

# IT Council – Instructional Technology Advisory Committee Technology Enhanced Classrooms Report

Overview: Improved student learning is a priority of the University's 2011–2016 Long Range Plan. Faculty access to high quality technology classrooms is a critical element within that priority. A significant investment is made annually to create new and maintain existing technology classrooms. Since the process to develop and maintain these classrooms has not been reviewed for several years, IT Council requests a review be performed and a subsequent report be provided to determine if any action is needed to improve the method through which technology enhanced classrooms are developed, maintained, and supported.

Action: IT Council charged the Instructional Technology Advisory Committee (ITAC) to review the provisioning of instructional technology and the associated support services, and provide a status report including recommendations for improvements to technology enhanced classrooms and services.

Charge: Discuss, determine, and bring forth information and/or recommendations to IT Council in the areas of:

- I. Inventory of existing resources to include human, capital, and classrooms.
- II. Accuracy of the classroom data contained in the Resource Management System (R25).
- III. Development of effective policies and setting of campus standards.
- IV. Solicitation of annual proposals, review, and granting of awards to various colleges that request new technology enhanced classrooms.
- V. Allocation of Student Computer Usage Fees (SCUF) and/or grant dollars associated with technology enhanced classrooms.
- VI. Provision of faculty/staff training programs for efficient use of technologies and facilities.
- VII. Development of a new maintenance/support service model and assignment of associated personnel.

## ITAC Membership:

|                             |   |
|-----------------------------|---|
| David Caravella, Chair      | Classroom Coordinator                                 |
| Angela Barker               | Instructional Technology Support Specialist, COAL     |
| Ching-Wen Chang             | Assistant Professor, Reading Foundations/Technology   |
| Zach Durham                 | Student Government Association                        |
| Chantal Levesque-Bristol    | Director, Faculty Center for Teaching and Learning    |
| Dale Moore                  | Director, University Support Services, AIS            |
| Kevin Piercy                | Coordinator of User Support, AIS                      |
| Helen Reid                  | Dean, College of Health and Human Services            |
| Doug Sampson                | University Architect, Planning, Design & Construction |
| Kate Shellenberg            | Student Government Association                        |
| Michael Webb                | Structural Foreman, Facilities Maintenance            |
| Susan Willingham, Secretary | Administrative Assistant, FCTL                        |
| Jeff Morrissey, Ad-hoc      | Chief Information Officer, AIS                        |

## I. Inventory of existing resources to include human, capital, and classrooms

Classrooms: On the Springfield campus, with the exception of the Greenwood Laboratory School, there are currently 508 spaces designated as classrooms. These classrooms are classified using four instructional technology levels, with Level 0 having no instructional technology and Level 3 having the highest level of instructional technology.

### Detailed Inventory of Classrooms:

- Level 0: There are 141 classrooms that contain no technology.
- Level 1: There are 88 classrooms that contain a network connection only.
- Level 2: There are 166 classrooms that contain all of items listed in Level 1 and some or all of the following:
  - Ceiling mounted data video projector or LCD TV display
  - Amplifier
  - Wall mounted speakers
  - DVD/VCR combo unit
  - Instructor Computer (PC or Mac platform)
  - Laptop interface
  - Extron VGA auto splitter switcher
  - Spectrum instructor cart (Media Manager or CPL)
  - Instructor cart light
- Level 3: There are 113 classrooms that contain some or all of items listed in Level 2 plus some or all of the following:
  - Crestron control system
  - SMARTBoard
  - SMART AirLiner
  - SMART Sympodium
  - Hitachi StarBoard
  - Wacom Cintiq
  - Document camera
  - Tandberg or other iTV CODEC
  - Mediasite or other lecture capture device
  - Microscopy video system
  - Any other additional technology that directly interfaces with installed instructional technology.

Capital: Funding for instructional technology comes primarily from two sources, the Student Computer Usage Fee (SCUF) Instructional Technology allocation, which is \$225,000 annually and dedicated to instructional technology, and self-funding by colleges and departments, which varies in amount annually. The Student Usage Fee (SCUF) Instructional Technology allocation is increasingly committed to lifecycle replacements and maintenance and is not sufficient to support new and emerging technologies such as lecture capture and touch panel classroom control systems. Over the past several years, the SCUF instructional technology allocation has averaged \$87,000 (39%) for new installations, and \$138,000 (61%) for lifecycle replacements and maintenance per year.

Human Resources: Instructional technology is currently supported by a variety of staff from both academic and administrative units. There are no IT support staff members dedicated solely to the support of instructional technology.

The estimated full-time workforce that directly or indirectly supports technology enhanced classrooms:

- Faculty Center for Teaching & Learning (4)
  - College IT Support Staff (25) \*
  - Distance Learning (2)
  - Computer Services (13) \*
- \* Includes two SCUF funded positions in each area

Identified Challenge:

1. The current SCUF allocation is increasingly committed to lifecycle replacements and is not sufficient to support emerging technologies such as lecture capture, touch panel control systems and their associated ongoing licensing and maintenance costs. This has adversely impacted the number of new instructional technology initiatives.

Recommendation:

1. IT Council should evaluate the current level of funding for classroom instructional technology and consider increasing the SCUF allocation to better align with the increased cost of control interface standardization, equipment lifecycle, maintenance, and emerging technologies such as lecture capture.

## II. Accuracy of the classroom data contained in the Resource Management System (R25)

The accuracy of classroom data contained in the Resource Management System (R25) was verified through a room-by-room physical inventory of the designated spaces. Several anomalies were noted during this, all dealing with room classifications within the R25 system. Several spaces designated as classrooms were noted as being used as offices or storage space, while other spaces designated as non-classrooms were not being used as such. These anomalies were reported to the Director of Support Services, and are being evaluated for re-designation.

Identified Challenge:

1. Currently, as classroom instructional technology is installed, the Classroom Coordinator notifies the Academic Room Scheduler so that changes to room attributes can be made to reflect the new technology level. This process has not always worked as well as envisioned when it was established.

Recommendation:

1. The Classroom Coordinator should be given update authority for data related to classroom technology to ensure accurate and timely accounting is made in R25. Other room attributes and classifications would continue to be maintained by those responsible for space and its allocation and classification.

### III. Development of effective policies and setting of campus standards

#### Identified Challenges:

1. Currently, there are no campus-wide standards for instructional technology. The Classroom Coordinator sets the standards for SCUF-funded purchases, but colleges or departments wishing to self-fund instructional technology installations are not required to consult with the Classroom Coordinator or adhere to the SCUF-funded standards.
2. Of the 279 Level 2 and Level 3 classrooms 128 (46%) do not conform to established SCUF-funded standards for presentation systems. This non-standardization leads to an inconsistent classroom experience for both instructors and students.
3. There are no standards for classroom computer systems. This non-standardization leads to an inconsistent classroom experience for both instructors and students, increased support costs and inefficiencies, and increased training efforts needed for both instructors and support staff.

#### Recommendations:

1. Campus-wide instructional technology standards need to be established and enforced, regardless of the funding source. These standards would most appropriately be set by the IT Council, and be based upon recommendations brought forward by the ITAC to the IT Council for approval. The IT Council would be responsible for granting exceptions that allow for the installation of non-standard instructional technology.
2. Upgrade all Level 2 and Level 3 technology enhanced classrooms to established campus-wide standards. The cost to upgrade these classrooms to SCUF standards is approximately \$284,000. IT Council has approved \$86,000 in FY12 to be used toward this initiative, leaving a balance of \$198,000.
3. Establish standards for classroom computer systems and upgrade all Level 2 and Level 3 technology enhanced classrooms to established campus-wide standards. The estimated cost to upgrade these classroom computers varies based on the following options.
  - a. Purchase 279 new computers for all Level 2 and Level 3 classrooms (\$321,000).
  - b. Use FY12 SCUF redistributed computers to replace all existing computers.
  - c. Lease 279 computers for all Level 2 and Level 3 classrooms. (cost ? total & per year)

### IV. Solicitation of annual proposals, review, and granting of awards to various colleges that request new technology enhanced classrooms

Proposals to enhance classroom instructional technology are solicited annually by IT Council, through the Office of the Provost, unless a specific instructional technology theme has been adopted for the year. If a theme has been adopted, no proposals are solicited and the available funding is used in support of the theme and for lifecycle replacements and maintenance.

In past years, submitted proposals were evaluated and approved for funding by the Classroom Upgrade Oversight Committee (CUOC). Funding is traditionally awarded based on the priorities set by the colleges submitting proposals, and best faith effort is given each year to ensure awards are equitably distributed among colleges.

The timeline, from solicitation of proposals to bringing the technology enhanced classroom online and available for use, operates on a 16-month cycle beginning in April and ending in August of the following year.

Identified Challenges:

1. The Classroom Upgrade Oversight Committee (CUOC) no longer exists, so a new governing body and process for reviewing proposals and awarding funds needs to be established.
2. The current timeline presents challenges for the Planning Design & Construction department, especially for the larger and more complex projects involving external contractors.

Recommendations:

1. Proposals for SCUF-funded instructional technology should be reviewed by the ITAC, and their funding recommendation brought forward to the IT Council for funding approval.
2. The timeline used to develop technology enhanced classrooms should be compressed such that the proposal solicitation period is shortened to allow additional time for the Planning Design & Construction department to more effectively develop project costs and meet approved timelines.

#### V. Allocation of Student Computer Usage Fees (SCUF) and/or grant dollars associated with technology enhanced classrooms

Utilizing emerging instructional technology to enhance the student learning experience is directly aligned with objectives in the University's 2011-2016 Long-Range Plan. Without additional funding, these technologies cannot be widely deployed, having an adverse impact on the successful accomplishment of this mission critical objective.

Identified Challenge:

1. The current SCUF allocation is increasingly committed to lifecycle replacements and is not sufficient to support emerging technologies such as lecture capture, touch panel control systems and their associated ongoing licensing and maintenance costs. This has adversely impacted the number of new instructional technology initiatives.

Recommendations:

1. IT Council should evaluate the current level of funding for classroom instructional technology and consider increasing the SCUF allocation to better align with the increased cost of control interface standardization, equipment lifecycle, maintenance, and emerging technologies such as lecture capture.
2. Develop a Department of Education Title III grant proposal to enhance our University's instructional technologies, online and blended course offerings, and associated support services.

3. Consideration should be given to exploring other central funding sources to appropriately resource this initiative.

#### VI. Provision of faculty/staff training programs for efficient use of technologies and facilities

Computer Services provides the introductory classes and documentation needed to develop faculty skills on the Blackboard course management system and other technologies. These services are provided through technology training centers, online delivery, and via the University's open-access computer labs.

Advanced pedagogy-based training is provided by three Instructional Designers from the Faculty Center for Teaching and Learning (FCTL). The FCTL has completed the development of the Digital Professor Academy (DPA) and is in the process of implementing this program. The DPA is a community of practice designed to provide support for faculty who are designing, developing, teaching, or revising online and blended courses. The DPA will be fully operational in Fall 2011. This program will assist faculty throughout course development by providing support on pedagogy, course design, and teaching through the use of technology. Additionally, the FCTL has offered faculty and staff training in the use of instructional technology in the form of workshops, one-on-one, printed, and online formats.

Both the FCTL and Computer Services departments plan to enhance these efforts through strengthening their partnership, and expanding on the faculty/staff training programs currently provided.

#### Identified Challenges:

1. Ensuring instructors acquire training prior to utilizing instructional technologies.
2. Increased faculty demand for emerging technologies will require additional training resources.

#### Recommendations:

1. Consider requiring training before allowing instructors to utilize instructional technologies.
2. Resources for training opportunities should be increased to match increased demand as needed.

#### VII. Development of a new maintenance/support service model and assignment of associated personnel

The University uses a "federal model" of technical support, consisting of centralized staff offering core support for institution-wide technologies and decentralized staff offering support for discipline-specific technologies.

Currently, instructional technology support is provided primarily through two groups, Distributed User Support Specialists (DUSS's) and Instructional Technology Support Specialists (ITSS's) staffed and organized by college or program, and the Classroom Instructional Technologies (CIT) staff of the Faculty Center for Teaching and Learning (FCTL).

The Distributed User Support Specialists (DUSS's) and Instructional Technology Support Specialists (ITSS's) provide primary support for the classroom computers and software, while the Classroom Instructional Technologies (CIT) staff of the Faculty Center for Teaching and Learning (FCTL) install and provide primary support and maintenance for the classroom presentation systems.

### Identified Challenges:

1. Standardization of instructional technology is widely lacking, particularly in the areas of computers and software. This lack of standardization results in an inconsistent classroom experience for both instructors and students, increased support costs and inefficiencies, and increased training effort needed for both instructors and support staff.
2. It is unclear who supports which classrooms and some rooms do not have any Distributed User Support Specialists (DUSS's) or Instructional Technology Support Specialists (ITSS's) assigned to them. It is also unclear what level of support and service is expected or required in each room.
3. There is currently no centralized and standardized measurement and tracking of instructional technology usage, support efforts, issues, and problem resolutions. This lack of information makes it difficult to determine how widespread and successful support services are being provisioned.
4. The IT support staff members responsible for maintaining technology classrooms do not have an effective communication methodology established.
5. There are insufficient professional development opportunities available for many of the IT support staff.
6. The distribution of classrooms across campus does not match the distribution of the associated college IT support personnel. As an example, the Art & Design classrooms in the Jim D. Morris Center for Continuing Education are supported by staff located in Craig Hall, even though other support staff reporting to a different college are located in the same building and could more efficiently respond to time-sensitive support issues in technology classrooms.
7. Although classes are taught during both day and evening periods, and instructional technology must be maintained when the rooms are not being used for classes, the vast majority of support staff work day shift, Monday through Friday.

### Recommendations:

1. Campus-wide instructional technology standards need to be established and enforced, regardless of the funding source. These standards would most appropriately be set by the IT Council, and be based upon recommendations brought forward by the ITAC to the IT Council for approval. The IT Council would be responsible for granting exceptions that allow for the installation of non-standard instructional technology.

Upgrade all Level 2 and Level 3 technology enhanced classrooms to established campus-wide standards. The cost to upgrade these classrooms to SCUF standards is approximately \$284,000. IT Council has approved \$86,000 in FY12 to be used toward this initiative, leaving a balance of \$198,000.

Establish standards for classroom computer systems and upgrade all Level 2 and Level 3 technology enhanced classrooms to established campus-wide standards. The estimated cost to upgrade these classroom computers varies based on the following options.

- a. Purchase 279 new computers for all Level 2 and Level 3 classrooms (\$321,000).
- b. Use FY12 SCUF redistributed computers to replace all existing computers.

- c. Lease 279 computers for all Level 2 and Level 3 classrooms. (cost ? total & per year)
2. ITAC will form a work group comprised of the appropriate stakeholders to develop a matrix identifying who has the responsibility for providing technology support in every instructional space, including primary, secondary and/or emergency response duties. Additionally, this work group will determine the level of support services that can/should be provided. In this way, an evaluation can be made as to whether current resources could meet those needs or what additional resources would be necessary to provide expected levels of service.
3. ITAC will work with the campus user support committee (CUSC) to evaluate existing support tracking applications and develop a recommended standard for all IT support staff to create a central clearinghouse for all response data. This recommendation will be brought to IT Council for approval.
4. ITAC will form a work group comprised of the appropriate stakeholders to evaluate current and potential methods of communication, and develop a plan to address stakeholder needs.
5. The FCTL in collaboration with the IT support staff will identify training needs, in regards to instructional technology, and develop a professional development program for the IT support staff. Allow the SCUF Instructional Technology allocation to be used to partially fund this development program and require IT staff participation in this program as a condition of SCUF funding.
6. After a tracking matrix has been developed and implemented, ITAC will reevaluate and determine the scope of this challenge and make recommendations at that time.
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