

ATGL-1807: SPECIAL TOPICS IN STOREFRONTS

Cuyahoga Community College

Viewing: ATGL-1807 : Special Topics in Storefronts

Academic Term:

Fall 2026

Subject Code

ATGL - Appld Indus Tech - Glazing

Course Number:

1807

Title:

Special Topics in Storefronts

Catalog Description:

Introductory course covering storefront fabrication and installation. Included are materials commonly used for storefronts including architectural metals and extrusions, sealants, shims and backer rod. Component and frame transport and staging are also included.

Credit Hour(s):

2

Lecture Hour(s):

2

Requisites

Prerequisite and Corequisite

Departmental approval: admission to Glazier apprenticeship program.

Outcomes

Course Outcome(s):

Identify and define the terms used in the glazing industry.

Objective(s):

1. Identify the metals, types of glass, water deflectors including flashings and break metals used in the fabrication of windows.
2. List the different types of glass that is commonly used.
3. Identify the various extruded metals used for fabricating window frames.
4. Discuss the purpose of water deflector systems.

Course Outcome(s):

Discuss the purpose of sealants used and explain the preparation of the substrate for proper sealant adhesion.

Objective(s):

1. List the different types of sealants.
2. Identify the techniques used to prepare the substrate for window installation.
3. Apply the sealants using the proper tools and techniques to the framing system.
4. Tool the sealant for proper adhesion.

Course Outcome(s):

Explain the fabrication process for storefront systems including cut list interpretation and the use of special fabrication jigs and assembly procedures.

Objective(s):

1. Interpret cut lists compiled from field measurements.
2. Assemble storefront frames using manufactured and site specific jigs.
3. Identify the various fasteners that are used for fabrication of window and door components.
4. Operate stationary and portable power tools used for cutting components to length.
5. Identify each storefront component using the labeling system.
6. List the procedural steps for assembly, in accordance with industry standards.

Course Outcome(s):

Identify the material handling practices required to transport storefront window and door frames from fabrication shops to the jobsite.

Objective(s):

1. Package frame components according to the labeling system.
2. Apply proper strapping techniques needed to secure the finish storefront frames to transportation vehicles.
3. Determine staging locations and employ procedures required to protect the respective frames from damage during installations.

Course Outcome(s):

Demonstrate the ability to install storefront frames on commercial and residential projects.

Objective(s):

1. Interpret shop and construction drawings for frame locations, rough openings and elevations.
2. Apply layout procedures to establish required reveals and proper elevations.
3. Prepare frames for installation using layout procedures for locating holes needed for anchoring.
4. Install frames, pans and flashings in accordance with industry standards.

Methods of Evaluation:

1. Projects
2. Quizzes
3. Exams
4. Practicals
5. Participation

Course Content Outline:

1. Storefront components
 - a. Terminology
 - i. Water deflectors
 - ii. Mullions
 - iii. Extruded metals
 - iv. Sill pans
 - v. Setting blocks
 - vi. Infill
 - b. Types of glass
 - i. Spandrel
 - ii. Insulated
 - iii. Alocabond panels
 - iv. Tempered
 - v. Annealed
 - c. Metals
 - i. Manufactured
 - ii. Extruded
 - iii. Aluminum
 - iv. Clad

- d. Water deflector systems
 - i. Size
 - ii. Composition
- 2. Sealants
 - a. Types
 - i. Silicone
 - ii. Butyl
 - iii. Urethane
 - iv. Two part
 - b. Preparation
 - i. Substrate
 - 1. Flashing
 - 2. Storefront metal
 - 3. Anchoring material
 - ii. Two rag method
 - iii. Primer
 - iv. Backer rod
 - c. Sealant application
 - i. Tools
 - 1. Knives
 - 2. Blades
 - ii. Tooling techniques
 - 1. Joint configuration
 - 2. Adhesion
 - 3. Cleaning procedures
- 3. Fabrication
 - a. Cut list
 - i. Field measurements
 - ii. Material type
 - iii. Quantities and lengths
 - b. Jigs
 - i. Manufactured
 - ii. Site specific
 - iii. Application
 - c. Fasteners
 - i. Tap-cons
 - ii. Plugs and screws
 - iii. Thunder bolts
 - iv. Powder actuated tools
 - d. Power tools
 - i. Portable
 - ii. Stationary
 - iii. Safety precautions
 - e. Labeling
 - i. Jobsite name
 - ii. Elevation
 - iii. Component lengths
 - f. Assembly procedure
 - i. Frame preparation
 - ii. Fastener hole layout
 - iii. Drilling operations
 - iv. Sealant application
 - v. Sequence of assembly
 - vi. Clean-up tasks
- 1. Transport
 - a. Packaging
 - i. Frames
 - ii. Doors

- iii. Installation hardware
 - iv. Sealants and gaskets
 - b. Strapping operations
 - i. Heavy duty
 - ii. Light duty
 - iii. Strapping materials
 - 1. Ratchet binders
 - 2. Ropes
 - 3. Protection pads
 - c. Staging
 - i. Location
 - ii. Protection
 - iii. Safety
- 2. Installation
 - a. Layout procedures
 - i. Control lines
 - ii. Reveals
 - iii. Elevations
 - b. Drawings
 - i. Shop
 - ii. Construction
 - c. Frame preparation
 - i. Backer plates
 - ii. Anchoring locations
 - iii. Water deflectors
 - iv. Gaskets
 - d. Anchor placement
 - i. Installation
 - ii. Frames
 - iii. Pans
 - iv. Flashings

Religious Accommodation

Before reviewing the course schedule, students should carefully review the following religious accommodation policy and other required instructional policies:

Religious Accommodation:

Students seeking an accommodation for absences permitted under Ohio’s Testing Your Faith Act must provide the instructor with written notice of the specific dates for which the student requires an accommodation and must do so not later than fourteen (14) days after the first day of instruction. Please submit requests for accommodations at this link: <https://portal2.tri-c.edu/ReligiousAccommodation/ReligiousAccommodationForm>. Students with questions about their religious accommodations under Ohio’s Testing Your Faith Act may contact the College’s Office of General Counsel and Legal Services by phone at 216.987.4856 or via email at legal@tri-c.edu.

Other Required Instructional Policies:

<https://www.tri-c.edu/student-resources/curriculum/documents/syllabus-part-b.pdf>

Weekly Schedule

Topics	
Week 1	Introduction to storefront glazing systems
Week 2	Identify system components (mullions, horizontals, glass stops, anchors, gaskets)
Week 3	Read basic storefront system details and manufacturer cut sheets
Week 4	Component identification & measurement and Manufacturer detail interpretation
Week 5	Review anchorage requirements and layout procedures
Week 6	Cutting, drilling, and preparing aluminum framing members
Week 7	Frame assembly sequence: sill prep, jamb layout, installation tolerances
Week 8	Assemble a standard 2-lite storefront frame and system components, fasteners, and anchor types

Week 9	Glass types, setting blocks, glazing beads, and gasket installation
Week 10	Interior/exterior sealant selection and application
Week 11	Water management features: weep systems, backer rod, joint design
Week 12	Install glass and weatherproof a mock-up Sealant and glazing troubleshooting
Week 13	Diagnosing leaks, racking, misalignment, and improper anchorage
Week 14	Verification against shop drawings and manufacturer specs
Week 15	Field documentation and corrective actions
Week 16	Final full assembly, glazing, and inspection practical Final Practical Exam & Review

The Course Schedule is subject to change due to pedagogical needs, instructor discretion, parts of term, and unexpected events.

Required/Recommended Readings

Instructor-provided materials

Resources for the Instructor

"Setting Blocks, Spacers, Tapes and Gaskets" IUPAT,

"Safety Glazing Codes" IUPAT,

"Security Glazing" IUPAT,

"Introduction to Storefronts" IUPAT,

"Ribbon Window Systems" IUPAT,

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