have difficulty with, then targets those skills during the next offering of the course. In this way, she is using student performance to guide her course goals, and evolution of her course's design stems from those performance markers. You can find out more about her work in her course portfolio in the CTE gallery: cte.ku.edu/cte-portfolio-poster-gallery

SYLLABUS CHECKLIST

1. Basic information: Course title and number, semester and year of course, meeting time and place, faculty information
2. Course description
3. Prerequisites
4. Course goals and objectives
5. Textbooks and readings by authors and editions
6. Assignments, term papers and exams
7. Student evaluation and grades
8. Course policies
9. Options for students with special needs
10. Course calendar/schedule

WRITING A SYLLABUS

When you're writing a syllabus, start with basic information: the year and semester of the course, title, class number, number of credits, and meeting time and place. Provide your name, office address (and a map if it's hard to find) and contact information. Indicate whether students need to make appointments or may just stop in. If you list a phone number, specify restrictions for its use. Clarify prerequisites, knowledge, skills or experience you expect students to have or courses they should have completed. Suggest how they might refresh skills if needed.

Outline the course's purpose: What is the course about and why would students want to learn the material? Describe three to five general goals, and explain why you've arranged topics in a given order and the logic of concepts you've selected. Tell students whether the class involves fieldwork, projects, lectures or discussion, and indicate if any activities are optional.

Explain why textbooks and readings were chosen. Show the relationship between readings and course objectives. Also provide details about additional materials that will be needed.

Specify the nature and format of assignments. Give exam dates and indicate the nature of the tests (e.g., essay, short-answer). Explain how assignments relate to course objectives. Describe your grading procedures, including components of the final grade and weights for each component. Explain whether you'll grade on a curve or use an absolute scale, and if any grades can be dropped. Also explain any other course requirements, such as study groups. Clearly state your policies about class attendance, late work, missing homework, tests or exams, makeups, extra credit, requesting extensions, reporting illnesses, cheating and plagiarism. You might also list acceptable and unacceptable classroom behavior (see Communication Guidelines, page 53). Let students know that if they need an accommodation for any type of disability, they should meet with you to discuss what modifications are necessary. You can find a sample statement for this at achievement.ku.edu/sample-syllabus-statement.

Include a calendar with a sequence of topics and readings. Exam dates should be firmly fixed; dates for topics or activities may be tentative. Also list the last day students can withdraw without penalty. Give them a sense of how much work the course requires.

A syllabus is a contract between you and your students. Consider adding a statement to protect yourself if changes must be made: "Course schedule and procedures are subject to change in the event of extenuating circumstances." For more information, see cte.ku.edu/preparing-a-course.

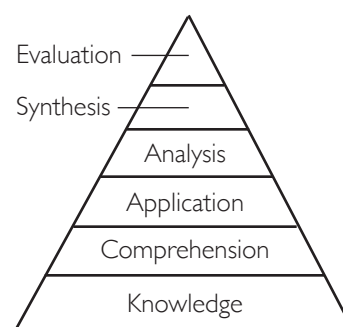
DEVELOPING ASSIGNMENTS AND TESTS

One of the most important features of course design is developing opportunities for students to demonstrate what they know, how well they understand course material, or how well they can use skills they are developing in the course. Some of these occasions will be low-stakes, for practice to help students grow in their understanding of course material, and some will be high-stakes, for a significant portion of a final grade. Whether for practice or for evaluation, the performance asked for on assignments should closely represent your course goals (see box on page 5), and students should always receive informative feedback on their performances. Learning is maximized when students use their understanding in challenging ways and find out from you which features of their work match your expectations and which don't.

The performance appropriate for any individual course is likely to cover various domains, and most courses should include a range of performance. Within a single course, students will identify basic terms, facts or information about a field and also apply concepts in new, untaught situations. It's possible that they may combine ideas or generate their own evaluation of observations or findings. It's not possible to engage in complex analysis or critical thinking without some basic knowledge of a field, but merely reciting basic knowledge without being able to use it or evaluate it is equally limiting. As an instructor, you'll decide how to distribute the assignments you give across that continuum, from remembering to using to evaluating. **Research on memory consistently finds that rote learning is forgotten most quickly, but ideas and information that are used in new contexts or connected to existing understanding will be remembered best.**

Consider work done by Benjamin Bloom (1956) and his colleagues many decades ago. They framed a set of categories of learning performance, ranging from rote remembering to complex evaluation, hoping that teachers would include a variety of opportunities for students. Subsequent scholars have added new language to the basic ideas (often called Bloom's Taxonomy), and many people list verbs that go with the different categories of skills. When you give assignments using those verbs, the notion goes, you are likely tapping into that category of learning. In the box at right, we reproduce one contemporary treatment of these categories and accompanying assignment verbs for your use. Consideration of these categories will help you distribute student work across the range of this useful intellectual continuum.

BLOOM'S TAXONOMY



Descriptions of each level and appropriate terms for asking questions at each level follow:

Evaluation—Make judgments about the value of materials or methods for given purposes; make appraisals that satisfy specific criteria: *appraise, compare, conclude, contrast, criticize, describe, discriminate, explain, justify, interpret, support.*

Synthesis—Combine elements to form a whole; arrange elements to form a new structure: *categorize, combine, compile, tell, devise, design, explain, generate, organize, plan, reconstruct, revise.*

Analysis—Break material down into elements; make relationships between ideas explicit: *differentiate, distinguish, illustrate, infer, point out, relate, select, separate.*

Application—Use abstractions in concrete situations: *demonstrate, modify, operate, prepare, produce, relate, show, solve, use.*

Comprehension—Use information without necessarily relating it to other material or seeing fullest implication: *convert, defend, distinguish, estimate, explain, extend, generalize, give examples, infer, predict, summarize.*

Knowledge—Recall specific facts, general concepts: *define, describe, identify, list, match, name, outline, select, state.*

Ben Eggleston redesigned his introductory ethics tests to avoid simply testing memorization while still making his exams easy to grade. His tests retained their multiple-choice format but required students to apply knowledge and definitions instead of simply restating them.

Unlike questions that test only memorization of definitions, the new questions, which were set up as conversations in which students were asked to choose certain statements that reflected particular ethical positions, require students to apply deeper understandings of concepts to novel situations. The advantages of the conversational format are that the student has to grasp the content rather than merely recall a phrase or expression that he or she could remember from the book or class notes and that they better test the kind of understanding that will serve students well outside the classroom.

Old question: What is the main idea of cultural relativism?

- (I) Moral beliefs vary from one culture to another.
- (J) Morality itself (not just moral beliefs) varies from one culture to another.

New question: In the following dialogue, which of the following statements is incompatible with cultural relativism?

- (A) Some countries rely heavily on child labor, and would suffer devastating economic consequences if they were forced to give it up.
- (B) Despite these consequences, the harms to children are too great to ignore. It is wrong of those cultures to force children to work.

ASSIGNMENTS AND ASSESSMENT

For testing to be effective and worthwhile for you and your students, consider the exams you'll implement when you're designing a course. If evaluation is considered only in hindsight, it's likely your time will be used ineffectively and students will be discontent with how their learning was assessed.

Design tests that will measure the goals you set out to achieve in the course and be clear in your instructions. Walvoord and Anderson recommend teachers ask themselves the following question: "By the end of the course, I want my students to be able to (fill in the blank)." Use your responses to guide assessment design.

It's often advantageous to mix types of items (multiple choice, essay, short answer) on a written exam or to mix assessments throughout the course (e.g., a performance component with a written component). Weaknesses connected with one type of item or aspect of students' test taking skills will be minimized. It's also useful to ask how students in the future would be likely to use what they are learning in your course. If they'll be expected to recognize an example of a phenomenon or category, then give them opportunities to attempt such recognition in your course. If they'll be asked to evaluate the evidence for a claim relevant to your field, then your assignments should give them practice in such evaluation and graded feedback on their skill at it. Be sure that your assignments (both for practice and for grading) engage students in the kind of knowing or understanding that will be useful to them in future courses and in application to real life.

Grading student work is rarely easy. In some cases, you can simply count the number of factual or simple items done correctly, but understanding measured by a more complex performance will need to be judged. Walvoord and Anderson (2010) outline strategies for grading in various fields. They claim that establishing a set of clear criteria ahead of time will make grading easier for a teacher, more consistent across students, and even faster to get done. The key is to think through the range of feedback you want to give (e.g., points from 1 to 10 or letters from A to F) and identify how you would recognize or characterize a performance in each category. What are the strengths of an answer at each level, and what might be missing that would keep it from being in a higher category? What are the habits of mind or the kinds of knowledge demonstrated that characterize levels of understanding?

When you engage in this kind of thinking, your work giving feedback will be less challenging and more efficient. If you then share those criteria with your students, they can learn more clearly what you mean by understanding, and there will be fewer occasions for disagreement about feedback. Ambiguous or unstated criteria are

a common cause of conflict and frustration for students. Investing time up front to think through your grading criteria will pay dividends in saved time and hassle later.

DESIGNING WRITING ASSIGNMENTS

John C. Bean (2011) states that writing assignments, particularly essay exams, can help students exhibit their mastery of material, synthesize course material, and better understand the goals and direction of the overall course, thus increasing overall retention and understanding of material. He states, “Essay exams send the important pedagogical message that mastering a field means joining its discourse, that is, demonstrating one’s ability to mount effective arguments in response to disciplinary problems.”

In order for students’ writing in assignments and exams to improve, students need to be taught how to write essays. One strategy is to provide students with copies of essays from previous years’ classes, without any instructor comments. Have students rank the essays from best to worst, and ask the class to list which factors they think distinguish an A paper from a B, C, and so on. After that, explain your grading criteria and discuss them with the class. In that way, students are more likely to internalize these criteria and apply them to their own work.

Allowing students to assess previous writing assignments could also be used with a Primary Trait Analysis-designed rubric. The teacher determines criteria for each score within the rubric and describes this in a handout given with the assignment or included in the syllabus. Having students work with the rubric to assess another student’s work will help them understand the assignment and hopefully aid them in their own work.

Other ideas for teaching students how to write essay exams include allowing students to practice writing cogent thesis statements in small groups, thus gaining insight and guidance from others, and allowing students to revise an essay, so they receive guidance and learn strategies for future writing assignments.

Another method for increasing processing of information through the design of in-class essays is including time for pre-writing and synthesis before the essay is given. Some ways to achieve this include providing students with a list of all potential essay questions before the day of the exam, requiring students to create and bring to the exam a crib sheet for each essay question, which they can use to answer the essay questions, or assigning take-home essay exams. All these methods allow students time for deeper critical thinking and organization of their arguments.

For course-specific guidance on developing writing assignments, contact the KU Writing Center at 785-864-2399 or writing@ku.edu.

In my Cognitive Development course, students write a paper that takes the form of an advice column, providing recommendations to parents based on psychological research. To complete this assignment, students identify and locate appropriate sources, read and evaluate psychological research, apply findings to a real-world question, and write a response to that question. The project is the culmination of the course and is designed to integrate skills I want students to take away from this class.

When I first taught the course, students were required to locate, analyze, integrate and apply at least five research articles in their papers. I found that students had difficulty with each step of this process. As a result, I’ve made a number of changes to better scaffold, or support the attainment of, these skills. Across multiple offerings, I’ve decreased the number of articles required for the paper and increased the number of supporting assignments. Students turn in articles early in the semester for feedback, analyze a scientific research report, write brief essays that require application of research, summarize each article they’ll use in their paper, and meet in groups to discuss and review summaries. I encourage students to submit rough drafts for further feedback. Each semester I’ve used a rubric to evaluate students’ mastery of skills and changed the assignment based on areas that need more support.

For more about this process, see my portfolio in the CTE Gallery (cte.ku.edu/cte-portfolio-poster-gallery).

—Andrea Greenhoot

DRAWBACKS OF MULTIPLE CHOICE QUESTIONS

A recent article in *Faculty Focus* identified the following drawbacks for assessing student learning with MC questions:

1. A careful reading of some questions can reveal the right answer; test savvy students will use this to their advantage.
2. With lucky guesses students get credit for correct answers. It looks like they know something they don't know.
3. Wrong answer options expose students to misinformation, which can influence subsequent thinking about the content. This is especially true if students carefully consider the options and select an incorrect one after having persuaded themselves that it's right.
4. Students prefer MC tests because they think they're easier. And they are. With a MC question, the answer is selected, not generated.

We encourage to read this article and familiarize yourself with ways to address these potential drawbacks:

www.facultyfocus.com/articles/teaching-professor-blog/multiple-choice-tests-pros-cons

WRITING EFFECTIVE MULTIPLE CHOICE QUESTIONS

In *Connecting the Dots: Developing Student Learning Outcomes and Outcomes-Based Assessments* (Stylus 2016), Ronald S. Carriveau offers several guidelines for creating clear and effective multiple choice (MC) questions. Summaries of Carriveau's guidelines are featured below. No matter how you assess student learning, however, it is important to ensure that your tests and assignments relate back to the overall learning goals of your course.

General guidelines for writing MC questions

- What is specified in the learning outcomes will drive the content of the test items. What the student learning outcomes state is what the items should measure.
- Generally, higher level thinking should be emphasized over recall, but this decision will depend to a great extent on the learning outcome statements.
- Avoid overly specific and overly general knowledge, but this too will be influenced by the learning outcome statements.
- Use vocabulary that is appropriate for the group being tested.
- Keep vocabulary consistent with learning outcomes and simple enough that all students will be able to understand it.
- Edit and proof all items and instructions to make sure grammar, punctuation, capitalization, and spelling are correct.
- Be conservative in your use of words. Don't use excess verbiage. Minimize as much as possible.
- Make sure the item does not assume racial, class, or gender values or suggests stereotypes.
- Ensure the item does not contain wording that could offend any group.

Guidelines for writing the questions

- Be sure to format the question *as a question*.
- Make the stem as clear as possible so the student knows exactly what is being asked.
- Place any directions that you use to accompany text or a graphic above the text or graphic.
- Put the main or central idea of what you want to ask in the stem, not in the answer choices.
- Word the question positively. Avoid negatives terms such as *not, except, barely, nobody*, and so on.
- Make sure that something in the stem doesn't give a clue (cue) that will help the student choose the correct answer.
- Don't make the item opinion based.
- Don't write trick questions.

Guidelines for writing answer choices

- Traditionally, four (or more) answer choices are used, but in most cases, three options will work better.
- Make sure that only one of the answer choices is the absolutely correct answer. Make the other answer choices plausible but incorrect. That is, the student shouldn't be able to easily reject distractors because they obviously lack plausibility. A good strategy is to use typical errors that students make as the distractors.
- Ideally, the distractors should be equal in plausibility.
- Ideally, keep the length of answer choices about equal.
- Avoid using the choice "none of the above" or "all of the above." Using these answer choices conflicts with the guideline to have one absolutely correct answer.
- Avoid the choice "I don't know." This can't be considered a plausible distractor because the student isn't given the choice to be distracted and is instead given the option to miss an item that the student may have gotten correct by using partial knowledge or logic.
- Phrase answer choices positively as much as possible.
- Avoid giving clues to the right answer in the item options. This "clueing" can be within the question and between answers. Avoid using terms such as *always*, *never*, *none*, *totally*.
- Using a question that asks for a "best" answer requires careful wording for the distractors as they all may have a degree of correctness (thus the term "best"), but the correct answer has to be the "best" choice.
- Don't make a distractor humorous.
- Don't overlap choices. This applies primarily to ranges in numerical problems.

Guidelines for item format

- Keep the content of the answer choices as homogeneous and parallel as possible.
- Choose an item format style and follow it consistently. In other words, be consistent in the way that the question and the answer choices are laid out.
- Avoid true-false and complex MC formats.
- List the answer choices vertically rather than horizontally. This makes them easier to read.
- Use three-option MC items. This format allows students to eliminate one distractor option and then utilize their prior knowledge to determine the answer between two plausible options.

BENEFITS OF MULTIPLE CHOICE QUESTIONS

In an online post for the Center for Teaching at Vanderbilt University, Cynthia J. Brame breaks down the advantages of utilizing MC questions on a quiz or exam.

First, she describes MC questions as versatile, meaning that they can "assess various levels of learning outcomes."

She then elaborates on the reliability of MC questions, for they are able to "measure a learning outcome" with a certain degree of consistency.

Finally, she illustrates the validity of MC questions, which allow for a "broad representation of course material."

You can read Brame's post in its entirety by following this link: <https://cft.vanderbilt.edu/guides-sub-pages/writing-goodmultiple-choice-testquestions>

GRADING STRATEGIES

Walvoord and Anderson (2010) have established nine grading strategies to make the task more efficient and effective:

1. Separate commenting from grading, and use them singly or in combination according to your purpose.
2. Do not give to all students what only some need; e.g., give unofficial grades to those students who need them, and only comments to those who don't.
3. Use only as many grade levels as you need; grading work A, B, C, etc. is more time-efficient than grading work A+, A, A-, B+, B, etc.
4. Frame comments to your students' uses; if students do not need or want your comments at a particular time, don't waste time writing them.
5. Do not waste time on careless student work.
6. Use what the student knows. If a student can evaluate parts of her own work, there is little need for the instructor to do so as well.
7. Ask students to organize their work for your efficiency. For example, having students fill out a checklist of completed tasks can save time on worrying about assignment logistics.
8. Delegate the work, such as instituting peer reviews to check for certain issues on papers.
9. Use technology to save time and enhance results.

GIVING STUDENTS FEEDBACK ON LEARNING

Once you've created assignments for students to carry out, you'll need to give students feedback on how well they've performed. To be efficient you'll need to accomplish all your feedback goals with a single consideration of the work. You'll do this for several reasons. One version of the multiple purposes of feedback in the form of grades comes from Walvoord and Anderson (2010), who identify four roles of the grading process:

1. The overall distribution of grade categories evaluates student learning in relation to course material and goals; the performance lets the instructor (and an academic program) know how well the course has succeeded in generating learning.
2. The grade category of an individual student communicates the level of learning to the students, as well as to employers and to other teachers; it serves as an indicator of individual achievement and likely subsequent performance in the field.
3. Since our academic and employment communities value successful learning, grades also function as a motivation device for students; to the degree that students desire recognition for their work, they will focus on their achievement.
4. Graded assignments also organize course components by marking significant transitions between topics and by bringing closure to particular segments of the class; both students and the instructor know how well prepared everyone is for the topics that follow.

Conventional grading can accomplish these goals when criteria for grading are made very explicit. This would include general descriptions of the kind of performance that would be recognized in different categories of grade, as well as individual feedback on how and why performance did or did not match the features of the grading categories. **Research evidence consistently shows that students who receive more detailed feedback on the reasons for their grades improve their performance more than students who simply receive a grade.**

In order for grading to be an effective and meaningful part of the learning-centered classroom, it must be part of the teaching and learning process as a whole. Walvoord and Anderson (2010) write that grading must be integrated into all planning, teaching and interacting in the classroom, but that learning must always remain the central function of the classroom.

ASSESS THROUGHOUT THE SEMESTER

To assess student progress, try to collect information continuously on student learning and growth. According to Angelo and Cross (1993), the most effective times to provide low-stakes feedback to students are before chapter tests and before the midterm and final exam, so that both instructors and students gain information about areas that are clearly understood and areas that are not. It's also helpful for instructors to test students early in the term and consider discounting the first test if results are poor; students often need a practice test to understand the format and anticipate the best way to prepare for and take particular tests.

Empirical evidence for the recommendation to assess often was supported by memory researchers at Washington University (Glenn 2007). Their studies showed that giving short quizzes to students early and often helps implant facts in long-term memory. Tests written in a short-answer format proved to be superior to multiple-choice tests in regard to helping students retain information. Other studies cited in the report demonstrated why cramming doesn't work: When students studied an unfamiliar fact again and again in immediate succession, it felt better embedded in their memory than it actually was. Creating an interval between the times students studied an item led to higher retention rates.

ADMINISTERING TESTS

Time-limited assessments such as tests or presentations can be very stressful for everyone. Especially in large classes that play a role in sorting out students' future careers, there can be challenges to academic honesty. Whenever possible, it's best to create testing occasions that avoid some of the tension and potential for abuse. **If your tests are mostly at the rote end of Bloom's framework (page 7), students will perceive that their primary job is to memorize and regurgitate bits of knowledge; these are the kinds of tests that are most amenable to forms of unacceptable collaboration or transfer.** If possible, include items that ask students to do more than just memorize. You can even provide basic information in the question, but ask students to demonstrate their ability to use intellectual skills to analyze the information given. Items that involve written answers present fewer issues than items with multiple choice formats. Exam items that are more complex in the Bloom framework are not as amenable to academic misconduct. That will relieve your testing situation of some tension due to mistrust and avoid the necessity for maximum security procedures.

If you decide to use test performances that lend themselves to various forms of misconduct, then you'll need to adopt a more skeptical attitude. There are many sources of practical advice, such as alternating forms and mixing bluebooks. See Davis' (2009) guidelines in *Tools for Teaching* for more suggestions.

TEST DRIVES

Robert Magnan (1990) suggests taking your students on a "test drive" to help them prepare for your exams. When you design a test, save items you decide not to use. Make a practice test with these items along with instructions for the exam, including the percentage or points for each section or exercise, and have students complete this practice test in class.

This technique has two advantages: You can test your exams and expose students to instructions. If an exam structure is weak, you can improve it before the exam. If instructions are unclear, you can clarify them.

The test drive should include only a sample of test items. Correct and discuss them as a group. If there are several possible answers, indicate which are better and why. If you've included essays, ask students to list the essential points they think should be included when they answer the essay question, and then evaluate their responses.

The key is to use the minimum amount of time to get the maximum benefit for you and your students.

TWO-STAGE EXAMS

I use two-stage exams with the following goals:

1. First stage (individual) to hold individuals accountable to be able to apply concepts to solve problems;

2. Second stage (group) to hold the individual accountable to be able to explain his/her solution and identify mistakes in the individual's or in a team member's solution.

Scratch cards are used for the second stage to give each group the opportunity to discover the correct solution before leaving the exam. It's quite entertaining to watch groups celebrating their success.

—Carl Luchies

TWO-STAGE EXAMS

An additional strategy for relieving some of the tension around testing is to use two-stage exams. Carl Wieman, a Nobel prize winning physics professor at Stanford, describes them as follows:

The two-stage exam is a relatively simple way to introduce collaborative learning and formative assessment into an exam. In a two-stage exam students first complete and turn in the exam individually, and then, working in small groups, answer the exam questions again. During the second stage, the room is filled with spirited and effective debate with nearly every student participating. This provides students with immediate targeted feedback supplied by discussions with their peers.

In the classic exam, students are intensely engaged with the material, but they lose the opportunity for formative assessment, because the feedback is mainly right/wrong and comes a long time after the exam. By contrast, in a two-stage exam, students receive immediate, specific feedback and increase their mastery.

In our two-stage exams, students participated strongly in the discussions, and their reactions were overwhelmingly positive. Even those who found the discussions uncomfortable, because they saw where they had made mistakes, acknowledged that they learned what they needed to learn.

For detailed information about implementing two-stage exams (which can be used in any discipline), see teachingcommons.stanford.edu/teaching-talk/turn-exam-learning-experience-two-stage-exams

This strategy has advantages and disadvantages. If more students learn, then grades will be higher and some people will complain that the course doesn't differentiate the best students. On the other hand, a tactic that generates more learning is more valuable. It's worth remembering that most academic work we care about (theses, dissertations, journal articles, grant proposals) are always done over and over until they reach a high level of quality. It seems odd to presume that students should get one try and one try only for their work.

If you want students to see that testing can be part of learning and that cheating isn't a sensible option, rethink how you approach evaluating students. Using complex forms of assessment like two-stage exams will go a long way toward establishing a climate that promotes learning.

GRADING WRITING ASSIGNMENTS AND ESSAY EXAMS

When it comes to grading student work, a number of instructors fall into one of two traps: undergrading or overgrading. Some instructors simply mark mistakes or note negative points and give a grade. However, telling students to “clarify this” may be like telling them to “be tall”; they might not know how to do what you ask. Other instructors give too much feedback, spending too much time marking students’ careless mistakes. This overwhelms students and unnecessarily overtaxes faculty members. When you grade, consider how you can help students see why they might have made particular errors, to help them focus their thinking on areas where they need the most work.

In his book *Engaging Ideas: The Professors’s Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom*, John Bean (2011) offers four recommendations for grading essay exams. First, don’t look at students’ names when you read the exams, or have students write an ID number [*editor’s note*: not a Social Security Number] on the test instead. This way, you’ll be able to eliminate grader bias. Second, grade the exam one question at a time, rather than reading the whole exam of each student. This will help with grading reliability.

The third recommendation Bean provides is to shuffle the exams after you complete each question so that you read them in a different order. Record scores in such a way that you don’t know what a student received on Question 1 when you grade Question 2. Finally, if time permits, you should skim a random sample of exams before you make initial decisions about grades. Your goal is to establish anchor papers that represent prototype A, B, and C grades. Then, when you come to a difficult essay, ask yourself, “Is this better or worse than my prototype B or C?”

Another method that works well for grading papers and essays is using a scoring rubric. Developing a rubric requires four steps (see right). The advantage of using rubrics is that, rather than writing out extensive comments, you score the essay or assignment using the rubric, making this an efficient way of grading. Students can refer to the rubric when writing the assignment, as well as use their scored rubric to examine their work’s strengths and weaknesses. This method also increases inter-grader reliability when multiple individuals grade assignments. Examples of rubrics used in KU courses are provided in Appendix E. See Walvoord and Anderson’s *Effective Grading* (2010) for more about rubrics.

John Bean also provides useful advice about developing rubrics, as well as dealing with issues of grammar and correctness (chapter 5) and coaching the writing process and handling the paper load (chapter 15). Copies are available in the CTE library.

FOUR STEPS TO CREATING A RUBRIC

1. Choose a test, assignment or group of assignments that you’ll evaluate. Clarify your objectives.
2. Identify the criteria or traits that will count in this evaluation. These are usually words or phrases such as “thesis,” “use of color,” or “use of relevant examples.”
3. For each trait, construct a two- to five-point scale. Each point relates to a descriptive statement; e.g. “A 5 thesis is clear and appropriate for the scope of the essay; it neither repeats sources nor states the obvious.”
4. Try out the scale with a sample of student work and revise as needed. CTE also has samples of rubrics available.

Jorge Pérez’s course portfolio contains an excellent example of both a means for developing a rubric and ways to use it effectively.

Kim Warren’s course portfolios also provide excellent examples of rubrics.

You can find all of these in the CTE gallery: cte.ku.edu/cte-portfolio-poster-gallery.

UNIVERSAL DESIGN STRATEGIES

Class climate. Reflect high values with respect to diversity and inclusiveness. Invite students to discuss accommodations or other learning needs.

Access, usability and safety. Ensure that activities, materials and equipment are usable by all students. Develop safety procedures for all students; label equipment simply, in large print; repeat printed directions orally.

Delivery. Vary methods of instruction. Use multiple modes to deliver content and engage students—lectures, collaborative learning, hands-on activities, etc.

Information resources. Ensure that course materials are accessible. Choose printed materials and prepare a syllabus early to allow students to start readings and assignments before class begins and to allow time to arrange alternate formats.

Interaction. Encourage interactions between students and instructor and among students; ensure that communication methods are accessible. Assign group work for which learners support each other and that values different skills and roles.

Feedback. Provide feedback regularly. Allow students to get feedback on parts of big projects before the final is due.

Assessment. Regularly assess progress with multiple methods; adjust instruction accordingly.

Accommodation. Know how to get materials in alternate formats, reschedule classrooms and arrange other accommodations for students with disabilities (Burgstahler 2007).

INCLUSIVE TEACHING

An inclusive classroom climate is one that embraces diversity and creates an atmosphere of respect for all members of the KU community. Feeling unsupported and isolated in the university environment puts students at a high risk for dropping out of college, particularly in the first two years of the curriculum. The Center for the Integration of Research, Teaching, and Learning argues that we can capitalize on the rich array of experiences, backgrounds and skills that diverse faculty and students bring to the classroom to the benefit of all. Here are some strategies that faculty can adopt to promote a sense of belonging, validation, and mutual respect in our classrooms.

Look for ways to increase student exposure to the diversity of human experience. Choose content and examples that address and model diversity, regardless of the subject. Although issues of diversity may at first glance seem more relevant to some disciplines than others, scholars in any discipline can discuss the way that different frames of reference and cultural assumptions affect the accumulation of knowledge.

Include issues of diversity as part of the course learning outcomes. Use images of people that represent various ethnicities, races, and genders, and use a broad range of analogies and examples. Make your classroom inspiring for underrepresented students. Discussions of the contributions of diverse scholars and providing role models representing a range of cultures, races, genders, or sexual identities conveys that everyone can be successful.

Create diverse groups or learning teams. When using instructor-formed groups or learning teams, avoid (when possible) creating groups that either isolate underrepresented students or create homogenous groups of students. Students who feel isolated within their team may lose the benefits of collaborative learning, and may have an amplified feeling of marginalization at the university. Provide guidelines for group interactions, check on group functioning through peer feedback, and intervene to shift or structure groups as needed.

Reduce stereotype threat. This term was coined by Steele and Aronson (1995) to refer to situations in which the performance of negatively stereotyped groups suffers when that stereotype is activated or emphasized. Strategies such as reframing a task with different language, deemphasizing the salience of the stereotyped group membership, and providing role models can help to counteract stereotype threat.

Include diversity and disabilities statements in your syllabus. Such statements communicate a commitment to diversity and

inclusion from the beginning of the semester. They also provide an opportunity to set ground rules or a code of conduct for respectful and appropriate behavior. See Appendix A for a tool that can help you evaluate your syllabus as well as your course design.

Reflect on your own background and experiences. Consider how your own background and cultural influences might affect how you have designed your course. Does the material provide an accurate representation of various perspectives?

TEACHING INCLUSIVELY

Some teaching strategies are particularly effective in engaging and supporting learning in students from a wide range of backgrounds. Methods that encourage active and collaborative learning improve student engagement and learning for all students, and close the achievement gap between underrepresented and majority students. The overall effectiveness of these methods has been borne out in research nationally, most recently by a major meta-analysis of hundreds of studies in the Proceedings of the National Academy of Sciences.

Strategies such as cooperative small group learning, problem-based learning and increased course structure (e.g., guided-reading questions, preparatory homework, and in-class activities) have proved especially helpful to minority students and first-generation students. These methods are at the core of current course redesign efforts to include more student-centered teaching. Similarly, peer-led supplemental discussions or workshops enhance learning for all, with especially significant benefits for minority or underrepresented student groups.

These approaches shrink large classes to smaller groups in the same space, reduce academic isolation and encourage a sense of community. They also enhance critical thinking, improve student preparation and accountability, and transform students into active learners. They also employ universal design (see box on page 14), a strategy that increases access and support for particular groups of students but that benefits all learners.

See the box at right for other approaches in and out of the classroom that improve engagement and success in diverse learners. CTE's website provides more information about meeting the needs of diverse learners (cte.ku.edu/resources-inclusive-teaching), including creating an inclusive climate, leading difficult discussions, and examples of syllabus language for inclusivity. See Appendix A for a DEI self-assessment tool.

IMPROVING ENGAGEMENT AND SUCCESS FOR DIVERSE LEARNERS

Emphasize real-world applications of course material.

Ask open-ended problems and assignments that have many "correct" answers; questions that require consensus of group or contributions of everyone in a group to address.

Increase transparency in courses, such as the use of rubrics for grading. Rubrics improve grading efficiency and consistency, and they also demystify what it takes to succeed on an assignment. Students from underrepresented groups who do not have access to insider academic knowledge can particularly benefit from additional clarity and transparency.

Continually assess student outcomes. Use formal (e.g., student performance, student feedback) and informal (e.g., in-class engagement, participation) evidence to guide your teaching. Are the strategies that you are using promoting broad student achievement of the skills and concepts you hope they will take away from your course? Are your methods engaging students from a wide range of backgrounds? When student outcomes fall short of your expectations or wishes, look for new interventions to address those challenges.

REARRANGE THE CHAIRS TO IMPROVE LEARNING

Classroom seating sends clear signals to students.

Most rooms have neat, even rows of individual desks or seats that face toward the front of the room. The message: The instructor will lecture and students should sit, wait and listen.

I want students involved in their learning, though. To encourage that, I rearrange the seating. Creating small clusters or a wide circle of chairs allows students to see one another and encourages interaction. Arranging tables in a rectangle or U shape does, too. These formats also remove the emphasis from the instructor and create a structure that encourages shared learning.

You can't rearrange every room, of course—lecture halls are inflexible by design—but when you can, you should. Moving furniture reorients a room, and it might also reorient students' thinking about your class.

—Doug Ward

ENGAGING STUDENTS

USING CLASS TIME WELL

Your teaching will be most effective if the assignments you give are related and similar to the exams and assessments you give throughout the semester. In a similar way, activities that students engage in (both during class time and between class meetings) should be closely related to how students will be evaluated. In general, there will be more learning if students' in-class activities are most similar to the activities you want them to show you as examples of deep understanding and rich knowledge. There is a place for sharing information in class, but optimal teaching practice is not simply repeating orally what's written in a textbook.

One of the nation's leading researchers on higher education practice and theory is John Bransford (1998). He and a colleague wrote a powerful article describing the best uses of lecturing in higher education, noting there is a "time for telling" students what we know and how we know it. Their research suggests that lectures are effective tools for learning when the audience is very familiar with the topic being discussed. Such listeners are able to process arguments and examples, and they can evaluate them and re-work them in real time. In contrast, they found that novices getting their first exposure to material spend most of their energy during a lecture trying to recognize what's being said as they attempt to record the content. They're unlikely to be able to evaluate or challenge what they hear, or engage in critical analysis or synthesis that's so often the goal of higher education.

As a practical matter then, how can college teachers take best advantage of the efficiency and insight characteristic of a good lecture, when most often the audience is made up of novices in our fields? This is an important challenge for all college teachers, and developing the optimal use of class time is not an easy matter. **Any course should include some time that allows and requires students to discuss, analyze, argue or even write about the day's topics.** These activities will be aligned with the performances that are required of students on assignments and tests, and they will constitute the backbone of the learning activities in a course. The insights and examples provided in lectures by the teacher are woven around those activities to provide context, to give additional examples of professional thinking and analysis, and to stretch students' horizons on the topic. In the end, the period of an optimal class meeting will likely be broken into several segments, each with its specific contribution to students' learning. The variety itself is even an asset, as all human beings have limits to their attention span, and mixing up the activities will sustain better engagement.

CONTEXTUALIZING MATERIAL

Using existing knowledge to learn something new helps make material accessible. As McKeachie & Svinicki (2010) state, relevant knowledge strengthens new learning by generating meaningful connections to new information. Learners typically use prior knowledge by creating either direct relations, in which they relate what's known to what they're trying to learn, such as comparing and contrasting causes of two wars; or analogical relations, in which they use analogies to relate familiar and new concepts that share some key characteristics but are different in other ways, such as using a post office to explain aspects of computer storage.

Davis (2009) shares additional strategies for contextualizing new information:

Allow for the fact that different students learn, think and process information in different ways. Students vary in how they learn and how long they take to learn, and they don't make uniform progress.

Let students know what they are expected to learn. Emphasize key course concepts and important points in class sessions.

Give students a framework within which to fit new facts. Use outlines, study questions or study guides to provide a conceptual framework or structure for concepts.

Present material in ways meaningful to students. Students are more likely to understand and remember new material if it's already relevant, meaningful or important to them.

Limit the amount of information you present. Students can absorb only three or four new points in a single presentation.

Stress concepts, not facts. Too many details overwhelm students; broad concepts are more meaningful and more easily understood and remembered.

DEVELOPING POSITIVE CLASSROOM INTERACTIONS

McKeachie & Svinicki (2011) suggest several ways to encourage students to be active in the classroom. Create an expectation of participation early in the semester by defining various facets of the course and explaining why participation is valuable. Understand that boredom, lack of knowledge, passivity, cultural norms, and above all fear of being embarrassed may keep a student from talking in class. To reduce that fear, use small groups and help students get to know each other. Ask questions that have no wrong answers to help students get used to participating. Learn students'

MAKING MATERIAL CLEAR

One of the biggest challenges I face as a teacher is how to make material clear and accessible to students. An approach I've found particularly successful is to start with fundamentals at the beginning of the class and at the beginning of new sections of material. I very briefly review key vocabulary and basic concepts, and often add a little history or a story about one of the ideas. Organizational communication lends itself quite well to this, but all our disciplines have famous accounts or famous applications.

I present reviews as a way to be sure that everyone starts from the same point. The history, which is frequently new information, adds a bit of spice. This scaffolding approach reduces any perceived threat to both those who know the material and those who don't.

—Tracy Russo

LEARNING STUDENTS' NAMES

Learning students' names is a good way to develop positive classroom interactions. If you have trouble remembering names, try these ideas:

Have students give their name before they speak in class.

Memorize a row of students each class period.

Have students make name plates with 5" x 8" index cards. Ask students to fold the cards in half and write their names on them in large print. Collect the name plates and hand them out at the start of class (also a way to take attendance without using extra class time).

Use students' names as often as possible.

If you're teaching a large class, divide the entire group into smaller groups. Give each group a short project, and learn the names of everyone in one group, then in another group for the next project.

Ask students to provide index cards with their name, a photo and an interesting fact about themselves. Use these to study names between class meetings.

Be honest with students and patient with yourself. Students have to remember the names of only a few teachers; you have names of many students to learn. Even if you call a student by the wrong name, the class will appreciate your effort to acknowledge them on a personal level.

names, and call on them by name. Ask students to write short answers to questions. A shy person will likely respond to being asked, "What did you write?" Get to know students who don't participate, so you'll find any special knowledge they may have; ask them to contribute it at appropriate times.

In an article in *The Chronicle of Higher Education*, Jay Howard offers several pieces of advice on how to develop positive classroom interactions with and among students. His first tip is a simple and important one: ask good questions. This means avoiding "yes or no" questions, because those "rarely lead to a thoughtful exchange" of ideas between students. Here are some strategies that will help you generate effective discussion:

- Frame your questions to inspire a range of answers.
- Ask students to apply a variety of theories or perspectives to a particular example.
- Conversely, after illustrating a topic or concept, ask students to provide their own example.
- Ask about process, not content.
- Have a discussion *about* discussion.

In addition to providing these guidelines, Howard also advises that it's best to introduce group discussion on the first day of class. Often, "the professor's voice is the only one heard that day," and Howard believes that we should break from that norm and allow students to establish their own voice on the first day of class. This also helps set student expectations for the class; they will know from Day One that they are expected to participate in discussions.

If you want to move discussion outside of the classroom, you can create a Blackboard Discussion Board and have students interact online.

We encourage you to read Howard's article in its entirety by following this link: https://www.chronicle.com/interactives/20190523-ClassDiscussion?utm_source=at&utm_medium=en&cid=at#

TEACHING INDUCTIVELY

Inductive teaching, also known as inquiry or discovery teaching, centers around the idea that knowledge is dependent on an individual's experience and interaction with material. **In inductive teaching, the instructor provides students with problems to solve or data to interpret, and students eventually recognize the need for facts and skills, which the instructor is then able to provide** (Prince & Felder 2007). As a result of this method, students find patterns and applications, explore and extend material, and make connections from the instructor's examples, thus inductively

learning a concept that these examples indicate. This is opposite of deductive teaching, in which a teacher defines a concept and then exposes the class to examples of it.

Structuring your class so that students learn inductively is outlined in *Teaching for Understanding* (Wiske 1998). In this framework, the role of the teacher is to direct students' attention and analysis through focused, often ongoing assignments. These assignments should attempt to increase the "uncoverage" of a subject, which requires that students receive "lessons that enable them to experience directly the inquiries, arguments, applications and points of view underneath the facts and opinions they learn if they are to understand them. Students have to *do* the subject, not just learn its results" (Wiggins & McTighe 1998).

This manner of teaching is beneficial for instructors whose course goals include the statement, "**I want my students to be able to think like a _____ (scientist, mathematician, writer, etc.).**" Wiske recommends shaping assignments such that they increase in complexity across the semester, as well as move from group projects to independent learning tasks. Learning occurs through observation and guided performances, and assessment of students' increasingly honed reasoning skills occurs through ongoing assignments. A culminating performance is often used at the end of a course or unit, which requires independent application of inductive thinking, synthesis, and a demonstration of understanding that extends beyond the learning that was attained from group work.

Four steps should be followed when teaching inductively:

1. Provide examples—From these, encourage students to discover applications and patterns.
2. Explore and extend—Ask students to consider deeper and broader facets of the class material.
3. Make connections—Have students describe how the material is interrelated, then ask them to describe a concept based on it.
4. Offer a conceptual scheme—After students have tried to construct their analyses, offer your own conception that organizes and connects material.

Prince and Felder suggest that instructors considering inductive teaching ask themselves a few questions to make sure this method of teaching is right for the class they are teaching. They should ask if their course objectives ask students to think at a high cognitive level, if they have any experience using inductive teaching methods, if they are already tenured or on a tenure track, and if the resources needed for inductive teaching are available to them.

TYPES OF INDUCTIVE TEACHING

Prince and Felder (2007) outline six main types of inductive teaching:

Inquiry-based learning—Students are presented with a challenge and accomplish the desired learning in the process of responding to that challenge.

Discovery learning—Students are presented with a challenge and are left to work out the solution on their own, with little or no direction from the instructor, who simply provides feedback on students' efforts.

Problem-based learning—Students are provided with an ill-structured, open-ended real world problem that they must define more precisely, determine what they need to know to solve the problem and how to proceed. Students usually work in teams.

Project-based learning and hybrid methods—Students are assigned to produce something, such as a product design, computer code or experiment.

Case-based teaching—Students study cases they are likely to encounter in professional practice and are asked to reexamine preconceptions based on those cases.

Just-in-time teaching—Students respond electronically to questions about material before the class and the instructor modifies classroom lectures and activities to address misconceptions students may have about the material.

JIGSAW LEARNING

With jigsaw learning, each student learns a subset of a larger concept, then teaches it to peers. When all students share what they've learned, they develop a coherent body of knowledge.

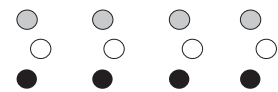
1. Choose material that can be broken into parts. It shouldn't matter if one segment is presented before others. Examples include parts of an experiment, a list of definitions, or short readings.
2. Count the number of learning segments and number of students. Group students based on the number of segments and ask each group to read, discuss and learn one segment.

Study Groups



3. After the study period, form jigsaw groups. These groups should have a representative of each study group.

Learning Groups



4. Ask jigsaw group members to teach each other what they learned.
5. Reconvene the full class for review and remaining questions to ensure accurate understanding.

ACTIVE LEARNING

Active learning involves implementing “learning experiences in which the students are thinking about the subject matter” (McKeachie & Svinicki 2011). It's based on the premise that students must do more than just listen to fully comprehend new information: They must read, write, discuss and solve problems. By using active learning, you'll increase your students' learning.

Reading

One active learning method is **The Treasure Hunt** (Magnan 1990). It's based on the premise that if you've assigned a reading, there must be something valuable in it. Choose several pages or sections, then ask students to find the most important point, idea or argument and write it down, along with a sentence or two justifying their selection. If you choose assigned passages well, you can increase understanding and participation immediately.

Writing

John Bean (2011) describes three ways to use writing for active learning during a class:

1. At the beginning of class to probe a subject: Ask students to write short answers to a question that reviews previous material or stimulates interest in what's coming.
2. During class to refocus a lagging discussion or cool off a heated one: When students run out of things to say, or if a discussion gets too hot, ask students to write for a few minutes.
3. At the end of class to sum up a lecture or discussion: Give students a few minutes to sum up the day's lecture or discussion and prepare questions to ask at the start of the next class.

Problem-solving

Some college teachers punctuate classes with opportunities for students to solve a problem related to class material. The instructor will pose a question that should be amenable to a solution, given what has been covered to that point; students are invited to work for a minute or two with peers to come up with an answer.

This technique is often called **Think-Pair-Share**. Many instructors now use classroom response systems (aka “clickers”) to allow everyone in the room to vote for an answer. Eric Mazur (1997) is well known for demonstrating that his students often were not getting a conceptual understanding of physics from his lectures; only when he initiated paired discussions and had students report

answers did their work improve. Many practitioners believe that discussion between students produces the richest learning, and a lecture surrounding discussions serves more as a summary than a driver of learning. With or without clickers, this method shows improved learning over uninterrupted lecturing.

DISCUSSIONS

Like other forms of active learning, class discussions provide variety within the flow of a class. They can be used as a starting point if you're teaching inductively; e.g., students lay out dimensions of a social setting or problem and try to identify solutions. Once the discussion has set the stage, the presentation brings academic knowledge or understanding to bear on the setting students identified. An alternative would be to discuss after a presentation, inviting students to discover ways the material aids in resolution.

Leading discussions requires us to maintain a balance between using our voices and encouraging students to use theirs. Consider these ideas for sparking discussions:

Invite students to ask questions related to a reading assignment, then frame the discussion around those questions.

Have students write their answers to a sentence completion exercise, then share their ideas: What most struck me about the reading was ... A question I'd like to ask the author is ... The idea I disagree with most strongly is ... The part of the lecture or reading that made the most sense to me was ...

Ask students to respond to a contentious statement or an illustrative quote.

Have students recall an experience in their lives that somehow connects with the topic.

To increase the number of responses you get, try this from John Woodcock (in Stocking 1998): Break up your presentation, giving students two or three minutes to discuss a question with the person sitting next to him or her. Rather than reporting on their own ideas, ask students to report on their discussion partner's good ideas. When he tried this, Woodcock found "Three times as many hands went up, and the reports had a consistently better energy." This can work with any size group in almost any situation.

One strategy that several KU faculty members have found useful is called **the fishbowl**, a discussion format in which part of the class forms a discussion circle and remaining students form a listening circle around the discussion group. During the class, students rotate through the groups (see right).

FISHBOWLS

Devise three questions for discussion and order them. In a class on ecology, e.g., questions may be: How is the environment being endangered? What steps can the government and private industry take to deal with the problem? What can we do personally? Ideally, questions would be interrelated, but that's not required.

Set up chairs in two concentric circles. Have students count off by 1, 2, and 3. Ask group 1 members to sit in the discussion-circle seats and groups 2 and 3 to sit in outer-circle seats.

Pose your first question. Allow up to ten minutes for discussion. Invite one student to facilitate or act as the facilitator yourself.

Invite group 2 to sit in the inner circle, replacing group 1, who now sits in the outer circle. Ask group 2 if they'd like to comment briefly about the first discussion, then ask the second question.

Follow the same procedure with group 3.

After the questions have been discussed, reconvene the class as a whole group. Ask for their reflections about the entire discussion.

If you can't use circles, have a rotating panel discussion instead. One-third of the class becomes a panel for each question. Panelists can sit in front of the classroom facing the rest of the class.

IF NO ONE IS TALKING ...

If discussions aren't going well because no one is talking, consider the following:

Did students complete preparatory assignments?

Have I modeled public critique of my ideas?

Is the discussion focused on an open-ended question of sufficient complexity and ambiguity?

Have I avoided answering the question I posed, either implicitly or explicitly?

Have I linked the topic to a critical event in students' previous experiences?

Is my talking preventing students from contributing, or is discussion faltering because I don't speak enough?

What am I doing to build continuity and a sense of collaborative engagement?

As a variant on this, invite a trusted friend or colleague to sit in during a planned discussion time in class. Your colleague may be able to give you additional answers to the same set of questions after watching you interact with the class. If the class is very small, the addition of a stranger may change the dynamics, but given sufficient time, things usually revert to normal, and you can learn from your friend's answers.

In a large group discussion, once it's moving, keep it going by asking for more evidence or clarification. Ask "How?" or "Why?" Pose questions that link or extend the discussion, address cause and effect, and ask for synthesis or summary of the material. Other ways to encourage discussion are by affirming student comments and being silent when appropriate. McKeackie & Svinicki (2011) note many lecturers check student understanding by asking if there are any questions, waiting three to five seconds, and after receiving no response conclude everyone understands. But this is often not the case; students just haven't had enough time to process material. Give students some "hang time" to think.

When it's time to end a discussion, conclude with a summary so that students know what important points were covered. A summative statement also gives you the opportunity to fill in points that weren't covered and to praise the class for their responses.

Some instructors feel their classes are too big for discussion as a single group. In that case, many activities can be done in small groups organized within a class (large or small), in which discussions are held among a handful of students, often directed toward a particular aim or focused group product. Another approach grows from research on memory that suggests that the best understanding is one that's connected to already existing knowledge. If course ideas are used in the analysis of topics, situations or questions that are already part of students' interest, there will be more engagement and more long-lasting effects of the thinking and talking that are done. **This last strategy is a form of student-centered teaching. The instructor starts by asking what questions or social contexts are most important to students, so that teaching is embedded in those contexts, not just applied as an afterthought.**

QUESTIONS

Question types

Different questions have different purposes. Understanding the types and their uses can help you structure and lead discussions.

Discussion starters get students talking: "Why did the company file for bankruptcy?" "What issues does this case pose?"

Probing and challenging questions ask students to examine areas of a problem or situation: "What did the data suggest?" "Did the president respond appropriately to the situation?"

Connecting questions ask students to make links between old and new information: "What similarities does this case share with a previous one?" "How does this outcome support the theory found in the textbook?"

Predictive and hypothetical questions help students apply what they learn to other situations: “What will happen if we boil the solution?” “Imagine that a primary value for this society was competition—how would that change life in the village?”

Analytical and evaluative questions help students make informed judgments about the subject matter: “Can you rank the designs based on how aesthetically appealing they are?” “Which decision by the president was most effective?”

Summary questions help students articulate key points of a discussion or lesson: “What are the main points of this case so far?” “Can you summarize decisions the committee made their first year?” (adapted from Meyers and Jones 1993).

Questioning techniques

Bob Powers (1992) identifies ways instructors can ask and respond to questions effectively:

Use open questions to solicit responses; use closed questions to end them (see right).

Provide correct, clear answers to students’ questions.

If you are unable to answer a question, find the answer and report it back to students.

Answer questions nondefensively.

Occasionally refer questions back to students.

Sometimes guide students to reach answers themselves.

Remember: Don’t ask a question, then answer it yourself.

CREATING TEAMS AND GROUPS

Having students work in groups provides several benefits for both students and instructors, especially in large classes.

Group work allows instructors to pose challenging questions that groups solve collectively. It promotes interaction among students and essentially turns large classes into smaller sections in the same room. **This approach has proved especially beneficial to women, first-generation students and underrepresented minority students.** Using group work effectively requires more than just putting students together randomly. Matthew Ohland, a Purdue professor who led development of a team creation tool called CATME

CLOSED QUESTIONS

1. Do you understand?
2. Do you agree?
3. Is there anything else you want to know?
4. Any questions?
5. Will you remember this?
6. Did it help you?

OPEN QUESTIONS

1. What’s your understanding?
2. What do you agree to?
3. What else would you like to know?
4. What questions do you have?
5. What will you remember about this?
6. What was helpful about it?

KEYS TO EFFECTIVE GROUP WORK

Create groups (five to seven people each) that are diverse in terms of gender, learning style, interpersonal abilities, class grades, nationality, work experience and type of degree they are pursuing. Also, combine people in groups who don't have previous knowledge of each other, and who have complementary schedules for meeting outside of class.

Select group work that requires team members to collaborate and that allows as much time for group interaction as possible in order to encourage valuable interactions.

Allow the groups to determine individuals' roles and the goals of their teamwork. Have the roles of the individuals in the group rotate throughout the project.

Establish classroom behaviors that encourage group interactions, such as the sharing of information between teams and student cooperation during the learning process.

Include evaluations that measure teamwork, such as tardiness, preparation for classes and grades on group work.

Before assigning complex projects, engage the class in ice-breaker and bonding exercises, as well as assigning projects that increase in complexity.

—Dan Spencer

(see info.catme.org) and has studied team dynamics for more than two decades, uses an illustration of an iceberg to represent visible and invisible characteristics of identity. Gender, race, age, physical attributes and language are among those most noticeable to others. Below the surface are things like thought processes, sexual orientation, life experience, and perspectives. Awareness of those characteristics helps team members recognize the facets of diversity and the complexity of individual and team interaction. A few components of effective teams stand out, though, Ohland says.

Schedule. If you want students to work together outside class, their schedules must be similar enough that they can meet. “Of all the things you can choose about team formation, schedule is by far the most important,” Ohland says. If students do all the work in class, the schedule component loses its importance, though.

“Otherness.” This is often race and gender, but it can be any characteristic that makes someone in a group feel isolated. For instance, putting one woman on a team of men generally makes it difficult for the woman to have her voice heard, Ohland says. Putting a black student on a team in which everyone else is white can have the same effect, as can putting an international student on a team of American students.

Team management. Thoughtful creation of teams is important, Ohland says, but team management is even more important. Instructors must monitor a team's interpersonal dynamics as well as the quality of its work. Is someone feeling excluded or undervalued? Is one person dominating? Are a few people doing most of the work? Is a team member creating barriers to getting work done? Whatever the problem, Ohland said, an instructor must act quickly. Sometimes that means pulling a team member aside and providing a blunt assessment. Sometimes it means having a conversation with the full team about the best ways to work together.

The ins and outs of teams

Ohland says it is important to prepare students to work in teams. His students go through several steps to do that, including videos, in-class discussions about how good teams work, guidelines students need to follow, and ways to overcome problems. They also agree to follow a Code of Cooperation, which stresses communication, cooperation, responsibility, efficiency and creativity.

He also explains to students how a student-centered class works, how that approach helps them learn, and what they need to do to make it successful. In a student-centered class, an instructor guides rather than leads the learning process, and students help guide learning, apply concepts rather than just hear about them, reflect on their work and provide feedback to peers (Understanding the U.S. Classroom Learning Environment, 2009). Students

must also understand the system they will use to rate peers, Ohland says, and he goes over that system in class. It includes measures on how students are contributing to a team, how they are interacting with teammates, how each member works to keep the team on track, how to evaluate the work quality of teammates, and how to evaluate teammates' knowledge, skills and abilities.

Among Ohland's other advice about teams:

Don't force differentiation in evaluation scores. Forcing students to give each team member a different score creates false differentiations that frustrate students and lead to less-useful evaluations.

Learn what ratings mean. If team members give one another perfect scores, it could mean they are working well and want to be left alone. It could mean that students didn't take time to evaluate properly, or it could mean that students felt uncomfortable ranking peers. In that last scenario, Ohland talks with teams and explains why it is important to provide meaningful feedback. If they don't, individuals lack opportunities to improve and the team lacks the opportunity to grow. "It gets that discussion about why are we doing this and why it's important not to just say everybody's perfect," Ohland says.

Keep the same teams (usually). Changing teams during a semester can create problems, because high-functioning teams don't want to disband and teams that are not making progress need more time to work through kinks. Only dysfunctional teams want to change. The best approach is to find those dysfunctional teams and help them get on track. One exception to that guideline is when learning to form teams effectively is part of a class's goals. In that case, an instructor should form teams more than once so that students get practice.

Evaluate teams frequently. Ohland recommends having peer evaluations every two weeks. Research shows that evaluations should coincide with a "major deliverable." That makes students accountable and increases the stakes of evaluations so that students take them seriously.

Create the right team size. In some cases, that may mean three or four. In others, six, eight or more. It also depends on the rooms' layout. For instance, a team of three in a lecture hall is ideal because students can have easy conversations. A group of four in the same setting will exclude one member of the team. "Team size depends on what you are asking students to do," Ohland says. The critical thing about team size is that you need enough people on a team to get the work done that you are asking them to do—the quantity of work. You also need enough people on a team to have all the skills necessary to do the work represented."

LISTENING TEAMS

Divide the class into four teams, then give the team members different role assignments:

Questioners—This group will ask at least two questions about the material.

Agreers—This group will tell which points they agreed with, or found helpful, and explain why.

Nay-sayers—This group will comment on what points they disagreed with, or did not find helpful, and explain why.

Example givers—This group will give specific examples or applications of the material.

Present your material. After you're done, give the teams a few minutes to complete their assignments.

One reason listening teams are successful is that each student feels as though his or her contribution is important and sees that contributions are rewarded. Structuring group work with this in mind can increase the quality of student participation and the effectiveness of the group exercise.

FIVE WAYS TO IMPROVE LECTURES

1. Fit your lecture to your audience by gathering information about your students beforehand.
2. Prepare an organized outline with your major points, and decide which minor points you will include. Present this outline at the beginning of class.
3. Present multiple sides to an issue, to make your students aware of the various viewpoints or to help strengthen an argument you are making.
4. Repeat the points you are making in two or three different ways, and stress the points you deem most important.
5. Look at your students, include discussions, and solicit questions.

LECTURING

The appropriateness of using a lecture format depends on your course goals, and as an instructor you should evaluate course aims before determining whether lectures will most effectively achieve your goals.

The strengths of the lecture are that it “can communicate the intrinsic interest of the subject matter, and it can present the newest developments” (Cashin 1985). Another strength of lectures is their ability to restructure information into a unique manner, relevant to course directions. Lectures also provide a large amount of material to many students at the same time. Finally, they can be used as examples for how professionals approach an intellectual question.

Negative aspects of lecturing include lack of feedback to students, a presumption that all students learn material at the same pace, and the problem that poorly-designed lectures are not well suited for higher levels of thinking, such as synthesis and application. To overcome these hurdles, Cashin offers several recommendations for improving lectures (see left).

Another way to enhance your lectures is by effectively using a whiteboard or visual presenter. **Students’ notes are often an exact copy of what appeared on the board or presenter, with very few additional points or connections.** Effective board work highlights and emphasizes the organization required in problem-solving or the evolution of an argument. Remember that even the best students will occasionally lose the thread of a lesson or forget the original objective of a discussion. The whiteboard is their major, and often their only, resource for reentering the lesson. Therefore, be organized, use headings, write clearly, and when solving problems on the board, show each step in a logical sequence. If at the end of a lecture, you can stand back, look at the board, and reconstruct the lecture using what is written, then you are developing good board skills.

Carefully designed lectures can serve as a mechanism for encouraging higher levels of thinking in your students. In *What’s the Use of Lectures?*, Bligh (2000) addresses how to promote thought using lectures. He recommends the following: Make sure your lectures encourage application and discovery (see *Teaching Inductively*, p. 18), as opposed to only serving as a platform for the presentation of material. In this way, students learn how to use the information provided to analyze novel situations. Next, ask questions throughout the lecture, focusing on questions that promote critical thinking, not rote memorization (see *Discussions*, p. 21). To assist student thought, provide a visual display of the presented material, include handouts so students can focus on thought rather than

note taking, require students to pre-read material so that lecture isn't their first exposure to it (see *Facilitating Learning Outside of Class*, p. 34), and watch your lecture speed. Bligh found that students performed best with thought-provoking questions when lecture material was presented slowly, as compared to when the lecture was presented at a faster pace; a slower pace allows students time to think about material. For more information related to promoting critical thinking, see *Active Learning* (p. 20).

FINDING A GOOD COMBINATION

One example of a well-balanced course comes from the work of history professor Lendol Calder at Augustana College. He was teaching a survey course in American history to beginning college students—exactly the kind of course typically taught in pure lecture format. His goal was to have students begin to think like an historian, to understand how history is constructed by historians, and to analyze historical artifacts using an historian's tools. Calder's solution is not for everyone, but it offers one example of how to combine the insights of people like Bransford (1998) and Mazur (1997) within the practicalities of teaching a course.

There were three class meetings each week. For the first class, students did some background reading, then watched a film or other visual material that set the context for the week's topic. In class Monday, he gave each person a document, photograph or other historical artifact, and the assignment was to write an historical analysis of it for class on Wednesday. That writing was required; without it a student wasn't admitted to class. Students spent Wednesday sharing their writing, arguing their analyses, and trying to reach conclusions about the meaning of the document. On Friday, Calder gave a lecture in which he offered his analysis of the artifact and reasons for his conclusions and observations. During the lecture, his students listened as he described his version of the very analysis the students had undertaken. It wasn't first exposure, they knew a lot about what he was discussing, and they already had an opinion on the subject. For those students, lecture was highly interactive, as they privately questioned, challenged and appreciated what Calder was saying.

Calder found that his students did very well on exams and other assessments, much better than his students did when he lectured only. Lectures were of enormous value to his students, and they were eager to hear them since they were engaged in the same inquiry he was. Still, this is only one way of organizing a class. There are other forms of engaging students and mixing lecture with components of active learning and students' engagement.

PROMOTING CRITICAL THINKING WITH LECTURES

Bligh (2000) recommends the following to promote students' critical thinking during lectures:

Be sure your lectures encourage application and discovery of information and material.

Ask questions throughout the lecture. Focus on questions that promote thinking, not rote memorization.

To facilitate critical thinking, provide a visual display of lecture material, provide handouts so students can focus on thought rather than note taking, require students to pre-read material so that lecture isn't their first exposure to it, and watch your lecture speed.

HELPING STUDENTS TAKE BETTER NOTES IN CLASS

Successful teaching requires helping students understand the best methods to use to get the most out of being in class. One way to help students is to direct their note taking so it's more effective. Here are possible answers to students' questions about note taking, based on Dembo's work:

Should I recopy notes after class?
No; recopying requires little thinking. A better use of time is writing questions and answers about material in your notes.

What should I do if my teacher talks so fast I can't write everything down? Don't try to write down everything word for word. Instead, paraphrase, listen for the most important things the instructor says, and leave blank spaces to show you've missed material you thought was important. Check with classmates to see if they got the material down.

Should I listen and not write when the instructor is discussing something I don't understand?
No, the best thing to do is to keep taking notes, but mark in your notes that you don't really understand the material. If you don't ask about it in class, after you review your notes see if another student, a TA or the instructor can explain it again.

How do I deal with an instructor who often wanders off topic? See if your textbook provides a logical structure for the material. Working with other students can help in situations like this, too. Form a small study group and together organize notes from class (Weimer 2003).

MOTIVATING STUDENTS TO LEARN

Generating learning among students is neither magical nor mysterious; students learn best when they spend time reading, thinking, solving problems, writing, discussing, and using ideas in concrete settings or to generate products. Despite lots of research in cognitive science, there are no shortcuts to learning, so somehow teachers and students need to find a way to make those learning activities happen. All of us, students and teachers alike, have many different ways that we can spend our time; we have a shared interest in arranging the academic world so that we put enough energy and time into the courses we co-inhabit.

There's a rich and interesting debate among academic psychologists about motivation, with ongoing dialogue about the relation between extrinsic motivators, like rewards, and activities that seem intrinsically motivated, i.e., they occur without external support or constraint. There's one general idea about motivation that receives a lot of support, regardless of a researcher's conceptual perspective. **People are most likely to engage in activities when they believe there's a reasonable chance of having a good experience.** Some argue that the probability of choosing an activity increases when there's a higher perceived likelihood of good things happening, so raising or lowering expectations of success would raise or lower their willingness to spend time on an activity—thus increasing or decreasing motivation.

In education, success is defined differently by different participants. For us as teachers, students' success includes a deep understanding of ideas, rich knowledge of the content of a field, and possibly an enhanced appreciation for and interest in the topic of our course. These are primarily intrinsically valuable results of a course, though there's certainly practical value in being well prepared for further study. For many or most of our students, success will likely be defined primarily in terms of your feedback to them on the quality of their work, typically grades. This is an extrinsic reason for learning, especially from our perspective, though some students come to appreciate and enjoy our fields as a result of their course work. Whichever version of success we refer to, students will give more time to a course in which they believe success is likely than to a course with a lower probability of a good result, either intrinsic or extrinsic.

While it would be nice to imagine that everyone who studies at KU is intrinsically motivated to know the intellectual world deeply and richly, we need to think strategically about motivation. Courses should be planned, both in-class and out-of-class, to maximize students' beliefs that good things result from their investment of time. If we want to capture their time from among many options, that's the model to adopt.

SUCCESSFULLY COMPLETING ASSIGNMENTS

Students will look for indications from you about their success in understanding course work, and perhaps in achieving good grades. To maintain their consistent participation in learning activities, you'll want to give frequent feedback, especially early in a course. The best way to make that feedback positive is to begin with assignments that you believe most students can do well. A sure way to produce discouraged learners is to create an assignment that only the best students can do. **Researchers in teaching talk about "optimal challenge" in assignments, and that refers to work that is not trivial or mere rote application of procedural rules, but not so difficult that students have no idea how to begin.** This is a difficult matter of judgment for you, made more difficult when courses have students with a wide range of background skill, but it's a very important part of your plan to motivate students, to capture their time and energy for your course.

Linked to optimal challenge is the notion of repeatable assignments. If each intellectual challenge you offer is only available once, then students will either pass or fail but not have a reason to revisit the work to learn it better. When assignments can be repeated (with alternate versions of context and particulars), students have reason to work again to refine their understanding. You do want students whose work wasn't acceptable to study again, and they'll be more likely to do that if you provide another alternative to get what they want, namely positive feedback from you on their performance. Making assignments repeatable also allows you to keep your grading standards higher, as you aren't forced to lower your criteria to allow students to pass.

Repeating work until it reaches a high criterion is how we function as researchers, and it's a good model for producing intellectual success. If you wish to get students to spend more time on your course, then you need to convince them that extra work will result in a successful experience for them.

ATTENDING CLASS

Many faculty members think it's very important for students to attend class, and they worry about low attendance, especially in larger classes. Typically faculty members attribute poor attendance to low student motivation, without asking about the reasons for that apparent disinterest among students. The Center for Teaching Excellence conducted a survey of KU students in Fall 1999, asking them about their decision to attend or to skip class meetings. The study examined the relationship between course characteristics, student characteristics, and the rationale of students for either attending class or not attending class on a daily basis. The study sought to answer these questions:

TEACHING THE WHOLE STUDENT

Students aren't just students. They are individuals with strengths and weaknesses, hopes and fears, worries and challenges. What happens in their lives outside class has an enormous impact on how they approach their academic work.

For instance, large percentages of students suffer from anxiety and depression, struggle with identity, or feel alienated from their peers. Many work 20 or more hours a week, and some are homeless or without adequate food.

Most instructors aren't counselors and shouldn't try to play that role in students' lives. By keeping their circumstances in mind, though, instructors can help students learn better and succeed academically. This approach is sometimes called teaching the whole student. Here are some tips on how to put that approach into practice.

Show your humanity. Get to know students individually. Who are they? Why are they in your class? What background experiences do they have? Help students understand who you are beyond your academic credentials.

Make yourself available. Indicate your availability for consultation outside of class to students by including contact information in syllabi; many students from marginalized groups assume they should not bother instructors.

Make use of campus resources. Refer students to campus offices that specialize in student services. Check the KU website for more information.

WHY STUDENTS DO OR DON'T ATTEND CLASS

In a study by the KU Center for Teaching Excellence, students reported the following reasons for attending class:

Personal values

Obtaining course content

Fulfilling grade requirements

Factors related to the teacher

Peer influence

Students' reasons for not attending class included:

Being sick

Participating in other school or non-school-related activities

Participating in leisure activities

Avoiding teacher- or class-related experiences

Having no incentive to attend

1. How do characteristics of students relate to their attendance behavior?
2. How do characteristics of the courses in which students are enrolled relate to their attendance behavior?
3. What reasons do students give for their day-to-day attendance decisions?
4. How do these reasons relate to the number of their absences?

The results of the study suggested that students were actually more *rational* than unmotivated. They were more likely to attend class if they believed that it mattered to the professor that they were there, or if being present at the class gave them an advantage over simply getting notes from the lecture or doing assigned readings. The professor's interest in attendance was inferred from two basic observations: whether class time involved any active participation by students, making the student's presence essential to the class plan and/or to learning; and if course policy required attendance and placed concrete value to it. Many students noted that there is complete overlap between course readings and lectures, so they believe either one or the other is adequate preparation for exams. While faculty members may believe they're helping students through content redundancy, in practice they're undermining students' motivation to either do readings or attend class.

If a teacher really wants students to attend class, then the class needs to provide a successful experience. That could be something concrete like points for attendance or an in-class assignment, or it could be a successful learning experience that prepares students for exams in ways that aren't available elsewhere. There certainly are classes in which lecture expands on readings and the teacher provides opportunities for discussion or questions, and students in those classes may not appreciate the importance of those opportunities. Pointing out the advantages of attendance to students will help, as will clear and frequent comments to students on the importance of attendance to you. **In the end, the best way to motivate attendance is to make sure that active, engaging and unique experiences that aid course success are part of class time.**

THE TENSION BETWEEN MOTIVATION AND GRADING

One of the best strategies for motivating students is to allow (and even encourage) them to repeat assignments until they achieve their own learning/grade goals. This increases their willingness to do extra work, and it also increases the skill level of students who complete the course. Everyone benefits when more students have greater skill upon course completion; they're better prepared for subsequent courses and they bring greater skill to their future work life.

The downside of repeatable assignments is that more students earn higher grades, resulting in less differentiation among students. Sometimes this is identified as grade inflation, but the general complaint is that it makes it harder to identify the very best students for many legitimate purposes.

It's very important for each instructor to think about this question by looking at the function of her/his course in a program or curriculum. Sometimes it's important to sort out the very best from the average students; in such a course it might not be advisable to compress achievement, even if it were at the high end. In other cases, however, especially in foundation courses in a field, the real goal is to have students learn basics so they can study advanced topics. It doesn't help anyone, for example, if people leave college unable to do algebra. We'd be willing to differentiate among graduates in some other way if we could be certain that every KU student is highly skilled in algebra. In deciding whether to use repeatable assignments as a motivational tool, each instructor should weigh the relative importance of differentiation and preparation for further study. These decisions may be made well through discussion within a program or department.

It's always useful to remember, however, that in our professional lives we never hear from a journal or from a granting agency that we have one try and one try only to get published or funded. The common experience we all have is one of a level of rejection, feedback, encouragement, and an invitation to work harder and do better. This seems to motivate us to do extraordinary amounts of hard work to achieve our goals. Perhaps we should remember that when we ask why our students sometimes seem unmotivated.

USING EDUCATIONAL TECHNOLOGY

Educational and classroom technology alone won't make you a better teacher. Educational technologies do offer an important means of creating and delivering course material, engaging students, checking learning, and providing feedback on assignments, though. Some tools can also save time and aggravation.

KU supports many types of educational and classroom technology, and before you bring in an outside tool, check the Information Technology website to see whether the University has a similar tool available. IT, the Center for Online and Distance Learning and CTE can also point you to tools that might help in particular situations. **Don't use digital tools in a class just because you think you should use technology.** Rather, use them purposefully to solve problems, help students learn, make classes more engaging, and make class materials easier to access and understand.

To get you started, here are a few of the tools available at KU.

GETTING TECH HELP FOR YOUR CLASSES AT KU

The Center for Teaching Excellence, the Center for Online and Distance Learning, and Information Technology all provide ways to help you improve your teaching. Each office has different specialties, but all three frequently collaborate to help faculty members find the best solutions to teaching questions.

CTE

cte.ku.edu/
785-864-4199
cte@ku.edu

- Best practices and pedagogy
- Documentation of teaching
- Faculty community
- Innovative teaching
- New approaches
- Peer evaluation
- Assessment
- Intellectual exchange

CODL

codl.ku.edu/
785-864-1000
onlinelearning@ku.edu

- Online and hybrid courses
- Online course evaluations
- Exam proctoring
- Using Blackboard
- Creating videos

KU IT

technology.ku.edu/
785-864-2600
itedtech@ku.edu

- Support for Blackboard and other educational technology tools
- Media production support and equipment checkout
- Classroom technology support
- Technology instruction

COMMUNICATING WITH STUDENTS ELECTRONICALLY

Blackboard. Blackboard provides an easy way to email students in your classes. You can email the entire class or just individuals either through the email link on the left-hand column of Blackboard or through the Grade Center.

Email. Not all students use their KU email addresses. So make sure you tell students that you will be communicating with them by email and that they should check their email regularly. KU offers a way of forwarding KU email to other services like Gmail, so it's worth reminding students about that, too.

Skype for Business. This is KU's primary internal communications system, with options for calling (voice and video), instant messaging and engaging in online meetings.

Zoom. Zoom is a videoconferencing tool that allows up to 100 people to participate in an online meeting. Participants can join in an online chat during the session, share materials and even break into smaller groups for discussions.

Yammer. This is a social media tool offered through Office 365. You can use it to create groups for messaging and even message someone individually. It is an internal network, so messages won't reach beyond KU.

CREATING COURSE CONTENT

Blackboard. This is KU's learning management system for courses. Students rely on it for information about course information, course materials, scheduling, and especially grades. We recommend making your Blackboard course page available with at least basic information about the course, including expectations and an overview of assignments; a week-by-week schedule; a syllabus, rubrics and other important course documents; and your contact information. It is worth spending some time to set up assignments in a way that allows for easy grading with Blackboard's rubrics and feedback system. Blackboard has tools for creating online quizzes, discussions, blogs, wikis, and journals. It is also integrated with Kaltura, an internal video service much like YouTube.

Camtasia. This software allows you to create and edit videos, which you can share with students via Blackboard or Kaltura. You will have to buy it (the cost is around \$150), but video production services and staff are available from CODL and KU IT. Before buying Camtasia or similar software, you should visit with a media specialist about your course needs and how the free centrally provided services can be used.

Softchalk. This tool helps you create online modules that include quizzes, pop-up text, stylized pages and other interactive functions. Modules can be delivered to students in Blackboard or provide a format you can use in other online locations.

VoiceThread. VoiceThread allows many ways to engage students in video discussions outside of class. You can create a video presentation, have students create presentations, and have multiple contributors make comments in video, audio, and text formats. Many instructors have found it an effective way to provide online interaction among students and to check student understanding through oral presentation.

GETTING IN-CLASS FEEDBACK

iClickers. These are hand-held devices that allow students to respond to instructors' questions in class. They are most frequently used in large classes as a way to gauge students' understanding of concepts or ideas, and, because they tie in to Blackboard's grading system, to take attendance. They can be a good way to engage students, especially because students' aggregated responses are anonymous. That can help reluctant students participate.

To make the best use of clickers, though, you should create questions to which students are likely to disagree on an answer. Once a class poll is taken, you can display results on a screen and then ask students to talk in small groups about their answers.

After the discussions, ask the question again and see whether discussion changed any responses. If not, provide a mini-lecture or provide some additional prompts to generate discussion and help students think through their responses. The Carl Wieman Science Initiative offers a useful “Clicker Resource Guide,” which can be found here: cwsei.ubc.ca/resources/instructor_guidance.htm.

Color-coded cards. You don’t have to use technology to take a quick read of student understanding. Some faculty members prefer to use numbered, color-coded cards instead. Students hold up the cards when an instructor asks a question, getting much the same feedback as with iClickers. The downside is that the cards don’t provide automatic tallying of responses.

A NOTE ABOUT OUTSIDE TECHNOLOGY

There are thousands of digital tools you might use in your classes or to create online course materials. You may hear about new tools at conferences or from colleagues. You also may get solicitations from vendors. Many tools are good and may help your students. Keep a few things in mind before committing to one, though.

You must provide your own technical support. The company providing the tool may offer assistance online or by phone, but Information Technology at KU will not. If you are comfortable with that, use the tool. If you aren’t technologically savvy, though, or feel that you need campus support, you might rethink your plans.

Many companies don’t charge faculty members but do charge students. Companies will generally make a pitch that the tool costs less than a textbook, but not all students can afford the extra costs. If you think the extra expense will improve learning, go ahead. Always look for cheaper or no-cost alternatives, though, and then make sure you use the tools you ask students to buy.

Outside tools generally aren’t FERPA compliant. FERPA is the Family Educational Rights and Privacy Act, which sets guidelines about what student information universities may release and who can get access to it. All university-sanctioned tools are FERPA compliant, meaning they have met KU’s standards for privacy and security. Some outside tools may comply with the act, but most don’t. If you are in doubt, contact IT or CODL.

Let others know about the tools you use. Share your experiences with colleagues and with CTE, CODL and IT. The university frequently evaluates the digital tools KU supports, and knowing about faculty members’ experiences with new technology helps with planning and decision making.

FIND AND USE THE RIGHT TOOLS

Blackboard provides a consistent and familiar environment for online course material. It should generally be the starting point for your classes.

There are many other tools that allow you to create course content, communicate with students, and assess their learning, though. For instance, VoiceThread can provide an effective alternative to written discussion. Zoom provides a means of video conversations or online office hours. Yammer can provide a social media element for your course.

Softchalk, Respondus and Camtasia provide ways of creating online course material. OneNote, through a class notebook created on Blackboard, offers another way of sharing material and interacting with students.

Some instructors have found that tools like Slack (for discussion, instant messages and sharing of materials), Remind (for sending text reminders), and GroupMe (for group discussions) have greatly enhanced their classes. Keep in mind, though, that not all of these tools are supported by KU IT.

If you would like to explore different tools for your course, talk with one of the educational technologists at KU IT (itedtech@ku.edu or 785-864-2600).

QUESTIONS FOR CLOSE READING OF TEXTS

When you talk to your students about reading texts in your discipline, consider these questions:

What terms do I need to recognize?

What analytic tools am I using?

How do I recognize what parts of the text are statements of fact or observation, what parts are professional analysis, and what parts are statements of value or opinion?

How do I recognize what the main points of the reading are?

How do I decide what I need to remember closely and what is provided only as temporary context?

FACILITATING LEARNING OUTSIDE OF CLASS

There are two issues regarding reading in a course that faculty members frequently mention. One is helping students understand what they read for a course, and the other is the difficulty of getting students to even attempt the reading assigned for a given day. As noted earlier, class time is best spent when students are already familiar with material being presented or discussed, and active participation during class requires that students have undertaken the reading and gotten something from it. For various reasons, many educators see consistent course reading as one of the central issues in assuring quality higher education.

READING COLLEGE TEXTS

Many students believe that they already have a firm grasp on how to read when they get to college. Why then, are students often discouraged by their attempts to read college texts? Ann Cudd (2003) proposes that much of this frustration stems from the fact that they do not understand that the type of reading approach used should vary based on the type of text that's being read. "You don't read a novel the same way you read a philosophical essay or a mathematical proof or a poem. Students have to be helped to realize this and then to develop the new eyes they need to see the kinds of texts you assign them," she states.

Many instructors despair at students' reading skills, and they spend valuable energy complaining about prior education and standards for admission to college. Other faculty members recognize that achieving their instructional goals will require that they share with students what it means to read in their field, and these faculty members take some time to demonstrate close reading of work typically found in the course. To accomplish this, take a few minutes in class to read a passage aloud, one that students are looking at, as well. As you read, consider the questions at left when you talk about reading with your class.

There can also be homework assignments early in a course that have these meta-questions included in the task; students are not only answering important questions related to a topic, but they're also asked to identify how they read. That aspect of the assignment would also be given feedback, in a manner like the content portions. **In general, when working with undergraduates, it's not safe to assume that they're all fully prepared to read professional text with the same eyes as you do; it's likely worth your time to make your way of reading an explicit part of what you teach.**

Other ways to help students learn to read difficult texts come from Bean (2011); he suggests the strategies shown in the table on the following page.

Table I. Strategies to address reading problems

<u>Students' problem</u>	<u>Helping strategies</u>
Poor reading process	<ul style="list-style-type: none"> • Give tests or writing assignments on readings you don't cover in class. • Have students write in response to texts (reading logs, summary notebooks). • Require students to write and turn in for credit marginal notes on readings.
Failure to reconstruct arguments as they read	<ul style="list-style-type: none"> • Assign summaries of readings. • Have students make outlines, flowcharts or diagrams of articles. • Help students write "gist statements" on main points as reading progresses. • Go through a sample text with students, writing "what it says" and "what it does" statements for each paragraph.
Failure to assimilate the unfamiliar; resistance to uncomfortable or disorienting views	<ul style="list-style-type: none"> • Explain this phenomenon to students so that they can watch out for it; draw analogies to other times when students have had to assimilate unfamiliar views. • Contrast ordinary ways of looking at a subject and the author's surprising way. • Teach students to play the "believing and doubting game," so they can see a reader's double role of being simultaneously open to texts and skeptical of them.
Limited understanding of rhetorical context	<ul style="list-style-type: none"> • Create reading guides that include information about the author and context. • In lectures or reading guides, set the stage for readings, especially primary materials. • Train students to ask: Who is this author? To whom is he or she writing? What prompted this writing? What is the author's purpose?
Failure to interact with the text	<ul style="list-style-type: none"> • Use a response strategy—reading log, summary notebook, guided journal, marginal notes, reading guide.
Unfamiliarity with historical events, cultural codes	<ul style="list-style-type: none"> • Create reading guides explaining cultural codes, allusions, etc. • Show students the function of cultural codes by discussing background knowledge needed to understand cartoons or jokes.
Unfamiliar vocabulary	<ul style="list-style-type: none"> • Create reading guides defining technical terms or words used in unusual ways.
Difficulty with complex syntax	<ul style="list-style-type: none"> • Have students "translate" complex passages into their own words. • Have students rewrite very long sentences into several shorter ones.
Failure to adapt to different kinds of discourse	<ul style="list-style-type: none"> • Explain your own reading process: when you skim, when you read carefully. • Explain how your reading process varies with different genres of text: how to read a textbook versus a primary source, how to read a poem or scientific paper, etc.

DEVELOPING CRITICAL THINKING SKILLS THROUGH READING

Use a review as a preview: Review facts your students already know that relate to the reading. By connecting new information with already-learned concepts, students will be in a better position to understand and remember what they read.

Give them a bird's eye view: Discuss the topic covered in the reading in general terms, but avoid specifics. Students will think the reading is essential, not repetitive.

Work with the words: Explain essential vocabulary used in the readings.

Put questions in their heads: Ask a mix of general and specific questions that require students to find facts as well as analyze and interpret. Don't put questions in the order of the text, or students may just skim for words rather than read for meaning.

Put questions in their hands: Give them a guide to follow as they read. Make it explicit how you expect students to use what they're reading in ways that go beyond what's presented. Use open ended questions that ask for implications or applications of ideas found in the reading (Magnan 1990).

Robert Magnan (1990) is among many who believe that it's best to help students achieve critical reading skills to aid their analysis and evaluation of texts. It's better to help students benefit from the reading you assign than to grade them down when they don't succeed. In the box at left, he suggests ways to support students' critical thinking skills through reading.

READING ACCOUNTABILITY

Given that students are helped in knowing how to read difficult texts, there's still the question of ensuring that they actually carry out the assignment. To be fair, students often point out that in many classes they take, it makes little apparent difference to them whether they've done the reading or not. The instructor doesn't make them accountable for knowing what was in the reading, and class time is often spent listening to a lecture without interruption. Many professors, they also claim, simply repeat the content of the reading in their lectures, making it seem even less important to take time to read. Since there are few occasions that provide uses for reading, students presume that it can be done later at a time closer to an exam to obtain relevant information. The typical student is not sophisticated enough to recognize that even listening to a lecture would be a much improved experience if the general topic were already a familiar one, so they typically read before class only when the instructor makes it important.

The key to having prepared students in class is to make sure that doing the reading before class is directly relevant to the student's experience in class. **One common way to make reading relevant is to ask students to use what they read in a low-stakes but accountable fashion.** Many faculty members use brief quizzes on reading, sometimes for every class period, asking students mostly to report on facts or information found in a reading. This approach has a modest goal, to assure that students have located and looked at the reading. Such a quiz can be given online or in the first moments of class, and it can be graded as participation or for correct content. A slightly more productive version is related to one of the suggestions attributed earlier to Robert Magnan: Provide an open-ended prompt to students, asking them to discuss an idea, phenomenon or analysis from the reading, often in the context of something that students care about. If they can use something from the reading to relate to an issue or topic in their own lives, there's evidence that the reading was understood at some level, and was done in the first place. People often use Blackboard's threaded discussion feature for these assignments, leaving a record and allowing students to learn from each other.

Responding to open-ended writing in a low-stakes context can be important, as students will stop making entries in discussion boards when they discover that no one is reading them. To keep

up a meaningful dialogue requires time, so that option raises issues related to resources; for a brief discussion of time resources, consider the material in the box at right. In addition, if your class is large enough that you have GTA help, you should be explicit about their time. A typical GTA position is .50 FTE or 20 hours per week. That means your students' tuition has paid for 300 hours of that person's time over the semester. You can allocate those hours across many tasks, including giving feedback on low-stakes assignments, grading, discussion or lab time, meetings, and attending class (as appropriate). If you're finding it hard to give feedback on assignments in a large class, re-examine your priorities among the many tasks you give. Be certain that you're taking full advantage of the GTA's time, using it to enrich students' learning. When all the GTA time is used, then it's appropriate to limit additional assignments for students.

Another way to make pre-class reading important is to connect information from readings to class activities. During those portions of the class time that include active learning, make sure that the discussions required and/or the problems to be solved are connected with the reading material. It may be that students need to use something from their reading and something from the class time presentation to address a problem; only by being prepared will they be able to participate fully in the conversation that you've arranged. Unlike the quiz options, which can have points or other accountability attached to them, this approach presumes that students will prefer to be ready for in-class activities. Such a method will work well with students who claim they would read if it mattered to the professor, while it may be less effective with students who are indifferent to any outcome other than course points. For teachers who do not want to be constantly grading or giving out points, this is a good way to invite students to read regularly, and it does not take away time in class for giving quizzes. Evidence suggests that you want to make some portion of your class time interactive for students anyway, so making a connection with reading in those activities fits naturally with that plan.

In general, you should presume that most students are like the rest of the adult world; they have more things they want to do than there is time for. **Students will make priority decisions about what activities get first attention, and you should think about how you move regular reading in your course toward the top of that list.** Low-stakes requirements and/or direct use during class time are good ways to communicate that regular reading is essential in your class. Because effective use of lecture as a presentation method will remain a goal for many instructors, it would be a mistake to believe that simply listing reading assignments in your syllabus will be sufficient to generate a room of prepared learners.

ONLINE ASSIGNMENTS

Limit the number of online assignments to those you can read with the time you have available. Online discussions are best done in groups (called threaded discussions in Blackboard). Optimal group size is four to six, though larger can work. Visit each group's discussion once per assignment and make a single entry, commenting on the total discussion, perhaps with some reference to individual points. Typically this can be done in 15 minutes or less per group. Schedule only as many of these discussions as you can visit. If time allows, increase the frequency of discussion assignments or delve more deeply into individual postings.

Analyze your time resources. In a typical KU teaching assignment, you'll spend about 15 hours a week on the teaching portion of your job. The work isn't constant over the semester, so you may think of it as ~225 hours for the semester; roughly 110 hours per course. You'll spend ~45 of those hours in class, perhaps more for labs or studios. That leaves 65 hours to divide among grading, preparing new materials or class activities, and giving feedback on low-stakes assignments. These need not be distributed evenly every week, and you should literally build them into your calendar so you can be sure that time is available for each course. It may be better for students if you give them frequent feedback on their practice of intellectual work than if you use all your out of class time refining or reinventing class time; you need to balance these competing demands on your time.

MUDDIEST POINT

The muddiest point is a simple technique that's remarkably efficient; it provides a high return of information for a very low investment of time and energy.

Ask students to jot down a quick response to one question: What was the muddiest point in ____? In the blank, ask students to respond to a lecture, discussion, homework assignment or instructional method.

This technique helps you know what students find least clear or most confusing about a topic. You can use that feedback to discover which points are most difficult for students to learn and to guide them about which topics to focus on. At the same time, this technique requires students to quickly identify what they don't understand and articulate muddy points, which engages them in higher-order thinking.

OBTAINING STUDENT FEEDBACK

DURING THE SEMESTER

Teachers need continuous, accurate information about student learning. Asking students for their input and responding to it can reduce gaps between teaching and learning. Here are two techniques to help you assess and get feedback from your students during the semester.

The one-minute paper is a brief, anonymous feedback instrument you can use up to three or four times a semester at the end of a class. Ask these two questions: "What is the most important thing you learned today in this class?" and "What important question remains unanswered?" At the beginning of the following class, discuss the results with students. Let them know that you've read the papers, and respond to their feedback.

In each of your classes, establish a signal for students to use if they want to call a time-out. At that point, you stop talking. Why? Because they can't take notes fast enough. Because they have questions. Because they need a moment to consider a point. Maybe the best reason is to give them ownership in the class.

Think about it: When we read, we stop to read something a second time, to weigh a thought or to verify a detail. Time-outs encourage students and teachers to think about material, to interact, to integrate and to assimilate.

MIDTERM FEEDBACK

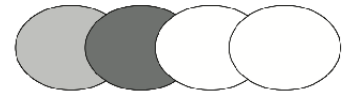
Many instructors find it useful to get feedback from students at mid-semester, rather than only at the end. This allows you to make mid-course corrections that can benefit both you and your students. For example, if your PowerPoint slides have too much text for students to read, finding this out by midterm gives you an opportunity to change your slide format.

If you decide to get midterm feedback, follow these principles:

1. Don't ask if you don't want to know. If you don't intend to make changes to a course or an assignment that students are having difficulty with, it's best to not ask for their input.
2. Let students know that you've read their comments and will respond to them as appropriate. Follow through and make changes that are feasible for that course. If students suggest changes that you can't make, explain why not.

CTE has several feedback forms that can be used as is or adapted to your specific situation. Contact us at cte@ku.edu.

Beyond the Essentials



HELPING STUDENTS THINK LIKE A SCHOLAR

Using your discipline as a framework for learning engages students and enables them to develop skills integral to your field. To provide a disciplinary context for learning, first identify concepts, perspectives and problem-solving skills necessary for success in the field. Because these may be skills and processes that you've long since internalized, you may find it useful to observe the approach beginning students take toward material and compare it to your own expert approach to identify the skills new students lack. Next, develop lessons and assignments that engage students in the practice of the discipline. Finally, plan assessments to measure students' thinking processes and approaches to problem-solving within the field, as opposed to focusing on course content alone.

Additional considerations when planning your course:

Model the ways scholars work by posing questions at the start of lecture, allowing students to pose possible answers, then using lecture material to discriminate among correct and incorrect answers.

Challenge students to apply the ways of thinking you are teaching to other aspects of their lives; this will close the gap between students' lived experience and academic disciplines.

Pay attention to learning as a developmental process as you plan lessons. What differences exist between the kind of thinking we might expect of students who are just beginning study in your discipline versus those who are ready to graduate?

COGNITIVE APPRENTICESHIP

Brown, Collins, and Duguid (1989) explain that knowledge of any kind can never be separated from the activity in which it is deployed, and, as such, learning is always situated within authentic activity (activities that are the ordinary practices of a culture). Classroom instruction, then, should be a process of enculturation, by which students learn the tools they need for an activity within a context that allows them to see how community members—that is, scholars in the field—use those tools. Learning should not be imparting abstract concepts devoid of context from the instructor to students, who then apply those concepts to artificially created situations. Rather, learning should always be situated, so that students can use the environment, context, and knowledge they already have to solve problems and make generalizations.

One of the stated goals of my Research Methods in Psychology course is to help students think like scientists. A danger of this goal is the unstated implication that they start the class thinking like non-scientists, or believe that scientific thinking is in some way superior. This is a bad tone with which to start the course.

To overcome this problem, I try to identify ways in which students intuitively “think like scientists” already. I also try to show how scientists are human and how we also sometimes ignore our own rational approach. This helps demystify science for the students and makes them ready to consider scientific thinking as an everyday tool with which to approach information.

—Paul Atchley

FOUR PHASES OF MENTORING RELATIONSHIPS

Zachary (2000) describes four phases through which mentoring relationships usually progress:

Preparing—In this phase, the essential task is to clarify expectations and roles to establish a productive mentoring relationship.

Negotiating—Here, mentoring partners come to agreement on learning goals and define the content and process of the relationship.

Enabling—This is the implementation phase of the learning relationship, when most contact between mentoring partners takes place. Both the mentor and mentee should monitor the learning progress and the learning process to ensure that goals are being met.

Closure—This involves evaluating, acknowledging and honoring achievement of learning. Closure provides an opportunity to evaluate personal learning and apply that learning to other relationships and situations.

MENTORING STUDENTS AND ADVISING INDEPENDENT WORK

Mentors are more than academic advisers or teachers. Johnson (1989) defines mentoring as an ongoing one-to-one relationship in which a more experienced individual offers advice, counsel, or guidance to someone less experienced. Jacobi (1991) identifies three components of mentoring: direct assistance with career and professional development, emotional and psychological support, and role modeling.

Most successful mentoring experiences happen when groups meet regularly, set clear goals, and balance friendly discussion with talk about academic matters. The best relationships are built on foundations of shared interests and mutual respect. The mentor/mentee relationship should be mutually beneficial, with each person gaining new perspectives and ideas from the other.

New faculty members would do well to consider suggestions from Ann Cudd:

One-on-one work with students is some of the most rewarding work we do; it's also the most time-consuming. The most important thing to do is to set the terms of the interaction from the beginning. First, I insist that the student come up with the topic area and describe it in some detail. Next we agree on how much face-to-face interaction we'll have and what we'll do each time we meet. Then, we agree on readings and a schedule for handing in work that I'm to evaluate.

I've developed two forms: one for independent study and directed readings, another to track students who are writing theses or dissertations (see Appendix B). I give students the first form when they ask me to work with them; it explains what I expect from them and what they can expect from me. The second form is for me; I record topics, meeting dates, work handed in, committee members, etc. The second form is essential for me not to forget who's working on what with whom and what I've committed myself to.

Finally, two warnings: First, don't take on much of this your first year of teaching. Develop your courses and observe how others in your department do this mentoring work first. If you do plunge in, then ask experienced faculty for advice. Second, don't rehash a course your department is already teaching for individual students. Don't consider yourself an overflow resource, nor should you take it on yourself to offer a course for a student who, through no fault of yours, is unable or unwilling to take the course when offered by the department.

TEACHING GRADUATE STUDENTS

Based on her research on teaching graduate students, as well as her experience as a graduate student at KU, Ann Volin (2003) suggests that what makes graduate seminars successful includes clear goals, adequate preparation and follow-up. Often professors begin seminar preparation with their experience as a student as the sole blueprint. Augmenting that experience with the following ideas can streamline benefits and increase student learning:

Model your professional leadership. You are an expert about the seminar topic; thus, you should model relevant skills for teaching, learning and presenting in your profession. A seminar offers the chance for you to relay to graduate students the professional expectations of your discipline. It's best not to assume that students know what these are—make them explicit.

Set clear course objectives. Articulate not only what you plan to achieve for the semester, but also what each session will accomplish so you can judge the effectiveness of your plan.

Structure each class meeting. Allowing classes to “go with the flow,” which may sound like an idealized intellectual process, leads away from course goals. You have limited time for learning in a seminar.

Plan student-led discussions. Students can—and should—lead discussions based on papers they have written or topics they have researched. Teachers can coordinate, facilitate and comment on presentations. An interactive format is crucial; there must be a reason for students to attend class instead of reading material on their own. Watch out for sessions that center on a presenter and fail to draw out the group's expertise.

Encourage students to help each other. No doubt many students are in class because of their deep interest in a subject. By joining their peers, they own material in a way that professors cannot create on their own. Let seminar interactions build upon skills that each student brings to the seminar. Through these interactions, graduate students become each other's professional colleagues.

Have an obligatory follow-up. Not only do graduate students need the opportunity to practice and demonstrate skills, but they also need feedback. If that feedback exists in a vacuum—for instance, at the end of the semester when there will be no opportunity to correct and modify skills—it's less than optimal. Figure in a realistic revision that will demonstrate the application of the feedback.

RE-THINKING GRADUATE SEMINARS

In his course portfolio titled *Re-envisioning Teaching Graduate Seminars*, Anton Rosenthal describes how he implemented backward design (see *Aligning Goals, Assignments and Practices*, p. 3) in a graduate course, “The Global City.” Rather than beginning with a set of readings and expecting students to fit into a “one size fits all” approach, Rosenthal first identified goals he wanted students to achieve by the end of the course.

Since one goal was to prepare graduate students for their professional lives, Rosenthal developed assignments that reflected that goal. Students didn't write a long research paper; instead, they wrote multiple short papers (five–six pages) that employed methods, theories and sources. For their cumulative work, students developed a teaching unit.

Rosenthal observed students' improvement in several areas, such as writing, research analysis, understanding journal articles, and performing comparative analysis.

For more about Rosenthal's work, see his portfolio in the CTE gallery: cte.ku.edu/cte-portfolio-poster-gallery.

To allocate GTA time and skills:

1. Calculate the total GTA hours you have for the term.
2. Identify the range of tasks the GTA is capable of doing.
3. Rank the order of those functions as activities that enhance student understanding.
4. Distribute the hours accordingly.

WORKING WITH GTAS

Graduate Teaching Assistants play a large role in the undergraduate teaching experience, with responsibilities varying from grading assignments and taking attendance to holding office hours, designing and presenting lectures, and writing exams. Given the many obligations that both professors and GTAs must fulfill, positive interactions between them can help all class members have a successful experience. Poor interactions, on the other hand, can negatively impact the effectiveness of the teaching team. Therefore, concerted efforts should be made to ensure that interactions are positive for everyone involved. Supervising professors should remember that they are responsible for a GTA's performance. As David Perlmutter discusses in his article "Supervising Your Graduate Assistants," faculty members need to find a balance between maintaining standards for GTA work and remembering that GTAs are students too, who occasionally need leeway.

The TA Experience (1993) suggests that an essential starting point is making sure roles and expectations are discussed at the start of a course. When roles aren't clearly stated, GTAs must infer what their responsibilities are, which can affect their level of confidence and their commitment to their tasks. See the box at left for steps to ensure that GTA time and skills are allocated effectively.

To maximize benefits for you, the GTA, and your students:

Make teaching a team project. Before the semester starts, meet with GTAs and review the course structure and goals. Review the course organization and syllabus, or consider writing the syllabus together. Sharing with GTAs why you made decisions will expose them to the course development process, as well as make it easier for them to address student questions.

During the semester, involve GTAs in class on a daily basis. Require them to attend lecture; this will make them visible to students, provide you assistance with logistics, and keep them abreast of material you're teaching. To further involve GTAs, ask for their input on your lectures, have them give a lecture of their own, and write/grade exams as a team.

Ask your GTA to be an information source about student learning. Provide GTAs with a rubric to ensure quality and consistency of assessment. Meet with GTAs weekly to discuss challenges they have encountered; have them summarize questions they are getting from students. Or, ask the GTA to provide you with representative lab write-ups, essays or assignments from their class; this way, you can record benefits and pitfalls of assignments and gauge student progress.

Provide feedback on their work. While GTAs should have autonomy, most require guidance. Offer to observe classes (as support, not as a check-up), then note their accomplishments and offer advice. During the semester, meet weekly to discuss issues from previous classes and help them prepare for future lessons. To maximize their development, meet with GTAs individually at the end of the semester. Finally, direct GTAs to resources that may help them enhance their teaching (e.g., the *GTA Essential Guide* at cte.ku.edu/cte-publications).

TEACHING LARGE CLASSES

Faculty members who teach large classes face many challenges, such as:

How does a teacher offer meaningful instruction in a large lecture class?

Are there ways to reduce student anonymity?

How can I make a large class interactive?

How can I encourage student writing in large classes?

What types of tests are feasible in large classes?

Instructors of large classes have found ways to meet some of the challenges this particular teaching situation presents.

Val Smith, former KU professor of ecology and evolutionary biology/environmental studies, offers these ideas:

My first and most important goal was to personalize a lecture: When I taught large classes, I learned names of several students, tried to learn something about them, and then referred to them periodically in class. I often walked up to and called them by name during lecture. For example, “Mike is sitting just in front of me right now taking notes. Is he thinking about breathing while he is writing? No! He doesn’t need to, because his central nervous system takes care of that automatically.” In doing so, I tried to make students feel like they were in a smaller classroom setting, that each of them was not an faceless member of a large crowd, and that I cared about them as individuals.

My second goal was to demand active participation. Here’s an example: There’s a difference between the behavior of non-myelinated neurons (along which nerve impulses are conducted smoothly and without interruption, akin to an electrical current flowing through a strand of wire) versus

CTE RESOURCES FOR ACTIVE LEARNING IN LARGE CLASSES

In CTE’s portfolio gallery, these KU faculty members describe ways they have incorporated active learning into a large class:

The Evolution of a Term Project: Iterative Course Redesign to Enhance Student Learning—
Andrea Greenhoot
cte.ku.edu/portfolios/greenhoot

Enhancing Student Engagement and Critical Thinking in a Large Classics Course —
Pamela Gordon, Emma Scioli, and Tara Welch
cte.ku.edu/chrp/portfolios/classics

Out of the Comfort Zone and Into an Engaging Experience: Flipping a Course to Improve Students’ Critical Thinking—
Kathleen Nuckolls
cte.ku.edu/out-comfort-zone-and-engaging-experience-nuckolls

FIVE WAYS TO REDUCE ANONYMITY IN LARGE CLASSES

1. Meet with students in small groups. Either pass out invitations to several students to join you for coffee after class, or announce that you'll meet with any students who are free for coffee after class.
2. Pass out brief student observation forms to several students at the start of class and ask them to meet you to discuss their observations.
3. Circulate among early-arriving students to get acquainted before class starts.
4. Use a seating chart so that you can call students by name when they participate.
5. During your lecture, move out into the aisles to get students' comments.

myelinated neurons (in which nerve impulses hop from one node to another, more like a frog hopping along a rope). I first asked students on the ground floor of the classroom to start a continuous "wave," beginning with students along the left aisle, sweeping across the classroom, and ending at the right aisle. I likened this flow of movement to nerve impulses in non-myelinated neurons. Then, I asked students in the central section of the classroom to stay still, and students on the right-hand side of the auditorium to begin their portion of the wave at the very instant that the left-hand section's wave ended: The flow of movement jumped over the central section of students, just like a nerve impulse jumps and speeds past the sections of myelinated neurons that are covered by Schwann cells. No one leaving the classroom that day forgot the difference!

Smith's suggestion to personalize lecture delivery is a good starting point for reducing students' feelings of anonymity in large classes. As McKeachie & Svinicki (2010) report, social psychological research has shown that people who are anonymous feel less personal responsibility, which damages morale and order. Also, the distance students feel from an instructor and a loss of interpersonal bonds with a teacher and with other students diminishes motivation for learning. To combat these, see the box at left.

Paul Atchley shares these ideas regarding attendance:

If your class is a recapitulation of lectures, students will choose to stay in bed, rather than come to your class. Use class time to guide students through exercises to achieve higher levels of learning (application, analysis, synthesis, evaluation). Emphasize the importance of attendance: if you don't care, they won't, either. Enforce attendance through whatever combination of carrots and sticks are appropriate for your course. In a large class, taking attendance is onerous, but in-class writing assignments or peer grading can serve as evidence of attendance. Avoid announcing when graded in-class activities will happen, because you will find that students will show up on due dates, and stay home when they think nothing is due.

Mark Haug, KU School of Business, suggests:

Apply theory to real-life cases during class, which makes course material relevant to the student experience.

Have small groups of two to three students work on a problem during class; one of these for every 40 minutes of class time is ideal.

Other ways to involve students include in-class debates or interviews, or out-of-class study groups and online discussions.

Many faculty members hesitate to use writing assignments as part of a large lecture course. For formal papers, using rubrics is an effective way to ease the grading load; see *Designing Writing Assignments*, p. 9. Not all assignments must be formal, graded papers, however. Bean (2011) suggests that teachers shouldn't feel "compelled to read everything students write, which is equivalent, I would argue, to a piano teacher who listens to tapes of students' home practice sessions ... The trick is to read some of it, not all of it" (p. 99). Using short, informal writing activities such as reading logs or journals or practice essay exams will benefit students. For other ideas, contact the Writing Center (785-864-2399).

In large classes, giving exams presents unique challenges. In a class of 30, it takes a few minutes to hand out exams. In a class of 1,000, passing out exams can reduce testing time by ten minutes. See the box at right for suggestions regarding exam logistics.

When you're handing back graded papers, Lowman (1987) recommends asking GTAs (or student volunteers) to take stacks of alphabetized papers to different sections of the room. You can direct students to the section where their paper will be (e.g., last name A-F in the right front corner of the room).

TEACHING STUDIO OR ONE-ON-ONE CLASSES

Teaching individual students occurs in various settings: architecture, music, physical education, as well as independent study in any discipline. McKeachie & Svinicki (2010) note there's little research on one-on-one teaching, but several principles apply:

Allow students maximum freedom to experience successful completion of a task or part of a task, but give enough guidance so that they won't get bogged down by errors. Learning experiences should move from simple to complex, with steps ordered so that each new problem can be solved.

Students need practice, followed by feedback.

Too much feedback may be more than the student can assimilate. Don't try to correct everything on the first try.

Feedback can discourage students. Provide some encouragement, as well as identification of errors.

Feedback about mistakes won't help if the learner doesn't know what to do to avoid errors. Suggest what to try next.

High-level skills are developed through much practice. One successful performance doesn't signify the automatization that's necessary for consistent success.

LOGISTICS FOR TESTING IN LARGE CLASSES

Prepare tests well in advance so you'll have plenty of time to proofread and check for unclear wording. As Lynda Cleveland (2002) notes, "A typo discovered by one student escalates to an uproar in the mega-class. Likewise, wording that is unclear escalates to a fever pitch during the mega-class exam" (p. 21).

Ask GTAs to take an exam before it's given to students so you can be sure students will have time to complete it within the allotted testing time.

Before the test, determine how you'll distribute exams. Counting out papers for each row of students will consume five to ten minutes of exam time, or more if you don't have GTA help. You may want to pre-count, package and label exams for the rows in your classroom (Cleveland 2002).

THREE KEYS TO ONE-ON-ONE TEACHING

1. Students are helped by seeing a model of the desired performance, such as an instructor's demonstration, a videotape, or an observation of a skilled performer. When instructors perform, they should direct students' attention to crucial aspects of the technique.
2. Students are helped by verbal cues or labels that identify key features of the skill. Irrelevant details usually distract students.
3. Simplified simulations or demonstrations are more useful starting points than complex, real-life situations, which may overwhelm students with too many details (McKeachie 2002).

Practice with varied examples is motivating and more likely to transfer to later performances than simple drill and repetition.

Students need opportunities for self-evaluation with feedback about the evaluation, as well as the work being evaluated.

Cynthia Colwell, KU music and dance, shares these observations about teaching one-on-one:

Individualized instruction requires a special set of teaching skills, whether analyzing students' work in studios, mentoring a graduate student through a research project, or evaluating behaviors in off-campus practica. There are a variety of issues to think about prior to, as well as during, one-on-one experiences that are different from the typical classroom experience.

When teaching one-on-one, it's important to determine guidelines for availability, as well as setting boundaries for the relationship. In the area of availability, will you establish set office hours or be available by appointment or on a drop-in basis? What kind of contact will you have with students outside the arranged time? Will you establish a personal relationship? Will this be impacted by gender or by age? How will you balance professional versus personal "sharing" (i.e., teacher versus therapist role identification)? Both of these areas are impacted by your philosophy and the situation but are imperative to consider prior to and/or during the establishment of the teacher/student interaction.

Approaching your teaching preparation is markedly different in the one-on-one setting. When formatting a lesson, you have to determine what balance of teaching strategies and student engagement is going to be appropriate. Will you lecture or do more exploratory or seminar type teaching? How much will students be responsible for presenting content information? How will you provide feedback—oral, written or both? What types of prompts will you use to facilitate discussion when it is just the two of you? Will you create a learning agreement that functions much like a contract of what the student hopes to accomplish, how he or she will accomplish it, and by when, or will you create a syllabus with pre-established criteria?

Although there aren't easy, right answers to these questions, thinking about them as you embark on one-on-one teaching can mark the difference between success and frustration.

TEACHING QUANTITATIVE COURSES

In a broad sense, a “quantitative course” is one in which mathematical or statistical analysis of quantitative data is a main component of the syllabus or the prerequisites for such a course. The three main issues are placement, technology and active learning.

PLACEMENT—STUDENT PREPARATION

When teaching such a course, it is essential to understand students’ preparation. High school students enroll at a public state university, like KU, with a wide range of quantitative backgrounds. The first step is to have clearly defined prerequisites for the course and enforce them. Even with enforced prerequisites, students will enter the course with a broad range of skills. The current teaching of mathematics in high schools varies from one school district to another and is different than what most instructors experienced (see NCTM standards reference in the sidebar at the right). It is not enough to require a passing grade in a high school college algebra course; scores on a national examination, e.g., math ACT, are a better determination of required skills. Students should be held accountable for skills required for the course. On-line supplementary material or handouts can be used to help students review the skills without consuming class time.

TECHNOLOGY

Technology should be integrated in a quantitative course. From graphing calculators to Google spreadsheets, there are endless possibilities for using technology. Students use technology daily in many sophisticated venues. **Incorporating technology in the course makes the content real and applicable and extends exploration in and outside the classroom.** Additional resources (technical support and release time to develop or implement new material) need to be considered in courses where technology has not been used before. If not carefully planned and tested, the technology component could result in a big loss of time and learning.

ACTIVE LEARNING

As with any other subject, students learn better when they are engaged. **Learning a new concept or methodology can be developed as a creative process.** Students will learn to appreciate the possibilities and constraints of a discipline. Solving problems in small groups is still one of the most effective methods. Different approaches to the same problem should be encouraged and motivated. Students must learn the logical foundations of the subject to insure that they understand the critical certainty of their solutions.

REFERENCES FOR TEACHING QUANTITATIVE CLASSES

Principles and standards for school mathematics from the National Council of Teachers in Mathematics: standards.nctm.org

Mathematical Association of America quantitative literacy resources: maa.org

Mathematics Technology tools at Math Forum: mathforum.org/mathtools

Kim Glover, Center for Online and Distance Learning, recognizes that in many instances, “online students can feel isolated by the impersonal nature of the online environment.” She suggests that, from Day 1, you build a sense of support into your online course:

Use icebreakers at the beginning of a course.

Build relationships with online users.

Make the course easy to navigate.

Make short videos of yourself each week, explaining assignments and material that will be covered that week.

ONLINE TEACHING

Teaching online courses requires much of the same preparation as teaching face-to-face courses, but it can also pose challenges for students and instructors who are not used to an online learning environment. A well-designed online course can provide an excellent means of learning, especially because it offers the flexibility that many students need. This environment can seem impersonal at first, though, especially compared with the more familiar classroom, but it doesn't have to be. You won't be able to meet with students in person, but there are many ways to interact with students, get to know them, and create a sense of community.

As you prepare your online course, don't just put your physical course online. You may use many of the same materials, but you will need to adapt them for the web, taking advantage of such things as video, audio, hyperlinks, journals, and online discussion boards. Most online classes are asynchronous, meaning that students won't meet or do the work at the same time. Partly because of that, the online environment requires more preparation up-front, more guidance for students, and more thought in how you display course materials. Here are a few things to keep in mind.

CREATE A CLEAR PATH FOR STUDENTS

Students will get their first exposure to the class in Blackboard, so it is especially important to create an introductory page, often called “Getting Started,” that explains what the course is about, what is expected of students, what types of work they will complete, and how they will communicate with you and with classmates. These introductory pages often include these elements:

Welcome message. This can be written, but a video or audio introduction provides an immediate personal element by allowing students to see or hear you as an instructor and listen to you explain the general expectations for the class.

Course objectives. List the objectives on the introductory page and explain how students will achieve those goals.

Assignment calendar. This helps students plan their online work. Explain the types of assignments (papers, projects, quizzes) they will complete, and when each is due.

Communications expectations. Tell students how to contact you and set guidelines for when students can expect a response.

Required course materials. Provide information about a textbook if you are using one and about any other materials, including technology, that students will need for the course.

Academic resources and services. Make sure students know where to go for assistance.

Introductions via a discussion board. Encourage students to introduce themselves and engage with others in the class.

Lessons or modules. These won't go on the introductory page, but they are an important element for organizing your course. Create a folder for each week of the course or for each learning module. Provide a list of learning goals, an explanation of how students will achieve those goals, a list of readings and other assignments, a list of discussion questions, and any other material students need to complete the work. Creating modules or folders for this material helps students find course material easily and allows them to follow the progression of the class.

COMMUNICATE CLEARLY AND FREQUENTLY

Creating a sense of community is important in an online course. You, as the instructor, are the community leader, so you want to make sure you communicate with students frequently and make them feel part of a course. Here are some ways to do that.

Survey students. A pre-class survey provides useful information about who students are, what they know and what they expect from the class. Consider sharing the survey results with students so they get a sense of who else is taking the class. Surveying students again at midterm (or earlier) can alert you to problems they might be having, allowing you to adjust elements of the course.

Email students or use Blackboard Announcements at the start of each week. A weekly message to students adds additional structure to your online course. It signals to students that a new component of the class is beginning, allows you explain the focus and expectations for the coming week, and helps you tie up loose ends or clear up misconceptions from the previous week. Much of this information might repeat what you provide in the weekly modules or folders, but you can use it to add a personal touch, as well. For instance, include personal insights about the class or class material, links or current events that tie in to course material, or other outside material that students might find interesting.

Set communication guidelines. Students will want to know how best to contact you and when they can anticipate a response to questions and inquiries. They will also want to know when their assignments will be graded. Because students will submit material at varying times, it is in everyone's best interest to set expectations at the beginning of a course. Many instructors tell students that they can expect a response to email queries within 24 to 48 hours. Once you set a timeframe, though, stick to it. A caveat: 24 hours is a long time to wait if a student is working in a condensed format class (four or eight weeks), so consider a shorter window for those types of classes. Some faculty schedule virtual office hours when via chat or video link (Skype for Business or Zoom, for instance). You can specify times for these or recommend an appointment.

AUDIO GRADING

I've found audio to be one of the most effective means of engaging students online. Written feedback is important, but audio provides a more personal element. By adding my voice, I can reassure students about their work even as I critique and offer advice.

Here's how I use audio:

iPad. I use an iPad app called iAnnotate for grading. It allows me to highlight passages of a document and add written comments with a stylus. More importantly, it allows me to add one-minute audio clips anywhere on a PDF. I use these to elaborate on written comments, explain difficult concepts, and ask questions about things I don't understand. Other apps, including GoodReader and PDF Expert, provide functions similar to iAnnotate.

Audio recorder. For more detailed advice, I use an audio recorder that creates .mp3 or .wav files. These formats are easily played on a variety of devices and can be shared on Blackboard, or via OneDrive, OneNote or other online services.

Podcasts. I use these to lead students through concepts and ideas, and to introduce other voices into the class through interviews and conversations. I have found them especially effective for master's students, who say they listen to the podcasts while commuting, doing the dishes or engaging in other activities.

—Doug Ward

ONLINE DISCUSSION BOARDS

From looking at other people's rubrics and my experience in using discussion boards, I learned to be very clear about my expectations of how I wanted students to use discussion boards. I used discussion posts to count for participation, check for understanding, and encourage peer learning. I would design several open ended questions about the topic we were studying that week and would assign students to answer one of the questions by Friday night at midnight. This gave them time to read the material before answering. I gave very specific instructions on their answer: They had to make a strong argument for their answer and had to back it with references to resources they used for their argument. I then expected them to respond to a classmate's post. Again they had to back up their response with resources. The response had to be completed by Sunday night. I checked daily for their discussion (you can also set up Blackboard to e-mail you when there is a new post).

I also set up a discussion board for Q&A, so that when a student had a question he or she could post it and everyone could benefit from the answer. It is good to subscribe all students to this discussion board so that they automatically get an e-mail note when something is posted.

—Kim Glover

Set up an online forum for questions. You can do this on Blackboard or with other online tools. It's a great way to provide information to all students when one student asks a question. Students are generally eager to help peers and will often answer questions that others have posted online. Encourage that, but also correct errors or misconceptions. Most forums allow you to subscribe to them so you will get an email alert when students post questions.

Join online discussions. Online discussion are a great way for students to engage with one another and with you. Students who may not speak up in face-to-face classes often thrive online. Consider assigning roles for discussions. For instance, designating a leader to start discussions empowers students. Assigning roles like devil's advocate, synthesizer and reporter help students approach discussions in different ways and can cut back on "me too" posts. You don't have to respond to every post, but make your presence known. Highlight good responses, emphasize important concepts, or redirect conversations that go astray. Remember that online forums lack the nuance that you can provide with your voice, so consider how students will perceive your comments.

PROVIDE COURSE MATERIAL IN A VARIETY OF FORMATS

Video and audio provide great ways of leading students through difficult concepts. They also add a personal touch, allowing students to hear you and see you. If you do use video or audio, take time to create short videos intended especially for the class. Don't just record 50- or 75-minute in-person class sessions and post them online. Most students won't watch those (*would you?*), and they aren't an effective means of learning. Videos of five to 10 minutes are generally the most effective way to break up course content into smaller pieces that students will work through. That shorter format also helps you focus on what is truly important.

Choose the right format. Keep in mind that video is a visual medium best used when you need to demonstrate something, show images or diagrams, or lead people through a sequence. If you don't have visual elements to provide, consider using audio, which students can listen to on their phones. That can save you production time and provide a more effective means of conveying information than a face on a screen.

Add captioning. If you create videos, make sure to provide closed captioning or a written script. Many students watch video with the sound off and rely on captioning to "listen" to the instructor. International students rely on captions to pick up on words they may not be familiar with. You can get help with captions by contacting KU IT. Check out their website at: content.accessibility.ku.edu/captioning-services-available-ku The Center for Online and Distance Learning (codl@ku.edu) can help you create and caption course-related videos.

Make text readable. Even if you use video and audio, most course material will take the form of text. Keep paragraphs relatively short. Use subheads, lists, tables and similar elements. Add illustrations to enliven pages. Your students are used to a well-designed, media-rich online environment. An engaging display will help students find and use your course materials.

Provide ALT tags for images. Images, charts, and other illustrations can help make numbers or abstract concepts easier to understand. Make sure to describe images for students who might be using screen readers, though. Including an ALT tag when you add an image on Blackboard is simple and quick: content.accessibility.ku.edu/alt-text-images

EVALUATING DEGREE-LEVEL AND GENERAL EDUCATION LEARNING

Teachers aggregate evidence of individual students' learning up to a group-level distribution as a way of gauging the overall success of a course's structure, assignment sequence, and instructional method. Similarly, teachers are sometimes involved in helping their colleagues and the university at large with two other types of aggregation: at the degree level, where evidence of student learning across courses is aggregated to provide a picture of an individual department's major; and at the university level, where evidence of student learning across departments with courses included in the Core curriculum is aggregated to provide a picture of general education at KU.

These larger-scale data collection and analysis processes are oftentimes referred to as "academic assessment" or the "study of student learning." Whether related to an individual department's degree or the university's general education curriculum, the study of student learning aims to answer these types of questions:

1. What are faculty interested in learning about their students? For example, faculty might ask "What skills are our students learning in our major's capstone senior course?" or "Does our research methods sequence effectively train students in our discipline's approach to research?"
2. What types of data – or student assignments – most effectively capture the outcomes we're interested in examining? What sorts of metrics would we apply to this data and how would we collectively interpret the results with our colleagues?
3. With these results in hand, are there any revisions we can make to our program or curriculum to improve student learning and enhance faculty teaching?

REACH OUT FOR ASSISTANCE

Instructional designers at the Center for Online and Distance Learning are an invaluable resource for instructors. Set up an appointment with one of them before you put your course together. They can help you set up a timeline for completing the course, provide advice for creating course material, and provide an all-important review of your course once it is completed.

The CODL team also includes media specialists who can help you with the planning, creation, and captioning of your videos and test proctoring options.

Contact CODL at 785-864-1000 or onlinelearning@ku.edu

KU Libraries provides several streaming media databases with documentaries, films, and newsreels you can use for your course as well. Check out their streaming media databases at guides.lib.ku.edu/streamingvideo

ASSESSMENT RESOURCES

There are many resources available on campus to support your department's assessment efforts. Three useful starting points are the following:

1. assessment.ku.edu
2. kucore.ku.edu
3. cte.ku.edu/assessing-student-learning

DEGREE-LEVEL ASSESSMENT

As one of the two major assessment processes at the University, degree-level assessment focuses on any undergraduate, master's, or doctoral degree that a department issues. The Provost's Office asks that departments conduct an annual assessment process that samples student assignments from one or more courses within the degree's curriculum. These examples can include responses on exams, writing assignments, presentations, portfolios of multiple assignments, or any other form of skills demonstration the department chooses to collect. This data is then analyzed by and discussed with department colleagues, perhaps during an annual meeting or planning retreat. In addition to helping the University gather information for external accreditation and review, this cycle is intended to provide departments with an opportunity to reflect on learning in their programs and, if necessary, make revisions to their curricula or teaching practices.

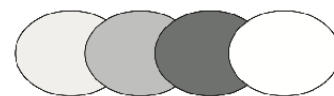
Different departments manage this process in different ways. In some settings, the departmental leadership team oversees and curates assessment; in others, faculty committees on undergraduate and graduate studies take an active role. Some departments have crafted standalone assessment committees that bring together subsets of faculty on a temporary basis to collect and evaluate student work. Regardless of a department's internal method, KU and the Center for Teaching Excellence offer extensive resources and guidance in the form of online examples and a full-time assessment specialist who is available for in-person consultation. See assessment.ku.edu for more information about degree-level assessment.

GENERAL EDUCATION ASSESSMENT

Many departments across the University have courses, sequences, or extracurricular experiences that have been included in KU's general education curriculum, or the Core. The Core articulates a set of six goals or skillsets that each undergraduate student should possess at graduation. Every six years, the individual courses that contribute to one of these goals or skillsets comes up for periodic review. Instructors of courses in a given goal are asked to provide the University with evidence of student learning in those courses.

Each academic departments manage Core-related assessment in different ways according to department culture, resources, and personnel. The University Core Curriculum Committee, which is comprised of faculty representatives from across the various schools at KU, serves as a university-level source of support and guidance for departments in their Core assessment efforts. For more about the Core, see kucore.ku.edu.

KU Policies and Procedures



COMMUNICATION GUIDELINES

THE UNIVERSITY COMMUNITY

In any vigorous intellectual community, people sometimes disagree. Disagreements are part of university life and shouldn't be avoided. We should, in fact, expect to find different opinions on both matters of fact and matters of value. But everybody has an obligation to disagree respectfully, regardless of their position in the community.

At the same time, it's important for everyone to recognize the difference between understanding and agreement. Instructors may ask students to demonstrate understanding of ideas the students may not like. Students aren't required to agree with the ideas, but they are obligated to demonstrate an understanding of what's taught. In the same way, faculty members can ask for understanding of ideas and facts from their disciplines, but shouldn't require students to agree with values connected with that knowledge.

One of KU's main purposes is to sustain intellectual life in its many forms, including:

Study in and out of class by all students;

Discovery, creativity and research by students and faculty members;

Engagement with local and global communities; and

Open discussion of ideas and issues.

To support this intellectual life, students and faculty members need to talk about what they expect from each other as we all pursue the goals of learning and discovery. As KU Interim Provost Carl Lejuez states, "We have a responsibility to create an inclusive environment where people, regardless of background or life circumstances, can be present and successful" (retrieved from provost.ku.edu/about/office).

RESPONSIBILITIES FOR LEARNING

Mutual responsibilities

When a semester starts, students and faculty members should discuss how they will work together. Respectful interaction is a

MUTUAL RESPONSIBILITIES

At the beginning of a course, students and faculty members should talk about and agree upon:

1. How they'll work together
2. How they want to be addressed
3. How they want to communicate in and out of class
4. What their community standards for conduct are
5. What consequences would result if standards aren't followed

ESTABLISHING POSITIVE ENVIRONMENTS

To establish a positive classroom environment, instructors should:

Explain how class time will be used

Describe the need for students to be engaged in the learning process

Identify opportunities for student-to-student interaction

foundation for teaching and learning. Disagreements should focus on ideas or facts. Verbal assaults on fellow students or an instructor are never appropriate.

Class attendance is a privilege. Both instructors and students should follow community standards for conduct, in and out of class. Social boundaries vary from person to person; students should have a chance to discuss their expectations with an instructor and with each other. Students should express their preferences for classroom interactions that support their learning. They should know how their fellow students will react if they don't meet standards for behavior. Instructors should be very clear about consequences of not following the group's standards. Students should support standards if consequences occur.

Instructors and students should talk about how they want to be addressed (e.g., "Professor Smith," not "Mr. Smith" or "Sam"). They should also be clear about how they want to communicate in and out of class (e.g., some students prefer email, some texts; some professors answer email late at night, some not after 5 p.m.).

Student responsibilities

Whether they're asking for information or commenting on ideas during discussions, students should respect peers and respect an instructor as the classroom leader. One way to demonstrate respect for an instructor is to come to class prepared and on time.

Students should know an instructor's preferences for communication and follow them. For example, they should find out if it's okay to call an instructor at home. They should understand how often—and how late at night—an instructor reads email, and shouldn't expect a reply too quickly.

Students should be formal and polite when they're communicating with instructors, both verbally and by email. Students can be casual only if an instructor explicitly welcomes it. Learning to differentiate among individuals' communication preferences is a useful social and professional skill, and it should be developed.

There are many priorities in a full life; academic work should be very high among them. Students should have enough time to go to classes and complete assignments. Other activities, for money or other reasons, aren't grounds to expect reduced time on coursework. KU's policy is that students should allow up to two hours of study for every hour in class. While some instructors don't follow that policy, others reasonably expect full preparation. Learning takes time, and students are expected to reserve enough time to complete the learning called for in their classes.

Faculty responsibilities

Faculty members should be very clear about how they expect students to perform and participate in courses. During the first week of classes, instructors should discuss their expectations, including acceptable conduct during class meetings (e.g., no cellphones, Instagram, etc.). The discussion could also include specifics about attendance and whether late assignments are accepted.

Instructors should be clear about communication, including forms of address, timing and amount of phone or email contact, and the appropriate degree of formality. Students should be asked how they would like to be addressed in class or in phone and email communication (e.g. “Miss Smith” or “Ms. Smith” or “Jenny”). Instructors should also be clear about how quickly they’ll provide feedback on student work. Ideally, faculty members should return graded work to students by the date promised.

As part of an open class discussion, instructors should explain how they’ll respond if students ignore the guidelines for class conduct. At all times, instructors should respect a student’s right to offer alternate opinions and to ask questions.

Some things must remain areas of instructor discretion, not subject to negotiation with students. These include course content, criteria for measuring understanding/performance, nature and timing of assignments (in and out of class), and use of class time. As with other areas, these expectations should be made explicit at the beginning of the course.

CLASSROOM CIVILITY

KU classrooms should be:

Focused on learning and communication

Respectful of diverse understandings

Committed to supporting learning

Respectful of all people

The *Code of Student Rights and Responsibilities* (see policy.ku.edu/student-affairs/student-rights-responsibilities-code) outlines the rights of students and many of the standards of conduct (responsibilities) expected within the KU community. Within the classroom, according to the *University Senate Rules and Regulations* (see documents.ku.edu/policies/governance/USRR.htm#art2sect6), “An instructor has the authority to set reasonable rules for classroom conduct. When an instructor judges that a student’s behav-

KEYS TO FACILITATING CIVILITY

To facilitate civility, Student Affairs and the Center for Teaching Excellence suggest that faculty members and students:

Talk about and be clear about expectations—how to address each other; communicate in and out of class, and meet community standards for conduct.

Recognize that disagreements are part of university life, and that there’s a difference between understanding and agreement.

If you disagree with someone, be respectful.

Support the KU community as we all pursue learning and discovery.

REFERRING STUDENTS FOR SPECIAL SERVICES

Setting boundaries with your students is a way to avoid devoting too much time and energy to problems outside of the normal classroom activities. Part of this includes knowing when to refer your students to other campus resources.

Sometimes things occur that are outside your area of expertise. There are people on campus who have a great deal of experience and expertise, ranging from housing disputes to mental illness.

Departments within the Office of Student Affairs provide a variety of services and programs that are designed to enable students to excel academically, such as the Writing Center and the University Advising Center.

The Office of Multicultural Affairs and the Academic Achievement and Access Center help students make a smooth transition to college life.

In addition, students can receive assistance and support through the Counseling and Psychological Services Center, Legal Services for Students, and Disability Resources.

For more information about these resources, see studentaffairs.ku.edu.

ior is disruptive or obstructive to learning, the instructor can request that the student leave the classroom. Refusal to comply with a request to leave a classroom can itself be grounds for a charge of academic misconduct.”

Faculty members are encouraged to talk with students early each semester to clarify mutual expectations. In most cases, this will help circumvent serious civility problems.

COURSE ENROLLMENT

ENROLL & PAY

Enroll & Pay is the name of KU’s student information computer system. Go to sa.ku.edu and use your Outlook signon to find the Faculty Center on Enroll & Pay. If you have questions, contact the Information Technology help desk at 785-864-8080.

CLASS ROSTERS

There are two types of class rosters available to faculty at KU:

Class rosters on Enroll & Pay, Faculty Center (see above), and

Class rosters on Blackboard, supported by IT (785-864-8080 or courseware@ku.edu).

CREDIT/NO CREDIT

Undergraduates seeking the credit/no credit grading option for semester-long courses must register their choice in their Dean’s Office during the 21st through the 30th instructional days of the semester. A student may select this option only once during the semester, and the selected class cannot be in his or her declared major. The grade of CR (credit) will be received for grades of A, B, or C. The grade of NC (no credit) will be received for grades D or F. The instructor will not be informed when a student has chosen this option and will assign a conventional letter grade, which will then be converted by the Office of the University Registrar to CR or NC as appropriate. Courses graded CR or NC will not count in computing the grade point average but will be included in the total hours counted toward graduation (see *University Senate Rules and Regulations* 2.2.8).

ATTENDANCE AT CLASSES, STUDIOS AND LABS

University Senate Rules and Regulations 1.4.3 (see policy.ku.edu/governance/USRR#art1sect1) state the following regarding attendance and exams:

Examinations and tests other than final examinations should not be scheduled in conflict with mandated religious observances. In order to ascertain in a given class if a scheduled examination conflicts with a mandated religious observance, at the beginning of the semester the instructor shall ask students who may be affected to identify themselves privately so that a make-up examination may be scheduled at a mutually acceptable time.

Students with a verifiable medical crisis of a relative or friend may be excused from being present for scheduled examinations and tests. It is the responsibility of the student to initiate discussion with the instructor, prior to the examination/test if possible. The instructor and student shall come to a mutually agreeable method of making up the missed work.

For more information about attendance, see this topic under Motivating Students on page 28.

PRIVACY OF STUDENT INFORMATION

Academic, financial and non-directory information about students is confidential and protected by the Family Educational Rights and Privacy Act (FERPA). FERPA is also known as the Buckley Amendment. Academic information about students cannot be released to another person, including parents or guardians, without students' written authorization. If a student wishes to authorize release of information, see registrar.ku.edu/sites/registrar.ku.edu/files/servicedocs/nondirectoryrelease.pdf.

For suggestions on handling student records and information, see the box on the previous page or oic.ku.edu/student-records-faqs. Contact the Registrar at 785-864-4423 for more information.

WITHDRAWING FROM COURSES

WITHDRAWALS

The withdrawal period is divided into three segments. During Period 1 (first 15 instructional days of a semester, or first seven instructional days of a summer session), students may withdraw from a course by canceling enrollment in it. The course won't appear on the student's official record.

During Period 2 (beginning the 16th instructional day through the 60th instructional day of a semester or the eighth instructional day through the 30th instructional day of summer session), a student seeking to withdraw from a course must first obtain a schedule change form signed by the instructor (or designee) and, if required, the student's school. A student who withdraws during

PRIVACY DO'S AND DON'TS

DO:

Return tests and papers individually.

Use Blackboard to post grades or truly anonymous identifiers, randomly assigned.

Get a written release to use a student's paper or photo when it's identifiable.

Use a secure server to store all student information.

Train all instructional staff, including GTAs/GRAs, in allowable and appropriate handling of student records.

Consult the Privacy Office, Office of General Counsel, or University Registrar if you have student records questions.

DON'T:

Don't tell a parent or spouse of a student any information—the student controls his/her record.

Don't return tests or papers in a stack or box; names and grades aren't public information.

Don't post grades on a door or website with name, SSN or KUID number.

Don't post class photos, with or without names, since they contain personally identifiable information; get a signed release first.

Don't post a class roster or share it with anyone outside of the class.

Don't use excerpts from a student exam or paper that can link it to a student (e.g., name, KUID, SSN, student in a small class, etc.).

OVERVIEW OF COURSE WITHDRAWAL PERIODS

Period 1:

Day 1 through 15 of the semester (or first seven instructional days of a summer session).

Student may cancel enrollment.

Course will not appear on student's official transcript.

Period 2:

Day 16 through 60 of the semester (or eighth through 30th instructional day of a summer session).

A student seeking to withdraw from a course must follow the withdrawal procedures of the College or School in which the student is enrolled. Neither the instructor nor the College or School is entitled to withhold approval of the withdrawal.

Student will receive the grade of a W. This grade will appear on student's transcript but will not be included in the GPA.

Period 3:

Day 61 through last day of class for the semester (or 31st instructional day through last day of class for summer session).

Student cannot withdraw from a course.

Course grade determined by student's overall academic performance.

Period 2 will receive the grade of a W. This grade will go on the student's academic record but will not be factored into the GPA.

During Period 3 (beginning the 61st instructional day through the last day of classes for the semester or the 31st instructional day through the last day of classes for the summer session), a student cannot withdraw from a course. The course grade will be determined by the student's overall academic performance.

After a student completes a course and a grade has been assigned, including an Incomplete if appropriate, retroactive withdrawal from the class isn't allowed, except in accordance with *USSR 2.3.3*.

For complete information about the withdrawal policy, see *USSR 2.2.5* (policy.ku.edu/governance/USRR#art2sect2).

ADMINISTRATIVE DROPS

In general, students are required to drop class(es) themselves. However, the Office of the University Registrar can process administrative drops when departments publish conditions and circumstances under which an administrative drop will be pursued in the *Schedule of Classes* for each semester, or departments request an administrative drop when a student hasn't met published requirements for a particular class or course of study.

Only one faculty/staff person per department should be delegated to submit administrative drop requests. Departments are responsible for attempting to contact students for notification of administrative drops. Refunds may be awarded if the administrative drop is requested during a refund period. The amount of the refund is determined by the date of the request to the Registrar.

ACADEMIC MISCONDUCT

Academic misconduct at KU is defined in the *University Senate Rules and Regulations*, as are sanctions that may be imposed upon a student or instructor (see policy.ku.edu/governance/USRR#art2sect6). *Senate Rules and Regulations* also specify that "Every instructor shall make clear, at the beginning of each course, his or her rules for the preparation of classroom assignments, collateral reading, notebooks, or other outside work, in order that his or her students may not, through ignorance, subject themselves to the charge of academic misconduct."

PROMOTING ACADEMIC INTEGRITY

McKeachie & Svincki (2010) suggests several ways that teachers can promote academic honesty. See the box on page 59.

STUDENT WRITING

To reduce plagiarism, Walvoord and Anderson (2010) suggest intervening early. If you see a proposal, outline or draft of a paper, it's much harder for a student to purchase or copy someone else's work at the last minute. This is also recommended so that students receive early direction, as opposed to finding out that they've spent many hours on a flawed work. This forces students not to procrastinate until the last moment, as well. Finally, taking time to check a draft helps you reach students during a teachable moment—when they can still do something to improve their work—rather than doing an autopsy on a final paper. It will also save you time at the end of the semester; because students have already received feedback on previous drafts, you won't need to make extensive comments on the final draft.

Two of the best ways to be prepared for an occurrence of plagiarism is to have a clear policy in the syllabus and to know your department's plagiarism rules and regulations. For more general information, see the Writing Center's guidelines (writing.ku.edu/academic-integrity) or its list of plagiarism resources (Avoiding Plagiarism tab at writing.ku.edu/writing-guides) and the Ombud's Web site (ombuds.ku.edu).

GRADING STRATEGIES AND DECISIONS

GRADE ROSTERS

Grade rosters are available to faculty by 6 p.m. on the last day of the semester for 15-week courses. For short courses, grade rosters are available the next business day after the last day of the class.

To access rosters, go to sa.ku.edu and use your Outlook signon to Enroll & Pay. Once you're signed in, select the Faculty Center to see your grade rosters by term. You must be the Instructor of Record to see a roster. If you're not listed as the Instructor of Record, contact the scheduling officer in your department, and he or she will contact the University Registrar to make the update. The deadline for submitting final grades is five business days after the last day of finals by midnight.

EVALUATING STUDENT PERFORMANCE

Developing Assignments and Giving Students Feedback on Learning, pages 10–13, provide a useful frame of reference for evaluating student performance.

University Senate Rules and Regulations 2.1 (see policy.ku.edu/governance/USRR#art2sect1) provide the following guidelines

WAYS TO PROMOTE ACADEMIC INTEGRITY

McKeachie & Svinicki (2010) suggest the following as ways to promote academic integrity:

Reduce the pressure, by providing several opportunities for students to demonstrate their learning, rather than giving only one or two exams. Keep students informed of their progress throughout the semester.

Make reasonable demands and write reasonable and interesting tests. If students are frustrated and become desperate with an assignment that's too long or a test that focuses on the trivial, they may be more tempted to cheat.

Develop group norms that support honesty. Even discussing academic honesty in class helps students recognize its value. Preserve each student's sense that he or she is an individual with a personal relationship with the instructor and other students. Dishonesty is less likely to occur if students feel that teachers and other students know them, as opposed to if they feel alienated and anonymous.

When you're giving a test, if a student has wandering eyes, ask the student to move to a different seat where he or she will be less crowded. McKeachie writes, "If he says he's not crowded, I simply whisper that I'd prefer that he move. So far no one's refused" (2010).

FULL CIRCLE

If you've established course goals and aligned assignments with them, you may wish to use these absolute standards for course grades (Travers 1950):

A—All major and minor goals achieved.

B—All major goals achieved; some minor ones not.

C—All major goals achieved; many minor ones not.

D—A few major goals achieved, but student is not prepared for advanced work.

F—None of the major goals achieved.

about evaluating student performance in a course:

The evaluation of student performance shall be based upon examinations, written papers, class participation and such other requirements as the instructor may determine.

Information about the basis for evaluating students' performance and about the requirements that students must fulfill shall be made available to students, in print or electronic format by the 10th class day of the semester or, for summer or short courses, by the 5th class day. This requirement does not apply to discussion sections or labs for which a separate grade is not given, or to courses that meet by appointment, such as thesis, dissertations, directed studies, and directed projects. Students who are not in class when such information is provided are responsible for knowing it. Students are also responsible for subsequent announcements about course content and grading policies. This information should not be considered a contract; the information may be revised as the course progresses, provided students are given timely notice of such revisions.

The faculty of the College or a school may prescribe conditions under which individual students may be exempted from final examinations, provided that such exemption is based on grades received prior to the time of the final examination.

In cases where part of a class grade is based on attendance, a student shall not be penalized for absence from regularly scheduled class activities which conflict with mandated religious observances. In cases of conflicts between regularly scheduled class activities and mandated religious observances, the student is responsible for initiating discussion with the instructor to reach a mutually acceptable solution.

The evaluation of student performance is the responsibility and privilege of the faculty. If this responsibility is delegated to a Teaching Assistant or an Assistant Instructor, the faculty member or members in charge of the course retain the right to assign the final course grade.

USRR 2.2.1 also specifies the following regarding the grading system at KU (see policy.ku.edu/governance/USRR#art2sect1):

The letters A, B, C, D, S (satisfactory), CR (credit), and + shall be used to indicate passing work.

The grade of A will be reported for achieving outstanding quality.

The grade of B will be reported for achieving high quality.

The grade of C will be reported for achieving acceptable quality.

The grade of D will be reported for achievement that is minimally passing, but at less than acceptable quality.

The letters F, U (unsatisfactory), and NC (no credit) shall indicate that the quality of work was such that, to obtain credit, the student must repeat the regular work of the course, or that the student's work was not of passing quality at the time of disenrollment from the course.

The letters W and I may be given. The letter I shall indicate incomplete work, such as may be completed without re-enrollment in the course. The letter W shall indicate withdrawal for which no credit or grade point is assigned.

The letter I should not be used if a definite grade can be assigned for the work done. It shall not be given for work of a student in any course except to indicate that some part of the work has, for reasons beyond the student's control, not been done, while the rest has been satisfactorily completed. At the time an I is reported on the electronic roster, the character and amount of work needed, as well as the date required for completion and lapse grade if further work is not completed by this date, should be indicated.

A student who has an I posted for a course must make up the work by the date determined by the instructor, in consultation with the student, which may not exceed one calendar year from the original grade due date for the semester in which the course is taken, or the last day of the term of graduation, whichever comes first. An I not removed according to this rule shall automatically convert to a grade of F or U, or the lapse grade assigned by the course instructor, and shall be indicated on the student's record.

The College or any school may use the letter P to represent satisfactory progress during one semester of work for which a grade will be given only upon the completion of the course or project in a subsequent semester.

MAXIMIZING STUDENTS' ACCEPTANCE OF GRADES

Davis (2009) suggests these strategies for maximizing students' acceptance of grades:

Clearly state grading procedures in your course syllabus, and go over this information in class.

Set policies about late work.

Avoid modifying grading policies during the semester.

Provide many opportunities for students to show you what they know.

Consider allowing students to choose among alternative assignments.

Stress to students that grades reflect class work and aren't judgments about people.

Encourage students who are performing poorly.

Deal directly and privately with students who are angry or upset about their grade.

Keep accurate records of students' grades.

EMERGENCY PREPAREDNESS

INCLEMENT WEATHER

Kansas weather varies widely from season to season and may result in class cancellation, particularly during the winter and spring months. In the event of inclement weather that could create hazardous traveling conditions for students or employees, the Provost

EMERGENCY RESOURCES

The following three websites provide valuable resources for emergency preparation:

For emergencies: alerts.ku.edu/emergencies

For inclement weather: policy.ku.edu/provost/winter-weather-policies

For violence in the workplace: policy.ku.edu/human-resources/workplace-violence-policy

will make a decision on canceling classes by 5:30 AM and alert the regional news media and the Information Center, and a message will be placed on the inclement weather line (785-864-SNOW) and the KU Information Center line (785-864-3506).

VIOLENCE IN THE WORKPLACE

To ensure the safety of all its employees and students, the University of Kansas adheres to the State of Kansas Violence in the Workplace Policy, which states that any threatening or violent actions committed on state property against state employees or members of the public will not be tolerated, and could result in dismissal, arrest or prosecution. The policy says that state employees are responsible for alerting their institutions about “any threats which they have witnessed, received, or have been told that another person has witnessed or received.” At KU, employees should contact the director of Human Resources, Ola Faucher, at ofaucher@ku.edu or 785-864-4946.

Although the chances of a school shooting occurring at KU are statistically slim, it is still important to be aware of the warning signs for potentially violent students or employees. The website for the KU Student Conduct Review Team (studentaffairs.ku.edu/student-conduct-review-team) has helpful information, including warning signs for potentially dangerous individuals. Knowing how to identify these signs, such as violent content in writings and art or a fascination with weapons or previous shootings, could lead to early intervention and saved lives.

CONCEALED CARRY

The following information is excerpted from KU’s website on concealed carry (concealedcarry.ku.edu). Check there for full details.

The University of Kansas Weapons Policy strives to respect the rights afforded by the state’s Personal and Family Protection Act while also addressing concerns for safety among members of the campus community.

What is the Law?

In very simple terms, the Kansas Personal and Family Protection Act allows the carrying of concealed handguns into most state buildings. Kansas Board of Regents and KU policy further describe campus specific procedures related for safe possession, use and storage of such weapons.

Where is Concealed Carry Allowed?

Concealed carry of handguns is allowed in most buildings on the Lawrence and Edwards campuses. The law does not allow individual instructors or employees to prohibit concealed carry

of handguns in classrooms, labs, or offices to which they are assigned, unless adequate security measures (detectors and armed personnel) are provided at all public entrances to the space.

What is the Policy?

KU and KBOR policy define the safe possession of handguns and responsibilities of the carrier. Simply put, handguns must be secured in a holster that covers the trigger area and secures any external hammer in an un-cocked position. The safety must be on and the handgun must be carried without a chambered round of ammunition. The handgun must also not be seen by others and be under the carrier's custody and control—on the body or in a backpack or purse—or in a safe storage device or secure location, such as a locked vehicle. Except when necessary for transferring to safe storage or self-defense, a handgun must not be openly displayed. Violations of policy may result in individuals being asked to leave campus with the weapon and being cited for trespass if they refuse. University employees or students who violate policy may face discipline through applicable university codes of conduct.

Who May Carry a Concealed Handgun?

Individuals age 21 and older who are not otherwise prohibited by state or federal law from possessing a firearm may carry a concealed handgun. A license is not required to carry. It is not lawful to carry a firearm when under the influence of alcohol or drugs. Federal regulations prohibit individuals with a nonimmigrant visa from possessing or receiving firearms or ammunition.

What is Considered "Concealed"?

Handguns must be in a holster on the body of the carrier and concealed by clothing. Handguns may also be kept concealed in a backpack or purse provided the backpack or purse is under the custody and control of the person. If a handgun is stored in a vehicle on campus, the handgun must be secured and concealed from view. KU policy also mandates additional conditions for all concealed handguns. It is the responsibility of the carrier to ensure the handgun is kept securely and not seen.

Is Concealed Carry Allowed in Faculty Offices?

Yes, although KBOR policy allows faculty members who are solely assigned to an office to lock the door provided the measure doesn't interfere with policies regarding maintaining office hours.

Can I Require that Backpacks and Purses be Stored Separately from a Student During a Test or Lab Class?

Yes. KBOR policy provides that for those instances where class rules dictate that all purses and backpacks have to be left unattended, university policies may require that individuals who want to carry a concealed carry handgun have it holstered on their person, instead of in their bag, before they arrive at the class. Prior actual or constructive notice of such rules must be given.

PERSPECTIVE & PERCEPTION

A simple review of numbers can help provide context regarding concealed carry at KU.

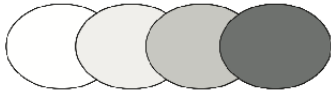
Because the Kansas law only allows concealed carry by individuals 21 and over and federal regulation bars individuals with nonimmigrant visas from possessing firearms, a significant portion of the student population will be ineligible to carry a concealed handgun:

- 59 percent of undergraduate students on the Lawrence and Edwards campuses are younger than 21
- 9.2 percent of KU Lawrence and Edwards students are international students

In KU's residence halls, only 8 percent of residents are 21 or older, and the vast majority of those age-eligible students, 85 percent, live in Jayhawker Towers. Here's another way to view this:

- Fewer than 400 students and staff living in KU's residence halls are 21 and older.
- Roughly 330 of the age-eligible students live in Jayhawker Towers.

From concealedcarry.ku.edu/



Representing Teaching

THREE PERSPECTIVES FOR REPRESENTING TEACHING

When you represent your teaching for any kind of review, include these three perspectives:

1. Peer voices
2. Student voices
3. Your own reflections

In some ways, representing teaching is like creating a sculpture: both have many dimensions and take form over time. Your representation will be both a product and a process, so it's important to document how your teaching evolves over time, including how students' learning has improved.

Many times faculty members are caught up in the wide range of activities in our work, and we think about representing teaching only periodically. If you gradually build a record of your teaching as you go along, the teaching portion of your documentation can be the easiest part of representing your professional life. The natural rhythm and occasions of each semester require you to create teaching materials, give and read assignments, and provide evaluation to students. If you spend only a few hours each semester capturing a small portion of that work as an archive, you'll have this representation mostly complete.

This portion of the guide lays out a simple plan that will allow you to create your teaching record in a straightforward way, while also getting useful feedback that will help you accomplish with your teaching what you care about. You can both enjoy your teaching more by taking these small steps, and you can also create the materials you'll need to bring forward when your colleagues ask about your teaching. You're already doing 95% of what's needed just in the act of delivering your courses; the marginal effort to learn from your teaching and share it with others is very small in comparison.

THREE PERSPECTIVES

At a very basic level the components of quality teaching include:

Identifying appropriate content and goals for a course

Designing good opportunities for students to demonstrate their learning

Creating and carrying out an instructional plan of teaching and learning activities

Creating a social environment in which students are able and willing to engage those activities to good effect.

A previous portion of this guide has addressed those components so you can think about how to achieve your own goals as a teacher. When representing teaching, you'll want to make those components visible to the people who would care about them,

receiving from those audiences the feedback you need to develop your teaching. Your faculty colleagues are the appropriate audience for your construction of the goals and content of your courses; they have knowledge and experience in the field and can offer useful observations about your decisions in developing a course. Students are the appropriate audience for some portions of course delivery; they engage in the listening, writing, reading and thinking that you arrange, and they can give you feedback on how well they think those activities are delivered. Finally, your perspective is also essential to the representation.

Readers of your work will want to see how your teaching is evolving, both in terms of your practices and your students' achievements. When you reflect on how well students' learning is matching your goals, you give an important view into your professional work as a teacher. No one starts out an expert at teaching or research; we get better at both as we learn by looking at products of our work and listening to feedback.

PREPARING TO REPRESENT YOUR TEACHING

REFLECT ON YOUR TEACHING

Keeping a record of what you have done, along with notes about why you did what you did, is the best way to avoid what Lee Shulman has described as "pedagogic amnesia." It's easy to forget which assignments clearly showed whether or not students understood a key concept. Did grading essay exams take that much time? At the end of a semester, what gaps were evident in students' learning, calling for restructuring part of a course?

To keep a record of a course, you may wish to compile the items listed in the box at right. If you gather these kinds of materials for each course you teach, you'll have a complete record of your teaching. From it, you'll be able to illustrate the trajectory of your teaching accomplishments for your reviews.

MAKE LEARNING VISIBLE TO YOUR TEACHING COMMUNITY

After a course, a successful teacher takes evidence of learning found in student work and reflects upon what it says about the course. It's challenging to identify weaknesses in an instructional design and plan changes that might benefit future students. In many cases, this involves making the results of our teaching public and seeking comment from others, much as we do in other parts of our creative lives. Peer review of teaching provides an occasion for examining the intellectual work of teaching, including constructive feedback on that work from professional peers.

In the process of offering a typical course you'll likely spend about 50 hours in contact with students (in class, labs, studios, or con-

COURSE RECORDS

Items you can compile for a course record include:

1. Syllabus
2. List of course goals (may be included in the syllabus)
3. Brief description of how assignments relate to course goals (may be included in the syllabus)
4. Samples of student work at various levels (high, mid, low)
5. Notes on student performance:

Were the course goals appropriate?

How many students/what percentage achieved course goals?

What gaps in student learning are evident?

What material needs more time or a new approach?

SAMPLE PROMPTS FOR COURSE NOTES

At the end of a course, record your reactions to these questions (see Appendix C):

Of all the material you taught, what were the three or four most important goals you had for student understanding and performance?

Where in students' work did they have the best opportunity to show you their understanding and their skills? Be sure to retain copies of a small representative sample of that work (two As, two Bs, two Cs of each).

What class activities, lectures, assignments or materials worked extremely well this semester? Can you replicate them, continue them or expand them? Do you have an idea about why they worked well or how you made them successful?

What class activities, lectures, assignments or materials did not go well this semester? How might you replace or modify them to achieve your goals better? Are there new ways you could achieve the same goals?

What ideas have you had for something new you want to add to this course the next time you teach it? Will the topics or goals evolve in some way? Are there ways to measure learning you want to add or ways to engage students you want to try?

What have you learned about teaching from this course? Are there lessons you would carry forward to teaching any class at this level and size? What ideas, reactions or feelings do you have about teaching right now, about this course or in general?

sultations), and probably the same amount of time outside class in preparation, reading student work, and general course management. Rather than discard the products of that substantial amount of time, it's very useful to set aside half a day to write down your impressions of a course. You could comment on which topics or issues you would emphasize more or de-emphasize in your next offering. You could discuss how well you felt the assignments, projects, and exams represented the skills and knowledge you hoped to see in your students. Making notes about such changes is best accomplished right after the course is over, while the ideas and experiences are still fresh in your mind. Another option is to keep a running journal, jotting down notes during the semester.

You also can save a random but representative sample of student work as an archive of what you and they accomplished together (see Student Consent Form in Appendix B). It's disheartening to a teacher to think that after years of teaching there has been no progress in advancing students' understanding of our field. If you have a small but accessible record of some key performances from several offerings of a course, you can review them for any trends. Maybe you see some consistent problems that you can address with more time, different materials, or additional practice. Maybe you see some improvement over time that was not apparent to you in the midst of delivering courses. Ultimately this is why we teach, to help students appreciate and understand our fields as we do, and having a small archive allows you to see how you are doing in a longer perspective.

Whatever your field of research or creative activity, you keep archives of your work. You have tapes of performances, examples of studio work, lab data, notes from library visits or interviews; in many ways you capture the important products of your inquiry into your field. Given the amount of time you likely spend each semester on teaching (probably more than 200 hours total for two courses), it would be a shame to lose all the benefits of that work by not developing some record of what was accomplished. The syllabi, assignments, and student work are done anyway, so you should not simply throw them away. Adding a half-day of reflection and writing, to capture your insights at the moment of greatest understanding, is a wise investment. It will help you grow as a teacher and achieve your goals, and ultimately those reflections can document your intellectual work as a teacher.

In Appendix C, we include a document titled "Course Notes," which is a page of prompts you could use to guide that consolidation of your teaching experience at the end of a course. You likely would not do this for every course, every semester, but picking a single course you teach frequently would give you an opportunity to learn from your teaching and to show your colleagues the intellectual skill you bring to your teaching.

TEACHING REVIEWS

PREPARING FOR REVIEWS

Self-reflection

The guidelines for evaluation of teaching at KU include prompts for reflecting on your teaching. For both the Progress Toward Tenure Review and the Review for Promotion and Tenure, you will be asked to describe your philosophy of Classroom Teaching by addressing “the primary subjects you teach and, using one or two courses as examples, discuss how you organize material and activities to help students achieve course goals, how you assess their achievement of those goals, and how your teaching experiences (including feedback from student evaluations) have shaped your ongoing goals and practices as a teacher.” Your answers to these questions will form the basis of the self-reflection portion of your teaching representation.

You can see that these questions mirror the kind of consideration of your teaching that’s been highlighted in this book. If you’ve been taking time each semester to think back on a course, you’ll have this already done. It’s most important to show the growth of a course, rather than document every aspect of every course. By capturing the essence of how a course has changed over multiple offerings, you provide your colleagues with a good representation of your thinking, planning, and growing as a teacher.

Course narratives

Many faculty members find it useful to write course narratives as part of their preparation for reviews. The goal of a course narrative is to describe student learning-driven practice within one course (or multiple offerings of a course). Consider these prompts when constructing your narrative:

1. Course goals: What are your intellectual goals for the course?
2. Implementation: How do your assignments and course activities connect to these goals?
3. Student performance: How do you know when your students have met the goals?
4. Reflections: What did you (or will you) do in future offerings if students do meet the intellectual goals? If they do not?

What sorts of evidence could you use to address question #3?

PORTFOLIO CHECKLIST

Your teaching portfolio should include these items:

1. Annotated syllabus describing course content
2. Short description of reasons for decisions about content and goals
3. Elaboration of instructional design
4. Examples of assignments and of student work on those assignments
5. Reflection on students’ achievements and plans for future course offerings

Essential items are the syllabus, examples of assignments and student work on those assignments, and your reflections on students’ learning and plans for future course offerings.

QUESTIONS FOR PEER REVIEWS OF PORTFOLIOS

Is the material in this course appropriate for the topic, for the curriculum, and for the institution?

Are the intellectual goals for students well articulated and congruent with course content and mission?

Are there opportunities (in or out of class) for students to practice the skills embedded in the course goals?

Do students receive useful and relevant feedback on their performance in the course?

Does performance requested of students include challenging levels of conceptual understanding and critical evaluation of material appropriate to the level of the course and of the students?

Are the forms of evaluation and assessment appropriate to the stated goals of the course?

Has this faculty member made a sincere effort to ensure that students achieve the goals for the course?

Is there evidence the faculty member has tried to improve teaching practices based on consideration of students' performance?

For a complete list of questions for peer review, see "KU Guidelines for Peer Review" in Appendix C.

Evidence of student learning—tracking/analyzing performance on particular types of assignments or on individual dimensions of assignments (rubrics are particularly useful for this purpose) often lead to greater insights than grades.

Student feedback—mid-semester evaluations; observations of student engagement, participation, attendance; end-of-semester evaluations.

See Appendix C for a sample course narrative.

Peer review of teaching

When most people hear the term "peer review of teaching," they often think of someone visiting a class and writing a report on whether the lecture was clear and whether students were paying attention (or asleep). Our view at KU is that there's much more to teaching than holding people's attention while talking non-stop. As this workbook has suggested, there's much to designing class time, assignments, feedback, and practice that can make a course successful. In many cases, there will be time spent with students in which the teacher appears to be doing nothing but listening and occasionally commenting. There is a story about a department chair making the obligatory classroom visit to a young faculty member, and he was surprised to see students working together, sometimes sharing with other groups or with the whole class, and interacting individually with the professor. After 20 minutes he said to the professor, "It's OK, I'll come back sometime when you're teaching." Peer review of teaching should include a detailed analysis of the professor's plan for learning, including material selection, targeted goals for students, methods of measuring learning, indicators of success in learning, and use of time with students during scheduled classes, studios, and labs.

Guidelines for evaluation of teaching at KU include a section for peer review that's drawn from reading and discussing a portfolio of course materials. See the box on page 67 for items to include. Peer reviewers focus on four areas: quality of intellectual content, nature of teaching practices, quality of student understanding, and evidence of how your teaching is changing over time. See the box at left for questions a colleague could ask when looking through your portfolio and talking with you.

It's very important that you make these materials available to colleagues early in your time at KU, so you can get constructive feedback as your courses evolve. Obviously, this helps you become more skilled as a teacher, but it also helps you learn how to represent your teaching. It would be foolish to wait until just before a professional review to send out a research manuscript for review, hoping it will win audience approval. We all know that we learn

a lot about the quality of our work and about how we write about it by sharing manuscripts with critical audiences early and often. So it is with teaching. Share your semester-by-semester reflections on teaching with colleagues, getting their reactions to what you do and how you learn from it. If you've done this once a year, you'll find preparation of your teaching materials for review to be easy.

Additional material for peer reviews can be found in Appendix C ("Four Facets of Teaching for Peer Reviewers" and "Guidelines for Peer Review of Teaching: FAQs and Answers").

Student voice

Student evaluations of teaching are an important part of the feedback that faculty members receive. The Kansas Board of Regents requires that student evaluations include questions about students' perception of delivery of instruction, assessment of learning, availability of faculty members to students, and whether course goals and objectives were met. At KU, departments use various forms to obtain this feedback. Check with your unit chair for a copy of the form used in your department.

It's crucial that we learn to read student feedback. KU has moved away from asking students to give an overall rating of a teacher, instead asking students to answer questions about specific features of a teacher's performance. Whether or not they're learning will be examined by looking at their work, not their impressions. Students are a good audience to tell us if we're clear, accessible, respectful, or timely. They may also be able to tell us if the activities we give them are well aligned with the ways we evaluate their learning. These and similar questions can help us see ourselves through the eyes of others, and these are important others. We're asking them to do a lot of work, and it's useful to have a cooperative relationship with our students.

A copy of the current student survey of teaching form is provided in Appendix C, as well as information about open-ended student comments to guide improvement of teaching.

UNIVERSITY REVIEWS

Annual review

KU requires that each faculty member be evaluated annually using criteria and methods appropriate to his or her unit for teaching, scholarship, and service. Specific criteria and procedures are identified in each department's faculty evaluation plan. (See Section B in the *Handbook for Faculty and Other Unclassified Staff*.)

It's best to consult with senior colleagues and your department chair to know what's expected within the unit's review. At the

THREE TYPES OF REVIEWS

KU faculty members complete three types of reviews:

1. Annual reviews
2. A progress toward tenure review
3. Promotion and tenure reviews

RESOURCES FOR REVIEWS

These documents and URLs will be helpful resources for you as you prepare for reviews:

Annual reviews: *Handbook for Faculty and Other Unclassified Staff*: policy.ku.edu/provost/faculty-and-unclassified-staff-handbook

Tenure reviews: Article 6 in *Faculty Senate Rules and Regulations*: policy.ku.edu/governance/FSRR

Guidelines and instructions for reviews are available on the Provost's Office Web site at: facultydevelopment.ku.edu/evaluation

same time, it's in your best interests to develop early the kind of materials that will be called for in the campus-wide professional review, so you should also plan to submit early versions of that work for your colleagues' consideration. Getting their feedback as part of annual review could be very helpful later, especially if it makes it easier for you to present an account of your teaching and easier for them to know deeply how you work as a teacher.

In 2006-07, the Faculty Senate Task Force on the Assessment of Teaching and Learning considered how faculty and other teaching personnel at the University are evaluated for their teaching and for their related scholarship. In April 2007, the task force submitted its final report, which was endorsed by the Faculty Senate. The central principle underlying the task force recommendations is that evaluation should be focused on the development of teaching over time and that assessment of that development should be based on multiple forms of evidence, including class materials, student evaluations focusing on the characteristics of teaching that students are best able to judge, a reflective statement from the teacher, and peer observation and evaluation. Two products of the task force are available in Appendix D: "Activities That May Be Considered in the Evaluation of Teaching at KU," and "Guidelines for Department Implementation." For additional information, see governance.ku.edu/promotion-and-tenure.

Progress toward tenure review

The progress toward tenure review is a formal review conducted approximately midway through the probationary period for tenure-track faculty. The purpose of the review is to give faculty members a meaningful appraisal of their progress to date toward earning tenure and to orient tenure-track faculty members to elements of the formal tenure review process. For review guidelines, see facultydevelopment.ku.edu/annual-evaluations.

This stage of review is very useful to faculty members, and it's a perfect opportunity to present a teaching portfolio, along with a substantive review of your intellectual work by colleagues. If you've kept end-of-semester reflections on one or two courses, you can combine them into a coherent narrative that indicates how you've shaped and developed that course over time. If you include examples of assignments and student work, you can make the case for the success of your teaching in terms that peers will appreciate and recognize. Since the final review for tenure will focus on such an in-depth peer review, it's very efficient to have done a thorough version of it in the run-up to the tenure period.

There will be consideration of student ratings at this point, but their impact should not be greater than that of the peer perspective on your work. If you've been developing and writing about

your courses and students' accomplishments, your peers can offer a powerful perspective on your work. Most importantly, your writing about your course (the half-day reflection we recommend) should include your reactions to student comments. Faculty colleagues are more interested in how you learn from what your students say than they are in what the students said in the first place. Again, it's the trajectory of your teaching that matters, and learning from student comments can be a useful part of that trajectory.

Tenure and promotion review

If you've followed these guidelines during the years before a review for tenure or promotion, there should be little left to be done at the final stage. The three perspectives are all in place for you to represent for review. You've been slowly evolving the substance and process of your teaching by regular reflection. You've looked at student learning to see if your own goals for teaching are being met, and you've adjusted your methods accordingly. You've also listened to the reactions of your colleagues as you've shared with them each stage of your development as a teacher. This is not a huge burden, but represents the products of the small marginal time spent summarizing all that you learned from the hundreds of hours spent teaching in a semester. Finally, you've listened to and responded to the perceptions of your students, not by having them define the quality of your teaching, but by having them give you feedback on key features of teaching that we as a community agree are helpful in promoting learning.

Ultimately your responsiveness to your audiences will be the most important evidence of quality teaching, as shown in student achievement and in your narrative of growth in teaching. By following the guidelines we recommend and doing the reflection and documentation in small but frequent steps, representing your teaching will be natural and productive rather than onerous.

Faculty Senate Rules and Regulations (FSRR) outlines all rules that govern tenure processes. Guidelines for promotion and/or tenure are found in department faculty evaluation plans and on the University governance website (governance.ku.edu). The most up to date version of the FSRR is kept in the KU Policy Library. See policy.ku.edu/governance/FSRR.

Because granting tenure is such a critical decision for both the faculty and the University, this review tends to be anxiety provoking. However, any faculty member coming up for tenure should be assured that the same good teaching practices and efforts made to represent teaching, which are expected and appropriate for yearly evaluations, are also the kind of evidence that should be brought to bear when preparing for promotion to associate professor. As stated in the *FSRR* (section 6.2.2), "The evaluation of teaching includes consideration of syllabi, course materials, and other in-

EVALUATION OF TEACHING

When considering activities for teaching evaluation, reviewers may focus on some of the following factors.

How does this teacher conduct courses?

- Clarity of course goals

- Relevance and appropriateness of course content

- Effectiveness of instruction

- Measures of student learning

How does this teacher prepare for courses?

- Appropriate preparation of new courses

- Continuing efforts to improve teaching

What teaching work has the faculty member done in addition to teaching courses?

- Coordinating courses within a program or developing a new course

- Mentoring and supervising GTAs/GRAs

- Mentoring and supervising students in clinical settings or internships

- Mentoring new faculty members in their role as teachers

- Mentoring students or directing research projects

Has this faculty member made contributions related to scholarship of teaching?

- Teaching related presentations at KU or elsewhere

- Serving as a guest teacher at other institutions or in the community

- Publishing articles related to teaching

COURSE PORTFOLIOS ON CTE'S WEBSITE

Over 125 course portfolios are posted on the CTE website (cte.ku.edu/portfolio). In the portfolios, you'll find ideas about encouraging participation and engagement during and outside of class, evaluating learning, helping students develop expertise and professional competencies, incorporating community-engaged learning, and evaluating learning at the program level.

You can view the portfolios by discipline, by author, or by keyword.

Check this site to see highlights of some of the best teaching work being done at KU.

formation related to a faculty member's courses; peer and student evaluations; a candidate's own statement of teaching philosophy and goals; and other accepted methods of evaluation." This list of the evidence and expectations Promotion and Tenure (P&T) committees will have when examining a tenure application should look very familiar to any faculty member. It was the express intention of both the governance committees who wrote the P&T and the administration that the materials necessary for promotion to associate professor be the same kind of materials that any active and thoughtful faculty member should already be preparing in the course of his or her normal teaching duties. So the best way to prepare for the P&T process is to follow all the advice provided above regarding making your teaching activities visible to your University colleagues.

COURSE PORTFOLIOS

A course portfolio represents a teacher's most effective practices. When teaching is approached as an act of data-driven practice, the course portfolio can allow you to explore how effectively the goals of student learning are being achieved, from your point of view and from the perspective of student work. In this way, student and teacher practices inform and serve each other; this bi-directional relationship is captured in the course portfolio.

The structure of a course portfolio explains course goals, how goals were implemented, how student performance was achieved, and the teacher's reflection on what was achieved and what can be bettered in future offerings. A richer portfolio tracks a course's evolution, showing what was learned and improved over time. In contrast to other reviews, students' voice and performance is evident through student work, not through student ratings. Also, instead of a generalized teaching statement, the reflections of the teacher are encompassed in an in-depth analysis of his or her teaching and future teaching goals (Bernstein 2006).

As members of an intellectual community, we're happy when we can share our research. It's valuable for colleagues to learn from our work and build on it, and we're also proud to know we've accomplished something others find worthwhile. There may be a time when you feel that way about your teaching, as well, and KU has a way for you to share your accomplishments. CTE provides a number of faculty groups that share the products and insights of their teaching, and we work with faculty members to represent those in an electronic gallery. If you wish to share your work, we'll help you create a course portfolio for our website.

FACULTY MENTORING

For mentees

According to Robert Boice, author of *Advice for New Faculty Members: Nihil Nimus*, faculty members from highly rated pairings of mentees and mentors evidenced greater long-term benefits than did poorly mentored or nonmentored new faculty. These are representative specifics for new faculty with effective mentoring:

Always came close to departmental expectations for scholarly productivity.

Always exceeded departmental expectations for adequate teaching by year 2 on campus.

Always were rated, beforehand, by reappointment committees as adequately collegial and cooperative.

Boice also found that new faculty who did not have effective mentors were, to put it mildly, somewhat less successful. Perhaps, then, it would make sense to at least consider a senior faculty member as a mentor for you at the beginning of your career.

Unless your department has a formal program established to pair you with someone, it will likely be your responsibility to choose a mentor, and this is a process you should not take lightly. Boice found that mentor/mentee relationships that developed spontaneously, rather than through a careful selection process, tended to “die an early, natural death” with “no clear sense of which actions and interactions would be most helpful.”

So how do you choose your mentor? Boice offers several suggestions, and you can find a more complete list in the sidebar at right:

Be patient and meet with several potential mentors.

Pick a primary AND a secondary mentor. Use both.

Meet briefly and regularly with your primary mentor.

Be involved in scheduling meetings with your mentors, and note that all meetings don't have to take place in an office.

Remember that you may need to put more time into the mentor/mentee relationship than your mentor. Boice found that while mentors who spent an hour per week on their mentee were generally very effective, “For mentees of exemplary mentors, time reported spent on meetings and exercises averaged 2.5 hours per week.”

OPTIMAL WAYS OF ARRANGING MENTORING

Know how useful, essential, and fun mentoring can be.

Be proactive in finding a qualified mentor; you may even have to cultivate your mentor as much as he or she educates you.

Most campuses set expectations higher than can be attained without mentoring.

Understand that exemplary mentors may not be the most obvious faculty members on campus.

Be patient and mindful in selecting/accepting a mentor; wait while you sample the advice and modeling styles of prospects before establishing a formal relationship.

Try to arrange one mentor from a department other than your own, to ensure that some of your foibles are observed by a colleague not on your own P&T committee.

Remind yourself of the actions of excellent mentors (willingness to mentor in active ways, including coteaching) and of exemplary mentees (ready trust, openness, and involvement, once confidentiality is assured).

Let go of perfectionism. Accept two or three mentors, each with different kinds of expertise.

Enquire about outstanding mentors of new faculty. Put your department chairperson in another category, as someone you should regularly ask for advice but who shouldn't know all your shortcomings.

Expect that mentoring experiences, if done well, will persist at least three years.

MENTORING GUIDELINES

Robert Boice suggests mentors follow these four recommendations when designing mentor/mentee activities:

Select activities that are of mutual interest, fit both schedules, and generate discussion. Engage in a variety of activities:

Discuss teaching projects

Visit each other's classes

Attend teaching seminars and workshops

Share course assignments

Review examples of students' work on assignments

Talk about classroom issues over coffee, lunch, etc.

Meet regularly. Without set meeting times, pairs tend to decrease contact when other demands begin to impinge on their schedules.

Keep a log or journal that can serve as a reference when the mentee is summarizing activities for reviews.

Be flexible, and allow for creative mentoring.

For mentors

Most good mentor/mentee relationships do not happen spontaneously. If a junior faculty member approaches you and asks you to serve as a mentor, it is likely the result of a significant amount of informal research and a careful vetting process. You have been asked to play a crucial role in the future of this person's career.

What does it take to be an effective mentor for a junior faculty member? According to Robert Boice, "effective mentoring is neither too difficult nor too time consuming to effect in useful fashion." Unless your department has a program already set up that pairs new faculty members with senior faculty mentors, it is usually up to the new faculty member to pick a mentor. Once this happens, Boice explains, "effective mentoring [takes] no more than one hour per week, on average, for mentors (including time spent in meetings, in preparing for meetings, and in related contacts with faculty/administrators who could help their mentees.)"

If mentoring is taking more time than you planned, it is okay to look for ways to decrease your commitment to your mentee. The most common way is to encourage your mentee to find a secondary mentor. As an added bonus, Boice found that a secondary mentor not only decreased the primary mentor's workload, but also increased the likelihood of long-term success for the mentee.

Given that long-term success of your mentee is the goal, be prepared to meet regularly for at least the first few years of his/her career. Initial meetings may involve mostly small-talk, but in time these discussions should evolve to include, according to Boice, "direct coaching, even collaboration, in domains of writing, teaching, and socialization." Remember, too, that meetings do not always need to occur in your office, and do not always need to be scheduled by you. A walk around campus or a quick meeting over coffee can provide a nice change of pace.

APPENDIX A

SELF-ASSESSMENT TOOL FOR DIVERSITY, EQUITY AND INCLUSION

FURTHERING THE CONVERSATION ABOUT DIVERSITY, EQUITY, AND INCLUSION IN COURSE CLIMATE, PEDAGOGY, AND CONTENT

CTE-funded project, Fall 2016/Spring 2017

Dear Colleagues,

Creating an inclusive and equitable climate for learning in diverse classrooms is an important but often overlooked aspect of developing a syllabus and conducting a successful course.

In 2016-2017, the urban planning department used a CTE grant to consolidate and extend existing resources to create an easy-to-use tool for self-evaluating our teaching when it comes to diversity, equity and inclusion. This appendix introduces the tool and explains how it can be used for a self-audit of syllabi.

To engage all students in active and meaningful learning, our course syllabi and curriculum must acknowledge the experiences and identities of all people. This process starts with recognizing:

- *Diversity* is understood to be intellectual, practical, and personal engagement with issues related to social justice and equity, particularly in relation to minority and marginalized groups such as African Americans, Latina/os, Native Americans, international peoples, women, people with disabilities, and members of the LGBTQIA+ community.
- *Equity* is understood to consist of a safe, healthy, and fair learning environment for all students.
- *Inclusion* is understood to consist of fully involving and engaging all students in the community of learners in a classroom.

When considering issues of diversity, equity, and inclusion in terms of how they manifest in higher-education settings, some groups—including students of color, non-traditional students, first-generation students, working students, parents, and older students—are often especially marginalized. Moreover, individuals can experience social categories such as race, class, and gender as overlapping and interdependent factors of discrimination or disadvantage, a phenomenon understood as intersectionality. All instructors can take steps to recognize the diverse experiences their students have and to make their classrooms more inclusive and equitable.

The self-assessment tool draws on a variety of resources and experiences. Prominent resources referenced include the work of Kim Case, including her Syllabus Challenge worksheet; Shari Saunders and Diana Kardia, including their work on creating inclusive college classrooms; recommendations from the KU Center for Teaching Excellence; and discussions and insights of the Diversity Scholars group of 2016-2017. To pilot test the tool, a faculty member and student in urban planning read all the syllabi for the core courses in the program to assess how the department currently addresses issues of diversity, equity, and inclusion. These preliminary evaluations allowed the department to establish a baseline from which they developed a system for improving course syllabi, listed in detail on the following page. Their goals in completing these assessments were to:

1. further discourse about diversity, equity, and inclusion in teaching
2. identify strong points as well as weaknesses and gaps in coverage of diversity
3. improve course syllabi and make our university more inclusive to all students

We hope and expect that the tool will evolve over time as more instructors use it. We welcome your feedback and suggestions.

Sincerely,

Ward Lyles—Urban planning faculty member, CTE Ambassador, 2016-17 Diversity Scholar
Grace Bridges—Urban planning student

SELF-ASSESSMENT TOOL FOR INSTRUCTORS

Read the prompts below and consider your syllabi and teaching to determine what level most accurately reflects them. The levels are designed to help you make changes moving forward.

LEVEL 0—*Establish a baseline*

By piloting this project we were able to establish a baseline of addressing equity, diversity, and inclusion that most syllabi achieved. At the very least all syllabi included:

- Information on accommodations for schedule conflicts and religious holidays.
- Information on accommodations for disabled students and how to contact the AAAC.

LEVEL 1—*Perform a self-assessment*

Critically read your syllabus and note if and where you address issues of diversity, equity, and inclusion. Understanding where your syllabus is lacking in coverage of these issues can help inform the improvements you choose to make in Levels 2 and 3. The first and easiest change to make to your syllabus is adding information about campus resources available to students. See Section A (available under “Syllabus Checklist” at <https://cte.ku.edu/resources-inclusive-teaching>) for a list of pre-formatted descriptions of resources to copy into your syllabus.

LEVEL 2—*Make improvements to course descriptions*

The next level of improving your course involves reviewing the descriptive sections (introduction, objectives, course format, policies, etc.) of your syllabus and focusing on how the course climate you create and the pedagogy you use does or does not address issues of equity, diversity, and inclusion. While this level requires more consideration on the part of the professor than Level 1, it also makes a greater impact on students’ understanding of how these issues will be addressed in the course. See Section B for detailed examples of how to engage issues of diversity, inclusion, and equity—to the benefit of all students—in the realms of class climate and class pedagogy.

LEVEL 3—*Make improvements to fundamental course elements*

More substantial changes can be made to fundamental elements such as module topics, lecture topics, and course readings to integrate issues of diversity, equity, and inclusion into a course. These changes may require a restructuring of the course, but the resulting changes will actively engage students in developing and furthering their understanding of these issues. Here too, Section B provides ideas for addressing diversity, equity, and inclusion through course content.

Section B

Below is a checklist of actions instructors can take to address diversity, inclusion, and equity in their courses, particularly in their syllabi. They are organized within categories of course climate, course pedagogy, and course content. These items are drawn from the work of Kim Case, Shari Suanders, Diana Kardia, and others.

Climate

Student-instructor relationships

- Get to know your students. Who are they? Where do they come from? Why are they in your class? What background experiences do they have?
- Clearly indicate your availability for consultation outside of class to students by including contact information, office hours and a welcoming statement in syllabi; many students from marginalized groups assume they should not bother instructors.
- Make syllabi visually appealing to engage students, but also ensure that images or graphics that are used are visible to all students (e.g. tag images with verbal descriptions for visually impaired students and avoid color schemes that are difficult for colorblind students to discern).
- Add a personal touch to the syllabus to let students know that you are human and approachable; for students who feel less welcome at a university, such statements can make instructors seem more accessible.

- Consider your own potentially problematic assumptions about students. For example, question assumptions that:
 - students will seek help when they are struggling in class;
 - students from certain groups are less (or more) intellectual or motivated than students from other groups;
 - students from certain backgrounds are poor writers;
 - poor writing suggests limited intellectual ability;
 - older students or students with disabilities are slower learners;
 - students whose cultural affiliation is not European-related are not native English speakers (e.g. a student whose family is Chinese is not necessarily from China);
 - a student affiliated with a particular group is an expert on issues related to that group;
 - a student affiliated with a particular group feels comfortable speaking about their own experiences or the experiences of other people in that group;
 - all students in a particular group share the same views on any issue;
 - students only relate to characters or historical figures that resemble them;
 - students from certain groups are likely to have any particular personality characteristic, approach to conflict, political views, or otherwise stereotypical characteristic.
- Create a class climate in which students feel comfortable critiquing instruction, including selection of topics, materials, and pedagogy. Part of creating an open climate begins with the instructor's attitude and statements early in the semester. An open climate can be reinforced through structured activities used at strategic points in the semester, such as around the midterm, to solicit feedback on things the instructor and students alike can do to improve learning. Such activities can increase trust in the classroom, as well as improve student learning and student perceptions of instructional quality.
- When drawing on cultural references and analogies, be aware of your own limited awareness as an instructor. Whether because of generational, cultural, or other differences,

students may have very different cultural reference points that you should be sensitive to. Avoid using exclusive examples, such as football or hockey analogies, sports that tend to be heavily dominated by men, or referring to a situation or joke from a show like *Seinfeld*, *Friends*, or other shows with a white-dominated cast and audience.

Acknowledging and respecting difference

- Check use of syllabi terminology; avoid general use of male pronouns and cultural phrasing that does not translate from English easily (e.g. idioms like "assignment will be a piece of cake").
- Develop guidelines / ground rules for course discussions with student participation. If this cannot be done, at least provide guidelines in the syllabus. Points to emphasize can include: engaging in respectful disagreement without attacking individuals; sharing discussion time with peers so that a few students do not dominate; making clear that no student speaks for all other people who share a characteristic with them; and having the courage to learn even when we are uncomfortable.
- Include a statement about preferred names / pronouns. Transgender, gender diverse, and students in general will know that their identities will be respected in the classroom. If, as instructor, you are unclear or nervous about how to address issues of sexuality and gender diversity, consider taking the Safe Zone Training offered through Student Involvement and Leadership Center.

Practical matters

—Cost

- Consider the costs of textbooks when creating reading lists; textbooks can cost a month or more worth of rent each semester for some students. If possible, assign texts that have used or online copies available. Aim to have required textbooks be the book(s) that students will benefit from having on their personal or professional shelves in future scholastic years and /or after graduation.
- Be cognizant of technology expectations to succeed in class. Not all students can afford

laptops, printers, smartphones, specialized software, or even color printing. If learning requires one or more of these more expensive tools, make sure students can feel comfortable approaching you to find accommodations.

—Scheduling

- Make course due dates, especially for graded work, clear and avoid major changes. Marginalized students, especially those who also have substantial work or family responsibilities, are especially inconvenienced or hurt by unexpected changes in schedules. Consult with students about the best days and times for deadlines. Make late policies clear.
- Avoid religious holidays for due dates or especially important class periods.
- Make attendance policies and expectation clear. In courses that take advantage of in-class, active learning pedagogies, make clear that attendance is truly mandatory because groups/teams cannot function when members are absent.

—Groups

- Pay attention to grouping students for learning. There is no one right strategy for group formation because course settings and student characteristics vary so widely. For each class and for each group assignment consider which combination of individual characteristics will create the best learning environments and then transparently create groups to ensure balance across teams. Also, where possible, avoid groups that end up with only one student from a marginalized population (e.g. five teams with each team having five men and one woman; instead have a couple of teams with multiple women and a couple with none).
- For group assignments, consider having designated roles for group members (e.g. reporter, moderator, etc.) and rotate roles over time. Students from marginalized groups may be reluctant to take more active roles because of stereotype threat or may even be actively excluded by students from dominant groups.

- Minimize out-of-class group collaboration that requires in person meetings between students. Students from marginalized backgrounds, especially those with major financial or family responsibilities, may have more constraints on their schedules.

—Discussions

- Be open to departing from a planned activity or topic if an important discussion unfolds unexpectedly. These unstructured and unanticipated discussions can build trust and provide surprisingly relevant ways to understand course material in a new light.
- Invite all students to participate in discussion, but do so tactfully without putting students on the spot. Sometimes simply catching a student's eye, holding contact for an extra second, and raising an eyebrow can gently entice a student to jump in who may be reluctant to put up a hand or might feel under pressure if called on by name.
- Be ready to handle conflict. Students will disagree, sometimes heatedly. If you are uncomfortable in the role of facilitator, seek out training from CTE, Office of Multicultural Affairs, or other entities on or beyond campus. You can learn how to better recognize students' fears and concerns, how to be firm but respectful in disagreeing or pointing out how a comment is hurtful, how to model "I" statements, and other techniques from the wide literature on conflict resolution. Do so very carefully and thoughtfully, however, because not all students will receive feedback in the same manner; some students may have been subjected previously to unfair or harsh criticism and be vulnerable to micro-aggressions. If instructors cannot be brave in entering into difficult conversation, however, students will likely not be either.

Pedagogy

Transparency in learning

- Include a clear statement of your teaching philosophy in your syllabi, particularly how it addresses issue of diversity, inclusion, and overall engagement.
- Make the course description in the syllabus clear and free of academic jargon, particu-

larly for non-technical courses open to all majors; also clarify any prerequisite courses needed.

- Clearly articulate overall learning goals and specific learning objectives, which students and faculty can measure progress towards achieving. Instructors should reflect on whether the learning goals are relevant to students of all backgrounds and if not, why.

Active learning and high-impact practices

- Use active learning methods, whether problem-centered learning, team-based learning, or one of the many other theoretically informed and empirically tested engagement methods. The Center for Teaching Excellence provides numerous opportunities for learning about active learning in a wide array of university settings.
- Take advantage of high-impact practices, such as using collaborative assignments and projects, teaching a writing-intensive course or course module, engaging students in original research, building in opportunities for service learning and/or community-based learning, and provide opportunities to link learning between courses (e.g. developing an e-portfolio) and between the classroom and work or internship experiences.

Strategic use of assignments and in-class exercises

- Scaffold assignments such that assignments are broken up into pieces that build cumulatively over the course of the semester. Scaffolding assignments also provides students with opportunities to receive feedback, revise their work based on the feedback, and synthesize multiple assignments into a final product worthy of showing to a potential employer.
- For all tasks students are asked to complete – in-class exercises and out-of-class assignments – be able to clearly articulate how the task(s) are relevant to the learning goals and objectives of the class. If the relevance cannot be clearly explained, consider why it is being asked of students.
- For assignments and exams, are instructions clearly worded and accessible to students from all backgrounds, including students

with English as a non-native language? Are students provided rubrics that make expectations and grading criteria clear? Are examples of previous students' work available to serve as models?

- Do assignments engage students with real-world applications that will be broadly relevant and interesting? Do the assignments provide students opportunities to apply their own cultures, identities, and backgrounds?

Content

Consider who is included in course materials

- Consider who is represented in the readings in terms of topics covered. Is there a reason one group or another is not represented or represented frequently? Whenever possible, include multiple perspectives on each topic. Additionally, include materials written and created by people from different perspectives, rather than allowing one author or creator of materials to summarize all perspectives.
- Consider who is represented in the readings in terms of authors. Is there a reason one group or another is not represented or represented frequently?
- When covering a theory or research by a member of a marginalized group, explicitly state this information and perhaps even show an image of the person; students in the same group benefit from seeing examples they can clearly identify with, just as traditionally dominant groups do in their own lives.

Framing difference

- Do texts support deficit models that blame marginalized groups for the inequality they experience? Can asset-based reading and readings that address institutional and systemic discrimination replace or complement deficit model readings?
- Can course topics and content be adjusted to speak to diversity and inclusion? Can examples used to illustrate concepts, theories or techniques also present a variety of identities, cultures, and worldviews?

APPENDIX B

SAMPLE TEACHING FORMS

GUIDELINES FOR INDEPENDENT STUDY STUDENTS

Ann Cudd, former KU professor of philosophy

So you think you want to do an independent study with me as guide, eh? Well, here are some thoughts I have put together to help us decide how we want to proceed and to avoid floundering in the beginning phases for half the term. But the first thing to note is that this is YOUR project and YOU will have to do the lion's share of the work here, both in designing how you want it to go and in motivating yourself to do the work. I am here to help you decide on the scope of your project, give tips on how to find appropriate readings, guide you through the readings that we decide on, and respond to the written work that you do. If these guidelines don't seem to fit what you have in mind, let's discuss it. Nothing is ruled out a priori (except immoral acts, of course).

Course numbers and levels

A. Undergraduate students:

- PHIL 340 Tutorial in Philosophy—This is the thing that students wanting to do an independent study with me during the school year enroll in, provided that I agree.
- PHIL 600 Readings in Philosophy (summer only)—Ditto above, except that this is done in the summer. Some summers I will not be available.

B. Philosophy majors (in addition to above):

- PHIL 460 Senior Essay—This is for senior majors who wish to work for departmental honors.

C. Graduate students:

- PHIL 899 Master's Thesis—Just what it says. Note that this is not required to get an M.A. at KU.
- PHIL 900 Research in Philosophy—Independent study for graduate students, any semester.
- PHIL 901 Tutorial II—This is an official requirement for Ph.D students; it requires the preparation of a paper on which the student will be examined by three members of the department.
- PHIL 999 Dissertation—Final product of the Ph.D. You'll work with a director at least a year on this. Choosing a dissertation director is perhaps the most important choice you make in graduate school; make it carefully, thinking about professional, intellectual and personal issues.

Themes and topics

A. General topics that I am competent to discuss:

- Decision theory, game theory—Various topics
- Philosophy of economics, philosophy of social science, philosophy of science—Any topic
- Political or social philosophy—Various topics
- Epistemic logic
- 20th century epistemology—Especially foundationalism and its demise
- Feminism—Various topics
- Philosophy of law: sexual harassment, abortion, date rape, consent theory
- Work of particular philosophers: Hobbes, Rousseau, Mill, Charlotte Perkins Gilman, David Gauthier, Charles Taylor, Wilfrid Sellars, and others not regularly taught by the department

B. Research specialties

- Foundations of game theory, especially role of common knowledge, theories of convention and norms, theories of oppression, feminist ethics, applications of game theory and decision theory to social/political problems, abortion, rape, sexual harassment, theories of resistance, theories of social groups, methodological individualism vs. holism, theories of rationality

Meeting arrangements

- A. PHIL 340 and PHIL 600 should be weekly meetings that cover the readings for most of the term. We may decide at some points, when the student is writing up the final paper for instance, not to meet for a week or so. This should be clearly agreed upon by both of us, however. And whenever you are going to have to miss a meeting be sure to let me know as far in advance as possible, even if that means calling me 10 minutes before our meeting to tell me that your car broke down!
- B. PHIL 460—Usually weekly meetings until the topic is established and narrowed down, then whenever you have a portion or draft to run by me for comments.
- C. PHIL 900—Weekly meetings are presumed.
- D. PHIL 901—Usually weekly meetings until the topic is established and narrowed down, then whenever you have a portion or draft to run by me for comments
- E. PHIL 999—Weekly meetings, perhaps for an entire term, until there is a clear sense of direction, then whenever you have a draft of the prospectus for me to comment on. After the prospectus has been approved, you may want to meet more or less frequently, but at least whenever you have a draft of a chapter to show me.

Readings and assignments

- A. PHIL 340, PHIL 600, PHIL 900
 - Syllabus: You will select the reading with more or less assistance from me, though I will maintain veto power over any reading that you will want to discuss with me (expect me to read).
 - Annotated Bibliography: At the end of the term you will prepare a list of the readings we have done with a brief annotation concerning the topic and points of interest of the reading.
 - Paper: Normally you will be expected to write a term paper on a subject of interest to you from the readings we have done. We can also consider other final products, however.
- B. PHIL 460, PHIL 901
 - Paper: The final product for each of these is set by departmental practice.
 - Bibliography: You will select all references and we will discuss some of them together. I will provide suggestions, but the final choices are yours to make.
 - Exam: Each of these requires an oral exam by three members of the department, including myself as director.
- C. PHIL 899, PHIL 999 (see Department Guidelines for Graduate Students for specifics)
 - Thesis: The final product for each of these is set by department practice.
 - Bibliography: You will select all references and we will discuss some of them together. I will provide suggestions, but the final choices are yours to make.
 - Exam: Each of these requires an oral exam. The M.A. oral exam is by three members of the department, including myself as director. The Ph.D. oral exam is by four members of the Philosophy department, including myself as director, and one member of the KU Graduate Faculty from a department other than Philosophy.

Grades

- A. PHIL 340, 600, 900, 901: I will assign A, B, C, D, F as merited. In exceptional cases I may consider giving the student an "I" for a specific, short period of time.
- B. PHIL 899, 999: I will assign P/F for every semester until the last one, then A, B or C as merited.

DISSERTATION STUDENT INFORMATION

Student Name _____

Advisor:

Ph.D. Comps Oral Exam

Date taken:

Result:

Committee:

Dissertation Topic:

Date begun:

Prospective Dissertation Committee:

Prospectus Title:

Date distributed to Dissertation Committee:

Committee:

Date Distributed to Dept.:

Approved by Committee:

Dissertation:

Chapters:

Comments on chapters (list chapter # and title, date received, date returned):

Date Sent to Committee for Approval:

Outside member of Committee:

Defense scheduled:

Defense date:

Result:

Job Search:

Type of job desired:

Universities/colleges applied to:

Date:

Interviews:

STUDENT CONSENT FORM—SHARING COURSE WORK

I will randomly select several students whose work will be copied and included in an archive of student work that I keep for this course. That archive is important to my continued reflection on how well students are learning in my courses. There are also two additional ways that I sometimes use a small portion of the archive of student work. First, I often use prior students' work as a point of comment for later students who are preparing for examinations. I post various questions and answers on a Web site and invite students to comment on how well the answers address the questions. Second, I maintain a course portfolio in which I write about the quality of student performance that is generated in the course. These examples are a very important piece of my work that I show to other professors to indicate how much and how deeply students are learning. Once the course portfolio is completed, it will also be made available to a wider audience of professors on a public Web site on teaching and learning in higher education (cte.ku.edu/portfolio).

This form requests your consent to have your work possibly included in discussions of understanding for future students and in any versions of my writing about teaching in a portfolio. There is only a small chance your work would be randomly included in my private archive for any assignment, but I ask all students for their permission should that be the case. Note that you have the choice to have your work be anonymous or have your name be part of the work.

Please check the following designated purposes (if any) to which you give your consent:

_____ I am willing to have copies of my coursework available so later students can use it for preparation.

_____ I am willing to have copies of my coursework included in my professor's course portfolio.

_____ I am willing to have copies of my coursework included in the public Web site.

Please check one of the following:

_____ I wish to have my name remain on any work that is used.

_____ I wish to have my name removed on any work that is used.

Additional restrictions on the use of my texts (please specify):

Print name _____

Date _____

Phone number () _____

Email _____

Course title _____

Professor _____

By signing below you give your permission that work you produce for this course may be used with the restrictions and for the purposes you indicated above. You understand that your grade is NOT connected in any way to your participation in this project, and I will not receive the list of students who have given permission to have their work shared until after I have turned in the grades for the course. Your anonymity will be maintained unless you designate otherwise. Finally, you understand that you are free to withdraw consent at any time, now or in the future, without being penalized.

Signature _____

Please address questions to: (name of faculty member, department, phone number, email.)

APPENDIX C

TEACHING-RELATED WORKSHEETS FOR PROMOTION & TENURE

PREPARING FOR REVIEW

COURSE NOTES

Title/No. _____ Semester/Year _____

As you prepare to represent your teaching for professional review, each offering of a course is an occasion for learning and development. Consider using these prompts at the end of each semester to remember what you thought about a course and what you learned about teaching it. The accumulation of several of these sheets for a course will provide an excellent core of a narrative on teaching that could be reviewed by a colleague. The archive of student examples (and the distribution of grades for each) will provide a rich picture of your accomplishments.

1. Of all the material you taught, what were the three or four most important goals you had for student understanding and performance?
2. Where in the students' work for the semester did they have the best opportunity to show you their understanding and their skills? Be sure to retain copies of a small representative sample of that work (two As, two Bs, two Cs of each).
3. What made you most pleased about students' work on those central intellectual topics? What features of their work indicated real success in students' performance? How broad was that success? Did it reach beyond a few top students?
4. What class activities, lectures, assignments or materials worked extremely well this semester? Can you replicate them, continue them, or expand them in useful ways? Do you have an idea about why they worked well or how you made them successful?
5. What left you most disappointed about students' work on those central intellectual topics? What features of their work would you hope to see improve the next time you teach the class? How many students succeeded in this challenging area? Are these goals worth keeping or should you put your energy elsewhere?
6. What class activities, lectures, assignments or materials did not go well this semester? How might you replace them or modify them to achieve your goals better? Are there new ways you could achieve the same goals?
7. What ideas have you had for something new you want to add to this course the next time you teach it? Will the topics or goals evolve in some way? Are there particular forms of measuring learning you want to add? Are there additional ways of engaging students you want to try?
8. Overall, what have you learned about teaching in general from this course? Are there lessons you would carry forward to teaching any class at this general level and size? What ideas, reactions or feelings do you have about teaching right now, about this course or in general?

PREPARING FOR REVIEW

TEACHING NARRATIVE

Your Teaching Narrative is a one-page statement that provides a brief overview of your teaching. To help you develop it, answer the following questions:

What topics do you teach?

What are one or two examples of intellectual goals you have for students?

How do you help students achieve course goals?

How do you know that students are achieving these goals?

How have your teaching experiences shaped your ongoing goals and practices as a teacher?

PREPARING FOR REVIEW

SAMPLE COURSE NARRATIVE

Andrea Greenhoot, CTE/Psychology

When I initially developed my Cognitive Development (PSYC 430) course at KU 12 years ago, I found myself facing a challenge that is familiar to many new faculty: how to teach students at diverse skills levels without lowering the bar. My goals for student learning were much the same as they are now: to understand and critically evaluate research on cognitive development, synthesize and connect across multiple empirical findings in the field, apply research findings and major course themes to real world situations, and develop clear and cohesive written arguments. I developed a capstone assignment for the course that integrated a number of these skills that I want students to take away from the course: to write a paper framed as an advice column, providing practical recommendations to parents, based on their critical reading of empirical articles from the psychological literature. But in my earliest offerings of the course, I found that students seemed to lack the skills required for this assignment, and their performance did not reflect the type of scholarly work that I expected at their level. Because the writing task is “real-world,” student interest in the assignment was high. The challenge I faced was how to help students read, understand, and use psychological research. Thus, across several offerings of the course, I made several changes to the term project assignment to better support students’ attainment of the necessary skills.

My earliest modifications involved simplifying the project, breaking it into multiple subcomponents to be completed throughout the semester, providing support and feedback at each step. For instance, I invited a librarian to conduct an in-class tour of the psychological literature search database, and required students to turn in their articles for feedback on appropriateness. I also incorporated an in-class, guided analysis of an empirical article. Finally, I developed a detailed grading rubric for the paper and distributed it to students before they wrote their papers. I observed clear upgrades in student work during this period; most students selected appropriate sources, and produced solid summaries and analyses of their empirical articles. Yet 15-20% of the students still needed individual assistance to find appropriate and relevant articles. Moreover, students seemed to devote almost all of their efforts to the summaries of individual articles, and had difficulty integrating the research findings and writing coherent arguments about the applications. I targeted these skills in several additional course enhancements by partnering with the KU Libraries and Writing Center (Spring 2007 to present). For instance, Erin Ellis from the KU Libraries provided hands-on literature search instruction in a computer lab, and students wrote summaries of their articles early in the process to free up their resources for the difficult task of article synthesis. They then participated in a Peer Workshop in which they reviewed each others’ summaries and discussed and debated the implications of the research. We also encouraged students to consult with staff from the Libraries and Writing Center throughout the semester. At the same time, I increased the number of articles students were required to synthesize.

There are several indications that the latest course modifications were successful. Not one student required individual assistance locating and selecting his or her empirical resources this past semester, and no one submitted articles from inappropriate sources (e.g., popular media). Furthermore, I was very impressed with the insightful and constructive feedback students gave each other during the peer review process. Overall grades on the term project have changed very little from year to year, in part because my expectations for what constitutes “outstanding” or “adequate” work have increased with the level of support I am providing to students. But comparisons of actual student products from year to year show that on the whole the papers were clearer and more sophisticated

during the most recent offering than they were during previous semesters. In particular, I observed a much improved ability to synthesize diverse research findings and draw appropriate conclusions, and this change is especially noteworthy given that students were required to synthesize more research findings during the most recent offerings. Formal and informal student evaluations of the course were also quite positive- most liked being held accountable for assignment stages across the semester, and they believed that it improved their final products. I am very happy with students' improved information literacy skills and the increased level of synthesis after the most recent course modifications and instructional partnership. Student work is more closely approximating the types of upper-level work that I think should be exhibited. Therefore, this is an approach that I will continue to use.

Sample Narrative Description of Student Learning Data: PSYC 430, Andrea Greenhoot

For many years I have used a capstone assignment in my undergraduate course on Cognitive Development (PSYC 430) that integrates many of the skills I want students to take away from the course. The assignment asks students to write a mock advice column, providing practical recommendations to parents based on their critical reading of empirical articles from the psychological literature. One dimension of the assignment that has been particularly difficult for students is the synthesis of multiple research findings, especially when those findings lead to divergent conclusions. This weakness clearly stands out in Panel A of Figure 1, which summarizes the percent of students in the Fall semester of 2005 who received high, intermediate, and low scores on four major dimensions of the assignment. In the Spring of 2007, I partnered with colleagues from the KU Libraries and Writing Center to redesign the course to better support students' attainment of the skills required for this assignment, with particular emphasis on improving their synthesis skills. The first set of changes involved breaking the assignment into more stages and providing increased support and feedback at each step. These changes yielded small upgrades in students' use of research, synthesis of research, and application to real world conclusions (see panel B). To promote further improvement in synthesis in later semesters, we added several learning activities (e.g., students evaluated and discussed sample papers with the rubric) that specifically targeted this skill area (Fall 2009), and then required students to write a traditional literature review paper before producing the advice column (Fall 2010). After making these changes, I saw particularly strong increases in students' abilities to synthesize multiple findings and apply them in real world conclusions. The shift in synthesis scores is especially noteworthy because at the same time that I increased support and feedback to the students, I also increased the number of articles students were required to synthesize. Thus, my students are performing better on an even more sophisticated learning task. Nonetheless, there may still be room for improvement, the changes I made to support synthesis may have also led to the small drop in high-level performance on the "use of research" category. In the next offering, we will work with students on how to maintain a clear research emphasis while writing for the "real world."

PREPARING FOR REVIEW

FOUR FACETS OF TEACHING FOR PEER REVIEWERS

Under the Guidelines for Promotion and Tenure Recommendations, KU faculty members who are completing peer reviews are encouraged to address the following four areas:

Quality of intellectual content

- Is the material in this course appropriate for the topic, appropriate for the curriculum and institution?
- Is the content related to current issues and developments in the field?
- Is there intellectual coherence to the course content?
- Are the intellectual goals for students well articulated and congruent with the course content and mission?

Quality of teaching practices

- Is the contact time with students well organized and planned, and if so, are the plans carried out?
- How much of the time are students actively engaged in the material?
- Are there opportunities (in or out of class) for students to practice the skills embedded in course goals?
- Are there particularly creative or effective uses of contact time that could improve student understanding?
- Are there any course structures or procedures that contribute especially to the likely achievement of understanding by students?

Quality of student understanding

- Is the performance asked of students appropriate for course goals, level of course, and for the institution?
- Does the performance requested include challenging levels of conceptual understanding and critical evaluation of the material appropriate to the level of the course and of the students?
- Are students being asked to demonstrate competence in the stated course goals? If not, is it possible to identify why?
- Are there obvious changes in the course that could improve performance?
- Are the forms of evaluation and assessment appropriate to the stated goals of the course?
- Are they particularly creative or do they provide students with opportunities to demonstrate their understanding using intellectual skills typical of the field?
- Is the weighting of course assignments in grade calculation coordinated with the relative importance of the course goals?

Summarizing the evidence of reflective consideration and development

- Has the faculty member made a sincere effort to insure that students achieve the course goals?
- Has the faculty member identified any meaningful relationship between what (s)he teaches and how students perform?
- Is there evidence the faculty member has changed teaching practices based on past teaching experiences?
- Is there evidence of insightful analysis of teaching practice that resulted from consideration of student performance?

As reported in the November 2005 issue of *Teaching Matters*, published by the KU Center for Teaching Excellence.

PREPARING FOR REVIEW

GUIDELINES FOR PEER REVIEW OF TEACHING: FREQUENTLY ASKED QUESTIONS AND ANSWERS

The University Task Force Report on the Assessment of Teaching and Learning has constructed these guidelines to assist departments in conducting peer reviews of teaching. The guidelines are intended to orient faculty members to new expectations for peer reviews of teaching and to help expedite the review process.

Q: What should a peer review reflect?

Peer review of teaching should reflect multiple sources of information, including course materials and student work as well as observations of contact time with students. Reviews of materials and in-class practices should include a variety of class sizes and instructional levels (e.g., undergraduate, graduate, survey, upper division course, etc.) as appropriate to the faculty member's instructional responsibilities. The resulting evaluations should address both strengths and areas to target for improvement.

Q: Who should conduct peer reviews of teaching?

Peer reviews of teaching are most effective when they are conducted by more than one individual over multiple periods. Because best teaching practices differ across disciplines, it is strongly recommended that peer reviews are conducted by faculty members from the same department, preferably by different reviewers each year. Peer reviewers need not be at an equivalent or higher rank to the person being reviewed. At the request of a faculty member, a reviewer external to the department or the University could be solicited to provide a reference on the quality of the content, instructional design, or student work evident in the faculty member's course or teaching portfolio.

Q: How often should we conduct peer reviews of teaching?

There are no definitive rules regarding how often peer reviews are conducted, other than prior to third-year reviews and tenure decisions for tenure-track faculty and prior to decisions for associate professors being considered for promotion to full professor. Peer review in any given year may focus on class materials, class observations, or other documentation. The review prior to the third-year review, the pre-tenure review, and review for promotion to full professor should consider the entire portfolio.

Q: What materials should be provided by the faculty member under review?

1. Teaching materials to demonstrate the intellectual content of teaching:
 - Syllabi, preferably annotated to highlight decisions made in including material and choosing aspects of the field to include, exclude, or emphasize in the course.
 - Selected course materials (readings, demonstrations, grading standards/rubrics).
 - Evidence of innovative techniques or materials used in teaching.
 - Student voice and evidence of student learning:
 - Midterm and end-of-the-semester student feedback forms, both quantitative and optional qualitative comments.
 - Samples of assignments students use to demonstrate their understanding of key course goals. For each assignment chosen for review, reviewees should provide two A papers

(or equivalent category of judgment), two B papers, and two C papers, along with the distribution of performance for the entire class.

2. Teaching narrative:
 - This is a short statement (one to two pages) that is the faculty member's own account of how his or her teaching has developed over time. The teacher should pay particular attention to articulating how he or she defines course goals and assesses student learning. The statement should also include reflection on how the faculty member's teaching experiences have shaped his or her goals and practices as a teacher.

Q: What are the responsibilities of peer reviewers?

1. Interaction: After reviewing the materials provided by the reviewee, the peer reviewer and the reviewee should engage in a conversation about the faculty member's teaching practices. The four-point, KU guideline to peer reviews of teaching can serve as a useful framework for this conversation (see page 90).
2. Documentation: The peer reviewer prepares comments regarding the faculty member's teaching practices, including preparation for courses, conduct in and outside of class, and methods of assessing teaching effectiveness and student learning. The recommended organization of these comments would reflect the four key facets of teaching described in KU's guideline to peer reviews of teaching: quality of intellectual content, quality of teaching practices, quality of student understanding, and evidence of reflective consideration and development.
3. Classroom observations: The peer reviewer may find it useful to visit the faculty member's class to see how ideas and objectives are put into practice, how the faculty member engages with students, and how students respond and engage with the instructor and with class material. Peer reviewers may also observe contact time with students outside of the classroom. **Please note that, contrary to prior norms, these observations should NOT be the sole or even primary focus of peer evaluations.**

Q: Where can I find additional resources on teaching and peer evaluations?

1. Task Force Report on the Assessment of Teaching and Learning (governance.ku.edu/task-force-teaching-and-learning)
2. University of Kansas Documents for Promotion and Tenure (facultydevelopment.ku.edu/promotion-tenure)
3. Samples of Documentation:
 - a. Peer review letters (cte.ku.edu/developing-peer-observations)
 - b. Teaching Reflection Statements (cte.ku.edu/teaching-statements)
 - c. Course Portfolios (cte.ku.edu/portfolio)

PREPARING FOR REVIEW

Below is the standard survey students may be given at the end of each semester's course. Check with your department to see which form it uses.

After the semester is over and evaluations are compiled, you can use a dashboard to view students' feedback. Check CTE's website at <https://cte.ku.edu/representing-teaching> for details.

Student Survey of Teaching

Dear ,

Student course surveys play an important role in enhancing the quality of instruction at KU. Your responses to this survey are anonymous. Please give them careful attention. The results will be made available to the instructor, the department chair and other appropriate administrators (after all final grades are turned in).

We value your input about the class. Unfortunately, studies have revealed that responses on course surveys can be influenced by unconscious and unintentional biases about race and gender. KU is committed to diversity, equity and inclusion, so we encourage you to avoid comments about personal characteristics of the instructor or other students.

Because your feedback is so important, we may send reminders after a few days if we haven't received your reply. We greatly appreciate your cooperation.

The survey should take 5 minutes or less, and you will have opportunities to elaborate on your responses.

Part I: This section focuses on expectations, deadlines and feedback in this class.

	Did this throughout the course (1)	Did this sometimes (2)	Did not do this (3)
The instructor helped me understand what I was expected to learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor explained the purpose of work I did in the course (things like discussions, assignments, exams, class activities)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor made deadlines clear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor was clear about how I would be graded	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor provided feedback that helped me learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Student survey, continued

Part 2: These questions refer to class environment (sometimes called class climate), which refers to things like how the instructor responded to student needs, encouraged respect among class members, showed an openness to new ideas or approaches, and provided activities and materials that encouraged students to learn.

	Did this throughout the course (1)	Did this sometimes (2)	Did not do this (3)
The instructor helped create an environment in the class (whether in person or online) that motivated me to learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor responded respectfully if I had questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor helped me feel that I could succeed in the class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor helped me understand different ways to apply what I learned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor used approaches that encouraged me to participate in class activities (in person or online)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5: Is there anything else you'd like the instructor to know about the learning environment of the class?

Student survey, continued

Part 3: These questions focus on the course as a whole.

	A lot (1)	Some (2)	Not much (3)
The course helped improve my critical thinking (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course materials were useful in my learning (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6. What aspects of the class were most helpful to your learning?

Q7. What aspects of the class need improvement?

Part 4: Outside of scheduled class meetings and exams, about how much time did you spend on this course per week, on average?

- 0-4 hours per week (1)
- 5-10 hours per week (2)
- 11-15 hours per week (3)
- 16-20 hours per week (4)
- 21 or more hours per week (5)

Compared with other classes you have taken at this level, how much time per week did you spend on this course?

- Considerably less time (1)
- Slightly less time (2)
- About the same amount of time (3)
- Slightly more time (4)
- Considerably more time (5)

Q10 Do you have comments or feedback on anything else related to the class?

OPEN-ENDED QUESTIONS

Recommendation 3: Faculty members should collect open-ended student comments to guide improvement of teaching. Reporting these comments should remain optional, and if they are used in evaluations they should be reported systematically.

Many faculty members agree that a great deal can be learned from the observations offered by students in response to questions inviting commentary on features of instruction, and faculty members should be encouraged to seek open-ended commentary. It is especially valuable for faculty members to invite these comments during the semester at a time when they can still respond to the comments with adjustments in the course. Those adjustments are valuable to students, and faculty members can also include those changes as part of their teaching record.

We recommend continuing the policy jointly articulated by the Provost and by Faculty Governance that makes the use of such comments in personnel decisions optional, at the discretion of the faculty member or unit. Accordingly, any open-ended questions used by a faculty member or requested by an individual department should be on a separate sheet from the numerical rating items, so that they may be collected and distributed independently of each other. Open-ended questions should be framed in ways that maximize the likelihood of constructive comments and specifically discourage irrelevant or disparaging comments about faculty members.

As a general rule, we recommend that these comments be used for the benefit of teachers working to improve their instruction. There may be times in the evaluation of an instructor when it would be useful to have such comments for the interpretation of ambiguous numerical information. In such cases, the faculty member should bring forward the entire sample of such comments to aid in interpretation. Additionally, an individual faculty member should always be free to bring the comments forward, as long as they are reported in a professional manner (see below).

Within KU there are distinct communities of evidence, in which knowledge is constructed in different ways and conclusions are evaluated based on varying criteria. For many in the humanities, as well as from other areas of campus, there is great value in close reading of text, done by an individual, using a combination of personal experience and professional conventions of reading. For people in the social and natural sciences, and many in professional areas, open-ended verbal statements are data like any other, and the protocols and conventions of data analysis would be the preferred method of reading. The practices around using open-ended student comments should be flexible enough that different local communities (such as departments) can adopt consensual practices that reflect their shared understanding of reading and evidence. This is especially true for the use of these comments as guides for continuous development of teaching.

When samples of comments are used in formal evaluation, the resulting judgment represents an estimate of the professional quality of a faculty member's teaching. In that context, people presume that the conclusions drawn are an accurate representation of the teaching in question and not an artifact of either the reading or the gathering of comments. For that reason, we recommend that professional standards of treating comments as data be followed whenever comments are included in an evaluative professional context beyond a department level. This practice would assure all faculty members that the information will inform the process in the fairest way possible.

The Task Force consulted with KU faculty members whose research includes the analysis of the content of comments. That group noted a series of careful, empirically justified steps that are required

for such evidence to meet professional standards of validity. It would be impossible as a practical matter for review of teaching comments to meet the publication standards of the research community, but several general guidelines emerged from the conversation that we recommend be included in the handling of all open-ended comments.

- The sample of comments should be as large as possible; small samples can be very misleading.
- Analysis should always include a record of non-responders. Summary descriptions place the responses in a context of the total possible population.
- The analysis begins with the framing of a specific question or questions to be answered by the comments.
- Analysis includes identification of categories of responses, as appropriate to the question being answered. Where possible these categories should be distinct from each other and include a full range of possible answers.
- Individual comments should be put into a single category when possible; if a comment is long or complex, it can be broken into components and counted as separate comments.
- The final product would report a frequency of comments in each category, always including the number of people who did not respond to the question.

The analysis produced will be only as good as the questions asked and the categories of responses that are identified. If those are well constructed and aligned with each other, the analysis can help answer the question posed.

APPENDIX D

DOCUMENTS FOR UNIVERSITY REVIEW

UNIVERSITY REVIEWS

ACTIVITIES THAT MAY BE CONSIDERED IN THE EVALUATION OF TEACHING AT KU

INTRODUCTION

High-quality teaching and scholarship have long been recognized as the two hallmarks of a productive faculty member. Teaching is serious intellectual work that is grounded in deep knowledge and understanding of a field, and it includes the ability to convey that understanding in clear and engaging ways. The conduct of courses is the central feature of our teaching responsibilities at KU, and it has priority among the many kinds of teaching activities that take place. Our identification of teaching should not be limited to formal class performance, however, and a broader menu of teaching activities provides additional ways to demonstrate quality in teaching.

There is more to high-quality instruction than making one's knowledge and understanding accessible to students; effective education successfully generates understanding, knowledge, and skills among students. People acquire more skill in teaching over time, and as in research, that success comes from thinking about the results of prior efforts and identifying ways to improve future results. High-quality in teaching will include a self-evaluation of how well students are learning and inquiry into how to improve learning in each class.

The measurement of any human activity is never perfect, whether it is teaching or research. The proposed guidelines offer a framework from which faculty can choose elements that may improve the measurement of teaching beyond current practices. It is intended to increase flexibility by offering many different ways that teachers can show their work and demonstrate what they are learning from its results.

It is not expected that any single faculty member will engage in all or even most of the activities listed below, but they should be recognized as part of teaching when they occur across the full duration of a teaching career.

ACTIVITIES

How does this teacher conduct courses?

Evaluation in this area should focus on some or all of the following factors:

- Clarity of course goals
- Relevance and appropriateness of course content
- Effectiveness of instruction in lecture, labs, discussion, studios, and other activities
- Appropriate relationship with students in which the instructor is available, challenges students, and supports their learning
- Measures of student learning
- Presentation of courses serving the mission of the unit or University

A faculty member could provide various forms of evidence to indicate success in achieving these aims, such as:

- Annotated syllabus
- Selection of course materials (readings, resources, demonstrations, grading standards, etc.)
- Ratings and/or written comments from students

- Peer evaluation of classroom performance, interaction with students, and/or course materials
- Samples of student work demonstrating student learning
- Trend data showing the impact of the teacher on measures of learning
- List of courses taught and explanation of their importance
- Explanation of special service in particular courses, such as large lecture courses
- Teaching awards or nominations for teaching awards
- Other materials that the faculty member believes indicate excellence in teaching

Faculty colleagues and or the department chair would evaluate the evidence provided by the faculty member to judge the degree to which he/she was attaining the aims cited above. Student perspectives of those properties of teaching they are in a good position to evaluate are reflected in "Ratings and/or written comments from students" shown above.

How does this teacher prepare for courses?

Evaluation in this area should focus on the following factors:

- Appropriate preparation of new courses or efforts to improve instruction
- Continuing efforts to improve teaching

A faculty member could provide various forms of evidence to indicate success in achieving these aims, such as:

- Sample of course materials: learning activities, assignments, etc. for new or existing courses
- Plans for future course development; may include a journal or other reflections on teaching
- Examples of innovation in teaching including teaching practices, technology, etc.
- Seminars attended or conducted on teaching; include description of new approaches learned from workshops or description of how ideas have been incorporated into teaching (annotated syllabus or other notes)
- Student comments indicating changes in teaching, faculty observation supporting innovation based on workshops
- Examples of collaboration with faculty at KU or elsewhere to support teaching
- Examples of work with KU offices (KU Libraries, Writing Center, Learning Communities, etc.) to support teaching
- Publication(s) or other research on teaching
- Awards or nominations for research, teaching, or service related to improving teaching
- Other materials that the faculty member believes indicate excellence in teaching

Faculty colleagues and or the department chair would evaluate the evidence provided by the faculty member to judge the degree to which he/she was attaining the aims cited above.

What teaching work has the faculty member done in addition to teaching courses?

Evaluation in this area should focus on some or all of the following factors:

- Coordinating courses within a program, or developing a new course
- Supporting teaching at the unit level by developing new materials for general use; creating infrastructure for labs, studios, or field work; seeking grant support for teaching; recruiting students
- Mentoring and supervising GTAs/GRAs
- Mentoring and supervising students in clinical settings or internships
- Working with student groups

- Mentoring new faculty members in their role as teachers
- Mentoring students or directing research projects

A faculty member could provide various forms of evidence to indicate success in achieving these aims, such as:

- List of administrative or coordination activities, along with new materials developed and commentary from colleagues and students involved
- Observations and comments on unit level contributions by students, colleagues, chair, dean
- External funding of proposals/awards related to teaching, reviews of proposals
- Lists of those mentored and supervised in various roles (undergraduate, graduate, post-docs; research, teaching, clinical work)
- Unit records of GTAs/GRAs' performance, comments from other students learning from graduate students, comments from community partners or clients
- Examples of student work completed under teacher's supervision, along with descriptions of venues for presentation and any recognition
- Letters from students reflecting on mentoring activities and effectiveness and indicating how the mentoring has influenced student work and success
- Faculty colleagues' comments on mentoring activities, e.g., service on MA or MS/PhD committees
- Examples of any regional or national critical review or recognition of student work
- Time to degree, success in obtaining employment or other placement
- Lists of student groups supported, identifying unit or university level, along with student comments, awards or achievement by the group
- Lists of faculty colleagues mentored on teaching, with examples of feedback given or comments from colleagues about the impact of the shared work

Faculty colleagues and/or the department chair would evaluate the evidence provided by the faculty member to judge the degree to which he/she was attaining the aims cited above.

Has this faculty member made contributions related to scholarship of teaching?

Evaluation in this area should focus on some or all of the following factors:

- Teaching related presentations at KU or elsewhere
- Attending or organizing teaching institutes
- Serving as a guest teacher at other institutions, for outside associations, or in the community
- Developing course materials, such as textbooks or websites
- Applying for and receiving grants in support of teaching or publishing articles related to teaching
- Participating in outreach to local schools (K-12) or other forums

A faculty member could provide various forms of evidence to indicate success in achieving these aims, such as:

- Conference programs from presentations, letters, or other evaluations of quality of presentations; samples of presentation notes or published proceedings; programs from institutes or letters evaluating participation or impact
- List of service on department or University teaching committees or presentations at KU Summit or the Center for Teaching Excellence
- Letters attesting to impact of guest presentations in classes; formal evaluations if available
- Books, web addresses, or other materials generated, along with any letters attesting to the impact or quality of the materials

- Products developed for schools, feedback from organizers of presentations, statements from professional society or honors or awards for contributions
- Grant proposals, reviewer feedback on proposals, copies of articles submitted and published

Faculty colleagues and/or the department chair would evaluate the evidence provided by the faculty member to judge the degree to which he/she was attaining the aims cited above.

UNIVERSITY REVIEWS

GUIDELINES FOR DEPARTMENT IMPLEMENTATION

High-quality teaching and scholarship have long been recognized as the hallmarks of a productive faculty member. Teaching is complex intellectual work that is grounded in deep knowledge and understanding of a field, and it includes the ability to convey that understanding in clear and engaging ways. The conduct of courses is the central feature of our teaching responsibilities at KU. Our identification of teaching should not be limited to formal class performance, however, and a broader menu of teaching activities provides additional ways to demonstrate effective teaching.

These proposed guidelines offer a framework from which faculty members can choose elements appropriate for their department, their discipline, the stage of their career, and the type of review. It is intended to increase flexibility by offering many different ways that teachers can show their work and demonstrate what they are learning from its results.

It is not expected that any individual faculty member will engage in all or even most of the activities outlined below, but they should be recognized as part of teaching when they occur across the full duration of a teaching career.

How should departments evaluate teaching?

The record of teaching should begin with a collection of materials provided by the faculty member, addressing these questions:

- How does this teacher conduct courses?
- How does this teacher prepare for courses?
- What teaching work has the faculty member done in addition to teaching courses?
- Has the faculty member made progress over time in development of teaching and/or shared teaching work with colleagues?

The previous document, *Activities That May Be Considered in the Evaluation of Teaching at KU*, includes factors for evaluating each question and examples of various forms of evidence for answering each question.

It would be helpful for members of an individual unit to discuss which of these areas would be most important for that unit's mission, so that faculty members would know the kinds of contributions that are most valued by their department colleagues.

In addition to collecting materials, the faculty member should assess her/his progress in generating effective instruction. The faculty member may highlight specific goals in teaching and comment on how the materials collected demonstrate the degree to which they have been achieved.

What about student ratings?

Students' perceptions of teaching can identify key features of the conduct of courses, and the items used should focus on characteristics of teaching that students clearly can recognize. Students can tell accurately whether faculty members are accessible, respectful, available, clear, and timely.

Whether the unit uses the new student evaluation of teaching form or its own, it is important to recognize that no single number from students is an adequate substitute for professional judgment. Students provide a valuable perspective that can be used to inform or confirm or possibly challenge the perspective of the faculty member or peers. Ratings should be taken seriously as complemen-

tary indicators of key components in the conduct of classes, but they should not be a substitute for direct peer evaluation of the quality or success of instruction.

Open-ended student comments are most valuable as guides to instructors for their own improvement. It is University policy, however, that the use of these comments in evaluation is optional. Accordingly, they should be collected on separate pieces of paper (or online) so they can be treated independently of the required numerical ratings. When open-ended comments are used in a personnel file, they should be treated in a professional way, as described by the Task Force.

How can departments sustain the process?

A department plan should include decisions about how often each part of the process would be used. Student feedback and faculty-generated updates on innovations, development, or public presentation of teaching could easily be part of annual review, but more labor intensive processes could be intermittent at different stages of a career. For example, it is reasonable for pre-tenure faculty members to reflect annually on how effective their teaching is and on how and why their teaching practices are evolving. Between promotion to associate and promotion to full professor, that might be useful every two or three years; for full professors or other very experienced teachers, reflection would be most useful every three to five years. Similarly, there is real benefit to having peers look closely at course materials and student learning of pre-tenure faculty members, but a more intermittent schedule of deep review would be implemented after tenure. To sustain a rich peer review of teaching, each unit will need to think through how it can allocate faculty resources wisely.

SUPPORTING DOCUMENTATION—MULTIPLE SOURCES

To document your teaching, you'll need to use multiple sources of information and blend them into a teaching portfolio. In addition to student evaluations and comments, documentation may include any of the following:

- Course syllabi
- Sample assignments that demonstrate innovations
- Student work on assignments, exams or projects
- Peer evaluations
- Description of how you've improved your teaching through reflective journals or course design changes that enhanced student learning
- Descriptions of how your publications or research activities relate to teaching
- List of grants related to personnel preparation

SUMMARY OF RESOURCES RELATED TO THE EVALUATION OF TEACHING

The following links to the Center for Teaching Excellence web site will provide additional information regarding the evaluation of teaching. They are found in the "Documenting Teaching" section of the site:

- Teaching statements: cte.ku.edu/teaching-statements
- Developing peer observations: cte.ku.edu/developing-peer-observations
- Creating teaching portfolios: cte.ku.edu/creating-teaching-portfolios
- Student survey of teaching: cte.ku.edu/student-survey-teaching

RUBRIC FOR DEPARTMENT REVIEW OF FACULTY TEACHING

Draft May 2017

This rubric specifies seven dimensions of teaching practice to generate a comprehensive view of an instructor's teaching contributions, drawing on two decades of scholarship on peer review and evaluation of teaching. It can facilitate department committees' evaluation of faculty teaching, or guide a peer review or mentoring process that prompts reflection and iterative improvement. The category labels are designed to align with categories used in KU's P&T and merit systems. The framework guiding this rubric suggests these essential components to teaching evaluation:

1. **Multiple dimensions of teaching:** The seven rubric dimensions are designed to capture the teaching endeavor in its totality, including activities outside of the classroom (e.g., identification of learning goals, assignment design, reviewing student work), and contributions to individual courses and the curriculum.
2. **Multiple sources of information to speak to teaching effectiveness, including:**
 - The faculty member—Including course materials, evidence of student learning and reflections on it (often described in a narrative or portfolio)
 - Peers—Including class visits, observations from team teaching, review and evaluations of course materials, and discussions with the instructor
 - Students—Student course evaluations, additional feedback or student responses gathered by the instructor
3. **Adaptability:** The rubric can be adapted by departments to fit particular disciplinary expectations and to weight areas in ways most meaningful to the discipline. When completing the rubric, evaluators should consider the types of courses taught (required or elective, major or non-major, lecture or discussion, team taught or individual, size and level of class) and the stage of the faculty member's career (tenure track, tenured, instructor, adjunct). Departments may focus on various facets of the rubric at various stages in a faculty member's career, but at all times, evidence of student learning should be paramount.

How to use this rubric:

- **Review and Adapt Language**—Department members review the form and suggest modifications to make it appropriate for their discipline and department. This includes coming to a consensus about the questions and criteria in each category,
- **Assign Weights**—Identify the weights to be assigned to each category.
- **Identify Sources**—For each category identify appropriate sources of evidence. This should include a framework for how to read student evaluations of teaching and where they will be used as evidence within the rubric.
- **Use to structure peer review or to integrate information from multiple sources.**

RUBRIC FOR DEPARTMENT EVALUATION OF FACULTY TEACHING (DEPARTMENT SHOULD MODIFY AS NEEDED)

<p>* Aligned with KU Progress-toward-Tenure and Promotion & Tenure rating scales.</p>	<p>* Below Expectations: 1 - 2 <i>Poor (1): Consistently at this level</i> <i>Marginal (2): Some teaching at this level</i></p>	<p>Meets Expectations: 3 <i>Competent</i></p>	<p>Exceeds Expectations: 4 - 5 <i>Professional (4): Some teaching at this level</i> <i>Advanced (5): Consistently at this level</i></p>
<p>Goals, content, and alignment <i>What are students expected to learn from the courses taught? Are course goals appropriately challenging? Is content aligned with the curriculum?</i></p>	<ul style="list-style-type: none"> Course goals are unclear, inappropriate, or marginally related to curriculum Content and materials are outdated or unsuitable for students in the courses Range of topics is too narrow or too broad Content is not clearly aligned with curriculum or institutional expectations 	<ul style="list-style-type: none"> Course goals are articulated and appropriate for curriculum Content is current and appropriate for topic, students, and curriculum Course topics include an appropriate range Standard, intellectually sound materials 	<ul style="list-style-type: none"> Course goals are well-articulated, high quality, and clearly connected to program or curricular goals Content is challenging and innovative or related to current issues and developments in field Topics are of appropriate range and depth, with integration across topics High quality materials, well-aligned with course goals
<p>Teaching practices <i>How is in-class and out-of-class time used? What assignments, assessments, and learning activities are implemented to help students learn?</i></p>	<ul style="list-style-type: none"> Teaching practices are not sufficiently planned or organized, or are poorly implemented Practices are not well executed; little development in methods despite evidence of need Students lack opportunities to practice the skills embedded in course goals Student engagement is variable 	<ul style="list-style-type: none"> Teaching practices are well planned and organized Standard course practices carried out; follows conventions within discipline and institution Students have some opportunities to practice skills embedded in course goals Students consistently engaged 	<ul style="list-style-type: none"> Activities are well planned, integrated, and reflect commitment to providing meaningful assignments and assessments Uses effective, high-impact or innovative methods to improve understanding In- and out-of-class activities provide opportunities for practice and feedback on important skills and concepts Students show high levels of engagement
<p>Achievement of learning outcomes <i>What impact do these courses have on learners? What evidence shows the level of student understanding?</i></p>	<ul style="list-style-type: none"> Insufficient attention to student learning – quality of student learning is not described or analyzed with clear standards Evidence of poor student learning: low level of skill / understanding is required or achieved without clear attempts to improve 	<ul style="list-style-type: none"> Clear standards for evaluating the quality of student understanding Typical student achievement for courses at these levels 	<ul style="list-style-type: none"> Standards for evaluating student understanding are connected to program or curriculum expectations, or use authentic assessments Efforts to support learning in all students Quality of learning supports success in other contexts (e.g., subsequent courses or non-classroom venues), or is increasing over successive offerings
<p>Classroom climate and student perceptions <i>What are the students' views of their learning experience? How has student feedback informed the faculty member's teaching?</i></p>	<ul style="list-style-type: none"> Classroom climate does not promote civility or discourages student motivation and engagement Consistently negative student reports of teacher accessibility, interaction skills Poor sense of learning among students Little attempt to address concerns voiced by students 	<ul style="list-style-type: none"> Classroom climate promotes civility No consistently negative student ratings of teacher accessibility, interaction skills Most students indicate progress with their learning Instructor articulates some lessons learned through student feedback 	<ul style="list-style-type: none"> Evidence that classroom climate is respectful, cooperative, and encourages motivation and engagement Student feedback on teacher accessibility, interaction skills is generally positive Students perceive that they are learning important skills or knowledge Instructor is responsive to student feedback in short- and long-term
<p>Reflection and iterative growth <i>How has the faculty member's teaching changed over time? How has this been informed by evidence of student learning?</i></p>	<ul style="list-style-type: none"> No indication of having reflected upon or learned from prior teaching or feedback 	<ul style="list-style-type: none"> Continued competent teaching, possibly with minor reflection based on input from peers and / or students Articulates some lessons learned from prior teaching and feedback 	<ul style="list-style-type: none"> Regularly makes adjustments to teaching based on reflections on student learning, within or across semesters Examines student performance following adjustments Reports improved student achievement of learning goals based on past course modifications
<p>Mentoring & advising <i>How effectively has the faculty member worked individually with UG or graduate students?</i></p>	<ul style="list-style-type: none"> No indication of effective mentoring or advising students (but expected in department) 	<ul style="list-style-type: none"> Some evidence of effective advising and mentoring (<i>define as appropriate for discipline</i>) 	<ul style="list-style-type: none"> Evidence of exceptional quality and time commitment to advising and mentoring (<i>define as appropriate for discipline</i>)
<p>Involvement in teaching service, scholarship, or community <i>In what ways has the instructor contributed to the broader teaching community, both on and off campus?</i></p>	<ul style="list-style-type: none"> No interaction with broader community about teaching, including involvement with teaching-related committees No evidence of keeping up with reports on effective teaching Practices and results of teaching are not shared with others Actions have negative impact on teaching culture in department or institution 	<ul style="list-style-type: none"> Some involvement in teaching-related committees, or engagement with peers on teaching (e.g., teaching-related presentations or workshops) Participates in department-level curriculum decisions 	<ul style="list-style-type: none"> Regular involvement in teaching-related committees, engagement with peers on teaching (e.g., teaching-related presentations or workshops) Occasional (or more) local or external presentations or contributions to share practices or results of teaching Contributes to department or university curricular planning or assessment Advanced—Scholarly publications or grant applications related to teaching

APPENDIX E

EXAMPLES OF RUBRICS

RUBRICS

SAMPLE WRITING ASSIGNMENT AND CORRESPONDING RUBRIC

PSYC 333: Child Psychology

Andrea Greenhoot

The ultimate goal of Assignment 2 is to evaluate the accuracy of information provided in a website about parenting issues using psychological research. You are to write a letter to a hypothetical friend who has been relying on the website for parenting advice, telling him or her whether or not to believe the information provided on the site. Justify your comments about the accuracy of the site by describing the research presented in your selected article. You should feel free to be creative in your approach to this assignment, but it is critical that you discuss the accuracy of some of the information provided on the site (you do not have to evaluate *every* piece of information on the site) and that you use the research presented in your article to explain your position. Specifically, your “letter” should:

- **Make the “problem” clear.** In other words, introduce the issue at hand (the issue for which the friend is seeking parenting advice) and the information provided on the website.
- **Describe the relevant research (your article).** Discuss whether you think the advice presented in the website should be followed, using the research presented in your article as support for your comments. Thus, your letter should include the kind of the information you were asked to provide about your article in assignment 2b. Be sure to mention reasons why this study is persuasive (e.g., it controlled for lots of possible confounds), or whether there are any important caveats (e.g., even though this study showed this... there are limitations to their method that we should keep in mind...).
- **Apply the research to the problem.** Discuss the implications of this research for the particular real-world parenting issue that is the focus of the website, and based on this research application offer some advice to your friend. Note that it is ok to conclude that experts disagree, or that more research needs to be done, if you have good reasons to make that argument and you make those reasons clear (e.g., if there are conflicting findings or if you have good reasons to question the conclusions of the study you reviewed).

Your letter should be approximately two pages typed and double-spaced. In addition, be sure to include:

- Your name, ID, and **color** group
- Your topic
- The reference for your article (this should indicate the authors’ names, year of publication, name of article, name of journal, journal volume number and page numbers)

Grading Rubric

Overall Clarity and Organization	Description of Research	Application of Research	Writing Mechanics
<p>2 points Focus of "Letter" is clear at outset; Message is communicated clearly; Well-organized and persuasive</p>	<p>8 points Accurate, clear, and appropriate level of detail</p>	<p>8 points Accurate and insightful application to material presented in website</p>	<p>2 points Well-written. Grammatical errors and errors in sentence structure (fragments, run-ons) are minimal</p>
<p>1 point Message is reasonably clear, but some difficulty following arguments</p>	<p>6 points Partly inaccurate, incomplete or unclear</p>	<p>6 points Some inaccuracy in application to site; or does not offer much insight</p>	<p>1 point A few grammatical errors or errors in sentence structure, or repetitious sentence structures</p>
<p>0 points Message is not communicated clearly</p>	<p>4 points Inaccurate, very limited or missing</p>	<p>4 points Substantial inaccuracy, very limited or missing</p>	<p>0 points Frequent grammatical or sentence structure errors</p>

RUBRICS

SAMPLE WRITING ASSIGNMENT AND CORRESPONDING RUBRIC

PSYC 333: Child Psychology
Andrea Greenhoot

Read Chapter 2 on Prenatal Development. Write a 1-2 page response (typed and double-spaced) to the following vignette, applying the material on low birth weight and multiple risks. Turn in a hard copy of your response during class the day it is due (or in the event of last-minute printer or transportation failures, leave in Dr. Greenhoot's mailbox in 425 Fraser by 4 pm)—please do not email your paper to us.

You return after class one day to find a message in your voice mail from your cousin's husband, who is obviously upset. He has called to tell you that your cousin Karen has just given birth more than two months early to a little boy who weighs slightly less than four pounds. Karen's pregnancy had been planned and completely normal and she had followed her doctor's advice to the letter, so this outcome comes as a complete shock. The baby has been moved to the neonatal intensive care unit. You're very close to Karen and know that she will want to see you as soon as possible. When you visit her in the hospital, Karen tells you that the baby is in stable condition but that she's deeply worried about what the future holds for him and for the family. She shares her fear that he will never have a normal life. From what you've learned in your child development class, what can you honestly tell Karen about her new son's chances for normal development? If she asks for your advice, what would you tell her?

The grading rubric for this assignment is as follows:

Assignment Dimension		
Content and Application	Clarity and Organization	Writing Mechanics
15 points Response indicates comprehension of assignment and course material; Insightful application	3 points Message is communicated clearly; Well-organized and persuasive	2 points Well-written. Grammatical errors and errors in sentence structure (fragments, run-ons) are minimal
12 points Response indicates some inaccuracy in applying course material or does not offer much insight into major issues	2 points Message is reasonably clear, but some difficulty following arguments	1 point A few grammatical errors or errors in sentence structure, or repetitious sentence structures
10 points Response indicates substantial inaccuracy in applying course material or is incomplete	1 point Message is not communicated clearly	0 points Frequent grammatical or sentence structure errors

RUBRICS

RUBRIC FOR FILM PRESENTATION

Instructor circles the applicable portion of the description.

	Exemplary	Competent	Developing
Individual Presentation Skills 20%	The presenter spoke clearly and intelligibly, modulating voice tone and quality, maintaining eye contact, and using appropriate body language. The use of humor and competent handling of technology also contributed to the excellence of the presentation. The presenter used all the time available but did not go over the time limit.	The presenter was intelligible but mumbled or droned, spoke too fast or too slow, whispered or shouted, used inappropriate body language, or failed to maintain eye contact, inappropriate, excessive, or too little humor or technical problems detracted from the presentation. The presentation ran over or under the time limit but not dramatically.	The presenter mumbled or droned, spoke too fast or too slow, whispered or shouted, used inappropriate body language, or failed to maintain eye contact to the point where intelligibility was compromised. Too much or too little humor or technological problems seriously detracted from the presentation. The presentation ran seriously over or under the time limit.
Group Presentation Skills 20%	The presentations followed a logical progression and allowed each member an equal opportunity to shine. Group members treated each other with courtesy and respect and assisted each other as needed.	The presentations followed a logical progression but were unbalanced in the way time or content was assigned to members, or the division of labor was fair but impeded the logical progression of the argument. Group members were mostly respectful and helpful toward one another, but there were lapses.	The presentations followed no logical progression, seriously overlapped one another or allowed one or a few people to dominate. Group members showed little respect or courtesy toward one another and did not assist one another even when it was clear that a group member was in trouble.
Group Organization 20%	The group thesis, topics to be covered and the direction of the individual presentations were clearly stated at the beginning and carried through in the rest of the presentation.	The thesis, topics to be covered, and the direction of the individual presentations were clearly stated at the beginning but not carried through in the rest of the presentation, or the thesis, topics to be covered, and direction emerge in the presentation but were not clearly stated in the introduction.	The thesis, topics and direction were unclear, unstated or not evident in the body of the presentation. <i>(Cont. on next page)</i>

	Exemplary	Competent	Developing
Individual Organization 20%	The individual presentation was well organized in itself with an introduction, body and conclusion. That organization was emphasized and made clear to the audience through the use of appropriately captioned PowerPoints, overheads or handouts.	The individual presentation was mostly well organized but there were problems with the introduction, body or conclusion. The presenter used PowerPoints, or handouts, but these were too wordy or too vague to help the audience follow the organization.	The presentation rambled with little evidence or an introduction, body or conclusion. PowerPoints, overheads or handouts were either not used or did not assist the audience in following the organization in any significant way.
Individual Content 20%	Facts and examples were detailed, accurate, and appropriate. Theories referenced were accurately described and appropriately used. Analyses, discussions, and conclusions were explicitly linked to examples, facts, and theories.	Facts and examples were mostly detailed, accurate and appropriate, but there were lapses. Theories were referenced, but they were either not accurately described or not appropriately used. The connection between analyses, discussions and conclusions was evident or implied, but not explicitly linked to examples, facts and theories.	Facts and examples were seriously lacking in detail, inaccurate, or inappropriate. Theories referenced were inaccurately described and inappropriately used or not referenced or used at all. There was no clear connection between analyses, discussion, and examples, facts and theories.

From Stevens, D.D., and Levi, A. (2005). *Introduction to rubrics: An assessment tool to save grading time, convey effective feedback, and promote student learning*. Sterling, Virginia: Stylus. 80-81.

RUBRICS

RUBRIC FOR CREATIVE RESPONSE PROJECT

Instructor checks each applicable box, makes comments and assigns points.

Dimension	Description	Comment	Points
Topic and Outline 3 pts.	<ul style="list-style-type: none"> o Paragraph description of project turned in on time. o Details of project, type of project o Link to class topic clear 		
Content 8 pts.	<ul style="list-style-type: none"> o Clear focus of project—what lecture, reading, movie inspired the idea o Grabs attention right from the beginning o Identifies a significant cultural difference o Describes values of that difference to the culture o Describes how you viewed previous assumptions of the culture o Includes brief summary of the movie, book o Describes clear purpose behind this choice o Clear connection to adding/ affirming diversity 		
Organization 5 pts.	<ul style="list-style-type: none"> o Clear beginning, middle, end o Understandable to others, not confusing o Clear directions and wrap up o Easy to see connections to adding/ affirming diversity o Clear link to class topics 		
Creativity 11 pts.	<ul style="list-style-type: none"> o Puts together a presentation that is “out of your comfort zone” o Expresses emotional response o Open/honest o Attractive o Visually pleasing o Creates at least half of the images o Obvious extra effort (not copied pages) o Authenticity and uniqueness of effort o Thought provoking o Original o Strong expressions of “otherness” 		

(Cont. on next page)

Dimension	Description	Comment	Points
Reflection 2 pts.	<ul style="list-style-type: none"> o Indicates how your perceptions and assumptions have changed o Indicates how this might affect your future teaching and adding/affirming diversity in your life 		
Conventions 3 pts.	<ul style="list-style-type: none"> o All grammar, spelling, punctuation correct o Neatly presented o If typed, double-spaced and pages numbered 		

From *Introduction to Rubrics*, 86-7.

REFERENCES

- Angelo, T. & Cross, K. (1993). *Classroom assessment techniques*. San Francisco: Jossey-Bass.
- Appleby, D.C. (1994). How to improve your teaching with the course syllabus. *APS Observer*, May/June.
- Bean, J.C. (2011). *Engaging ideas*, 2nd ed. San Francisco: Jossey-Bass.
- Bernstein, D., Burnett, A.N., Goodburn, A., & Savory, P. (2006). *Making teaching and learning visible: Course portfolios and the peer review of teaching*. Bolton, MA: Anker.
- Bligh, D.A. (2000). *What's the use of lectures?* San Francisco: Jossey-Bass.
- Bloom, B.S., Englehart, M.D., Furst, E.J., & Krathwohl, D.R. (1956). *Taxonomy of educational objectives: Cognitive domain*. New York: McKay.
- Boice, R. (2000). *Advice for new faculty members: Nihil nimus*. Boston: Allyn & Bacon.
- Born, W.L., Revell, W., & Pinto, L.H. (2002). Improving biology performance with workshop groups. *Journal of Science Education and Technology*, 11(4).
- Brookfield, S. & Preskill, S. (1999). *Discussion as a way of teaching*. San Francisco: Jossey-Bass.
- Brown, J.S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18 (1), 32-42.
- Burgstahler, S. (2007). Universal design of instruction: Definition, principles, and examples. (Online). Available <http://www.washington.edu/doit/Faculty/Strategies/Universal/>.
- Calder, Lendol. (2006). Uncoverage: Toward a signature pedagogy for the history survey. *The Journal of American History*, 92 (4), 1358-70.
- Carbone, E. (1998). *Teaching large classes*. Thousand Oaks, CA: Sage.
- Carriveau, R.S. (2016). *Connecting the dots: Developing student learning outcomes and outcomes-based assessments*. Sterling, VA: Stylus.
- Cashin, W.E. (1985). Improving lectures. Idea Paper no. 14. Kansas State University: Center for Faculty Evaluation & Development.
- Cleveland, L.G. (2002). That's not a large class; it's a small town: How do I manage? In C. A. Stanley & M.E. Porter (Eds.), *Engaging large classes* (pp. 16-27). Bolton, MA: Anker.
- Code of Cooperation, n.d. EPICS Imagination Station, Purdue University, accessible at epics.ecn.purdue.edu/is/coc.html.
- Committee on undergraduate science education. (1997). *Science teaching reconsidered*. Washington DC: National Academy Press.
- Cudd, A. (2003, April). The eyes of a reader. *Teaching Matters*, 6, 5.
- Davis, B.G. (2009). *Tools for teaching*, 2nd ed. San Francisco: Jossey-Bass.
- Dembo, M.H. (2000). *Motivation and learning strategies for college success: A self-management approach*. Mahwah, NJ: Lawrence Erlbaum.
- Eddy, S.L., & Hogan, K.A. (2014). Getting under the hood: How and for whom does increasing course structure work? *CBE—Life Sciences Education*, 13, 453–468.

- Felder, R.M. & Brent, R. (2003). Learning by doing. *Chemical Engineering Education*, 37 (4), 282-283.
- Fosnot, C.T. (1996). Constructivism: A psychological theory of learning. In C. T. Fosnot (Ed.), *Constructivism: Theory, perspectives, and practice* (pp. 8-33). New York: Teachers College Press.
- Freeman, S., Eddy, S.L., McDonough, M., Smith, M.K., Okoroafor, N., Jordt, H., Wenderoth, M.P., (2014). Active learning increases student performance across the STEM disciplines. *Proceedings of the National Academy of Science*, 111, 8410–8415.
- Friedman, P., McComb, J. & Rodriguez, F. (1999). Why students do and do not attend class. *The scholarship of teaching: Classroom research at KU*.
- Glassick, C., Huber, M.T., & Maeroff, G. (1997). *Scholarship assessed: Evaluation of the professoriate*. San Francisco: Jossey-Bass.
- Glenn, D. (2007, June 8). You will be tested on this. *Chronicle of Higher Education*, 53, A15-17.
- Herreid, C.F. (2006). “Clicker” cases: Introducing case study teaching into large classrooms. *Journal of College Science Teaching*, 36 (2), 43-47.
- Jacobi, M. (1991). Mentoring and undergraduate academic success: A literature review. *Review of Educational Research*, 61 (4), 505-532.
- Johnson, C.S. (1989). Mentoring programs. In M.L. Upcraft, et al. (Eds.), *The freshman year experience*. San Francisco: Jossey-Bass.
- Kennedy, G.E. & Cutts, Q.I. (2005). The association between students’ use of an electronic voting system and their learning outcomes. *Journal of Computer Assisted Learning*, 21, 260-268.
- Lewis, K.G. (Ed.). (1993). *The TA experience: Preparing for multiple roles*. Stillwater, OK: New Forums.
- Lowman, J. (1987). Giving students feedback. In M. Weimer (Ed.), *New directions for teaching and learning: Teaching large classes well* (pp. 71-83). San Francisco: Jossey-Bass.
- Magnan, R. (Ed.). (1990). *147 practical tips for teaching professors*. Madison: Magna.
- Mazur, E. (1997). *Peer instruction: A user’s manual*. Upper Saddle River, NJ : Prentice Hall.
- Meyers, C. & Jones, T.B. (1993). *Promoting active learning: strategies for the college classroom*. San Francisco: Jossey-Bass.
- Newble, D. & Cannon, R. (1998). *A handbook for teachers in universities and colleges*. London: Martins.
- Perlmutter, David M. (2008). Supervising your graduate assistants. *The Chronicle of Higher Education*. Available <http://chronicle.com/jobs/news/2008/06/2008061901c.htm>.
- Pike, B. & Arch, D. (1997). *Dealing with difficult participants*. San Francisco: Jossey-Bass.
- Powers, B. (1992). *Instructor excellence*. San Francisco: Jossey-Bass.
- Prince, M. & Felder, R. (2007). The many faces of inductive teaching and learning. *Journal of College and Science Teaching*, 36 (5), 14-20.
- Rando, W. & Firing Lenze, L. (1994). *Learning from students*. University Park, PA: NCTLA.
- Schwartz, D.L. & Bransford, J.D. (1998). A time for telling. *Cognition and Instruction*, 16 (4), 475-522.
- Spencer, D. (2004). Using groups. KU CTE handout.

- Stanley, C.A. & Porter, M.E. (Eds.). (2002). *Engaging large classes*. Bolton, MA: Anker.
- Stevens, D.D., and Levi, A. (2005). *Introduction to rubrics: An assessment tool to save grading time, convey effective feedback, and promote student learning*. Sterling, VA: Stylus.
- Stocking, S.H., Bender, E.T., Cookman, C.H., Peterson, J.V., & Votaw, R. B. (Eds.). (1998). *More quick hits*. Bloomington, IN: Indiana University Press.
- Svinicki, M.D. & McKeachie, W.J. (2011). *McKeachie's teaching tips: Strategies, research and theory for college and university teachers* (13th ed.). Boston: Houghton Mifflin.
- Syllabus checklist. (2002, September). *Teaching Matters*, 6, 8.
- Travers, R.M.W. (1950). *How to make achievement tests*. New York: Odyssey.
- Understanding the U.S. Classroom Learning Environment, 2009. NAFSA: Association of International Educators, 11-12. Accessible at www.nafsa.org/_/File/_/class_culture_preview.pdf.
- Uno, G.E. (1997). *Handbook on teaching undergraduate science courses*. Norman, OK: University of Oklahoma Printing Services.
- Volin, A. (2003, February). Seven ideas for graduate seminars. *Teaching Matters*, 6, 8.
- Walvoord, B. & Anderson, V.J. (2010). *Effective grading*. San Francisco: Jossey-Bass.
- Weiman, C. (see page 10). <https://teachingcommons.stanford.edu/teaching-talk/turn-exam-learning-experience-two-stage-exams> <https://teachingcommons.stanford.edu/teaching-talk/turn-exam-learning-experience-two-stage-exams>
- Weimer, M. (2003, November). A helpful handout for students. *The teaching professor*, 17, 2.
- Wiggins, G. & McTighe, J. (1998). *Understanding by design*. Upper Saddle River, NJ: Merrill Prentice Hall.
- Wiske, M.S. (Ed.). (1998). *Teaching for understanding*. San Francisco: Jossey-Bass.
- Zachary, L.J. (2000). *The mentor's guide*. San Francisco: Jossey-Bass.

INDEX

- Active learning, 22-23
- Advising, see *Mentoring*
- Aligning goals, assignments and practices, 5
- Assessment of courses, see *Grading*
 - degree-level and general education, 53-54
- Assignments, developing, 7-9
- Attendance, motivation, 31-33
 - policies, 58-59
- Blackboard, 34
- Civility, 57-58
- Classroom interactions, guidelines, 55-58
 - development of, 19-20
 - in groups, see *Group work*
 - in large classes, see *Large classes*
 - using class time well, 18
- Clickers, 34-35
- Cognitive apprenticeship, 41
- Concealed carry, 64-65
- Contextualizing material, 19
- Course, design, 5
 - enrollment, 58
 - goals, 5
- Discussions, 23-24
- Diverse learners, 16-17
- Emergencies, 63-65
- Engaging students, 18-29
- Enrollment, see *Course*
- Feedback, student, 40
- Grading, as course assessment, 12-15
 - policies and reporting, 61-63
 - rosters, see *Rosters*
 - writing, 15
- Graduate students, teaching, 43
- Group work, 25-27
- GTAs, working with, 44-45
- Homework, completion, 31
- Inclusive teaching, 16-17
- Independent work, 42
- Inductive teaching, 20-21
- Large classes, 45-47
- Learning outside the classroom, 36-39
- Lecturing, 28-29
- Mentoring, faculty, 75-76
 - students, 42
- Misconduct, academic, 60-61
- Motivation, 30-33
- Peer review of teaching, 70-71
- Policies, KU, 55-65
- Portfolios, teaching, 69-70
 - course, 74
- Privacy, student, 35, 59
- Problem solving, as active learning, 22-23
- Promotion, see *Reviews, teaching*
- One-on-one classes, 47-48
- Online teaching, 50-53
- Quantitative courses, 49
- Questions, 24-25
- Quizzes, as assessments, 13
 - online, 34
- Reading, as active learning, 22
 - completing and understanding, 36-39
- Representing teaching, 66-74
- Reviews, teaching, 69-74
- Rosters, class, 58
 - grade, 61
- Scholarly student thinking, 41
- Special services, referring students, 58
- Student evaluations of teaching, 71
- Studio teaching, 47-48
- Syllabus, developing and writing, 6
- Teaching assistants, 44
- Technology, 33-35
- Tenure, see *Reviews*
- Tests, administering, 13
 - design, 8-11
 - writing multiple choice, 10-11
- Withdrawal, course, 59-60
- Writing, as active learning, 22
 - designing assignments, 9
 - grading assignments and essay exams, 15