COURSE FLIPPING

FACILITY LOCATION
IN IE 1055/2025
WHAT IS FLIPPING?

A pedagogical approach

Lecture and out-of-class elements are reversed

Short video lectures are viewed by students at home before the class session

In-class time is devoted to true engaged learning
STUDENTS ARE REQUIRED TO PREPARE FOR CLASS BY WATCHING RECORDED LECTURES AND COMPLETING A SHORT QUIZ TO ENSURE PREPARATION AND CLARIFY UNDERSTANDING.
HOW DOES IT WORK?

OUT-OF-CLASS

Students view multiple videos

- 4-6 mini-lectures (~10 min each)
- Units or themes
- Online quizzes/activities interspersed
  - Low stakes
  - Immediate feedback to students
  - Feedback for instructor
  - Re-watch lectures to clarify points of confusion

Video

- Instructors develop themselves
- Videos by notable experts
- Podcasts/ItunesU/YouTube
HOW DOES IT WORK?

IN-CLASS – THE INSTRUCTOR

Function of in-class “instruction”

- Coach and advise via activities
- Encourage and challenge individual inquiry and collaborative effort

Activities

- Lead in-class discussions
- Turn the classroom into a studio
- Suggest approaches, clarify content, and monitor progress
- Organize students into groups to solve a large open-ended problem
HOW DOES IT WORK?

**IN-CLASS – THE STUDENT**

- Students can inquire about lecture content
- Test their skills in applying knowledge
- Interact with one another in hands-on activities
WHY DO THIS?

Application of concepts

• Can detect errors in thinking
• Cover material in a deeper fashion
• Introduce meaningful and active learning

Higher quality of education delivered

• Nature of instruction is no longer to disperse knowledge
• Information age provides full access to knowledge
• This instruction model helps students integrate and apply knowledge
Course Flipping Experiences

40% MENTIONED EXPERIENTIAL LEARNING

We were able to work on the homework in class with other students. Being able to ask questions to the teacher is also a huge help.

“I like … working on the homework in class because I have more questions about the homework than the lectures.”

“…allows for the information to be put to real applications during class. Coming to class ready with questions or homework lets the student interact with the instructor more hands on.”
Course Flipping Experiences

SHORT ON-LINE LECTURES GIVE MORE FLEXIBILITY IN LEARNING

“Flipped courses allow you to decide when you want to complete the work required for the week.

“Flipping the course gave me more freedom toward how I wanted to complete the work.

“It has given me the flexibility of choosing when to 'go to' a lecture.”
Course Flipping Experiences

SHORT LECTURES ALLOW REVIEWING OF THE LECTURES

“The pause and rewind features of the flipped classroom eliminate the concern for copy notes quickly and allow me to pay more attention to the lecture.”

“I watch the videos on my computer, if I miss something or if I just go into a daze for a minute, I can go back and watch that part again.”

83% of students reported re-watching at least 1 video segment
ASSESSMENTS ALLOW MORE QUESTIONS BEFORE CLASS

Students are encouraged to ask questions about muddiest points on on-line assessments before coming to class

Can review in class

More students ask questions!
N.E.W.S. FOR FLIPPED COURSES

No additional workload

Experiential learning in classroom
  - Less than 15 minutes review
  - Discussions

Weekly assessment
  - For accountability
  - For Q & A

Short video segments < 10 minutes long
SCHEDULE

• Modules posted no later than by Thursday, March 28, end of day

• View and complete assessment by Monday 7AM. The assessment will be posted on Courseweb.

• During Monday’s class time I will
  • Discuss muddy topics
  • Facilitate problem set solving
    • But you should start prior to class!
  • Preview Wednesday’s topics

• Note HW 10 will be due Thursday, April 4 at 4PM.