

Physics Instrument Shop

Job Submission and Queuing Policy

September 1, 2007

The Shop Manager has sole responsibility for the scheduling of jobs, and determining when the drawings and instructions provided are sufficient for the job to be scheduled. In order to facilitate the management of the shop, the following policies are established:

1. Jobs are not considered ready to be scheduled until the shop has all necessary information for the job, including:
 - (a) Name of customer: _____
 - (b) Budget Number: _____
 - (c) Drawings and instructions that clearly define the work to be done, the materials to be used, the tolerances, and the quantities required. (See Item 10 below.)
 - (d) Please refer to the Instrument Shop Work Request at
<http://www.phys.washington.edu/facilities/shop/>
2. Users are strongly encouraged to consult Instrument Makers to make sure proposed designs are practical. However, Instrument Makers must not be asked to do detailed engineering design work. The Shop Manager can help faculty find qualified consulting engineers if needed.
3. Revisions to working drawings and specifications which (in the opinion of the Shop Manager) cause a significant increase in shop time required, may cause the job (or the revised segment of a large job) to be considered newly submitted.
4. Advance notice of jobs to be submitted is always appreciated, but it is not possible to reserve a place in the queue. In cases where it is absolutely necessary for working drawings to be submitted a short time before the job is to begin, special arrangements with the Shop Manager must be made in advance, and no estimate of delivery time can be made until the drawings are ready.

5. At the discretion of the Shop Manager, small jobs (or portions of large jobs) may be rescheduled to take advantage of gaps in utilization of personnel or machines with special capabilities.
6. No single user or research group may tie up essential shop resources for an unreasonable length of time (as determined by the Shop Manager). Therefore very large jobs (or groups of small jobs submitted in a batch) may be worked on in segments, at the discretion of the Shop Manager.
7. Faculty must not make commitments for delivery of shop work to collaborators or agencies without prior consultation with the Shop Manager. The Physics Shop has no obligation to meet such commitments.
 - (a) When faculty members submit proposals to agencies or collaborations that include commitments for shop work, they must consult the Shop Manager for comment and an estimate of hours required. This requires that at least preliminary design information to be on hand.
 - (b) The Department Administrator will not permit department approval of proposals until this procedure is completed. Approval of a proposal does *not* queue the job, however.
8. The Shop Manager may, at his discretion, use outside shop services in cases where emergency needs cannot be met in-house. In such cases, the client will be assessed any extra charges.
9. Faculty have the option of requesting overtime work to get a job finished more rapidly. All overtime work will be billed at the full-unsubsidized rate, plus overtime cost for labor. Instrument Makers work overtime at their discretion and may not be required to do so.
10. Submitting working drawings:
 - (a) CAD models submitted in formats used by the shop (SolidWorks, Unigraphics) will save shop hours which would otherwise be required for job preparation. They also add clarity to the design and are much appreciated by the shop. However, they do not include all needed design elements such as tolerances, materials, and quantities.

- (b) A usable working drawing *must* include tolerances (which strongly influence shop time required) as well as material specifications, in addition to defining shapes and dimensions. Consult the shop staff for practical advice and reality checks regarding your tolerances and materials choices. Perhaps you do not actually need 0.0001” precision on all dimensions, and stainless steel could be used instead of titanium!
- (c) If all necessary information is provided, even the legendary back of an envelope can qualify as a working drawing, but time estimates and queueing cannot be done without full specifications. On the other hand, a beautiful SolidWorks file with no tolerances specified is incomplete.

The Shop Manager has been instructed to refer faculty who have unresolved concerns about the status or progress of their job to the Technical Services Liaison. It is not appropriate for faculty to lobby the Shop Manager directly for any special consideration or service. If your needs have been clearly communicated to the Shop Manager and you are not satisfied with the response, contact the Technical Services Liaison.