

Glazier *A Guide to Course Content*

Glaziers cut, prepare, fabricate and install glass in residential, commercial and industrial structures, in furniture and in motor vehicles.

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 1800 hours each year. Total trade time required is 7200 hours and at least 4 years in the trade.

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

- Level One: 6 weeks
- Level Two: 6 weeks
- Level Three: 6 weeks
- Level Four: 6 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 One - 6 weeks

Standard Workplace Safety

- Safety legislation, regulations and industry policy in the trades
- Climbing, lifting, rigging and hoisting
- Hazardous materials and fire protection
- Apprenticeship and industry training orientation
- Scaffolding and access equipment
- Swing stage scaffolding

Tools and Construction Products

- Hand tools
- Portable power tools
- Stationary power tools
- Fasteners, adhesives and sealants

Glass and Glass Fabrication 1

- Glass types
- Glass storage and handling
- Glass manufacturing
- Glass cutting and edging

Glazing and Service 1

- Glazing tools
- Window screens
- Industry codes and standards
- Auto glass 1
- Flat glass

Window Systems

- Residential window systems
- Commercial window systems

Math and Drawing Interpretation 1

- Math fundamentals
- Ratio, proportion and percentage
- Glazing material calculations
- Residential and light commercial drawings
- Orthographic and isometric drawings

Level Two - 6 weeks

Glass and Glass Fabrication 2

- Mirrors
- Specialty glass and installation
- Glass cutting
- Glass fabrication
- Sandblasting, etching and films

Glazing and Service 2

- Residential glazing
- Commercial glazing
- Store-front glazing
- Auto glass 2

Construction Product Application

- Glazing, compounds and sealants
- Building envelope 1

Frames and Door Systems

- Introduction to frames system applications
- Flashing and panels 1

Math and Drawing Interpretation 2

- Perimeter and area
- Shop drawings 1
- Commercial drawings 1
- Material takeoff 1

Level Three - 6 weeks

Frames Systems 1

- Aluminum frames
- Curtain walls 1
- Frame system applications 1
- Flashing and panels 2

Door Systems 1

- Commercial door types
- Door hardware 1
- Aluminum swing doors
- All-glass entrance systems

Glazing and Service 3

- Structural glazing systems
- Structural glazing installation
- Building envelope 2

Sloped Glazing Systems

- Sloped glazing
- Skylights
- Skylight shop project

Math and Drawing Interpretation 3

- Design factors
- Commercial drawings 2
- Project specifications 1
- Shop drawings 2
- Material takeoffs 2

Level Four - 6 weeks

Red Seal Programs and Specialty Products

- Interprovincial Standards Red Seal program
- Workplace coaching skills
- Alberta's industry network
- Barrier free entrances
- Automatic doors
- Specialty products

Frame Systems 2

- Curtain walls
- Frame systems application 2
- Fabricating curtain walls

Door Systems 2

- Commercial door types 2
- Door hardware 2
- Storefront frame/Door shop project

Glazing and Service 4

- Specialty glazing
- Specialty glazing hardware
- Building envelope 3

Math and Drawing Interpretation 4

- Shop drawings 3
- Commercial drawing interpretation 3
- Project specifications 2
- Estimating
- Site management