NATURE OF WORK

This is skilled work in the design, construction, modification and repair of apparatus and equipment required for teaching and research purposes.

Employees of this class perform or supervise activities in the construction, modification and repair of apparatus and equipment required for teaching and research purposes. Work requires the performance of machining, welding, fitting and assembling of metal, wood, plastic and glass components and also includes the installation and maintenance of various mechanical equipment. There is also the requirement to prepare and interpret drawings, blueprints and/or specifications to order supplies and parts and to maintain reference materials. This series differentiates from that of the Technologist series by the primary requirement to provide technical services in the design, construction and modification of apparatus and equipment to medium and precise tolerances. Supervision may be exercised over trainees and/or subordinate technical staff. Work assignments are received from a technical or administrative superior and work is reviewed through inspection or discussion and observation of results obtained.

ILLUSTRATIVE EXAMPLES OF WORK

Designs and constructs varied apparatus and devices; tests models for experimental, instructional, research and operational purposes which may involve machine work, welding, sheet metal fabrication or glass blowing.

Plans, directs and coordinates the general activities of a workshop or facility providing for technical support for teaching, research, experimental or related purposes; directs and coordinates the work of technical personnel; drafts and maintains policies and procedures as pertaining to work schedules and staff rotation; oversees and maintains staff levels in accordance with workloads of various sections.

Participates in the interview and appointment of technical personnel; provides instruction to subordinates; prepares and maintains work schedules; evaluates performance of subordinates and equipment; performs other personnel management duties.

Interprets drawings, oral and/or written proposals; estimates the cost of proposed projects; charts work progress; maintains records and quality control; prepares and maintains workshop budget; selects and orders equipment and supplies.
Operates, uses and maintains machines, tools and equipment related to the work and applies workshop methods, procedures and special techniques; performs work to medium and fine tolerances as required.

Maintains up-to-date technical and commercial information in ready reference for subordinates.

Maintains work area in neat and orderly condition.

Perform related work as required.

REQUIREMENTS OF WORK

The minimum requirement for entry into this series is experience as a journeyman; graduation from high school supplemented by the successful completion of an approved apprenticeship program in the field of assignment; or any equivalent combination of experience and training which provides the following knowledges, abilities and skills:

Knowledge of standard practices and methods, materials, tools, processes and procedures of the field of assignment.

Knowledge of user mechanical equipment and systems in the area of assignment in order to implement modification procedures.

Knowledge of the maintenance and repair of shop tools and equipment.

Knowledge of the hazards and safety precautions involved in the work.

Ability to work from mechanical drawings, plans, blueprints, sketches, models and oral and written instructions and to exercise judgement in determining the techniques and methods.

Ability to establish and maintain effective working relationships with faculty members, staff, supervisors and research personnel.

Skill in the care and use of tools and equipment common to the assignment.

Possession of a journeyman certificate or equivalent issued by the Province of Newfoundland and Labrador where applicable.

At higher levels, an increasing degree of experience and formal training is required.