



Cabinetmaker ***A 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.

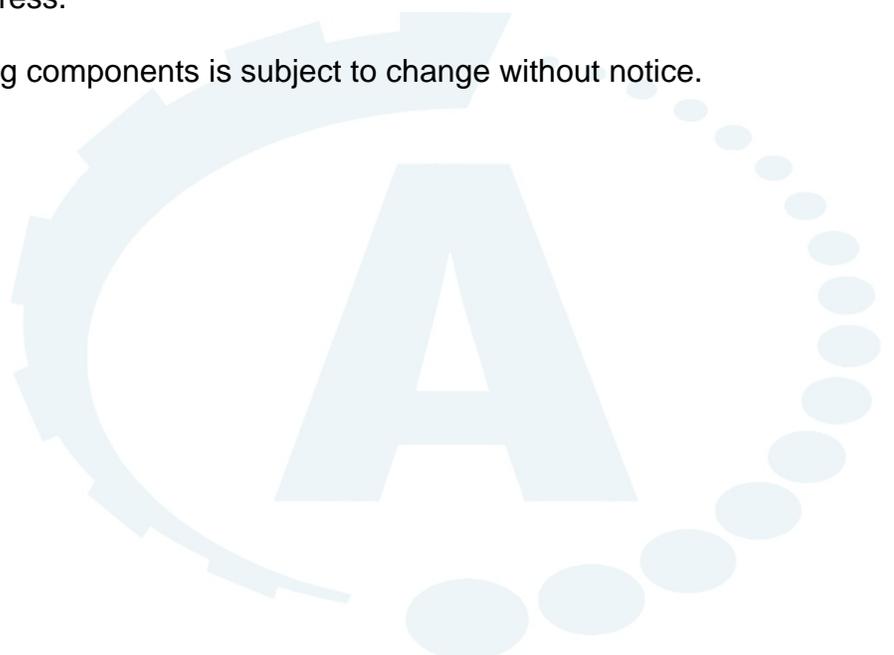
Training Requirements: To graduate from each level of the apprenticeship program, an apprentice must successfully complete the required technical training and compile enough on-the-job experience to total at least 1600 hours each year. Total trade time required is 6400 hours and at least 4 years in the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

The content of the technical training components is subject to change without notice.



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