

**The University of Texas at Austin Information Technology
Advisory Committee
Jackson School of Geosciences, ITAC Vision Plan for 2006-2007**

Summary of Requests

Servers for backup system, large-format color plotter	\$30,000
Renovation of technology classrooms, upgrades and security	\$53,000
Maintenance of computer software, replace outdated equipment	\$140,000
Support staff for technology classrooms	<u>\$50,000</u>
TOTAL	\$273,000

Overview of Current IT Programs and Infrastructure

Vision/Mission/Goals: The Jackson School of Geosciences is committed to providing a first class learning environment for the students who attend classes in our building. Industry representatives are in continuous contact with the school and periodically visit our building to observe that our students are taught the newest methods and have a familiarity with the most recent technologies. The geosciences, like most sciences, utilizes rapidly evolving technologies that are highly-dependent upon computer resources. Outdated equipment or software hinders our ability to teach in the modern environment.

IT Programs: Providing hands on informational technology programs requires the Jackson School of Geosciences to maintain a small staff of personnel who are experts with instructional equipment, UNIX workstations and programming, as well as the maintenance of class-related websites. Included in this are the day-to-day maintenance and testing of classroom equipment and software programs. For instance, there is a need for specialized software to display complex three-dimensional images which help to prepare the students for careers in the petroleum industry.

Infrastructure: The Jackson Geological Sciences Building has ten servers that host web, data, and shared software and licenses that are attached to a tape backup system. There is a Cisco 6500 router and eight 48-port switches in each wing that can handle either T10 or T100 bandwidths which are connected to the router with fiber. The Jackson Building is partially covered by the UT wireless network. The building has a teaching classroom with 21 desktop PCs networked to a server and a printer. This classroom is in heavy use during the long semesters with students obtaining valuable hands-on experience in creating and running computer models. The Jackson School maintains an undergraduate computer lab with 12 computers and two printers. There is a separate graduate computer lab with 20 computers, a large-format color plotter, and two printers. The Digital Morphology Visualization lab will be

coming on line in the spring of 2006. This lab will contain seven high-end PC workstations running 64-bit Windows operating systems and will host a suite of specialized 3D visualization and graphical processing software. The indirect impact of the visualization lab will be felt campus-wide by generating new teaching modules that will be used as lecture components in many of our non-major undergraduate courses.

Current and Proposed Funding Sources: The Jackson School of Geosciences was a unit under the College of Natural Sciences (CNS) for the past funding program. We are currently receiving assistance from CNS to finish the wireless network in the building. Fee funding has not been transferred to our school for the current fiscal year which leaves us unsure of the impact that the separation will have on our IT programs. We have proposed a flat rate tuition for our school in 2006-07 and await information on the amount of funds that will be returned to the school. Several of our endowments directly support graduate student programs and computer purchases, but very few are dedicated by donor intent to the undergraduate student population.

Use of Previous Academic Year Allocations

The Jackson School of Geosciences did not submit an ITAC Vision Plan for 2005-06. This was done on our behalf by the College of Natural Sciences. ITAC money was given to our unit in a budget each year based on proposal requests made to the Dean's Office. Although we did not have a ITAC Vision Plan, we did receive funding from CNS. This funding was used to fund the 1.5 FTE's of IT support staff, upgrading of existing equipment and classrooms.

Needs and Proposed Use of Funds

Infrastructure

Renovation, upgrades and security for technology classrooms:

1. Renovation of GEO 2.108, one of the first technology classrooms to be installed by CNS, which contains 21 desktop PCs linked to a server, is in high demand among the geoscience faculty conducting undergraduate classes. Renovation of the technology components in this classroom will cost around \$20,000.
2. Last year, three flat screen monitors were stolen from technology classrooms in the Geology building. Research indicates that installing Locknetics SmartLocks on these rooms prevents "thefts of opportunity" in addition to providing outstanding security and control of access for users. The department owns the Locknetics software, a card swiper and button (key fob) programmer. Purchase of 15 SmartLocks for our technology classrooms, plus door-closers, swipe cards, and key fobs are requested at a cost of \$8,000.
3. Replacement of 15-20% of the computers in our student labs / teaching classrooms and the color printer in the teaching classroom each year. This will allow us to provide geoscience graduate and undergraduate students with

a superior set of research tools in these labs and classrooms. We estimate the cost of this to be \$40,000.

4. It would not be economically prudent for the Jackson School to attempt the maintenance being currently performed by CNS for the 19 technology classrooms in the Geology building. We propose to continue to outsource this service to CNS with an estimated annual cost of \$80,000.
5. Current staff members devote approximately 1.25 FTE to keeping classroom computing facilities functioning. We request support for their salaries in the amount of \$50,000.
6. We request \$20,000 to be used to repair and replace small IT-related items and to purchase new software to be used in classrooms.

One-Time Projects—High Priority

1. Replacement of the projector in GEO 2.324 is a large auditorium that seats nearly 300 students at a cost of \$10,000.
2. Five document cameras for our undergraduate classrooms at a cost \$15,000.
3. Replacement Server Tape Drive Backup System which will allow us to cover our current computer systems at a cost of \$18,000. Our faculty and students have embraced the diverse teaching tools offered by our many technology classrooms and are using more digital methods in their own research projects. An adequate backup system will secure the information used by the entire geoscience program as well as the non-science majors served by our introductory courses. We estimate the cost of the proposed system to be around \$18,000.
4. Large-Format Color Plotter which will allow our students to prepare their presentation materials for classes and conferences at a cost of \$12,000.