

What all instructors should know

Motivation is important for learning and is an essential part of effective teaching¹

Show that the subject is interesting, relevant, valuable to learn, worthwhile, fun, ... Remember that most students do not have the benefit of your experience and perspective.

Convey that subject is challenging but all students can master it with effort, and why it is worth the effort.

Convey that you care about all students' successfully learning the material.

Avoid: scare tactics, such as saying subject is really difficult; many students will fail, etc. These turn out to be demotivating to students.²

Think of yourself as a "coach of thinking" rather than an as a "dispenser of information "

"Learning" requires intense mental activity with resulting changes in the brain of learner.³

Feedback that is timely and specific is critical for learning

Timely, frequent, detailed feedback that shows how to improve ("formative assessment") should be provided for all students.

Give marks for what you value (homework, reading, in class participation, quizzes, pre-tests, ...). For most students, marks define the expectations and what is important in a course.²

Teach students how to learn

Explicitly model expert thinking, being careful not to skip steps that are now automatic for you. Convey how to best learn the material and skills, teach students how to study effectively and what is required for conceptual mastery and retention.^{3,4} These are fairly readily acquired skills that are seldom if ever taught.

Know & teach using the best (proven) practices for achieving learning.^{1,5}

Dos and Don'ts for the first week

Explain why you are teaching the way you are teaching, why course is worthwhile, what are your goals and expectations. The first classes set the tone for the rest of the term.

Explicitly work to establish a desired class culture.

Don't threaten or apologize for what or how you will teach.

Find out what all your students are thinking; recognize they think differently than do you

Connect to and build on their prior knowledge, explicitly examine student preconceptions.^{1,3}

Probe understanding and adjust teaching as appropriate when find many are not getting it.

Lay out framework, goals, & context for the knowledge & skills you want students to learn

Teach the organization and application of the knowledge, rather than just the facts. This is the vital element of mastery that students have the most difficulty perceiving and mastering.⁶

Approach teaching as a challenging subject that can be mastered^{1,3,4,5}

The ability to teach effectively is not innate – it can be learned much like a scholarly discipline. Understand how people learn and what processes facilitate learning-- these are understood.

Don't be afraid to copy what works. Use teaching practices that have been proven to be effective; they are readily replicated.

¹ The Wisdom of Practice: Lessons Learned from the Study of Highly Effective Tutors, in Improving Academic Achievement, ed. J. Aronson (2002) Academic Press.

² CWSEI and CU SEI student interviews and focus groups, as well as other studies.

³ How People Learn; brain, mind, experience, and school, Bransford et al. eds, (2000) NAS Press

⁴ CWSEI list of things every student should know, on the cwsei website, possible also Jackie's powerpoint slides

⁵ Bain, What the best college teacher do, (2004) Harvard Univ. Press

⁶ refs. 1, 2, 3, and 5, and many other studies.