

Blended Learning 2015: What Works, What Doesn't



**Leading the World,
Innovating Now!**

DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING

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Circumstances

Resources (space, personnel, technology, etc.)

Space:

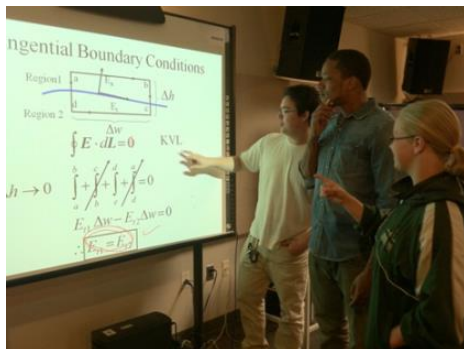
- 2.5 Dedicated Computer Teaching Labs
- 2.5 General Purpose Labs (20 stations/per Lab)
- 10 General Teaching Rooms (25 seat)
- 1 "Lecture Hall" (200 seat)

Personnel

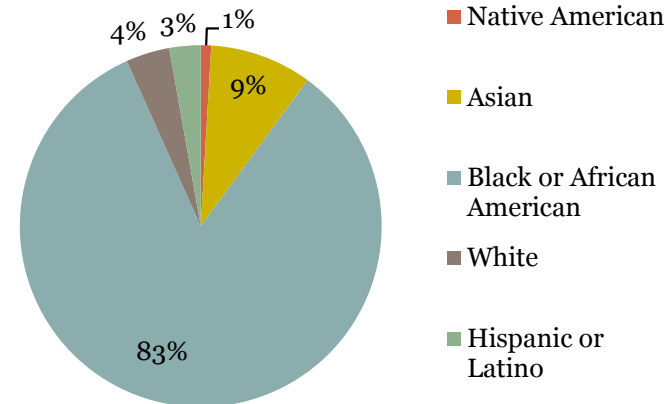
- 9 FT TT faculty (100% OCT certified)
- 3 FT Contractual (100% OCT certified)
- 8 Adjunct (75% OCT certified)
- 8 TA's (3 training sessions)

Scale enrollment size (growing....growing)

- University 8100
- School 1100
- ECE UG-540 Grad-58
- Core enrollment 2-3 25 seat sections



Ethnicity



Learner demographics

- 81% US+Perm
- 15% Female
- 9% PT
- 3 Students Online

Institutional Culture

- 1 Fully Online Program (Graduate)
- 6 Programs Under construction
- Mostly Traditional Teaching Strategies
- Middle Layer Administrative "Latency"
- 3 Provosts within past 4 years

Meeting the Challenges

Model: Face-to-Face Driver/Online Driver

Faculty buy-in

- Merit Incentives
- Course Conversion Incentives
- Publishing Pools
- Approach (Source material and usage)

Departmental and School level buy-In

- New Program Incentives 75-100K (Online Programs)
- Phase-In but reasonable (3-5 years)
- Offset Costs (curricular dissemination)

Student buy-in

- Town Hall Meetings
- Summer Course Offerings
- Flexibility of Online Offerings

Infrastructure

- Large capacity active learning spaces are mainly improvised lab and public spaces(Library, Viz Lab, Computer Labs)
- Experimental Centric Tools: Digilent, Arduino, RaspberryPi, Matlab, Virtual Servers
- Pervasive Wireless and Power allows laptop/smart phone interaction and simulation





Meeting the Challenges



Curricular:

30/38 credits(79%) of Core ECE blended, flipped, active or (100%) online
4 credit courses (2+2 hour format)

BlackBoard Hosted with Panopto Video Supplements

Strong support from President, **Provost**, Dean

Support Staff Resources (International/Native Student population remediation)

Alumni Philanthropy/Participation



Lessons

- **Balance flexibility with consistency (look first)**
- **Prompt training of new faculty and adjuncts is a must.**
- **Have a designated staff/faculty person to help guide faculty and students to proper resources and usage.**
- **Don't reinvent the wheel**
- **Seed new activities at the proper time**
- **Listen and watch carefully what students and faculty are doing during classroom sessions**
- **Starting from online course templates offer the easiest transition**
- **Insist on Faculty OCT certification**
- **Success can be a double edged sword**

