



# Classroom Technologies

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## Strategic Plan 2005 - 2010



# Why a Strategic Plan?

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- Variability in annual funding cycles for classroom refresh
- Technology in the classroom becomes obsolete/outdated
  - Impacts faculty and their ability to effectively use the classroom
  - Impacts classroom support resources (maintenance, trouble calls)
- Continued and increasing demand from faculty for more smart rooms
- Changing student demographics
  - Student learning styles are changing
    - Net generation
    - Multi-tasking
  - Demands redesigned learning spaces with appropriate technology to support the changing modalities
- Significant increase in number of smart classrooms in last few years demands:
  - Improved ease-of-use through standardization
  - Creation of efficient model for installation, maintenance and on-call support.
  - Reduce costs for expendables and spares



# Goal 1: Standardized Technology

- Ensure that at least 80% of the classrooms are configured with the same equipment and controls.
  - Ease-of-use for faculty when moving from room-to-room
  - Reduces support costs and spare parts inventory
- Standard Classroom Equipment Configuration (1/2007):

## **Standard Classroom - equipment costs**

Epson Powerlite 6100i	\$2,100
Extron MLC-226IP-AAP Media Controller	\$950
Extron MLS 304SA Media Switcher & amp	\$850
Extron Mini Loudspeakers, black	\$250
Spectrum Link Lectern 42" w/ handle	\$1,200
Dell GX520 minitower	\$900
Monitor swing arm for computer	\$170
Panasonic AG-VP320 DVD/VCR	\$200
Projection Screen	\$200
Spare lamp for projector	\$400
3-M Model 1880 Overhead projectors	\$350
Cables, connectors & misc supplies*	\$930
<b>Total</b>	<b>\$8,500</b>

Note: Long throw projectors and additional equipment such as document cameras add \$2,000 - \$4,000 each to the cost.



# Goal 2: New Classrooms

- **Goal** - all centrally scheduled classrooms equipped by 2010

## CSUC BUILDOUT COSTS NEW CLASSROOMS @ \$16.5K/Room

FY	2005-2006	2006-2007*	2007-2008	2008-2009	2009-2010
<b>Total Classrooms</b>	<b>75</b>	<b>98</b>	<b>110</b>	<b>122</b>	<b>135</b>
<b>New Central Classrooms</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>12</b>	<b>13</b>
<b>TOTAL</b>	<b>\$120,000</b>	<b>\$165,000</b>	<b><i>\$198,000</i></b>	<b><i>\$198,000</i></b>	<b><i>\$214,500</i></b>

- \* 11 New classrooms funded by BSS for spring 2006
- \* 2 Classrooms left over from funding for 2005-2006
- \* 10 new classrooms requested for summer 2007

***\$XXX,XXX*** indicates not funded



# New Classrooms 2006-2007

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- The following are the new rooms scheduled for this summer.

<b>ROOM</b>	<b>SEATS</b>
SGYM 101	49
PAC 210	49
LANG 106	45
GLNN 210	34
GLNN 308	35
HOLT 173	36
HOLT 185	44
OCNL 120	30
OCNL 121	30
OCNL 123	32

# Goal 3: Refresh Funding

- Maintain currency and effectiveness of installed classroom equipment

FY				2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
Central Classrooms				75	98	110	122	135
Equipment	Cycle:	Begin	Unit Cost					
Computer system	3	2007-2008	\$850	\$28,879	\$12,000	\$31,167	\$34,567	\$38,250
Data Projector	5	2008-2009	\$1,900	\$114,692	\$0	\$0	\$46,360	\$51,300
DVD/VCR players	4	2008-2009	\$150	\$9,974	\$8,000	\$0	\$4,575	\$5,063
Document Cameras	5	2006-2007	\$2,000	\$0	\$18,000	\$20,000	\$25,000	\$28,000
Media Controllers	5	2007-2008	\$750	\$29,739	\$15,000	\$20,000	\$18,300	\$20,250
Switchers Amplifiers	5	2009-2010	\$750	\$1,000	\$38,000	\$15,000	\$18,300	\$20,250
Overhead Projectors	4	2006-2007	\$250	\$1,000	\$5,000	\$10,000	\$10,000	\$10,000
subtotal				\$185,285	\$96,000	\$96,167	\$157,102	\$173,113
One time upgrades*					\$19,000	\$35,000		
Expendables				\$19,190	\$25,000	\$25,000	\$30,000	\$35,000
<b>TOTAL</b>				<b>\$204,475</b>	<b>\$140,000</b>	<b>\$156,167</b>	<b>\$187,102</b>	<b>\$208,113</b>

2005-2006 and 2006-2007 funded major upgrades to standardize all classrooms and bring into a refresh cycle.

\*One-time upgrades to bring existing classrooms up to standards (new lecterns and upgrades to PAC 134, 144)

# Goal 4: Service and Support - cont'd

- Current CSUC Help desk support staffing:
  - 8AM - 8PM Mon-Thur, 8AM - 5:30PM Friday
  - Fixed number of staff technicians while number of classrooms increases
- Forecast Staff needs (based on improved efficiencies and 12 hours)
  - Standardization of classrooms during 2005-2007
  - Centralized control of classrooms rolled out in 2006
  - Possible to support 40 rooms per tech (centrally scheduled only)

## CSUC REVISED SUPPORT STAFFING WITH 1 TECH/40

				FY	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
<b>Central Classrooms</b>					<b>75</b>	<b>98</b>	<b>110</b>	<b>122</b>	<b>135</b>
	<b>Hrs</b>	<b># Rms</b>	<b>Unit Cost</b>						
Support Technician	12	40	\$48,000		3	4	4	5	5
<b>TOTAL</b>					<b>\$144,000</b>	<b>\$192,000</b>	<b>\$192,000</b>	<b>\$240,000</b>	<b>\$240,000</b>
CSUC Unit cost per room					\$1,920.00	\$1,959.18	\$1,745.45	\$1,967.21	\$1,777.78

**\$48,000** - one position not funded

# Goal 5: New Technologies

- New technologies continue to emerge that may require additional/replacement equipment in the classrooms
  - Student Response Systems (Clickers)
    - RF Receivers in all rooms
    - Software
  - Podcasting
    - Integrated microphones in rooms
    - Software
  - Emerging display technology (flat screens?)
  - Others?
- Forecast does not include additional costs for new technologies
  - \$500 per room/yr for new technologies?

**CSUC Refresh costs per classroom with new technology allocation**

<b>FY</b>	<b>2005-2006</b>	<b>2006-2007</b>	<b>2007-2008</b>	<b>2008-2009</b>	<b>2009-2010</b>
<b>Central Classrooms</b>	<b>75</b>	<b>98</b>	<b>110</b>	<b>122</b>	<b>135</b>
CSUC Unit cost per room	\$2,726.33	\$1,428.57	\$1,419.70	\$1,533.62	\$1,541.57
New Technologies allocation			\$ 500.00	\$ 500.00	\$ 500.00
<b>TOTAL</b>	<b>\$2,726</b>	<b>\$1,429</b>	<b>\$1,920</b>	<b>\$2,034</b>	<b>\$2,042</b>



## Other Facilities and Classrooms

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Department labs, conference areas and rooms not listed as 'lecture' on the facilities database receive limited support from CTS. Increases in the number of central classrooms will eliminate all support for these rooms.



# Other Facilities and Classrooms

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- 150 rooms/conference rooms maintained by individual departments
  - 41 known rooms have permanently installed equipment
    - Data projectors
    - Built-computers
    - Some with media controllers
  - CTS provides very limited support to these rooms
    - Design and some installation
    - Limited troubleshooting and repair
  - The equipment in many departmental rooms is out of date
  - New buildings (Student Services/Wildcat Activity) are an additional impact
- Options
  - Do nothing - departments continue to maintain and support rooms
  - CTS supports all smart rooms - central and department
  - CTS provides Service Level Agreement on case-by-case basis



# Other Facilities and Classrooms - CTS Support

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- Funding issues -
  - Classroom modernization/standardization
    - Almost all rooms have fallen behind centrally scheduled rooms
      - Older projectors
      - Computers (Macintosh and PC)
      - Media Controllers (older or none at all)
    - Must be modernized/standardized for support efficiencies
  - New rooms
    - What is process/funding model for departments to request new rooms
    - Estimate that 80 total rooms eligible for mediation
  - Classroom refresh cycle
    - Once modernized, all rooms need to be put into 3,4, and 5 year refresh