Cabinetmaker

Guide to Course Content

Cabinetmakers construct, repair, finish and install cabinets, furniture, bedroom suites and architectural millwork such as custom shelving components, paneling and interior trims.

Training Requirements: To graduate from each level of the apprenticeship program, an apprentice must successfully complete the required technical training and compile enough onthe-job experience to total at least 1600 hours each year. Total trade time required is 6400 hours and at least 4 years in the trade.

There are four levels of technical training delivered by NAIT in Edmonton, Alberta and by SAIT in Calgary, Alberta:

Level one: 8 weeks
Level two: 8 weeks
Level three: 8 weeks
Level four: 8 weeks

The information contained in this pamphlet serves as a guide for employers and apprentices. The pamphlet briefly summarizes the training delivered at each level of apprenticeship training. An apprentice spends approximately 15% of the apprenticeship term in a technical training institute learning the technical and theoretical aspects of the trade. The hours and percentages of technical and practical training may vary according to class needs and progress.



Level 1 - 8 weeks

Safety

- electrical safety theory
- fire prevention and control
- ladders, step ladders and scaffolds
- housekeeping, PPE and emergency procedures
- hazard assessment and control
- OH&S Regulations and WHMIS
- safety committees, safety inspections and industrial health hazards

Materials and Joinery

- nature and properties of wood
- primary processing of hard and soft wood
- manufactured sheet and panel products
- adhesives, fasteners and abrasives
- principles of wood joinery

Tools, Machines and Equipment

- measuring and layout tools
- hand planes
- scrapers, chisels, gouges and knives
- assembly, dismantling and clamping tools
- hand drills and saws
- portable power tools
- pneumatic tools and fasteners
- table, panel, radial arm and CNC saws
- tooling for portable and stationary equipment
- band saws and drill presses
- jointers and thickness planers
- explosive actuated tools

Shop Drawing

- drafting basics
- orthographic drawings
- basic drawing standards
- interpreting shop drawings and cutting lists
- orientation to computers and CAD
- residential print reading



Trade Math

- basic math concepts
- · area, perimeter, board feet and volumes
- ratio, proportion and percentage

Level 2 - 8 weeks

Materials and Hardware

- adhesive applications
- cabinetmaking hardware
- plastic laminates and solid surface materials
- mouldings, specialty products and veneers

Equipment, Machine Use, Assembly and Procedures

- mortising and tenoning machines
- profiling machines and auto feed devices
- stationary sanding machines
- multiple spindle boring machines
- · breakout of solid and sheet materials
- machining and assembly of case work
- interior door, frames and trim
- introduction to Computer Numeric Controlled (CNC) machinery

Wood Finishing

- wood finishing safety
- surface preparation
- top coatings

Shop Drawing and Print Interpretation

- drawing standards
- · commercial print reading
- · free-hand sketches
- pictorial drawing and sketching
- kitchen and casework drawings
- material cutting lists and procedural plans
- Computer Assisted Drafting (CAD) shop drawings

Trade Math

- material quantity calculations
- bulk material costs
- integrated trade calculations



Level 3 - 8 weeks

Materials, Packaging and Shipping

- acrylics, glass, metals and plastics in cabinetmaking
- packaging and shipping of millwork

Design Theory and Shop Procedures

- principles and elements of design
- ergonomics
- joinery techniques
- curved elements in wood
- furniture design and architectural terms
- wall and ceiling treatments
- custom veneer matches and production applications
- prototypes
- dry fit

Machines and Equipment Procedures

- custom shaper and CNC machining centre production applications
- moulders
- specialized industrial machines
- wood turning
- advanced table saw applications and procedures
- CNC manufacturing

Stairs

- stair design and codes
- stair construction
- stair and handrail installation

Shop Drawing - Prints for Commercial Buildings

- print reading principles
- plans, elevations, sections and details
- specialized plan views
- integrated print reading skills
- interpret commercial prints
- shop drawings from commercial prints
- advanced free-hand sketching
- stair drawings
- Computer Assisted Drafting (CAD) and Computer Assisted Manufacturing (CAM)



Trade Math

- mechanical advantage
- takeoffs and layout
- job costing
- stair calculations
- cutting speeds

Level 4 - 8 weeks

Related Trade Procedures

- · principles of advanced furniture joinery
- marquetry, parquetry, intarsia and inlay special veneer matches
- fire retardant materials and practices
- basic woodcarving
- commercial millwork
- integrated CNC
- handling, shipping and installation
- custom millwork installation tools and techniques

Industry Practices and Procedures

- job roles and responsibilities
- contract law
- business structures and practices
- large and small shop practices
- production scheduling
- machine maintenance

Wood Finishing

- wood finishing applications
- specialized wood finishing

Print Reading and Shop Drawing

- commercial prints with complex architectural elements
- print conflicts and resolution
- two-point perspective drawing
- advanced sketching
- commercial layouts
- drawing shop projects
- CAD shop drawings



Trade Math

- job costing
- material optimization
- standard estimating methods
- estimating using yield factors for large projects
- unit and shipping costs
- rule of thumb costing

Workplace Coaching Skills and Advisory Network

- coaching skills
- industry network
- Interprovincial Standards

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This information is subject to change without notice.

