Management Operations Review Team (MORT)
Report of the Student-Computing Laboratories
Tiger Team
December 29, 2009

Committee Charge
Executive Vice President (EVP) Diaz and Provost Woodson created a Management Operations Review Team (MORT) to seek and implement improvements to our operational services. The MORT team consists of Dean Akridge (Agriculture), Dean Jamieson (Engineering), Dean Weiser (Liberal Arts), Vice President Almond (Business Services), Vice President Buckius (Research), Vice President McMains (Physical Facilities), Vice President McCartney (Information Technology), and Managing Director Ken Sandel (Office of EVP and Treasurer).

The MORT group selected information technology (IT) on the West Lafayette campus as the first focus area to examine potential synergies and costs savings. Six committees, called Tiger Teams, were formed to examine the following areas: data centers, campus IT organizational structure, email services, OnePurdue, desktop computing services, and the computer labs. Each team was tasked to provide recommendations to improve the management, efficiency, and accountability of campus-wide information technology operations.

Executive Summary
In response to the charge from the Management Operations Review Team (MORT) to address the optimization of student-computing laboratories on campus, this report is submitted to outline the committee’s progress to date, vision for completing this review, and its recommendation.

Issue Statement
Purdue provides and maintains a very large number of student computer labs. These labs include specialized, instructional, and general-purpose labs. Responsibility for the management and support of these labs is spread across individual campus units, as well as ITaP. Significant dollars are spent annually in support of these labs, both centrally and at the unit level. No overall plan or process currently exists to address changing student needs, emerging technology, technology replacement, funding efficiencies, and space constraints. In addition, there is not a strategy in place for addressing best management practices with clear guidelines on the role of the individual units and the role of ITaP.

Hypothesis
The Purdue West Lafayette campus probably has more student-computing labs than students or instructors require for their instructional-computing needs. Fewer labs that are strategically located and designed for current student and instructor use with quality equipment and support could fully meet our campus instructional-computing lab needs. In addition, efficient resource use will be maximized and space may be recovered by academic units for other high-priority needs.
Overall Goal
Develop a process and implement a review of computing labs on campus with the goal of “right-sizing” the number and type of labs maintained on campus. The review and recommendations will be guided by the principle that the University will: meet the evolving computing needs of instructors and students with strategically located computing labs; and use available resources to achieve the highest quality possible while embracing innovative approaches to learning.

Objectives
1) Develop a process and implement a review of all instructional-computing labs to assess the need for each existing lab based on current usage, quality, and location to determine if any labs should be closed, redesigned, or reconfigured to better meet student or instructor needs.
2) Propose a process for determining management responsibility of remaining labs, including budget impact.
3) Propose guidelines for funding responsibility and targeted use of University resources for instructional-computing labs.
4) Develop an implementation strategy and proposed timeline for the proposed recommendation, including management and funding responsibilities.

Background
Progress to Date
Inventory and Classification of Computer Labs
A preliminary inventory of all computer labs on campus was done in spring 2009. It included the following data elements for each lab: department, building and room location, number of computers (with subtotals for Windows, Mac, and UNIX computers), and a list of any specialized hardware or software.

This fall, the preliminary inventory was distributed to unit IT directors across campus for verification and classification of the labs into the three categories of general-purpose open-computing labs, instructional-computing labs, and specialized-computing labs. The definitions for these three types of labs were developed by the committee as follows:

General-Purpose Open-Computing Labs: Could be managed by individual units or by ITaP — these spaces provide students access to computers for individual or group work on a non-scheduled, walk-in basis.

Instructional-Computing Labs: Could be managed by individual units or by ITaP — these spaces provide instructors access to instructional-computing resources for the purpose of instructing students, usually on a scheduled basis. These computing labs are considered instructional whether they are scheduled for one class or multiple classes.

Specialized-Computing Labs: Usually managed by individual units — these spaces typically provide non-standard hardware configurations, specialized or customized software, or space needs that are not provided centrally. These spaces can be used on a scheduled or non-scheduled basis.
The inventory review and classification task is nearly complete. It has yielded estimates of the number of computers as follows:

- General-Purpose Labs – approximately 1,200 computers in 60 rooms.
- Instructional Labs – approximately 3,500 computers in 180 rooms.
- Specialized Labs - approximately 800 computers in 40 rooms.

**Location of Labs**
Using the lab data listed above, separate mappings of locations of general-purpose labs, instructional labs and specialized labs — as well as all campus labs — are being generated. This information will be used in the evaluation process for the best configuration of lab locations and availability on campus.

**Student Input**
In addition to having the unique and valuable perspective of a student committee member, the results of an ITaP-sponsored survey of students on collaborative spaces is being used by the committee to help understand the needs and possibilities of repurposing current lab space into more interactive and collaborative learning spaces that provide computer access and use new technologies. It is anticipated that the final report will include a strong recommendation on this topic as one feature in beginning to transform the computer-lab environment for future instruction and learning.

**Communications**
A letter of introduction was sent in November to the Deans and Vice Presidents of all areas that host student-computing labs on campus. This communication was intended to provide information on the committee’s purpose and membership. In addition, their support was requested as the work of the committee would involve contacts with their IT units, business offices, and academic-administrative offices.

A second communication was sent to the same audience in December providing an update on the committee’s work and soliciting their continued support. The committee will be working with the unit IT directors and staff to gather and access usage information, and the communication was used to share this next step and the framework for requesting this data. It is recognized that these requests may cause concern in some areas and this was intended to provide assurance that the University is committed to meeting the evolving computer needs of instructors and students.

A meeting early January is scheduled for early January 2010 with the Academic IT Leaderships Forum (AITLF) to discuss the process for collecting computing lab-usage data.

**Next Steps**

**Data Collection**
Usage information will be collected for all student-computing labs on campus. Because all areas do not currently collect this data, possible solutions will be investigated by the committee and shared with the AITLF group in January. The committee will work with unit IT staff to install the tools needed for the usage analysis with a targeted full-installation date of January 31, 2010. Usage data will be collected for a representative period during the spring semester.
Mappings of lab locations will be completed to assist in determining the ideal strategic placement of each type of computing lab on campus.

**Assessment**

A methodology to assess the data will be developed that will include a review of usage data, location and alternative-lab availability, quality of equipment including current lifecycle replacement plans, and other metrics as are identified in the process. Criteria will be established for each metric used in the analysis. This analysis will be the basis for the recommendation for making no changes, or for repurposing labs, combining labs, or closing labs.

**Lab Management**

An assessment model will be developed for determining the appropriate structure for managing computer labs on campus with the expectation that some labs will continue to be managed by individual units and some will be managed by ITaP.

**Funding**

A funding approach will be devised that considers current investments in existing computer labs and how these resources would best support the outcomes of this review. This approach is expected to include lifecycle replacement strategies, the cost of reconfiguring current labs into more effective student-learning spaces, staffing, and maintenance costs.

**Recommendations**

**Final Recommendation**

The committee’s final recommendation is anticipated to include the following:

1) Identification of computer labs that should remain open in current or modified environment.
2) Identification of computer labs that could be closed or combined while continuing to meet the needs of instructors and students.
3) Identification of computer labs that should be reconfigured into alternative learning spaces. (Suggested actions will be included, such as early creation of several model spaces in high-visibility areas to entice faculty and student interest, and identifying dead-space nooks where small laptop spaces could be installed, e.g., hallways.)
4) Identification of labs that should be maintained by units and labs that should be maintained by ITaP.
5) A lab-computer funding strategy for implementation going forward.
6) Ideas for how instructional approaches and student learning could be transformed through the use of innovative computing and study facilities.
7) A plan for implementing a regular review of the campus need for student-computing labs.
**Appendix A: Team Membership**

The instructional-computing laboratories Tiger Team consisted of the following members:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thomas Berndt</td>
<td>Associate Dean, Liberal Arts</td>
</tr>
<tr>
<td>Byron Reed</td>
<td>Director of Learning Spaces, ITaP</td>
</tr>
<tr>
<td>Steven Hare</td>
<td>Director of Information Technology, Science</td>
</tr>
<tr>
<td>Mary Sadowski</td>
<td>Associate Dean, Technology</td>
</tr>
<tr>
<td>Connie Lapinskas</td>
<td>Assistant Provost for Financial Affairs</td>
</tr>
<tr>
<td>Keith Murray</td>
<td>Director, Space Management</td>
</tr>
<tr>
<td>Chris Martin</td>
<td>Director of Financial Affairs, Engineering</td>
</tr>
<tr>
<td>Jamie Steiner</td>
<td>Purdue Student Government</td>
</tr>
</tbody>
</table>