You have prepared the course and organized the content. You have practiced and mastered the basics of good teaching. And you are ready to apply a variety of methods to your pedagogy. But how will you know what and if the students are learning?

This module will cover some of the basic principles of assessment and provide some tips on quick ways to assess student learning throughout the course. As you read, keep the following points in mind:

- Assessment gives students useful feedback on what they know and how they can learn better, and lets the instructor see in what areas students are struggling;
- Assessment should be an on-going endeavor – something you can and should do, in various forms, for the duration of the course;
- Assessment is about what students are learning, and should be linked to course goals.

What Is Assessment?

We commonly think of student learning assessment in terms of tests, papers, and other assignments, also known as summative assessment. This is certainly an accurate definition: we use such methods as the basis for grades assigned to students over the length of a course.

However, there is another approach, known as formative assessment. This approach is useful in giving teachers and students feedback on the nature and progress of student learning. Formative assessment techniques are not used to assign grades, but rather to gain a sense of what students have mastered and where they are struggling.

Regardless of the approach, here are some principles that are important to keep in mind:

- Your assessment should always be linked to course objectives. Whatever technique or approach you take, you should attempt to understand to what degree students are learning the material you want them to master.
- Assessment should be regular and on-going. You can combine formative and summative techniques during the course to gain regular feedback on student progress.
- Assessment should be designed to facilitate learning – for you and for your students. Your assessment should reflect on students’ learning and what help they might need, as well as give you insights into what areas to cover in greater depth and possible adjustments in your teaching style.
- You should share with the students what you have learned after each assessment. With what content did students struggle? What were common questions or misunderstandings? What will you be doing differently to facilitate student learning?

While later modules will cover summative assessment methods, the remainder of this module will provide formative assessment techniques you can try in your classroom during the semester.
Selected Formative Assessment Techniques

Formative assessment techniques are quick and easy ways for you to gain a sense of how and what students are learning; students are able to reflect on their learning and you are able to make adjustments in the course to meet your learning goals.

These techniques might be applied at regular intervals throughout the course – weekly, after each class or each unit, etc. – perhaps in coordination with summative techniques. Since you will not be grading responses, and because anonymous feedback is often more candid, allowing for anonymity can be useful. Finally, the questions you ask should be focused on student learning (“What have you learned?”) rather than on your teaching (“What do you like best about my teaching?”).

The following techniques are drawn from a book on classroom assessment by Thomas Angelo and K. Patricia Cross, Classroom Assessment Techniques (1993).

- **Background knowledge probe:**
  Use multiple choice or short-answer questions to assess the level of students’ prior knowledge on the subject matter of the course. Doing this at the start of the course will help you gain a sense of misconceptions and the degree of relevant knowledge.

- **One-minute paper:**
  Allow for two or three minutes before the end of class and ask students to respond, on a half-sheet of paper, to the following question: What was the most important thing you learned in this class today? You may also ask: What question remains unanswered (or is unclear) from class today? This gives you a sense of how students’ understanding of the class is similar to, or different from, your goals.

- **One-sentence summary:**
  Ask students to summarize the “who, what, where, when and why” of something (an event, a chemical process, a story plot, etc.) in one, clear grammatical sentence. This gives you a sense of their ability to analyze and synthesize information in a concise format.

- **Application cards:**
  Distribute 3x5 index cards to students and ask them to identify one real-world application of an idea, concept or principle they have just learned. This helps students connect the material to prior knowledge and lets you see whether they understand the applicability of the concept.

- **Student-generated test questions:**
  Have students prepare two or three test questions with model correct answers. You will be able to see what students believe the main ideas of the course are, what they believe are fair test questions, and what is their ability to answer the questions.

- **Pro-con grid:**
  Have students create two columns and generate a list of pros and cons on a particular topic. This process helps students see multiple sides of contentious issues and gives you a sense of their depth of understanding.
Sources


Engaging Classes
- Reward behavior you want with praise, feedback on exams or papers, or a personal note.
- Use a light touch: smile; tell a good joke.
- Ask a question directed to one student and wait for an answer.
- Stage a change-your-mind debate with students moving to different parts of the classroom to signal change in opinion during discussion.
- Tell about your current research interests, how they relate to your current teaching topics, and how you reached those interests from your beginnings in the discipline.

Effective Lecture Presentation
- Cue important ideas by varying speech rate, volume and pitch.
- Speak to students and not the blackboard, walls, notes, or floor.
- Let your sense of humor show.
- Avoid repetition of pet words or phrases (e.g. “okay,” “you know,” “you know what I mean”).
- Establish and maintain eye contact with your students.
- Use gestures and physical movements which complement your verbal statements (e.g. looking at students while asking for student questions, waiting for students to respond to your questions)
- Practice in advance with audio visuals.
- Avoid distracting gestures or physical movements (e.g., grooming, pacing).

Making Homework and Assignments Useful
- Allow students to get into small groups and discuss the assignment after you have given it to them.
- Have students take a short test or write a brief paper early in the semester and return it to them, with feedback, at the next class.
- Create homework problems that allow students to practice for the next test.
- Encourage students to share ideas on how to solve problems.
- Have students read and comment on drafts of one another’s papers.