

Policy on Use of Major Research Instrumentation*

D.B. Williams, 8/8/02

Lehigh researchers are responsible for operating >100 major instruments which are valued at ~ \$20 million. To expand, or even to maintain, this suite of sophisticated instrumentation requires cooperation across colleges, departments, centers and institutes, a commitment to sharing these resources and a long-term financial and maintenance plan.

Principles

a) Ownership All instrumentation housed in a university facility (whether the university supplies cost sharing dollars or not) belongs to the university and is listed on the university inventory. One good reason for this is that if the equipment is damaged (e.g. by fire or water, or even by misuse in some circumstances) then it is covered by the university insurance.

b) Responsibility All major instruments must have a faculty member designated as ultimately responsible for overseeing and maintaining the equipment. If the instrument is part of a larger facility/laboratory then the responsibility falls on the director. Depending on the scale of the laboratory, a larger group of faculty could act as an advisory board, or as associate directors. Senior-level technicians, research scientists/engineers reporting to the faculty member may be in charge of the day-to-day operation/maintenance but ultimately a faculty member must be responsible, both technically and fiscally

c) Access University research equipment must be made available to other researchers on campus on a “first come, first served” basis. This does **not** mean that anyone can use any instrument at anytime, but there has to be access to any faculty, staff or student who is capable of operating the equipment responsibly and able to pay (*see section on finances*).

d) Training To facilitate broad access, there needs to be a mechanism in place to train potential users, either via an appropriate for-credit undergraduate or graduate course if the instrument warrants such in-depth treatment, or via smaller, focused workshops, or simply hands on training by the responsible faculty/staff member. More users mean more income and a continuing need to upgrade and replace the instrument.

Finances

The NSF (and many other agencies which fund instrumentation) require that a maintenance plan to be included in the equipment proposal and the responsible faculty member needs to insure that all major instruments will be properly maintained and appropriate accounts created and monitored.

Internal use charges/maintenance account. All major research instruments need to have a use charge that feeds into a maintenance account. If the equipment is obtained from Federal sources there are specific requirements mandating that the Federal Govt. grants be charged the minimum amount. Typical use charges may range from \$5-\$75/hour (if an hourly rate is appropriate) depending on the value of the instrument, but charges should be sufficient to cover any service contract from the manufacturer if such is available (typically valued at 10% of the initial purchase price) plus the support of any technician/research scientist/engineer with responsibility for servicing the instrument.

**Arbitrarily designated as costing > \$50,000 (list attached)*

All users of the instrument must include use charges in their research proposals in order to keep the maintenance account viable. This policy does **not** mean that researchers cannot use the instrument if they have no money. Arrangements can always be made to help new professors get data for their first research proposals and there can also be arrangements such that, if all the grant allotment is spent, a regular user can still get access to the facility, assuming the budget was reasonable in the first place. In the end, the maintenance costs have to be covered and this is the responsibility of the faculty member. When there are special maintenance needs (beyond routine air handling, heating, cooling, electric supply etc.) they are the responsibility of the research unit. The Center/Institute or Lab. director should build the cost of repair and/or replacement into their maintenance and reserve accounts.

External usage. Users from outside organizations may buy time on instrumentation at a significantly higher rate (~ 10-20X the internal rate). Access to equipment via liaison programs may be justified at some rate intermediate between the internal and external rate. Any income above the base internal Lehigh rate should be channeled into a reserve account, thus building up cash to help with future upgrades or maintenance above and beyond routine levels covered by the maintenance account. It is also an NSF requirement that external use of the instrument cannot be offered if there is equivalent equipment available at commercial laboratories (NSF special Notice #91). Lehigh adheres to this policy for ALL instrumentation.

Teaching: Research instrumentation should always be considered for use in training/teaching where relevant and, as instrumentation becomes obsolescent, it can be moved to undergraduate teaching labs. If the research equipment is used for teaching, the university is *required* to pay for time, at a rate not less than that charged to Federal grants. This concept needs to be understood by any Department Chair who might be interested in incorporating the equipment in undergraduate or graduate courses. If the instrument is no longer used for any research, then the charge may be reduced or removed.

Summary

All major university instrumentation must have a designated faculty member responsible for operation, access, maintenance and financial viability. The equipment must be available to other Lehigh researchers, and available to external users at appropriate rates so long as federal regulations are satisfied.