

## **Flipped Course Design: Increase Learning by Harnessing Technology**

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A flipped classroom utilizes technology to introduce students to information *before* they arrive in a face-to-face classroom. Although the notion of having students complete reading prior to class has existed for millennia, the flipped classroom design provides a more structured approach to help students grapple with content information on their own time prior to meeting face-to-face. The flipped approach requires a teaching philosophy that views knowledge as actively constructed by the learner: in a flipped design the delivery model of education—where the teacher tells students how to think—will not suffice. The delivery model rests on a supposition that knowledge can be transferred from the teacher to the student.

In a flipped approach the pre-class work helps prepare student to arrive at face-to-face (F2F) sessions armed with enough knowledge to work at higher cognitive levels such as application, analysis, and synthesis. The cognitive F2F activities should actively engage students so they can construct meaning about the content. Flipping the classroom therefore requires inversion of the traditional lecture-based model where students hear a lecture and then do work on their own away from the classroom. The time when a student most needs the teacher is when he or she begins using knowledge to help address questions related to the course content. In a flipped design the teacher provides just-in-time attention in the classroom when the student might be the most in need of such attention.

A flipped classroom can be done with any course and the flipped format aligns with what is known about the neurobiology of learning. This full-day workshop will examine technology that facilitates the flip, explore the types of active learning possible in the newly liberated face-to-face time, and put the flipped model in the context with what is known about how learning works in the brain. Participants should bring a syllabus from a course they are considering flipping because several activities will center on each participant's specific course. The event will be a *work-shop* so participants should be prepared to be actively involved.