

**THE UNIVERSITY OF WESTERN  
ONTARIO**

**Technical Job Evaluation Plan**

Technical Plan Structure

<u>No.</u>	<u>Factor</u>	<u>Minimum Points</u>	<u>Maximum Points</u>	<u>Factor Weight</u>	<u>No. Of Degrees</u>
I	Job Knowledge (a) Education (b) Experience	30	300	30%	72 (9) (8)
II	Initiative	15	150	15%	6
III	Complexity/ Judgement	15	150	15%	7
IV	Impact on Results	15	150	15%	8
V	Supervision of others a) Scope b) Character	15	150	15%	35 (grid) (5) (7)
VI	Efforts/Demands	5	50	5%	4
VII	Contacts	5	50	5%	4
Totals		100	1000	100%	136

## TECHNICAL JOB EVALUATION PLAN

### I **Job Knowledge**

This factor measures the minimum knowledge required to permit an individual to learn and perform satisfactorily the work of a position. It consists of two Elements which must be considered together.

A) **Education**: Measures the minimum level of preliminary formal education and/or specialized training necessary to do the work on the position, and

B) **Experience**: Measures the total relevant work or career experience gained in this and previous jobs in order to do the work of the position, presuming the educational background identified under the first Element.

## (A) Education

<u>Degree</u>	<u>Description</u>
1.	Requires basic language and arithmetic skills.
2.	In addition to basic language and arithmetic skills, requires some training in simple technical procedures or manual techniques.
3.	Requires completion of vocational secondary school level training directly related to the job's functions, or a general program enabling expectation of on-the-job training.
4.	In addition to the requirements of 3. Above, requires some post-secondary training in a program of one year or less to refine/acquire skills applicable to the position.
5.	Requires completion of a two-year College program.
6.	Requires completion of a 3 year College program, or a general (3yr) bachelors' degree in a related scientific or technical discipline.
7.	Requires completion of a four-year Honours degree (or equivalent) in a related scientific discipline.
8.	Requires completion of a Masters level program in a related discipline.
9.	Requires theoretical background acquired through study at the Ph.D. level.

## (B) Related Experience

<u>Degree</u>	<u>Description</u>
1.	None: the position requires no previous experience in any of the facets of the job.
2.	
3.	Limited: The position requires some experience in some of the facets of the job beyond that gained through the completion of a relevant educational program: e.g., some basic supervisory experience (in the “lead” or “assistant” sense), demonstrated ability either to organize part of a large project and/or carry out small projects with limited supervision.
4.	
5.	Moderate: The position requires substantial experience in most facets of the job beyond that gained through the completion of a relevant educational program; e.g., experience in the design and/or repair of sophisticated equipment, supervisory (in the “immediate” sense for a small work group) experience, demonstrated ability to organize and carry out a large project necessitating the co-ordination of junior technical staff and/or staff in other units.
6.	
7.	Extensive: The position requires proficiency in all facets of the job beyond that gained through the completion of a relevant educational program: e.g., previous direction of a ‘service’ or research unit, mastery of the application of scientific theory and/or sophisticated technical procedures in the development and/or design of complex protocols, apparatus, etc., or the co-ordination of diverse resources in the achievement of a broad unit, department, or project objective.
8.	

## KNOWLEDGE POINTS

### EDUCATION DEGREES

EXPERIENCE	1	2	3	4	5	6	7	8	9
	1. None	30	40	60	80	110	140	160	190
2.	35	45	65	85	115	145	165	195	215
3. Limited	45	55	76	95	125	155	175	205	225
4.	55	65	85	105	135	165	185	215	235
5. Moderate	70	80	100	120	150	180	200	230	250
6.	85	95	115	135	165	195	215	245	265
7. Extensive	105	115	135	155	185	215	235	265	285
8.	120	130	150	170	200	230	250	280	300

**II** **INITIATIVE**: This factor measures the extent to which the operational environment of the job requires and permits independent action and/or problem resolution, as governed by the proximity of any or all of: direct personal supervision, controlled by the work flow sequence, or the existence of established methods, procedures, rules and/or practices.

<u>Degree</u>	<u>Description</u>	<u>Points</u>
1	<u>Detailed</u> : Performs assigned tasks in accordance with specific procedures or detailed instructions; how the work is done, and progress made are frequently checked by supervisor; works on short assignments referring questionable items to supervisor.	15
2	<u>Controlled</u> : Proceeds alone on routine tasks following standard practice or established procedure. Periodic check over specific details of work. Refers all significant deviations to supervisor.	26
3	<u>Generally Regulated</u> : Works with considerable functional independence and completes most assignments without reference to supervisor. The details of performing a given task are usually left to the employee as long as he/she operates within established methods. Refers only unusual problems with supervisor.	53
4	<u>Defined Objectives</u> : Works from general methods and objectives. A definite objective is set by the supervisor and the individual is left to go ahead, in conformity with methods and standards widely accepted either within that unit, the University or in that occupation. It is expected there will be need for discussion as to the general phases of the work, but not the specific details. Handles situations remote from supervisor requiring immediate decisions governed by the limitations of the assignment.	90
5	<u>Broad Objectives</u> : Independent work on broad general assignments with responsibility for planning of all associated activities, limited only by policy or accepted scientific theory or practice or University policy. Takes action without reference to supervisors, except when problems involve a significant departure from accepted scientific methodology. Displays creativity in development of assigned projects.	128

- 6      Consultative: Work relating to the broader objective and plans of the project or to technological activities requiring a clearly recognized level of sophistication and expertise. Generally self-initiated work checked only through consultation with others rather than by directives from supervisors.      150

**III COMPLEXITY/JUDGEMENT:** This factor measures the variety and difficulty of the duties performed in terms of both the number and diversity of the tasks, methods, procedures, and/or techniques used and the nature of the obstacles encountered, and also assesses the extent to which acquired knowledge is used to resolve the likely problems encountered.

<u>Degree</u>	<u>Description</u>	<u>Points</u>
1	<u>Routine:</u> Work is routine, uncomplicated. Employee normally has little choice of action as detailed instructions cover most situations.	15
2	<u>Semi-Routine:</u> Work conforms closely to established procedures and/or routine. Makes minor choices affecting the sequence of work rather than the accuracy or quality.	23
3	<u>Standardized:</u> Work mostly standardized but involves some variety. Requires choice of action within limits well defined by standard practice or instructions. Decisions affect sequence of work, and to a limited degree, the quality, accuracy or utility of results.	30
4	<u>Varied:</u> Work involves variety of activities. Requires judgement in dealing with deviations from accepted standards, regulations, precedents or techniques. Works toward well-defined, specific objectives, occasionally adapting methods as required to meet variations in the controlling conditions.	60
5	<u>Diverse:</u> Work of considerable diversity requiring judgement in meeting new or unusual situations and modifying procedures. Work governed only generally by established methods, procedures, precedents, and techniques. Jobs may exhibit limited design activities under guidance of more senior staff, faculty and/or senior-level students.	83
6	<u>Adaptive:</u> Work governed generally by broad instructions, objectives and/or policies. Usually involves frequently changing conditions and problems. Requires considerable judgement to apply factual background and fundamental principles in developing approaches and techniques for the solution of problems. Jobs usually involve precision design responsibilities, working with rough concepts provided by faculty or post-graduate students.	113

7            Creative: Work requires analysis of broad technological            150  
or administrative problems, the planning of various  
interrelated activities, the co-ordinating of effort of  
substantial units or organization, or the resolution of new or  
conflicting scientific procedures, techniques, etc. Employee  
works out programs and approaches to major problems  
and, in general, performs activities where established policies  
and/or principles are inadequate to determine procedure.

**IV** **IMPACT ON END RESULTS:** This factor measures the extent or degree of accountability exercised by a position for such matters as productivity, technical precision and integrity, “goodwill”, the safety of others, financial resources, etc., as indicated by any negative impact within these criteria which could reasonably occur as a result of an honest error, rather than through carelessness or a betrayal of trust (i.e. errors which are probable despite due care, NOT ones which are only theoretically possible).

<u>Degree</u>	<u>Description</u>
1	<u>Minimal:</u> Procedural errors, readily detected in normal course of work by standard checks, primarily requiring own time to correct, usually with minimal loss of goodwill among peers/colleagues.
2	<u>Minor:</u> Procedural errors, requiring effort by others to trace and correct, resulting primarily in minimal workflow/project delays, and/or where some embarrassment requiring an apology is in order.
3	<u>Awkward:</u> Procedural errors, causing visible delays and/or disruptions to related or succeeding operations, faulty information or product, embarrassment or difficulty to users and/or where expressions of concern to, and verbal apology by, the supervisor are likely.
4	<u>Serious:</u> Errors are probably ones of judgement (rather than mechanical); may reflect incorrect estimates, insufficient analysis, missed external deadlines, breaches of confidentiality, etc., which may jeopardize meeting project, departmental, and/or University obligations, cause departmental embarrassment, and warrant written apology from supervisor.

## IMPACT ON END RESULTS

		MAGNITUDE	
Degree	Description	POINTS	
		Weak to Moderate	Strong
1. Minimal	applies to the complexity of the procedures being followed.	15	26
2. Minor	in addition to 1. Above, considers the number of "others" potentially involved in correcting the error.	38	53
3. Awkward	in addition to 2. Above, considers the importance to the University/ Department/project of the "information" being produced.	83	98
4. Serious	considers the range of options available and the frequency that critical judgements are made.	128	150

V **SUPERVISION OF OTHERS**: This factor measures the position's responsibility, both directly and through subordinate supervisors, for the work done by other positions. It consists of two elements which must be considered together.

(A) **Scope**: Assesses the total number of persons supervised (directly or indirectly) including, where pertinent, any casual staff on a FTE "best fit" basis.

(B) **Character**: Assesses the nature and/or extent of the supervision exercised by a position.

**(B) Character**

Degree

- 1 **Incidental**: Occasionally shows others (usually peers) how to perform tasks or duties (i.e. how they do it).
- 2 **Lead**: Has ongoing responsibility for guidance of others (i.e. how it should be done) and limited responsibility for assigning daily tasks, checking accuracy, etc.
- 3 **Assistant**: In a large work group, functions much the same as a lead hand but, in addition, is formally designated or recognized at the "21C", will assume "acting" duties during the supervisor's absence (i.e. during the day, vacations, etc.), and will usually be delegated a share of the daily control activities, etc.
- 4 **Monitor**: Usually within an academic unit, is responsible for monitoring the activities of other employees who daily, and for the majority of their time, report functionally to other persons (e.g. faculty) to receive daily tasks or duties; ensures unit standards of service and reallocates workload during absences/special projects; may participate in interviewing new staff, make recommendations to budget head regarding discipline, workload changes, etc.
- 5 **Co-ordinative**: This Degree is an extension to that described under Monitor (no. 4), and may include such factors as: added involvement in supervisory activities due to the budget head's style and/or pre-occupation with other matters; direct and more formal involvement in assessing performance (alone or in addition to that provided by others), hiring new staff, initiating disciplinary action, etc.; supervising greater variety of staff (i.e. different specialties or occupations; concurrent direct supervisory responsibility of general departmental staff; working through subordinate supervisors, etc.)

- 6 **Direct:** Is directly responsible to the next highest level for the results of work performed by others, assists in establishing and maintaining quality and quantity of work, unit standards, etc., resolves daily workflow difficulties, trains staff on procedural changes, approves minor personnel requests (e.g. medical appointments, 1 or 2 day vacations, etc.), facilitates good working relations, reports to next highest level regarding staff performance or discipline problems.
- 7 **General:** Establishes unit standards of quality and quantity, unit workloads and organization (position duties, unit workflow, procedures, priorities and schedules; conducts all interviews and selects new staff; formally evaluates performance, discusses it with individual, etc).

**SUPERVISION POINTS**

CHARACTER	SCOPE	Any	Small (1-3)	Medium (4-7)	Large (8-15)	Significant (16 plus)
			A	B	C	D
1. Incidental	15					
2. Lead		36	48	59	70	
3. Assistant		56	68	79	90	
4. Monitor		56	68	79	90	
5. Co-ordinative		89	93	104	115	
6. Direct		89	93	104	115	
7. General		116	128	139	150	

**VI EFFORT/DEMANDS:** This factor measures the effort required in performing the work of the position during normal circumstances, and recognizes that the demands may take the form of physical effort, demanding motor skills, concentrated mental/visual attention, monotony or boredom in repetitive work, frequent exposure to large volumes, critical deadlines, etc. and measures the degree to which the job is performed in a disagreeable or dangerous environment.

<u>Degree</u>	<u>Description</u>	<u>Points</u>
1	<u>Favourable</u> : Involves only very limited and/or occasional need for physical exertion, reasonable level of motor coordination (given formal training in procedures or techniques), reasonably comfortable mental and visual concentration or application due to a desirable variety in tasks throughout most days, and reasonable efficiency where “must” deadlines and/or high volume workload surges are occasional or infrequent. The position requires normal sensory attention and/or is subject to normal physical fatigue and/or mental stress.	5
2	<u>Moderate</u> : Nature of job requires some physical effort (e.g. lifting, frequent walking, or standing for long periods, etc.), considerable manual dexterity, and/or mental/visual concentration over periods of a couple of hours at a time, either an unusual daily/weekly variety (i.e. keeping several balls in the air” at the same time) or less than usual variety (i.e. some monotony), volumes and/or critical deadlines. The position usually requires moderate sensory attention and/or on occasion may be subject to more than normal physical fatigue and/or mental stress.	10

- 3            Considerable: Involves frequent need for extended periods of heavy physical exertion, a high degree of competence in manual dexterity or visual concentration over long periods each day where a close attention to detail is mandatory, and/or ability to work under continuous pressure from high work volumes and/ or critical deadlines. The position may frequently require considerable sensory attention and/or may be subject to moderate physical fatigue and/or mental stress.            28
- 4            Onerous: Requires a sophisticated manual or motor dexterity over long periods in order to either produce an acceptable or usable product (e.g. medical illustrator) or where the safety of others is affected (e.g. certain techniques involving biological or radiation hazards), or constant exposure to critical deadlines detailed work and/or volume pressures, but where interruptions are likely. The position may frequently require extreme sensory attention and/or may be subject to considerable physical fatigue and/or mental stress.            50

**CONTACTS:** This factor measures the relative importance, difficulty, and sensitivity of personal contacts required by the position (other than immediate subordinates and supervisors), considering such matters as the role and affiliation of persons contacted, the frequency and purpose of such contact, etc.

<u>Degree</u>	<u>Description</u>	<u>Points</u>
1	<u>Incidental:</u> Contacts are incidental to the position usually involving immediate associates in the department (may involve senior personnel/faculty in some situations). Ordinary courtesy to avoid friction.	5
2	<u>Routine:</u> Routine contacts beyond immediate associates (e.g. students, the public, etc.) usually just to provide or obtain factual information with a specific objective. Not responsible for cultivating co-operation or approval. Ordinary courtesy, awareness of representing the University.	10
3	<u>Interpretive:</u> Regular contacts with the public, students, senior personnel or faculty in other units, or colleagues/counter parts at other institutions, etc. in order to exchange information and/or provide advice frequently aimed at securing co-operation in or approval of an occupational matter, and/or compliance with established policy or procedures, etc. Requires courtesy and some tact, although ultimate responsibility for maintaining harmonious relations and for taking alternative action usually reverts to the supervisor.	30
4	<u>Innovative:</u> Frequent contact with senior personnel in other units, the public, outside organizations where ongoing relationships are important to University and/or project operations (e.g. government agencies, consultants, etc.), in order to consult with, report on, recommend to and/or co-ordinate activities between the parties is an important consideration. Often requires the cultivation of unusual co-operation from the other party. Considerable tact is often required, and the employee is responsible for the maintenance of good relations.	50

## TECHNICAL PLAN - POINT BANDS

Point Bands	Level	Lab Operations	Research Support	Specialist	Audio Visual	Graphic Specialist	Animal Lab	Dental Tech.	Horticult. Tech.	Machine Shop
100-133	1	Tech. Ass't 1	Tech. Ass't 1		Media Ass't 1	Graph. Ass't 1	Animal Lab Ass't 1		Horticult. Ass't 1	
134-178	2	Tech. Ass't 2	Tech. Ass't 2		Media Ass't 2	Graph. Ass't 2	Animal Lab Ass't 2	Dental Lab Ass't 2	Horticult. Ass't 2	
179-238	3	Tech. Ass't 3	Tech. Ass't 3		Media Ass't 3	Graph. Ass't 3	Animal Lab Ass't 3	Dental Lab Ass't 3	Horticult. Ass't 3	
239-318	4	Lab Tech'n 1	Res. Tech'n 1	Tech. Spect 1	Media Tech'n 1	Graph. Tech'n 1	Animal Lab Tech'n 1	Dental Lab Tech'n 1	Horticult. Tech'n 1	
319-424	5	Lab Tech'n 2	Res. Tech'n 2	Tech. Spect 2	Media Tech'n 2	Graph. Tech'n 2	Animal Lab Tech'n 2	Dental Lab Tech'n 2	Horticult. Tech'n 2	
425-565	6	Lab Sup'r 1	Res. Tech't 1	Tech. Spect 3	Media Spect 1	Graph. Spect 1	Animal Lab Spect	Dental Spect 1	Horticult. Spect 1	Crafts-Person 1