He said "Flip" We said "How high?"

Jill Jemison Larner College of Medicine

Objectives

- Define technology ecosystem to support new models of teaching, including flipped classroom, TBL, PBL and others
- Interpret how new models of teaching and learning impact the LCME standard for curriculum monitoring and continuous quality improvement
- Discuss staffing and delivery models for next-generation teaching and learning support



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A little history

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University of Vermont College of Medicine
 Established 1822, 7th oldest medical school in US

- 120 students per class
- Vermont Integrated Curriculum implemented in 2003 • 1 branch campus; LIC program; clinical sites in VT, NY, FL, CT and ME

And then the world changed



The University of Vermor

Who needs lectures? Vermont medical school chooses other ways to teach





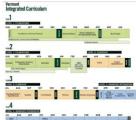






2016





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The players

- Senior Associate Dean for Education, William Jeffries, PhD
- Medical Curriculum Committee curriculum oversight
 Foundations, Clerkship and Advanced Integration curriculum implementation
- Office of Medical Student Education operations
- Active Learning Task Force "Larner methods," SOPs, policy
- Active Learning Team pedagogical change and instructional design
- Teaching Academy evaluation, assessment and scholarship



Technology services

- Administration CIO, security officer, business administrator
- Infrastructure (5) systems, storage, backup, Office365, desktop
- Applications (2.5) programming and application integration
- Database (1.5) reports and business intelligence
- Ed Tech (4) faculty support, education application development
- AV (2) room design and support
- Technicians (7) hardware and helpdesk
- Supporting
 - · 2500 desktops; 500 TB data; 800 full-time faculty; all services except
- networking • ~\$3.5 million total budget

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The plan?

- "Lecture Free" by 2019
- Approved "Larner Methods"
- Standard Operating Procedures Faculty, Students and Operations
- Scholarship through Teaching Academy
- "Learning Commons"
- Next LCME visit in 2021



What's the tech plan?

- Evolutionary, not revolutionary
 - Data and Analytics
 - Ed Tech infrastructure
 - Ed Tech application support
 - Student computing environment
 - AV/Rooms
- Laying track in front of the train
- Right now
 Near term
- By 2020

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We've done this before

- LCME accreditation 2004 named the COMET team a strength of the institution
- LCME accreditation 2013 named the Technology Services unit a strength of the institution, "The responsiveness of the Technology Services unit to the needs of college of medicine faculty, students, and administrators enhances the implementation and evaluation of the medical education program."

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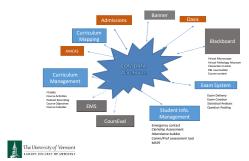
Ed Tech infrastructure

- LMS Blackboard
- Exam System homegrown
- Curriculum Management system homegrown
- Assessment tools TBL, Peer Assessment, Preceptor Assessment
- Competency tracker -- homegrown
- Scheduling Oasis
- MSPE homegrown
- Admissions ZAP
- The University of Vermont

Our philosophy

- Beg, borrow, buy, build
 - Extensive homegrown systems that support unique business needs
 - 2 programmers
 1 Data wizard
- But always, always own the data
 - Education data warehouse since the inception
 Never move data from system to system
 - Role-based access and security
 - · Noie-based access and security

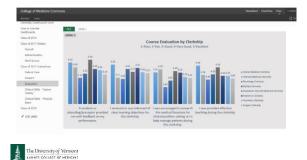


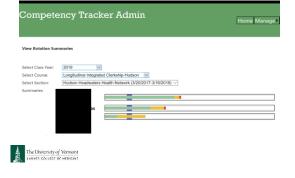


Data and Analytics

- Data warehouse
- Moving from reporting to dashboarding
- Extensive use of data for comparability
- Current project financial modeling for active learning incentives
- Expanding our curriculum mapping





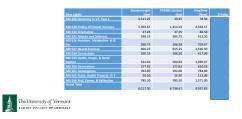




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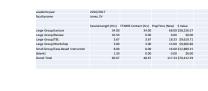
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Which becomes

		SessionLength	FTARRS Contact	PropTime
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	Amethesialogy	\$1.25	\$1.25	\$62.50
	Biochemistry	167.67	139.67	341.83
	Bischemistry	167.67	139.67	341.83
	COM Microbio & Molec Genetics	44.00	44.00	88.00
	COM Office of the Dean	224.58	200.58	402.67
	COM Admissions	2.50	2.50	5.00
	COM Educational Taols	3.50	3.50	7.00
	COM Ofcor Med Ed	216.08	192.08	384.17
	COM Office of the Dean	2.50	2.50	6.50
	Family Medicine	1,262.25	139.25	296.50
	Medidae	2,435.42	1,233.75	2,566.50
	Med-Cardiology	65.50	31.50	\$1.00
	Med-Dermatology	70.00	28.00	76.00
	Med-Endocrinology	\$5.75	82.00	164.00
	Med Gastroesteralizy	64.92	27.00	58.50
	Med-Gen Internal Med	1,259.92	589.92	1,202.33
	Med-Hernatology Oncology	90.50	58.50	117.00
	Medicine	428.17	60.17	120.33
	Med-Immunobiology	15.25	15.25	30.50
	Med-Infectious Disease	72.75	72.75	169.50
	Med-Nephrology	32.50	32.50	71.00
	Med-Pulmonary	205.67	181.67	375.33
	Med-Rheumatology	32.00	32.00	76.00
niversity of Vermont	Med-Vascular Biology	12.50	12.50	25.00
casay og vermont	Molecular Physigy & Biophysics	96.67	84.17	188.33

In detail





And then will be



But what about the teaching and learning?

- Ed tech group platforms, systems, tools and support
- Technology services student computers, tablets and applications
- AV room design and support



Ed Tech Support

- 3 FTEs
 - 2 educational technologists; 1 multimedia developer
 1 team lead
- Applications SoftChalk, Camtasia, Turning Technologies, Osmosis
- Training just in time support & workshops

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Student support

- Helpdesk in the Larner Learning Commons
 Walk-up support 7:30 a.m. to 5 p.m.
- Microsoft Surface Pro 4 with four year complete care warranty
- Android table for clerkships
- OneNote training and support
- Office 365 for collaboration
- Carbonite backup









Student computing environment

- Tech training 3 hours in orientation; 1.5 in clerkship orientation
 - Help desk
 - Special topics

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- OneNote partner with students on training adoption near 95%
- Technology Professionalism curriculum

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AV/Rooms

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All renovations

- Sound is most important
- Worry about the "feel" of the roomTraining & help button
- · naming & neip bu





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Vendor integration

- Don't duplicate administrative tasks LMS, SIS, scheduling
 Program niche applications or connecting pieces that add value
- Know what problem you're solving
- Go into vendor discussions with a clear purpose
- Watch for vaporware or mission creep
- Test, test, test
- You know how your students and faculty work test in real world situations Own the data.
- Walk away if you can't get all the data you want.



Questions?

