New Brunswick
Advisory Committee for Instructional Computing (ACIC)

Request for Proposals for AY 2004-2005 Support

Purpose: Departmental Instructional Initiatives

The ACIC will evaluate project proposals on the effective use of the student computer fee for supporting teaching during the 2004/2005 academic year. There are two categories of proposals:

(1) New initiatives that incorporate technology into the curriculum and that enhance teaching and learning. Examples of proposals in this category are; development of departmental/unit-based technological infrastructure to support instructional innovations, Web applications to enhance classroom instruction and encourage the active participation of students in the learning process, the innovative use of networked laboratories, and applications that use smart classrooms.

(2) Renewal and upgrade of the existing computer facilities of a department or unit. The replacing and upgrading of obsolete hardware and software consist of implementing new initiatives such as in the aforementioned category, sustaining on-going innovations, supporting core courses in the curriculum, and replacing obsolete equipment in a heavily used facility.

Last year, the Committee evaluated forty-seven proposals requesting a total of $1,704,351. Thirty-six proposals received awards with a total funding of $876,5013 from the student computer fee during the 2003/2004 year. The typical range of project funding is $5,000 to $50,000.

Submission Guidelines:

Deans are requested to submit a ranked list of project proposals by February 27, 2004. A hard copy of the proposals should be provided to Executive Vice President Furmanski. The ranked list, along with dean’s comments on the proposals, must be submitted digitally in Adobe pdf format to the Teaching Excellence Center (TEC) (send to: jpd@teachx.rutgers.edu). Any dean’s office having difficulty converting the proposal to pdf format should contact the TEC for assistance. Proposals should use the outline given below: Project Cover Sheet, Project Description; Budget; Results of Prior Funding; Update of Instructional Computing Inventory. The Project Description section should be limited to a maximum of four pages, double-spaced with font no smaller than 12 point and margins of at least 0.75 inches. This Request for Proposals with cover page is on the web at: http://teachx.rutgers.edu/acic

ACIC Review Process

The ACIC review begins with the ranking and comments of proposals from the deans and directors. The ACIC evaluation is based on the responsiveness of a proposal to all of the features of the RFP, including project description, the unit/department’s commitment to implement and support the project, the appropriateness of budget, and effective use of previous computer fee allocations (if applicable). The ACIC will look favorably upon proposals that provide documentation and data of course and laboratory usage of the technology. The ACIC provides recommendations to the Executive Vice President for Academic Affairs in time for announcing awards by May 2004.
Project Cover Sheet

New Brunswick Advisory Committee for Instructional Computing (ACIC)

Proposal for 2004/2005 Student Computing Fee Funds

Decanal Unit: _____________________________               Dean’s Priority Ranking: _________

Department: ______________________________

Project Title: ____________________________________________________________________

This proposal is a: New Initiative_____               Replacement/Upgrade ________
of an Existing Facility

Faculty member responsible for design and implementation of project:

Name: ______________________ Phone: ______________E-mail__________________________

Unit Computer Specialist available for project:

Name: ______________________ Phone: ______________E-mail__________________________

Project Location (Campus: Building and Room Number)   ______________________________

ACIC request: __$________________

Departmental match: __$________________(OPTIONAL)

Project will apply to: ____________ Courses/per year; ____________ Students/per year

Brief Summary of Project (no more than 75 words):
Project Description

The Project Description should be a maximum of four pages, double-spaced with margins of at least 0.75 inches and with type font no smaller than 12 point. Please respond to each section, A through E.

A. Describe the specific hardware and software you are requesting.
   For labs or other projects with multiple workstations, provide an explanation/justification for the number of units. Explain and justify and special hardware/software capabilities needed.
   For replacement of obsolescing hardware/software: describe the age/capability of the current equipment. Except in special circumstances, a computer replacement cycle of less than 4 years is unlikely to be funded.

B. What are the specific the educational goals of your project and how will the proposed technology allow you to attain them?
   Describe the educational consequences for a student, the expected impact on learning. For replacement of obsolescing hardware/software, focus on pedagogical improvements you will introduce to take advantage of the improvements in technology.

C. Document the unit/department’s ability to implement and support the project.
   Cite relevant experiences that demonstrate the successful prior use of instructional technologies and/or provide evidence of Departmental support for this project. Describe how students will be directed to appropriate training and needed resources to be sure they can work with the new instructional technology or with enhanced course materials.
   Describe measures, already taken or planned, that will ensure and enhance computer access for students with disabilities.
   Identify the faculty and staff effort, and the budgeted resources that will be committed by the department/unit directing and providing on-going support for the project.

D. Accountability
   1. Describe the number of students that will benefit from the project and their expected contact time with the hardware and software.
   2. Describe the educational outcomes you are seeking to improve through this project. These might include academic insights, skills learned, acceptances to advanced degree programs, attainment of employment related to the discipline. Consider as well the categories outlined in the section, Documentation of Learning Outcomes. A well though out set of desirable outcomes will improve the proposal and make it easy to write the Final Report (see below).

E. Department or Unit’s existing infrastructure
   Describe existing instructional computing facilities (labs etc.) and how the requested Hardware/Software will fit into the existing facilities (replacement, enhancement, new capability etc.).
Documentation of Learning Outcomes

Technological innovations that impact student learning and teaching in a variety of ways need to be properly documented to ensure that scarce resources are effectively used. Previous Request for Proposals of ACIC have requested data that provide documentation of learning outcomes. The Teaching Excellence Center has assisted departments and units with this responsibility beginning in the Fall 2002. The ACIC will continue this initiative for departments and units receiving awards for the 2004/2005 academic year. The faculty responsible for the design and implementation of the funded projects will meet with a representative of the TEC to mutually agree on a customized documentation plan. These working sessions will be scheduled during the Summer 2004 through the Fall Semester 2004. The completed documentation plan will be part of a Final Report to the EVPAA.

There is no single approach for documenting the impact of technology on instruction. The categories of data that will be collected are briefly summarized below. A customized documentation plan would include some or all of the components as follows:

**Student Use**
Do students actually use the available technology? It is important to note that student use is not the same as student learning but may be regarded as a necessary but insufficient condition for learning from the technology innovation.

**Changes in Course Delivery**
Is course delivery different than before? Will students have different experiences (e.g., collaboration with others, conducting research, using online tools) than before?

**Student Attitudes towards Technology**
Do students find the use of technology helpful for learning course content? Would they take other web-enhanced courses? Would they take additional courses in the subject area?

**Student Attitudes towards the Course**
Do students have a positive experience in the redesigned course? What aspects of their experience are affected?

**Student Learning of Course Content**
Documenting student use and positive student attitudes towards the use of technology is important. However, the critical outcome to address is how the instructional innovation enhances student learning. Strategies for demonstrating an effect on student learning include comparisons to cohorts of students who are not using the technology, comparisons to previous iterations of the course, analyses of test content to demonstrate what is being learned more effectively as a result of the innovation. Can a relationship be demonstrated between student use of the technology and grades? Are student attitudes positively related to achievement in the course?

**Co-curricular Knowledge**
Students may learn important skills as a result of the technology enhanced course in addition to the course content. These skills or knowledge are in addition to curricular knowledge acquired in the course. Examples of such skills include improved skills in using technology that will serve students well in future courses, improvements in learning strategies (e.g., use of resources, better understanding of own knowledge states).

**Minimally-intrusive automated monitoring**
For a few large laboratories, data may be gathered by key server methods or other automated ways run on servers by unit computer specialists.
Budget Guidelines

ACIC provides only partial funding for many projects. Some units request items that are unjustifiably expensive; other units request items that are not appropriate for funding by the student computer fee. To avoid these problems, which reduce the likelihood of getting any funding at all, follow the guidelines below.

Normal Hardware and Software (PCs, Macs, Printers, Servers):
ACIC will fund normal hardware and software in fixed unit amounts. For a few items these amounts are already on the budget sheet. Use the unit numbers provided in the following table for creating a budget proposal. ACIC will consider requests for more specialized equipment if a convincing justification is provided that such configurations are essential to achieve the educational goals of the project.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Price</th>
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<tbody>
<tr>
<td>Desktop</td>
<td>$1,400</td>
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<tr>
<td>Workstation</td>
<td>$1,900</td>
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<tr>
<td>Laptop</td>
<td>$1,800</td>
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<tr>
<td>Scanner</td>
<td>$150</td>
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<tr>
<td>LCD Projector</td>
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<tr>
<td>Laser Printer</td>
<td>$2,000</td>
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<tr>
<td>Color Laser Printer</td>
<td>$3,000</td>
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<tr>
<td>Wireless APS-access points</td>
<td>$150</td>
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<tr>
<td>Wireless NICs-network interface cards</td>
<td>$70</td>
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Software

<table>
<thead>
<tr>
<th>Software</th>
<th>Price</th>
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<tbody>
<tr>
<td>Adobe Acrobat</td>
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<td>Adobe GoLive</td>
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<tr>
<td>Adobe Illustrator</td>
<td>$75</td>
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<tr>
<td>Adobe Pagemaker/InDesign</td>
<td>$162</td>
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<tr>
<td>Adobe Photoshop</td>
<td>$220</td>
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<tr>
<td>Macromedia Dreamweaver</td>
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<tr>
<td>Microsoft Office</td>
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<tr>
<td>SAS</td>
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</tr>
<tr>
<td>SPSS</td>
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</table>

For other hardware and software use the RU Computer Store prices:
Hardware: http://www.computer-store.rutgers.edu
Software: http://www.computer-store/price_list/software.htm

Workstations:
The distinction between desktop and workstation is capacity. A desktop system is for normal use. A workstation typically has twice as much RAM, much larger hard drive, one of the faster processors available. To request workstations, clearly specify the need.
Laptops:
ACIC does not fund laptops for individual users; a convincing model of shared use is required. The maximum ACIC support for laptops is $1500 per laptop.

Multi-media equipment and Classrooms:
ACIC will consider requests for LCD projectors and other “smart classroom” equipment only if the proposal demonstrates that the educational goals of the project could not be achieved by using the smart classrooms that already exist on campus.

Wireless Networking:
Some departments have installed or are planning to install wireless networks. RUCS now has wireless guidelines that all departments can and should replicate. The availability of a proven system will greatly ease the installation of new wireless nets and reduce their cost.
Contact: ruwireless@nbcs.rutgers.edu

Other technology:
Some fields require specialized hardware that allows computers to be more effectively used in instruction for the discipline. ACIC will not fund traditional lab equipment like microscopes but may support a well supported educational strategy and justification for incorporating digital items into computer based instruction.

Computers for TAs and other instructors:
ACIC does not fund computers for TAs and PTLs. However, the Executive Vice President for Academic Affairs has a pool of three-year old computers that may be requested for this purpose. An announcement of the surplus equipment is normally made during the summer months. Please note that computer laboratories for graduate student use are eligible for ACIC funding.

Staff support:
Computer Fee resources will not fund faculty release time or summer salary support for faculty. Support from technically trained students who can assist with Web-based source development is available at no charge through the Student Consulting Project, managed by Joseph Delaney, Instructional Technology Specialist at the TEC: jpd@rci.rutgers.edu.

Other expenses:
ACIC will consider requests to cover limited other expenses necessary for the successful implementation of the project. For a new project, ACIC will consider requests for one-time wages of labor expenses necessary for the development and implementation of the project. Such development costs should not be larger than 20% of the total of the funds requested. These costs may include one-time expenses for equipment set-up and maintenance. Historically, ACIC has not supported renovations, network installation, or wiring costs, and does not intend to do so this year. However, it would be useful to identify all such expenses, and briefly note how these expenses will be met.

Budget Total:
Proposal awards typically range between $5,000 and $50,000. In exceptional cases, ACIC supports projects of more substantial cost. Such projects must show exceptionally large impact across departments, schools, or disciplines.
## Budget

For hardware and software not included in the unit costs in the Budget Guidelines section use the RU Computer Store prices: [http://www.computer-store.rutgers.edu](http://www.computer-store.rutgers.edu)

Copy the budget sheet below or download the sheet from: [http://teachx.rutgers.edu/acic](http://teachx.rutgers.edu/acic)

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit cost</th>
<th>#</th>
<th>Cost</th>
<th>Match*</th>
<th>ACIC request</th>
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*Match or Unit/department contribution*

A unit/department match is optional. Where appropriate to the project, a unit/department contribution to the cost of implementing the project is regarded favorably.
Results of Prior Funding

This year, ACIC will look favorably on proposals that complete the following Results of Previous Funding section. This section has been required in previous years, but it is not required this year because we are switching to a Final Report.

Departments or units that have received funding during the last five years through previous rounds of ACIC grants are encouraged to submit a report evaluating the results of this prior funding. The history of ACIC funding is available at: http://teachx.rutgers.edu/acic/history.html

Proposals requesting funds to support replacement and upgrading of obsolete hardware and software in a department/unit-based instructional technology facility created or developed with or without prior Computer Fee grants should address Section 2 below. The Results of Prior Funding should not be longer than 2 pages double-spaced.

Section 1 applies to all prior projects. Section 2 applies only to prior projects that created or upgraded laboratories.

Section 1. Evaluation of Learning Outcomes
A. Briefly describe the goals and objectives of the prior project.
B. Have the initial goals set for the project been met successfully? Please cite specific relevant experiences that demonstrate the success of these goals, as well as evidence that student learning was improved as a result of your project.
C. Has the project supported additional innovations not included in the original proposal?
D. How does the project meet the overall instructional needs of the unit? Please provide specific examples (e.g., identify courses, by title and number).
E. For Instructional websites, what are the operating conditions (hours of access etc)?

Section 2. Information Technology Facility Access and Usage
A. Who has access to the facility and how do these individuals gain access to it?
B. How many hours a week is the facility used for classroom instruction? How many hours a week is the lab open to its users? When open, is the lab monitored by an instructor, teaching or lab assistant?
C. Provide a brief description summarizing lab usage statistics. Detailed information documenting logins, application usage and related statistics may be attached to the end of this proposal as an appendix.
D. Identify faculty and staff members (including student help) currently responsible for the day-to-day and long-term operation and maintenance of the facility. Identify budgeted resources that are currently committed by the department/unit to managing and providing ongoing support for the facility.
Final Report

ACIC proposals funded this year will be required to submit a final report by June 1, 2004. Previous ACIC RFPs requested a Results of Prior Funding section. Therefore, we are in transition between Results and Final Reports.

The Final report will consist of two sections.

1. Itemize how the ACIC funds were spent. List the hardware and software purchased and specify any other costs.

2. With the help of the TEC, prepare an assessment plan for learning outcomes. Submit the plan and up-to date results.

Funded proposals will submit the Final Report to the EVPAA by June 1, 2005.