

Student Technology Fee Plan

2015-2016

April, 2015

Kingsborough Community College
Student Technology Fee Plan
2015-2016

Overview:

Kingsborough Community College's Student Technology Fee Plan for 2015-2016 was designed by the President's Advisory Committee with input from faculty, students, and administrators and prioritizes the delivery of instruction via investments in student network infrastructure, desktop and mobile platforms, classroom and laboratory settings, innovative instructional pedagogies, and related instructional supports.

The main objectives of this plan are in alignment with a major priority identified in the College's Strategic Plan 2012-2016, which states that the College should "Continue to develop technology for instruction, including online and hybrid courses."

Additionally, the areas identified in the Student Technology Fee Plan 2015-2016 reflect the vision of the College's Information Technology Services Strategic Plan 2014-2017, which calls for efforts to "Expand the use of instructional technologies with continued investment in smart classrooms, tools such as lecture capture, and growth in mobile support for instruction."

This document reviews the accomplishments achieved during the 2014-2015 year, providing accountability for the funds expended, and presents the priorities for anticipated expenditures for the 2015-2016 year.

TECHNOLOGY FEE Projects 2014-2015

Augmentation /Maintenance of Networking Infrastructure Project

The number of devices (whether BYOD or from installation base) is increasing at the rate of 25% per year; the infrastructure setup six years ago, though still reliable, is showing signs of strain. We plan for the coming years and increasing our install base by another 15 percent just in thin clients in class rooms we need to upgrade our network core switching to 40 GB from 10 GB. The budget allocation for this project is \$160,000.

Network Core switches in both data center were replaced, first and foremost as they are end of life as of April 2015 and secondly due to increase capacity needs as a result of 110% increase in installed base during the last 10 years both campus provided and personal devices. The upgrade/replacement has also positioned the campus to provide unfettered network access throughout the campus's ever spreading network at speeds of 10 GB minimum to 100 GB maximum and also ensure complete data center redundancy and fault tolerance.

Application Streaming Project

Initiation of a rapid software deployment system resolved the issue of limited access to computer labs which has made traditional installation nearly impossible. This has taken care of faculty and students wanting applications on their own PCs, while managing software licensing costs. These applications are uninstalled based on time tokens. The total budget allocation is \$7,000.

The implementation of this solution is in proof of Concept stage, we are hoping for implementation before end of fiscal year.

Blackboard Mobile Project

Blackboard Mobile Central is a comprehensive suite of campus services targeting students, faculty, administrators, alumni and our broader community on both native and mobile web platforms. It was architected with scalability in mind. Considering that it is impossible to truly plan for the vast array of devices to come in the future, we have built a central service to house data in a way that can be repurposed across all platforms/devices. In this way iPhone®, BlackBerry®, Android® and forthcoming mobile operating systems will access the Blackboard Mobile Central application through the same central service on the backend. The first set of apps was released in January 2013, we will be adding additional apps and continue to maintain current apps. Total annual cost is \$29,000.

Accomplished and added Class Scheduling and Teacher TEV.

Business Continuity Project

In order to support 24/7 operations and to reduce downtime we have embarked on a project to augment the infrastructure and provide redundancy and increase fault tolerances where possible. We are adding UPS to support the network switches in labs. The cost includes equipment and redundant fiber connectivity to IDF closets. Total Budget allocation is \$12,000.

honr2732 -1.102 Tc3(c.00ts)inuity Project

Class Capture System

A proof of concept was launched in last fiscal year for class capture, currently various faculty members are using this system. We would like to extend this offering to more faculty and use it as a DR solution so that in case of emergency recorded classes can be published for student use.

Total Budget Allocation is \$10,000.

Accomplished as planned.

Computerization of Classrooms Project

In order to meet the growing need for computers labs and using computers for instructional purposes, we

Instructional Software Upgrade Project

Upgrade Adobe software to the latest version in all labs.
Upgrade Animation software to the latest version in MAC graphic labs.
Upgrade AutoCAD software to the latest version in all Labs.
Upgrade Tandberg software in Language Lab L-102G.
Upgrade Virtualization software for academic servers.
Upgrade Culinary Science Software in U-118 and M-246 labs.
Upgrade NetOp Software in all labs.
Upgrade Deepfreeze software in all labs.
Total budget allocation is \$75,000.

Accomplished as planned.

Library Databases and eBooks

Procuring various titles for library databases. Total budget allocation \$ 30,000.

We are awaiting list from Library for the databases.

Print Management Solution (Pharos) Project

Support for recently deployed pay-for-print system with support for workstation reservations to additional open labs. Expansion of remote printing from home and wireless stations. Total budget allocation \$11,000.

Pharos printing extended to L-218B, L-304 and M-200.

Replacement of Computers in Labs

Replace 247 computers in the following labs based on 4-year refresh cycle.

Replacement of 15 existing podium computers.

LAB	# of Computers
M-119	27
M-302	9
L-300	12
L-102G	40
T6	156
Total	247

Total Budget allocation for this Project based on current pricing is \$262,000.

Following computers were replaced, T6 computers on order will be replaced before end of fiscal year

M-119	27
L-300	12
L-102G	40

In addition the following computers were replaced when the labs were uplifted.

M214 computers upgraded new total 38 HP z230's

M114 computers upgraded new total 31 HP z220's

S214 and S225 Computers upgraded to Z230's total 36 and 38 per lab 73 total

Replacement of Printers Project









Replace 7 network printers in labs. Total budget allocation \$12,000.

Printers replaced in L100 A,B,C, and D areas .M118, M125, M159, M220A Printers replaced with HP 600 series printers. In addition to replacement of the printers we were able to incorporate the scan to email option in L-100 A, B, C and D and leverage contracts that will reduce the printing cost in these labs from \$24,000 to \$3,400.

Smart Class Room Project

The Smart classroom project would be implemented in 5 additional class rooms. Approximately 12 out of warranty projection systems will be replaced. Total budget allocation including installation will cost \$100,000. Following rooms are candidates for upgrade:

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<p>C-321 Ext. 4489</p>	<p>Epson Projector and Digital Board (Epson PowerLite 580 Projector)</p>		<p>Classroom</p>
<p>C-322 Ext. 4309</p>	<p>Epson Projector and Digital Board (Epson PowerLite 580 Projector)</p>		<p>Classroom</p>
<p>D-215 Ext. 4019</p>	<p>Epson Projector and Digital Board (Epson PowerLite 480 Projector)</p>		<p>Classroom</p>
<p>D-216 Ext. 4490</p>	<p>Epson Projector and Digital Board (Epson PowerLite 480 Projector)</p>		<p>Classroom</p>
<p>D-321 Ext. 4491</p>	<p>Epson Projector and Digital Board (Epson PowerLite 480 Projector)</p>		<p>Classroom</p>
<p>E-111 Ext. 4340</p>	<p>Epson Projector and Digital Board (Epson PowerLite 480 Projector)</p>		<p>Classroom</p>
<p>F-321 Ext. 4315</p>	<p>Epson Projector and Digital Board (Epson PowerLite 580 Projector)</p>		<p>Classroom</p>
<p>G-213</p>	<p>3M Projector and Porcelain Display Board (DMS 800 Projector)</p>		<p>Classroom</p>

<p>G-213A Ext. 4494</p>	<p>3M Projector and Porcelain Display Board (DMS 800 Projector)</p>	
<p>L-118B</p>	<p>Epson Projector and Digital Board (Epson PowerLite 580 Projector)</p>	
<p>M-119 Ext. 5488</p>	<p>Epson Projector and Digital Board (Epson PowerLite 480 Projector)</p>	
<p>M-140</p>	<p>Epson Projector and Digital Board (Epson PowerLite 480 Projector)</p>	
<p>M-153 Ext. 4473</p>	<p>Epson Projector and Digital Board (Epson PowerLite 480 Projector)</p>	
<p>M-154 Ext. 4473</p>	<p>Epson Projector and Digital Board (Epson PowerLite 480 Projector)</p>	
<p>M-159 Ext. 4473</p>	<p>BoxLight Projector with Pull Down Screen - 96 inches (BoxLight Boston X40N Projector)</p>	
<p>M-214 Ext. 4318</p>	<p>BoxLight Projector with Pull Down Screen - 80 inches (BoxLight Seattle X35N Projector)</p>	
<p>M-220A Ext. 4318</p>	<p>BoxLight Projector with Pull Down Screen - 80 inches (BoxLight Boston X40N Projector)</p>	

M-4
Ext.

M-4
Ext.

M-4
Ext.

M-4
Ext.

S-1
Ext.

S-1
Ext.

T-4
Ext.

T-4232	Epson Projector and Display Board (Epson PowerLite 580 Projector)	
T-7221	Epson Projector and Digital Board (Epson PowerLite 480 Projector)	
T-7222	3M Projector and Digital Board (DMS 800 Projector)	
T-8207	BoxLight Projector with Pull Down Screen - 80 inches (BoxLight Seattle X40N Projector)	

Uplift-Expansion and Enhancement of Labs

In last fiscal year a project was started to uplift the labs by replacing with industry-standard furniture that provides a better learning environment and versatile use of this space. In addition to replacing the Furniture Facilities is embarking on sprucing up the labs with new paint and flooring. The project includes adding capacity with new furniture and adding an access card system to allow faculty to open labs rather than waiting for the ITS department. Following year: M-119, M-125, M-159, and M-220A.

M119 furniture & Computers upgraded to HP z230's
M214 furniture upgraded & Computers upgraded new
M220A Furniture upgraded & additional computers added new
M223 furniture upgraded & Computers added new to
M118 Furniture upgraded & computers added new to
M114 Furniture upgraded & computers upgraded new
M110 furniture upgraded & Computers upgraded new
update to allow students to charge their devices
M111 furniture upgraded & Computers upgraded new
update to allow students to charge their devices
M110 and M111 added USB Charging outlets to wall
Replaced blinds in M322, M109, M110, M111, and M112
to reduce glare.

S101 & S103, Furniture reconfiguration due to lab refresh, Lab images updated and PC's redeployed. Projection system reconfigured to meet new lab layout.

Wireless Carts for Classrooms Project

Replacement of 48 out of warranty wireless laptops based on a four-year refresh cycle.
Expansion of wireless cart capacity by the addition of two laptop carts with 20 HP Notebooks, this will allow us to provide carts in 10 rooms simultaneously to reduce the need for moving students to rarely available free labs.
Total Budget allocation \$90,000.

Upgraded faculty laptop loaners to HP's while adding additional windows units.
Added additional Apple laptops to the Faculty loaners to meet demand.
Configure Apple Laptop cart for Journalism department
Refreshed all Student, ASAP, Honors and Faculty images with needed updates.

Video in Class Rooms and Labs

In order to meet need for video collaboration in instruction six labs will have HD camera installation to work with Blackboard Collaborate, Skype, Radvision or any other video conferencing system. Labs to be added this fiscal year would be M-125, M-126, M-159, M-322, S-214 and S-225.

All cameras installation would be completed before end of Fiscal year..

Virtual Desktop Initiative

A pilot project was initiated using VMware Horizon product to provide 30 students concurrent access to fashion design software via tablets, laptop and handhelds was initiated in last fiscal year. The virtual lab would allow students who were lacking the ability to practice and use this software outside the Physical Lab that has the Fashion Design Software installed. It also ameliorates the need for additional licenses for the open labs while allowing students to do homework assignments. In the Fiscal Year 2014-2015 an additional 60 concurrent student access licenses will be added in the areas of Tourism and Hospitality and EMS.

We have procured the licenses and are in process of procurement of Hardware needed to implement the solution, we are anticipation completion of project before end of fiscal year.

Video and Audio Conferencing

Video conferencing solution using Revision (Avaya) platform was implemented, this solution allowed faculty and students to interact via video conferencing for both online and hybrid courses. The last fiscal year we added capacity to go from 20 concurrent users to 40 users. In the

We now have ability to do video conferencing with 40 concurrent users in addition to this Sonexis tele/web conferencing system upgrade – this upgrade makes it easier to use conferencing services as well there is no need to install desktop client anymore

Wireless Expansion and Upgrade Project

We will continue the process of adding access points in class rooms and exterior areas to accommodate wireless use through thin clients and mobile devices. The project entails adding 50 access points. Budget Allocation \$ 35,000 for Access Points, \$ \$15,000 for additional Node licenses and \$25,000 for cabling/enclosures. Total budget allocation: \$75,000

We have installed 27 of 50 access points and added a separate controller for Class Room access points. We will be able to accomplish our target of adding 50 Access points in this fiscal year.

Fashion Design/Business Department

TECHNOLOGY FEE Projects 2015-2016

Augmentation /Maintenance of Networking Infrastructure Project

The number of devices (whether BYOD or from installation base) is increasing at the rate of 25% per year; the infrastructure setup six years ago, though still reliable, is showing signs of strain. We plan for the coming years and increasing our install base by another 15 percent just in thin clients in class rooms we need to replace out of warranty switches and upgrade them to 10 GB backbone.

The budget allocation for this project is \$ 68,000.

Augmentation of Connectivity Project

In order to augment the internet connectivity Kingsborough is leveraging alternate access to internet, this provides us with direct connection to internet as well as bigger and faster access.

The budget allocation for this project is \$ 78,000.

Application Streaming Project

Initiation of a rapid software deployment system resolved the issue of limited access to computer labs which has made traditional installation nearly impossible. This has taken care of faculty and students wanting applications on their own PCs, while managing software licensing costs. These applications are uninstalled based on time tokens.

The total budget allocation is \$7,000.

Blackboard Mobile Project

Blackboard Mobile Central is a comprehensive suite

Computerization of Classrooms Project

In order to meet the growing need for computers labs and using computers for instructional purposes, we have embarked on a project to deploy computers in classrooms. We are planning on adding over 153 wireless thin clients and tablets. Total budget allocation for this project including hardware, electrical work, deployment of furniture and construction needed to convert the current lecture style classrooms to dual-purpose rooms and installation is \$ 279,000.

Following rooms are to be part of this project.

<u>Room</u>	<u>Existing Seats*</u>
S246	35
T4230	50
T4232	68

153

*Seat count may

Print Management Solution (Pharos) Project

Support for recently deployed pay-for-print system with support for workstation reservations to additional open labs. Expansion of remote printing from home and wireless stations. Expanding reservation facilities to L-300 computers. M-220.

Total budget allocation \$ 15,000.

Replacement of Computers in Labs

Replace 265 computers in the labs based on 4-year refresh cycle.

Replacement of 35 existing podium computers.

Upgrading computers under warranty which have 4 GB of ram to 8 GB and upgrading them to 64 bit image.

Total Budget allocation for this Project based on current pricing is \$300,000.

Replacement of Printers Project

Replace out of warranty network printers in labs.

Total budget allocation \$12,500.

Replacement of Servers Project

Replace out of warranty servers supporting the labs. Also would allow for virtualization of blade servers and stand alone servers. Addition of memory and processors to existing servers is part of the project.

Total budget allocation \$60,000.

Smart Class Room Project

The Smart classroom project would be implemented in 4 additional class rooms. Approximately 32 out of warranty projection systems will be replaced.

Total budget allocation including installation will cost \$130,000.

Smart Labs Project

Additional ceiling mounted projection systems will be installed in three labs. The replacement of five out of warranty projectors will also take place.

Total budget allocation \$25,000 including installation and Pixie controls, speakers.

Uplift-Expansion and Enhancement of Labs

In last fiscal year a project was started to uplift the labs by replacing the existing makeshift desks with industry-standard furniture that provides a better learning environment and allows for versatile use of this space. In addition to replacing the furniture the project, in collaboration with Facilities is embarking on sprucing up the labs with new paints jobs and the repair of ceiling tiles and flooring. The project includes adding capacity where possible by reconfiguring the rooms and adding an access card system to allow faculty to open the doors based on scheduled room usage rather than waiting for the ITS department. Following labs have been earmarked for next fiscal year: V-223, V-225, L-100D. The expansion in L-100D should provide our students with 20 additional computers.

Total budget allocation for this project \$154,000.

Tablets/Laptops for Students Project

Replacement of out of warranty wireless laptops based on a four-year refresh cycle. As the use of tablets in instructional areas have increased and there is a cross section of Kingsborough students without such devices we will be replacing and adding systems that can be used both as tablets and Laptops. We plan on adding 110 such devices.

Total Budget allocation \$93,000.

Video in Class Rooms and Labs

In order to meet need for video collaboration in instruction six labs will have HD camera installation to work with Blackboard Collaborate, Skype, Radvision or any other video conferencing system. Labs to be added this fiscal year would be M-109, M-110, M-111, M-114, M-118 and M-119.

Total Budget allocation is \$10,000.

Virtual Desktop Initiative

A pilot project was initiated using VMware Horizon product to provide 30 students concurrent access to fashion design software via tablets, laptop and handhelds was initiated in last fiscal year. The virtual lab would allow students who were lacking the ability to practice and use this software outside the Physical Lab that has the Fashion Design Software installed. It also ameliorates the need for additional licenses for the open labs while allowing students to do homework assignments. In the Fiscal Year 2014-2015 an additional 60 concurrent student access licenses will be added in the areas of Tourism and Hospitality and EMS.

Total Budget allocation is \$30,000

Video Streaming in Labs

Currently there is a need to bring TV and Cable channels and other streaming sources. This new solution will accomplish the following;

Improve IPTV performance

Reduce last fall (Tw[conferencing sy]-7.5(stem)8(. L0 10.8907 -1.153 TDlutio80.0z07 1.6(icapE90 295.8ct-e bring TV