



## Research Job Function

# Experimental/Research Machinist II

Grade 53

### Summary

Performs precision work in the development, construction, repair, and assembly of experimental and scientific equipment. This includes translating ideas originated by scientists/engineers into informally designed working models. Requires the use of considerable inventiveness, structural visualization, and creative ability.

### Typical Duties

1. Performs skilled work in set up and operation of all standard metal working machine power tools, hand power tools, and hand tools to shape, fabricate, and install mechanical parts or assemblies.
2. Understands the properties and skillfully works engineering materials which includes steel and copper alloys, as well as refractory metals and plastics, wood, and epoxy resins.
3. Finishes above mentioned materials to microtolerances where required.
4. Makes skilled use of fastening, joining, and sealing techniques such as soft and hard soldering, brazing, and welding, and cementing and adhesive.
5. Works extensively from rough sketch, verbal instructions, or self-drawn informal designs as well as occasionally from machine drawings.
6. Organizes own working procedure and initiates stock procurement.
7. Works closely with scientists, engineers, and technicians to fabricate special parts and equipment, recommending material and design changes when necessary.
8. May informally instruct safe shop practice and practical design to non-shop personnel.
9. Performs related job duties as required.

### Typical Requirements

*Education:* Technical school training beyond high school or equivalent proven experience.

*Skills and Experience:* Eight or more years of experience as all-around machinist, with demonstrated initiative, inventiveness, and mental, visual, and creative ability to work from ideas.

Note: This is a model job description reflecting a sample of typical duties. It is intended to suggest a general level of skill and complexity and as such is not a substitute for the local, specific descriptions for individual jobs.

Other [HUCTW generic job descriptions](#) can be found in HARVie's Union Contracts section.