University Instrumentation Center
Annual Report FY13

Mission Statement:
To support the University through service and scholarly activities surrounding the use of research and instructional equipment

UIC Vision:
The University Instrumentation Center’s vision for the future is to fully realize our mission to support the research initiative through collaborative efforts across departments and colleges with quality staff and state of the art instrumentation.

UIC Description:
The UIC business operations fall into two main categories, Analytical Instrumentation Services and Engineering Support Services. Analytical Instrumentation Services is the training in and use of sophisticated scientific instrumentation to support the research and instructional communities. The users include on-campus research and teaching professors, graduate and undergraduate students, other academic clients across the University System as well as industrial customers and other academic and government institutions outside of USNH’s campuses. Our Engineering Support Services are used by many clients across the System Campuses as well as some local government institutions for the maintenance and upkeep of general laboratory equipment and small engineering projects. The UIC provides these services to academic and governmental institutions at a nominal fee where applicable to cover staffing, maintenance, and upkeep of the instruments and to supplement the funding from the Office of the Senior Vice Provost for Research.
Executive Summary:
This year marked the UIC’s 40th year as a center on campus. In Parsons Hall, where our main office is as well as many of our instruments, the renovations were finally completed and marked with a rededication of the building on May 31st. It has been an exciting time for all of us especially those moving back in to see the final product after so many years of planning and construction.

The UIC staff worked on internal marketing this year making presentations to faculty, staff, and students in the departments of MCBS and DBS in COLSA. I also made a presentation to Sponsored Programs Administration to educate them on our resources, so they may in turn help researchers know what resources are available on campus.

In October of this past year the Scientific Instrumentation Inventory Database (SII) was rolled out for the instrument custodians to verify the integrity of the data. Our hope is that the SII will become a very valuable tool for researchers for locating acceptable existing equipment on campus, as well as for establishing possible cross pollination of ideas, forming collaborations, and the dissemination of instrument techniques and usages from researcher to researcher.

In keeping with our instrument upgrade plans, this year the UIC purchased a new computer and software for the 500 MHz NMR. They are being installed and tested and should be functional soon. We have also begun looking at adding a digital camera to the Confocal Microscope and hope to have it up and running in the fall.

Upon recommendations from an internal advisory panel for the UIC, the Senior Vice Provost started a search for a new director this past summer. Several candidates have been brought to campus to be interviewed by various faculty, staff and UIC personnel. We hope to have this position filled very soon.

Financial Summary:
This year the UIC was able to place some money back into the plant fund for future use towards instrument repairs and upgrades from our auxiliary account. Our income streams still remain below expectations, but so did our expenses for the year. This year our income was about a 50% split between internal charge backs and external charges for instrument usage and services. The external portion of the income grew over 15% as compared to the average of the last three fiscal years. This is a marked turnaround from the sudden drop in outside usage from the recession. However our internal charge backs for services and instrument usage dropped this past year to the lowest level in the last seven fiscal years. Our overall budget is still heavily subsidized by the SVPR office at about a 70% level. This continued support allows us to maintain our high quality of expertise in the instruments and services that we offer through these economically challenging times.
Instrument and Service Usage:

Instruments:
There were noticeable shifts in UNH instrument usage again this year with many increases. The UV-Vis usage was higher than it was in the last three years combined and the SEM usage was 34% higher than last year. Other instrument usages by UNH personnel that were up over last year were the Flow Cytometer, the FT-IR, and the XPS. Externally, the TEM usage was more than double last year’s usage and more than the last three years combined. This year we also upgraded the software and computer on the 500 MHz NMR and are looking to add a digital camera to the Confocal Microscope.

Customers:
The UIC worked with 17 different outside clients adding four new industrial customers this year. Internally, we have served around 90 different faculty and staff from over 20 different departments and centers including CEPS, COLSA, the Leitzel Center, EOS, Health Services, and the Cooperative Extension.

Teaching:
This year our instruments were used in the following courses at UNH; BIO411, BIOL444A, BMCB605, CHEM756, CHEM775, ME651, ME731, NR782/882, NR795, and PHYS506.

Engineering Services:
Engineering services consists of repair and service to equipment, pipette calibrations, balance calibrations, temperature calibrations, preventative maintenance of instructional lab equipment, and LabVIEW software, support, and installation. Our repair and engineering services were utilized by many different faculty, staff, and labs across campus again this year. There were over 190 non UIC repairs and 159 pipette calibrations and one major non UIC project this year. These repairs resulted in a savings of over $344,000 for the university based on industry minimums and technician charges for typical instrument repairs. Couple this savings with instrument savings in the UIC and savings on not having service contracts and the UIC has again saved the University close to a million dollars in service and repair this year.

Respectfully Submitted
John Wilderman
UIC Manager