

Are They Watching? 2 Years of a Flipped Health Science Curriculum



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Introduction

Many U.S. medical schools are moving from traditional lecture-based curricula in favor of those that incorporate more student-directed, active learning strategies. The University of Illinois College of Medicine (UICOM) began a curricular transformation in 2017 that promotes multiple active learning modalities like the flipped classroom, wherein students prepare by watching microlecture videos prior to designated in-class sessions. There is a mix of faculty-produced, third-party (YouTube, other schools) and Osmosis videos assigned as required or supplementary throughout each block course of the curriculum.

UICOM Curriculum Model

- Integrated model introduced in 2017-2018 academic year (AY17-18).
- Relevant discipline-specific content and clinical presentations presented as a cohesive organ system unit, which we call a Block.
- 8 Blocks in Phase 1 of the UICOM curriculum.
- Block 1: Body Systems and Homeostasis I (6 weeks)

Faculty Producers

40

Video Platforms Used:

- Echo360, (<http://echo360.org>)
- Osmosis, (<http://osmosis.org>)
- Third-party (YouTube, etc.)

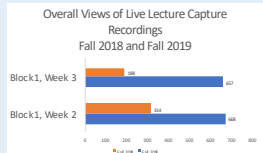
Most Commonly Used Production Tools

- TechSmith Camtasia
- Explain Everything (iOS App)
- PowerPoint
- Echo Universal Capture
- QuickTime
- Snag-It
- PowToon

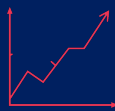
Hours Faculty-Created Videos in Block 1

16 hours, 19 minutes, 57 seconds

- Students in Class of 2023 (Fall 2019) are viewing all recordings significantly more than previous classes. Example: Views of Live Lecture Capture Recordings from Fall 2018 – Fall 2019 for Block 1, Weeks 2 and 3.



- Generally, live lecture capture viewing is lower than preassigned video prep. Students are watching basic science topics more than topic areas such as *Healthcare Systems, Health, Illness and Society, and Humanities and Ethics.*
- There is not much evidence students are “cross-watching” videos recorded on another campus even if they have enrolled in Echo360 sections at other University of Illinois College of Medicine campuses.



Trends

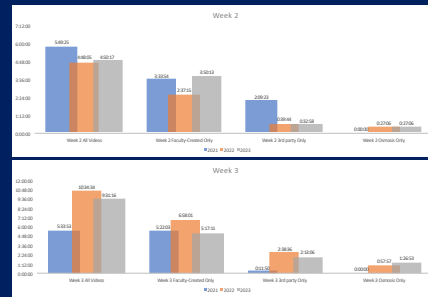
- Required v Supplemental
- Faculty-Produced vs Osmosis
- Series Watching

Videos Assigned as Prep Work

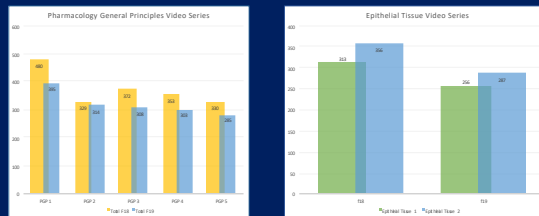
Week	F18	F19
Week 2		
Faculty Videos	2:37:15	3:50:13 ↑
Osmosis Videos	0:27:06	0:27:06 →
ALL Videos	4:48:05	4:50:17 ↑
Total Views	5950	5935 →
Week 3		
Faculty Videos	6:58:01	5:17:11 ↓
Osmosis Videos	0:57:57	1:26:53 ↑
ALL Videos	10:34:34	9:31:16 ↓
Total Views	8622	7600 ↓

Replaced 3rd Party videos with UICOM faculty produced videos.

Used more Osmosis videos and fewer faculty-produced, and student viewing went down.



Video Series Trends



Videos in a series tend to have decreasing viewership by students and less play-through time as they get further into the series. The examples above illustrate this. Notice the downward trend line from left to right.

Faculty-Created Videos Total | Block 1

400 + 73

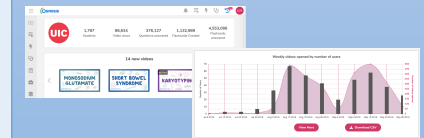
Enrollment (Class of 2023)

Total: 294
Chicago Campus: 175
Peoria Campus: 64
Rockford Campus: 55

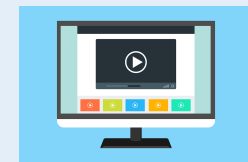
Main Platforms for Video Delivery



Echo360: a video platform designed to foster active, engaged, and personalized video-based learning



Osmosis: spaced-repetition system that aids in learning with interleaved practice, videos, flashcards, quizzes, study plans, and more.



Future Areas to Consider

- Echo360 has the capability for students to mark points of confusion, ask questions at specific timestamps, and answer asynchronous polling activities. We will need to investigate how these tools may continue to improve student engagement with video materials.
- Faculty are encouraged to annotate prep material to provide clear context and intent of video assignments, especially for 3rd party videos. This may increase the likelihood for students to make use of those videos.
- Osmosis recently released a new feature: playlists. We are piloting the use of weekly playlists in block courses to determine if this is a way students would prefer to receive preparatory video watching assignments.