

DALHOUSIE UNIVERSITY
JOB EVALUATION MANUAL

GROUP B – TECHNICAL

FACTOR 1

FORMAL EDUCATION AND TECHNICAL KNOWLEDGE

Basic Definition: This factor measures the job requirements in terms of the intelligence, practical knowledge, or formal education required as a basis for satisfactory performance of the work involved.

Technical knowledge may be acquired either by formal education, continuing education, or equivalent experience.

1 year of formal education normally equates to 2 years of “on job”.

Education Requirement	Definition	Points
Less than Junior High		15
Completed Grade 10	Follow written or oral instructions. Requires the ability to read and write and perform simple arithmetical calculations such as adding, subtracting, multiplying and dividing.	25
Completed Grade 11	Read simple drawings or specifications, use of simple measuring instruments, i.e. micrometers, calipers, indicating and recording meters. Use of conversion charts; and work to detailed procedures or systems.	50
Completed Grade 12 academic or technical school equivalent. (also includes one-year training programs post high school)	Interpretation of fairly complicated drawings or specifications and ability to follow fairly complicated process or procedure requiring some technical knowledge. Use of mathematics such as elementary algebra and geometry. Use of a wide variety of precision measuring instruments or devices where interpretive readings are required.	75
Grade 12 academic or technical plus 2-4 years formal apprenticeship training or its equivalent in technical training.	Requires the ability to follow and interpret complicated drawings, specifications to follow complicated scientific processes or procedures. Use of advanced mathematics, handbook formulae, a wide variety of precision measuring instruments, and complicated electronic or mechanical test devices.	100
Graduation from an Institute of Technology (e.g., R.T.) or University Bachelor Degree.	Requires education and training in a highly skilled technical field. Requires technical knowledge sufficient to deal with complicated mechanical, electrical or technical problems. Applies basic engineering or scientific knowledge to the solution of problems associated with own or related work.	125
‘Honors’ degree, Masters degree or over 4 years’ specialized schooling or equivalent.	A variety of duties requiring the investigation of scientific facts or engineering methods to expand the general knowledge of a field and/or develop technology.	150

FACTOR 2

EXPERIENCE

Basic Definition: This factor measures the length of time on related work in job training required to learn the job duties involved, and to be able to perform such duties in the minimum acceptable manner after basic knowledge has been obtained. Credit is given for experience gained while on formal “on job” training programs.

Formal education specifically related to the job requirement can be given experience credit dependent on course content of practical training.

Consider only such time as required to learn to perform the job satisfactorily on the basis of continuous progress rather than elapsed time. Any time spent due to lack of job opportunities should be excluded from consideration.

Definition	Points
Up to and including three months.	10
Over three months up to one year.	15
Over one year up to three years.	30
Over three years up to five years.	45
Over five years up to eight years.	60
Over eight years.	75

FACTOR 3

ANALYSIS AND JUDGMENT

Basic Definition: This factor measures the relative difficulty of the work assignment in terms of the analytical ability and judgment which must be used by an employee with the required degree of formal education or technical knowledge and relative experience in deciding the course of action to be followed. The levels are determined largely by the type of work operations, the subject matter involved and the extent to which precedents or detailed instructions are available.

Analysis is considered to be the identification of relevant information or conditions and the breaking down of such data into its components. Judgment reflects the reasoning required to decide the course of action to be followed once the components of the problem have been identified and appraised. When decisions are required, it is assumed that the employee, in arriving at the proper course of action, is guided by job instructions for established precedents.

Definition	Points
Work items which require a small amount of analysis and course of action is specified.	10
Analysis of readily identifiable information or conditions with a narrow range of choice of action.	20
Analysis of readily identifiable information or conditions with decisions as to course of action.	30
Analysis of a variety of information or conditions which contain elements of an involved nature with decisions as to course of action.	40
Analysis of a variety of complex information or conditions involving application of the general principles of a specialized field of work and decisions as to course of action on problems of a non-recurring nature.	50

FACTOR 4

PHYSICAL EFFORT

Basic Definition: This factor measures the overall average demand for physical effort such as standing, walking, lifting and carrying moderate loads, operation of technical apparatus which involves manipulative effort.

Definition	Points
Work requires light physical effort, assuming most of the work will be done in a normal sitting position but it is recognized that there may be a reasonable amount of activity such as moving about, handling of books and records and operation of technical apparatus.	5
Work requires moderate physical effort.	10
Work requires heavy physical effort.	20

FACTOR 5

MENTAL EFFORT

Factor Definition: This factor measures the overall average demand for intensity of mental application, as indicated by the degree of concentration, or close attention required for satisfactory performance of work by the frequency with which time limits or peak loads must be met.

The award has no connection with the difficulty or complexity of the assignments or the physical efforts required since these requirements are measured under other factors.

Definition	Points
Average demand is light. Such work may include some periods of sustained application required to meet time limits or peak loads.	5
Average demand is moderate, as required in jobs involving operations where time limits are in force almost constantly.	10
Average demand is heavy, requiring constant mental attention, where time limits and concentration are constant in carrying out duties.	20

FACTOR 6

ACCURACY

Factor Definition: This factor measures the requirements of the job for accuracy, in terms of the effect on University efficiency of errors which can result from the employee's failure to exercise sufficient care in performing his or her duties. When the work is checked/verified, either as a specialized operation or as part of a subsequent operation, the credit for accuracy is given to the job which carries the assigned responsibility for verification.

Ratings are based on the normal effect of the most serious probable error in the job rather than on the cumulative effect of a series of such errors. In some jobs, however, an error in judgment may cause recurring errors in subsequent work and in these cases the cumulative effect should be considered.

Errors causing delay or inconvenience only to the employee making the error, or errors which are possible but highly unlikely, are not recognized in the assignment of points under this factor.

Definition	Points
Errors causing minor delay, confusion or material waste.	5
Errors having a moderate effect, such as those which result in irritation or inconvenience to the University, employees or others.	10
Average.	15
Errors having a somewhat serious effect such as those which result in considerable irritation or inconvenience to the University, employees or others, may involve considerable loss and/or damage to equipment/University property.	20
Errors having a serious effect, such as those which result in extreme irritation or inconvenience to the University, employees or others, may involve severe loss/damage to equipment and University property.	25

FACTOR 7

HUMAN AND/OR BUSINESS RELATIONS

Basic Definition: This factor measures the assigned responsibility for exercising tact, self-control and persuasiveness in oral or written contacts, as determined by the job requirements for exchanging information, making explanations or reaching agreements.

When a job receives an award under the factor “Responsibility for Direction of Others” the responsibility for business relations with the employees under instruction is covered under that factor.

Definition	Points
Ordinary courtesy and effectiveness in dealing with others to maintain a satisfactory working relationship.	0
Occasionally delegated responsibility for communicating with others. Requires sufficient tact, self-control and persuasiveness to deal with involved discussions, explanations or agreements.	10
Frequently delegated responsibility for communicating with others including those outside the University. Requires sufficient tact, self-control and persuasiveness to deal with involved discussions, explanations or agreements.	15
Understanding and/or influencing people on important considerations, requiring exceptional tact and courtesy.	20
Continuing responsibilities in understanding and/or influencing people on important considerations, requiring exceptional tact and courtesy is required (includes negotiation of contracts and/or tenders).	25

FACTOR 8

CONFIDENTIAL INFORMATION

Basic Definition: This factor measures the requirement for using confidential information, the inadvertent or indiscreet disclosure of which might prove costly or affect adversely the University, its employees, or others.

Credit is only given under this factor when the assignment includes working with confidential information in such a manner that recognition is certain and there is some opportunity for disclosure. No credit is given for infrequent use of, or unauthorized access to such information.

Definition	Points
Not required to work with confidential information.	0
Required to work with confidential information, the disclosure of which would cause embarrassment or severe annoyance to the University, its employees, or to others e.g., medical and personnel records, including medical reports, credit information, details of personal circumstances, student appraisals, examination marks, etc.	5
Required to work with highly confidential information concerning University operations, the disclosure of which would cause serious embarrassment or cost to the University e.g., access to (including preparation of) examinations, detailed knowledge of University budgets and other financial matters where disclosure might cause adverse publicity, access to highly confidential matters dealing with performance evaluations, promotions, appointments, etc.	10

FACTOR 9

DIRECTION OF OTHERS

Basic Definition: This factor measures the extent of the assigned responsibility for the supervision or direction of other employees in terms of the job requirement for planning, assigning and co-coordinating the work of other jobs and instructing employees. Also may include the responsibility for the safety of other technicians.

Definition	Points
No supervisory or teaching responsibilities.	0
Normally does not supervise, but might occasionally train another employee to perform a task or may have some supervisory authority over a small group for short periods of time as well as occasional responsibility for safety of others.	5
General supervision in which the employees being supervised assume responsibility for their work. Employees know the routine work details and performance standards of the jobs. Some may make work assignments to others and supervise potentially hazardous experimental equipment.	10
Close supervision of a group of employees involving the assignment of a variety of routine duties giving frequent instructions, checking and handling routine work and personnel problems. Responsible for maintaining satisfactory performance standards. Responsible for maintaining and controlling safety standards in the laboratory.	20
Personal supervision of a group of employees performing work which may vary from routine to non-routine. The nature of the work supervised usually requires the use of judgment and initiative by subordinates, e.g., training new employees, screening applicants, making recommendations regarding hiring or firing personnel.	30
Direction of the work of others and this may be extended to other departments. Establishes standards of performance and policies of a general nature. Makes work assignments to employees with a variety of skills. Assigns objectives to be accomplished rather than setting specific methods for doing the job. Responsible for department safety standards, delegation of duties to others regarding safety norms and responsibility for the proper control of equipment that may require replacement or repair if it jeopardizes the safety of employees.	40

*Duties of Teaching, Training, Demonstrating, etc. to be considered on the basis of its relative importance, percentage of time, etc. as required by the position being evaluated.

FACTOR 10

HAZARDS

Factor Definition: This factor measures the hazards, both accident and health, connected with or surrounding the job, even though safety devices have been installed and safety regulations are observed. Consider the material being handled, the work position and frequency of exposure to accident.

Definition	Points
The probability of accident or health hazard is very slight. Injury is unlikely and regarded as unusual. Work with lightweight materials or where moving parts are well guarded.	0
Accidents if they occur are limited to injuries such as abrasions, cuts or bruises, foreign body in the eye; but requiring only first aid treatment. Health hazard negligible.	5
Exposure to accidents requiring medical or surgical attention, such as: broken bones, serious eye injury, skin irritations, first degree burns or exposure to occupational disease not incapacitating in nature.	10
Exposure to severe accidents requiring medical or surgical attention, such as: impairment of vision, severe burns.	20
Exposure to accidents or occupational disease which result in total disability or death. Nature of work requires extreme care on part of the employee.	30

DALHOUSIE UNIVERSITY

TECHNICAL CLASSIFICATIONS

LEVEL	POINT RANGE	CLASSIFICATION
T-1	Up to 130	Technical Assistant
T-2	135-155	Technical Assistant
T-3	160-180	Technical Assistant
T-4	185-205	Technical Assistant
T-5	210-230	Technician
T-6	235-255	Technician
T-7	260-280	Technician
T-8	285-320	Technician
T-9	325-345	Technologist
T-10	350 and Over	Technologist

PAY EQUITY

LEVEL	POINT RANGE	CLASSIFICATION
DA-1	185-205	Dental Assistant