

Henry Ford College

Application for Funding through the Technology Investment Fund

Project Director: Adam L. Cloutier

Date: 9/23/2014

Department: Instructional Technology

Division: TLSS

1. Please describe your project as specifically as possible. Include, but do not limit yourself to, answers to these questions:

- a. What do you propose to do?

Plan:

- 1) To fund technology purchases and installations that will advance the College's Operational Planning process and the recommended Technology Plan.
- 2) To complement potential Perkins equipment funds so that infrastructure work for installation of this equipment can be accomplished.

- b. Why do you propose to do this?

Why:

- 1) The technology within rooms T126, 127, 131, 156, 160, 167, 175, 176, 180, 184, 236, 240, 106, M114, 118, 124, F110, 112, 113, H006, and the Media Center is either non-existent or is critically overdue for an upgrade.
- 2) The data projectors in L165 and L215 are old models and present an image that is difficult to view with the lights off.
- 3) Upgrading M104, a room within Math & Science, and a room within Fine Arts or Social Science will allow instructors to record lectures and advance flexible delivery of course content.
- 4) The upgrade of H002 to a Tier 2 classroom, with dual projectors, will assist instructors in visually and interactively presenting course content.
- 5) There are numerous data switches that are over 9 years old, and in desperate need of replacement. Replacing them would improve computer speeds and performance.
- 6) All installations will provide faculty with the tools to better present learning information and reach students.

2. How many unique students will be served each academic year (Fall through Summer) by your project? "Unique students" refers to unduplicated headcount. Provide detail (course numbers, titles, and enrollments, for example).

This varies by location:

- 1) Classrooms depend on the classes scheduled within these rooms.

- 2) MTEC rooms depend on clients and classes utilizing rooms.
- 3) Media Center: there are 105 computers, during peak times it is common to see the lab between 75-90% capacity.

3. Please provide your project's budget. Address each of the questions, or meet each request, listed below.

- a. What will be purchased (including model numbers, if appropriate), and what will it cost? Include amounts that are committed from funds other than the Technology Investment Fund, and indicate the source of those other funds.

See attachment.

- b. Where will funds for future maintenance needs, consumables, and such come from?

Planned TLSS Technology Budget

- c. Attach any support for your budget (quotes, for example) to this application, and indicate here what is attached.

See attachment.

- d. Rank your needs so that the Technology Investment Committee will have guidance should only partial funding be available to recommend.

This will be done as a combined effort between the AALC and TIC during the 9/24 and 9/26 meetings.

4. Regarding project location and equipment security, please address each of the questions, or meet each request, listed below.

- a. Describe specifically where items to be purchased will be located or installed. Include room-layout diagrams if appropriate.

See attachment for rooms. Designs have been discussed, and sketched; however, official designs/diagrams from vendors have not been pursued.

- b. Indicate the status of any necessary approvals for using the space in which items will be located or installed.

All rooms have gone through the College's Operational Planning process, and the TLSS division has worked with Buildings and Grounds to discuss infrastructure.

- c. Who, specifically, will do the installation?

- 1) The process for purchasing and bids will need to be followed. Whichever vendor wins the bid will hire a contractor to do the installations.
- 2) If electrical work cannot be included in the bid/design, the college will likely follow the usual process for electrical work.
- 3) Data drops: the company that IT Services contracts to install data drops will be pursued for installation of new data drops.

- 4) Equipment security: the vendors will be contracted to do equipment security for the equipment they are installing. All other equipment will likely be secured by BMS.

d. How will equipment purchases be secured?

- 1) CPUs will be locked down with a cage.
- 2) Monitors will be locked down with tape, cable, and pads.
- 3) Projectors and Document Cameras will be locked down with the usual lockdown mechanisms.
- 4) LCD TVs will be locked down using special screws, a cable, or a special mount.
- 5) Cameras will be locked down using the usual lockdown mechanisms.

5. How, specifically, will you determine the success or shortcomings of your project?

Success:

- 1) Successful installation.
- 2) Staying within Perkins, TIF and TLSS budgets.
- 3) Installation prior to end of FY15.

Shortcomings:

- 1) If there is not enough funds to complete all projects.
- 2) If installation costs are underestimated.
- 3) If necessary equipment/parts need to be ordered/installed after rooms are built.

Please submit this form and any attachments to the chair of the Technology Investment Committee by the date you have been given. If you are submitting this form electronically, please combine any attachments into a single PDF. (This application form may be submitted as a document separate from the attachments.)

Category	Rooms	Items	Area	Prior Investment?	Equipment	Data Drop	Electrical	Cabling	Total
Perkins submit	T126	cameras, lockdowns (computer, Elmo, cameras) switcher, amp, speakers,	Industrial Tech	CPU, monitor, projector, elmo, 4 TVs	\$ 13,591.45	\$ 200.00	\$8,000.00	\$560.00	\$ 22,351.45
Perkins submit	T127	cameras, elmo, lockdowns (computer, Elmo, cameras) switcher, amp, speakers,	Industrial Tech	CPU, monitor, projector, 2 TVs	\$ 15,355.00	\$ 400.00	\$5,000.00	\$560.00	\$ 21,315.00
Perkins submit	T131	projector, elmo, lockdowns (computer, Elmo, TV), switcher, amp, speakers,	Industrial Tech	CPU, monitor, projector, 1 TV	\$ 7,955.00	\$ 200.00	\$4,000.00	\$560.00	\$ 12,715.00
Perkins submit	T156	projector, elmo, lockdowns (computer, Elmo), switcher, amp, speakers,	Industrial Tech	CPU, monitor, projector	\$ 7,955.00	\$ 1,029.00	\$4,000.00	\$560.00	\$ 13,544.00
Perkins submit	T160	amp, speakers, lockdowns, 1 TV	Industrial Tech	CPU, monitor	\$ 5,580.00	\$ 200.00	\$6,000.00	\$560.00	\$ 12,340.00
Perkins submit	T167	projector, elmo, lockdowns (computer, Elmo, TV) switcher, amp, speakers	Industrial Tech	CPU, monitor, 4 TVs	\$ 8,370.00	\$ 200.00	\$8,000.00	\$560.00	\$ 17,130.00
Perkins submit	T175	21 CPUs, 21 monitors, lockdowns, projector, elmo, screen, amp, speakers, lockdowns	Industrial Tech	0	\$ 36,880.00	\$ -	\$5,000.00	\$560.00	\$ 42,440.00
Perkins submit	T176	25 CPUs, 25 monitors, lockdowns, projector, elmo, screen, amp, speakers, lockdowns	Industrial Tech	0	\$ 41,920.00	\$ -	\$6,000.00	\$560.00	\$ 48,480.00
Perkins submit	T180	projector, elmo, switcher, screen, amp, speakers, lockdowns	Industrial Tech	0	\$ 8,120.00	\$ -	\$7,000.00	\$560.00	\$ 15,680.00
Perkins submit	T184	projector, elmo, switcher, screen, amp, speakers, lockdowns, 2 TVs	Industrial Tech	0	\$ 12,720.00	\$ -	\$8,000.00	\$560.00	\$ 21,280.00
Perkins submit	T236	projector, elmo, switcher, screen, amp, speakers, lockdowns, 4 TVs	Industrial Tech	0	\$ 17,520.00	\$ 200.00	\$8,000.00	\$560.00	\$ 26,280.00
Perkins submit	T240	21 CPUs, 21 monitors, lockdowns, projector, elmo, screen, switcher, amp, speakers, lockdowns	Industrial Tech	0	\$ 34,580.00	\$ -	\$4,000.00	\$560.00	\$ 39,140.00

Technology Plan	T106	Install additional TV monitor	Industrial Tech	0	\$ 4,800.00	\$ -			\$ 4,800.00
Technology Plan	L165	Data Projector		0	\$ 1,320.00	\$ -	\$ -	\$ -	\$ 1,320.00
Technology Plan	L215	Data Projector		0	\$ 1,320.00	\$ -	\$ -	\$ -	\$ 1,320.00
Technology Plan	varies	Blanket Order	TLSS	0	\$ 5,000.00	\$ -	\$ -	\$ -	\$ 5,000.00
Technology Plan	M104	Tier 1	Workforce Development	0	\$ 8,650.00	\$ -	\$4,000.00	\$560.00	\$ 13,210.00
Technology Plan	room?	Tier 1	Math & Science	0	\$ 8,650.00	\$ -	\$4,000.00	\$560.00	\$ 13,210.00
Technology Plan	room?	Tier 1	Fine Arts Social Science - HPE?	0	\$ 8,650.00	\$ -	\$4,000.00	\$560.00	\$ 13,210.00
Technology Plan	H002	Tier 2 - with dual projectors, computer, starboard	Math & Science	0	\$ 9,070.00	\$ 200.00	\$4,000.00	\$560.00	\$ 13,830.00
Technology Plan	M114	Tier 3 & update 22 computers (Core i7-2600 CPU @ 3.40GHz/4gb ram)	Workforce Development	0	\$ 33,750.00	\$ 200.00	\$4,000.00	\$560.00	\$ 38,510.00
Technology Plan	M118	Tier 3 & update 20 computers (Pentium D CPU 3.20GHz/1GB ram)	Workforce Development	0	\$ 31,640.00	\$ 200.00	\$4,000.00	\$560.00	\$ 36,400.00
Technology Plan	M124	Tier 3 & update 22 computers (Pentium 4 CPU 3.20GHz/2GB ram)	Workforce Development	0	\$ 33,750.00	\$ 200.00	\$4,000.00	\$560.00	\$ 38,510.00
Technology Plan	F110	Tier 3	Fine Arts Social Science	0	\$ 10,540.00	\$ 200.00	\$4,000.00	\$560.00	\$ 15,300.00
Technology Plan	F112	Tier 3	Fine Arts Social Science	0	\$ 10,540.00	\$ 200.00	\$4,000.00	\$560.00	\$ 15,300.00
Technology Plan	F113	Tier 3	Fine Arts Social Science	0	\$ 10,540.00	\$ 200.00	\$4,000.00	\$560.00	\$ 15,300.00
Technology Plan	H006	Tier 3		0	\$ 10,540.00	\$ 200.00	\$4,000.00	\$560.00	\$ 15,300.00
Technology Plan	Varies	Computer Lab data switches (20)	Varies	0	\$ 180,000.00	\$ -	\$ -	\$ -	\$ 180,000.00
Technology Plan	Library	34 computers	Media Center	0	\$ 36,210.00	\$ -	\$ -	\$ -	\$ 36,210.00
Technology Plan	rooms?	60 computers - 2 computer labs	Communications (English)		\$ 200,000.00	new	new	new	\$ 200,000.00

Budgeting ...

Total Amount	\$ 949,425.45
TLSS Technology Budget:	\$ (228,514.00)
Perkins Amount Hopefully Approved:	\$ (184,254.00)
TIF Amount Hopefully Approved:	\$ (68,870.00)
Amount Still Needed:	\$ 467,787.45
Perkins Equipment Total For Above Rooms	\$ 215,346.45

Additional detail:

Equipment	Costs	T-126	T-127	T-131	T-156	T-160	T-167	T-175	T-176	T-180	T-184	T-236	T-240	Total
Monitor	\$ 110.00	Perkins Round 4	Perkins Round 4	Perkins Round 4	Perkins Round 4	Perkins Round 4	Perkins Round 4	21	25	0	0	0	21	67
Monitor lockdown w/ existing cables	\$ 10.00	1	1	1	1	0	0	0	0	0	0	0	0	4
CPU	\$ 920.00	Perkins Round 4	Perkins Round 4	Perkins Round 4	Perkins Round 4	Perkins Round 4	Perkins Round 4	21	25	0	0	0	21	67
CUP lockdown and monitor lockdown kit	\$ 250.00	1	0	0	0	1	1	21	25	0	0	0	21	70
lockdown adjustment	\$ 25.00	0	1	1	1	0	0	0	0	0	0	0	0	3
Projector & Bulb	\$ 1,320.00	Perkins Round 4	Perkins Round 4	1	1	0	1	1	1	1	1	1	1	9
Projector Lockdown, ceiling plate, extension	\$ 130.00	Perkins Round 4	Perkins Round 4	1	1	0	1	1	1	1	1	1	1	9
Elmo Document Camera	\$ 2,050.00	Perkins Round 4	1	1	1	0	1	1	1	1	1	1	1	10
Document Camera Lockdown	\$ 190.00	1	1	1	1	0	1	1	1	1	1	1	1	11
Switcher, Wall Bracket, Wall Plate, Media	\$ 800.00	1	1	1	1	0	1	1	1	1	1	1	1	11
Screen	\$ 400.00	1	1	1	1	0	1	1	1	1	1	1	1	11
Distribution Amp	\$ 400.00	1	1	1	1	1	1	1	1	1	1	1	1	12
Speakers (order of 4)	\$ 400.00	1	1	0.5	0.5	0.5	1	1	1	1	1	1.5	1	11
LCD Monitors	\$ 2,300.00	Q-4 Perkins Round 4	Q-2 Perkins Round 4	Q-1 Perkins Round 4	0	1	Q-4 Perkins Round 4	1	1	0	2	4	0	9
Cameras/Lecture Capture	\$ 8,650.00	1	1	0	0	0	0	0	0	0	0	0	0	2
Lockdowns - Camera + Components on Desk	\$ 61.45	1	0	0	0	0	0	0	0	0	0	0	0	1
AV Inxstallation labor		\$ 2,430.00	\$ 2,430.00	\$ 2,430.00	\$ 2,430.00	\$ 2,430.00	\$ 2,430.00	\$ 2,430.00	\$ 2,430.00	\$ 2,430.00	\$ 2,430.00	\$ 2,430.00	\$ 2,430.00	\$ 29,160.00
Equipment Total		\$ 13,591.45	\$ 15,355.00	\$ 7,955.00	\$ 7,955.00	\$ 5,580.00	\$ 8,370.00	\$ 36,880.00	\$ 41,920.00	\$ 8,120.00	\$ 12,720.00	\$ 17,520.00	\$ 34,580.00	\$ 210,546.45
Notes:	G. Saganski: what type of cameras - stationary or mobile?	G. Saganski: what type of cameras - stationary or mobile?	Computer classroom, CPUs new.	G. Saganski: wants tablets in here & wireless capabilites. Worse case: connect iPad to CPU & upload.	Welding lab, new demo SU14, Saganski says electrical will not be necessary for our AV.	Huge room.	Cascaded comuters? One 60"+ TV on wall.	Cascaded comuters? One 60"+ TV on wall.	This is a difficult room. Projector - short throw, low hanging.	Similar to 180, but with 2 TVs on opposite walls.	Very large room. 4 TVs.	No TVs. Just new CPUs, projection, instructor station AV.	Notes	
Program	Trade & Apprentice	CNC & Manufact.	CNC & Manufact.	Automotive	Manufacturing Trades (Welding)	CNC & Manufact.	Trade & Apprentice	Trade & Apprentice	Drafting	Drafting	Electrical	Electrical	Program	
CIP	47.0101	15.0613	15.0613	47.0604	15.0699	15.0613	Bulding Construction Trades	47.0101	15.1302	15.1302	15.0303	15.0303	CIP	
Perkins Indicator		3P1	3P1	3P1	3P1	3P1	3P1	3P1	3P1	3P1	3P1	3P1	3P1	Perkins
How	1) Increase technology usage in classes and make instruction to more students easier and quicker. 2) Improve sound in classrooms, which will in turn increase students ability to hear 3) Improve visual demonstrations and deliverance of course content through projection and LCD monitors which will allow more students to see procedures and instructional materials. 4) Reduce the need to demonstrate procedures to multiple groups of students, and give more time to focus on individual students working on hands-on activities rather than just instruction.													How

HFCC COSTS (Technology/TIF)		T-126	T-127	T-131	T-156	T-160	T-167	T-175	T-176	T-180	T-184	T-236	T-240	Total
Data Drop	200/each	\$ 200.00	\$ 400.00	\$ 200.00	\$ 1,029.00	\$ 200.00	\$ 200.00	\$ -	\$ -	\$ -	\$ -	\$ 200.00	\$ -	\$ 2,429.00
Notes		2nd, new computer: Drop/Computer next to Programming work station (integrated manu system)	2 drops needed	new instructor station	3502l series wireless access point & new data drop	new instructor station	new instructor station						new instructor station	
Electrical	approx \$\$	\$ 8,000.00	\$ 5,000.00	\$ 4,000.00	\$ 4,000.00	\$ 6,000.00	\$ 8,000.00	\$ 5,000.00	\$ 6,000.00	\$ 7,000.00	\$ 8,000.00	\$ 8,000.00	\$ 4,000.00	\$ 73,000.00
Notes		2 separate sections: main room, cubby room. Cubby needs electricity ~\$3,000. Main floor ~\$5,000	V4000, electrical to TV & cameras	V4000	V4000	G. Saganski said that this cost was already factored into SU14 demo/build, but just in case.	V4000, electrical to TVs	new V4000, electrical to one big 60"+ TV	new V4000, same as 175 but more electrical	This is a very complicated room. Lights are very low. Overestimate	new V4000, electrical to TVs	new V4000, electrical to TVs	V4000	
Cables	560/each	\$ 560.00	\$ 560.00	\$ 560.00	\$ 560.00	\$ 560.00	\$ 560.00	\$ 560.00	\$ 560.00	\$ 560.00	\$ 560.00	\$ 560.00	\$ 560.00	\$ 6,720.00
Total														\$ 82,149.00
Furniture		T-126	T-127	T-131	T-156	T-160	T-167	T-175	T-176	T-180	T-184	T-236	T-240	Total
Tables					ALL									
Chairs		Cubby area: soft space for students, chairs, couches, etc.												
Instruction Workstation	\$1,100/each	\$ 1,100.00	\$ 1,100.00	\$ 1,100.00	\$ 1,100.00		\$ 1,100.00							\$ 5,500.00
Furniture Account		\$ 1,100.00	\$ 1,100.00	\$ 1,100.00	\$ 1,100.00	\$ -	\$ 1,100.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,500.00
Room Total		T-126	T-127	T-131	T-156	T-160	T-167	T-175	T-176	T-180	T-184	T-236	T-240	Total
		\$ 14,691.45	\$ 16,455.00	\$ 9,055.00	\$ 9,055.00		\$ 9,470.00	\$ 36,880.00	\$ 41,920.00	\$ 8,120.00	\$ 12,720.00	\$ 17,520.00	\$ 34,580.00	\$ 298,195.45

Category	Upgrades	Cost
General	Instructor workstation	\$1,100
General	Computer and Monitor	\$1,030
General	Projector & Bulb	\$1,320
General	Document Camera	\$2,050
General	Projector Screen	\$290
General	Phone	\$280
General	4 In-ceiling speakers (+\$250 for 2 add'l speakers)	\$375
Parts & Labor	Electrical work	\$2,500
Parts & Labor	AV Installation	\$600
Parts & Labor	Data Drop	\$200
Parts & Labor	NEW Computer Lockdowns	\$250
Parts & Labor	Document Camera Lockdown	\$190
Parts & Labor	Projector Lockdown, ceiling plate, extension column	\$130
Parts & Labor	Switcher, Wall Bracket, Wall Plate, Media Controller	\$665
Parts & Labor	Cables	\$560
Computer Labs	Data Switch – for computer labs	\$9,000
Computer Labs	Printer (color +\$200)	\$1,400
Other	StarBoard 17" Interactive LCD Display	\$1,500
Other	+60" Wall Mounted Television and cables	\$2,300
Other	Blu-Ray Disc Player	\$100
Other	Steelcase Eno Interactive Whiteboard	\$1,955
Other	Eno Sylus, single	\$185
Other	Copycam Image Capturing Systemprint	\$2,235
Other	Copycam Installation and 2 hours of basic training	\$355
Other	Installation (Copycam, Interactive Whiteboard)	\$2,355
Other	Standardized table desks (seats 2, 20Wx60Lx28 ½H)	\$471
Other	Steelcase chair Model 4871110, Finish 6205	\$335
Other	Steelcase chair Model 4877110, Finish 6025 (stool)	\$490
Security	Computer Upgrade: Lockdown Adjustment	\$25
Security	Computer Monitor Security Kit	\$10
Other	Computer Upgrade: Ram, Hard Drive, Monitor	\$200
Security	Elmo lockdown	25

Lecture Capture Equipment	Cost
Kramer DVI Switch	\$ 239.00
Epiphan Frame Grabber (2 per room)	\$ 769.00
Sure Ceiling mics (2 per room)	\$ 126.00
Sure Wireless mic system	\$ 479.00
Mixer	\$ 241.00
ceiling speakers	\$ 347.00
camera ceiling mounts (2 per room)	\$ 204.00
sony PTZ cameras (2per room)	\$ 2,324.00
ELMO document Camera	\$ 2,045.00
Replacement Projector	\$ 924.00
Replacement Lamp	\$ 256.00
Custom Wall Plate	\$ 106.00
Plenum Cables and Materials	\$ 500.00
Total	\$ 8,560.00