

[Section 12001](#)

Furnishings

[Section 12300](#)

Laboratory Casework

1.0 **GENERAL**

1.1 **Related UBC Guidelines**

- .1 UBC Technical Guidelines
- .2 Section 06400 - Architectural Woodwork
- .3 Facilities Planning for area specific furnishing standards. Contact Associate Director, Phone: 604-822-3059
- .4 Classroom Services for classroom furniture standards. Contact Project Manager Enrolment Services at 604-822-4175.
- .5 *Division 17 (17130 – 1.20.3).*

1.2 **Coordination Requirements**

- .1 *UBC Information Technology (IT).*
- .2 Electrical Consultant.
- .3 UBC Health, Safety & Environment at 604-822-1327 (for Ergonomics)
- .4 UBC Technical Services (soft seating in Libraries), at 604-822-9510.

1.3 **UBC Supplier and Manufacturer Purchasing Agreements**

- .1 The following Suppliers and Manufactured systems have Purchasing Agreements with UBC. These are to be used unless otherwise approved by Facilities Planning.
 - .1 Campus standard for systems furniture, including attached work stations, is Haworth. Confirm this with Classroom Services phone: 604-822-3059.
 - .2 Acton stacking chair for classroom seating is purchased from American Seating (Contact Gunnar Pacific, phone 604-328-1867.) Confirm this with Classroom Services phone: 604-822-4175.
 - .3 Confirm classroom task chairs with Classroom Services phone: 604-822-4175.

1.4 **Design Requirements - General**

- .1 Faculty Office Shelving (and typical offices): shall have minimum 23m of shelving in an approximately 11 square metre office, using slotted standards to reinforced walls, in 800mm bays with adjustable melamine shelves. (Alternatively: provide two free-standing shelf units secured to wall). Contact Facilities Planning for furnishing standards at 604-822-3059.
- .2 Faculty and typical Offices: Work station to be approx. 1.85m² and include file pedestal and locking box file pedestal, task light, tackboard, overhead open storage for full length of work station, pullout keyboard tray (with provision for computer mouse), task chair and one or two guest chairs as required. Contact Facilities Planning for furnishing standards at 604-822-3059.
- .3 Filing: shall meet ANSI/BIFMA and CSA standards.
- .4 Ergonomics: to meet ANSI/BIFMA and CSA standards, contact Health Safety & Environment – UBC for UBC's Policy and Procedure regarding Ergonomics; at 604-822-1327.
- .5 Seismic: secure fixed furnishings to floors or walls to meet seismic requirements.
- .6 Warrantees: require minimum 5 year guarantee plus AWMAC warrantee for all custom millwork.

- .7 Ensure fabrics meet BCBC flame spread requirements for interior spaces.
- .8 Re-use / re-furbish existing furniture and specify furniture that can be re-used or has a long term option for re-cycling.
- .9 Specify locally manufactured products whenever possible (within 500km).
- .10 Materials to be durable to long term institutional use and be appropriate for future re-use. Consider neutral tones in finishes.

1.5 Audio Visual Screens

- .1 Coordinate to all electrical and communications outlets. Layouts to be reviewed by IT Services, Infrastructure, at 604-822-8652.
- .2 Do not block natural light sources or access to ventilation or operation of window screens or blinds.
- .3 Use maximum 1625mm height partitions.

1.6 Classroom Furniture:

- .1 Contact Classroom Services at 604-822-4175 for current classroom furniture standards.
- .2 Confirm provision of designs suitable for left handed people by contacting Classroom Services.
- .3 Provide long life, easy to clean seat covers, (by wiping off) - PVC's are considered best life cycle option.
- .4 Seating should be stackable.
- .5 Table arms to be non-fixed.
- .6 Frames to be chrome plated or better, in durability.
- .7 Ergonomic task seating to be used in computer labs.

1.7 Conference Rooms

- .1 Seating to be upholstered with arms.
- .2 Tables to be easily movable.
- .3 Edges to be durable and scratch resistant.

1.8 Tiered Lecture Halls

- .1 Tables to be continuous and fixed to floors. Provide durable tops coloured and textured for glare prevention and ease of cleaning and minimum maintenance.
- .2 Edges to be durable and scratch resistant
- .3 Avoid swing arm seating as they are easily vandalized and are high maintenance.

1.9 Laboratories

- .1 Plastic laminate or equal countertop to be used throughout, where special acid resistance is required use special acid resistant laminate.
- .2 Laboratory chairs to be upholstered with washable non-absorptive material.

1.10 Libraries

- .1 Contact Facilities & Capital Planning for furnishing standards at 604-822-3059, and Classroom Services, 604-822-4175 for classroom furniture.
- .2 Seismic restraint to be provided by means of metal gussets, struts and/or angles fixed back to the building structure.
- .3 Provide stackable seating.

- .4 Tables to be easily movable.
- .5 Edges to be durable and scratch resistant.
- .6 Student carrels to be systems furniture c/w integral wiring for power and communication.
Contact Facilities and Capital Planning at 604-822-3059.
- .7 Soft Seating to be approved by UBC Technical Services at 604-822-9510.

1.11 Offices

- .1 Desks to be approx. 750 x 1650 x 735 high. Provide modesty panels, as required, with 400 - 450 clear to floor.
- .2 Contact Facilities and Capital Planning at 604-822-3059 for BC Government Space Standards.

1.12 Interior Planters

- .1 UBC Policy is not to permit the construction of interior planters in academic or administrative buildings.

1.0 **GENERAL**

1.1 **Related UBC Guidelines**

- .1 UBC Technical Guidelines
- .2 Section 06400 - Architectural Woodwork
- .3 Section 11610 - Fume Hoods

1.2 **Co-ordination Requirements**

NOTE: Shall have an overall coordination of Documents for Section 11600 - Laboratory Safety Equipment, Section 11610 Fume Hoods, Section 12300 Laboratory Casework, and Section 15880 Fume Hood Exhaust Systems.

- .1 Design Development Report issued to Consultant defining in detail the laboratory function, requirements, and systems to be provided.
- .2 Early in process, review design intent and additional requirements with UBC Health Safety and Environment.

1.3 **Description**

- .1 Casework for laboratories designated for biohazard containment levels:
 - .1 Containment Level 1.
 - .2 Containment Level 2.
 - .3 Containment Level 3.
 - .4 Containment Level 4.
- .2 Whenever project permits, conform to the most stringent requirements, to allow flexibility of use.

1.4 **Performance Standards**

- .1 Conform to function-specific requirements, including as applicable:
 - .1 Laboratory Bio-Safety Guidelines published by Laboratory Centre for Disease Control, Health Protection Branch, Health Canada.
 - .2 Containment Standards for Veterinary Facilities, Agriculture & Agri-Food Canada, Publication 1921/E.
 - .3 Canadian Nuclear Safety Commission Standard R-52, Design Guidelines for basic and intermediate level radioisotope laboratories.
- .2 Seismic
 - .1 Restraints and anchorage engineered to BC Building Code, Table 4.1.9.1.D.
 - .2 Provide edges to shelving and similar features to minimize spillage including during seismic activity.
 - .3 Provide marine edging or similar at countertops to contain spillage.
- .3 Finishes
 - .1 Select finishes to suit required resistance to:
 - .1 Chemicals including acids, alkalis, solvents, and reagents.
 - .2 Heat.
 - .3 Moisture, humidity.
 - .4 Abrasion.
 - .5 Impact.
 - .6 Radioisotope chemistry.

1.5 Quality Control and Assurance

- .1 Submittals
 - .1 Before Start of Work
 - .1 List of all proposed materials for review, and color samples for selection plus for final approval.
 - .2 Shop Drawings.
 - .3 Sample mock-up.
 - .2 At Completion
 - .1 Maintenance data shall be itemized list c/w each finish type, color formulation.
 - .2 Maintenance material shall be determined.
- .2 Quality Assurance
 - .1 Professional Engineer registered in BC, engaged by manufacturer, to seal shop dwg's and carry out site reviews, confirmed by Letters of Assurance, for seismic restraints including anchorage.
- .3 Warranties
 - .1 Two (2) Year manufacturer's warranty to include replacing and refinishing due to defects or faulty workmanship.

2.0 MATERIALS

2.1 Performance Requirements

- .1 General
 - .1 Select manufacturer recognized as specializing in the manufacture and installation of Laboratory Casework and fittings of the type required for project.
 - .2 Metal casework pre-fabricated and factory-finished systems.
 - .3 Tops to be continuous with no open seams, integral with backsplash, sealed joints to walls etc.
 - .4 Rounded edges (mandatory when positive pressure suits are worn).
 - .5 Minimize joints generally, and seal.
 - .6 Maximize spacing of legs to maximize free under counter space and flexibility.
 - .7 Provide under slung relocateable modular units (e.g. drawer / shelf units), generally 12" free of floor.
 - .8 Design for vibration control.
- .2 Environmental
 - .1 Manufacture
 - .1 Avoid adhesives, preservatives, hardeners, and synthesizing agents and finish coatings that contain formaldehyde and high V.O.C. content.
 - .2 Life Cycle Costing
 - .1 15-year.
 - .2 Provide adjustable modular components to facilitate changes in lab procedures.
 - .3 Disposal
 - .1 Minimize use of packing materials such as cardboard for shipping and if used, recycle. Use blanket wraps for shipping whenever feasible.

2.2 Prescriptive Requirements

- .1 Materials
 - .1 Products (UBC Mandatory, approved, or not approved for UBC projects -typical).
 - .2 Laboratories: "No-Wood" policy within laboratories, including casework, trim, wood doors and frames, etc. unless approved by UBC Health Safety and Environment.

- .2 Components
 - .1 Worktop Material
 - .1 Solid cast epoxy resin.
 - .2 Stainless steel preferred (mandatory for Containment Level 4 labs).
 - .3 Resin-impregnated natural stone.
 - .4 Laboratory grade plastic laminate.
 - .5 Other.

- .3 Execution
 - .1 Installation shall be by manufacturer-trained and certified installer.