

# APPLIED INDUSTRIAL TECHNOLOGY (GLAZING) (ATGL)

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## ATGL-1330 Hand Tools for Glaziers 2 Credits

Introduction to hand tools for glazing, including basic hand tools such as screwdrivers, wrenches, pliers; levels and transits; glass, plastic, and metal cutters; lifters and tongs, punches, chisels, rivet guns and taps.

*Lecture: 2 hours*

*Prerequisite(s): Departmental approval: admission to any Applied Industrial Technology program.*

## ATGL-1340 Rigging for Glaziers 1 Credit

Basic course covering proper crane set-up including safety concerns, below the hook devices and signaling procedures. In addition, field lifting techniques will be applied.

*Lecture: 1 hours*

*Prerequisite(s): Departmental approval: admission to apprenticeship program.*

## ATGL-1350 Drill Bits, Taps, and Fasteners 1 Credit

Course covers the assembly and placement of components used for assembly of window walls and storefronts in the glazing industry. Included will be description of the various drill bits used and taps required for creating correct screw thread of the connectors and miscellaneous fasteners required for assembly, placement and securing of the different components. Proper use of hand and power tools, boring and tapping techniques and layout procedures will be demonstrated and applied.

*Lecture: 1 hours*

*Prerequisite(s): Departmental approval: admission to apprenticeship program.*

## ATGL-1360 Introduction to Architectural and Shop Drawings 1 Credit

Introductory course covering technical and practical fundamentals of blueprints. This course provides students with knowledge of blueprint reading and blueprint history as they relate to the glazing industry. Classroom activities include interpreting standard shop and construction drawings to establish storefront dimensions, frame types, fastener requirements and respective specifications covering doors and related hardware.

*Lecture: 1 hours*

*Prerequisite(s): Departmental approval: admission to apprenticeship program.*

## ATGL-1620 Glass and Mirror Replacement and Installation 2 Credits

Instruction in glass replacement and mirror layout, measurement cutting, edging and mounting. Includes safety procedures, and glass installation using putty and adhesives.

*Lecture: 2 hours*

*Prerequisite(s): Departmental approval: admission to any Applied Industrial Technology program.*

## ATGL-1630 Basic Welding 2 Credits

Introduction to arc welding and oxy-acetylene cutting including shop safety, electrode identification and classification and selection, all position welding, set up of fillet, power sources, weld size, and weld symbols.

*Lecture: 2 hours*

*Prerequisite(s): Departmental approval: admission to any Applied Industrial Technology program.*

## ATGL-1640 Door Fabrication and Installation 2 Credits

Door fabrication and installation, including installation and maintenance of manual and power assisted revolving doors; fabrication and installation of aluminum doors; installation of specialty doors and showcases; and safety procedures and regulations.

*Lecture: 2 hours*

*Prerequisite(s): Departmental approval: admission to any Applied Industrial Technology program.*

## ATGL-1801 Special Topics in Rigging for Glaziers 1 Credit

Basic course covering proper crane set-up including safety concerns, below the hook devices and signaling procedures. In addition, field lifting techniques will be applied.

*Lecture: 1 hours*

*Prerequisite(s): Departmental approval: admission to Glazier's apprenticeship program.*

## ATGL-1802 Special Topics in Drill Bits, Taps, and Fasteners 1 Credit

Course covers the assembly and placement of components used for assembly of window walls and storefronts in the glazing industry. Included will be description of the various drill bits used and taps required for creating correct screw thread of the connectors and miscellaneous fasteners required for assembly, placement and securing of the different components. Proper use of hand and power tools, boring and tapping techniques and layout procedures will be demonstrated and applied.

*Lecture: 1 hours*

*Prerequisite(s): Departmental approval: admission to apprenticeship program.*

## ATGL-1803 Special Topics: Introduction to Arch and Shop Drawings 1 Credit

Introductory course covering technical and practical fundamentals of blueprints. This course provides students with knowledge of blueprint reading and blueprint history as they relate to the glazing industry. Classroom activities include interpreting standard shop and construction drawings to establish storefront dimensions, frame types, fastener requirements and respective specifications covering doors and related hardware.

*Lecture: 1 hours*

*Prerequisite(s): Departmental approval: admission to apprenticeship program.*

## ATGL-1807 Special Topics in Storefronts 2 Credits

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.

*Lecture: 2 hours*

*Prerequisite(s): Departmental approval: admission to Glazier apprenticeship program.*

**ATGL-2330 Transits, Leveling Instruments, and Lasers**

**2 Credits**

Use of transits, levels and lasers for glazing installation including elements of instruments; types of instruments; care and handling; setting up, leveling, and using instruments; and specific applications of leveling and installation.

*Lecture: 2 hours*

*Prerequisite(s): ATPT-1300 Introduction to Painting, Drywall Finishing and Glazing, and ATGL-1330 Hand Tools for Glaziers; or departmental approval.*

**ATGL-2340 Advanced Welding**

**2 Credits**

Instruction in advanced welding, including oxy-acetylene, M.I.G., T.I.G., and F.C.A.W. welding processes, welding of cast iron, aluminum, copper alloys, and stainless steel, hardfacing, and plasma cutting.

*Lecture: 2 hours*

*Prerequisite(s): ATGL-1630 Basic Welding or concurrent enrollment; or departmental approval.*

**ATGL-2350 Curtainwall Fabric & Install**

**2 Credits**

Instruction in curtainwall principles and methods including standard layout practices and tolerances; curtainwall systems and erection procedures for I-beam Stick and Truss-wall construction.

*Lecture: 2 hours*

*Prerequisite(s): ATPT-1300 Introduction to Painting, Drywall Finishing and Glazing, and ATGL-1330 Hand Tools for Glaziers; or departmental approval.*

**ATGL-2370 Sealants**

**2 Credits**

Instruction in use of sealants including terminology, properties, forms, classifications, and sealant selection; sealant application, testing, and remedial caulking; joint types and design; substrate preparation primers and backer rods; safety procedures and use of MSDS sheets.

*Lecture: 2 hours*

*Prerequisite(s): Departmental approval: admission to apprenticeship program.*

**ATGL-2400 Advanced Rigging & Hoisting**

**2 Credits**

Advanced procedures of rigging and hoisting, including rope materials, care, and handling, knot tying, slings, rigging hardware and hoisting techniques; hand signals; and safety procedures.

*Lecture: 2 hours*

*Prerequisite(s): ATPT-1300 Introduction to Painting, Drywall Finishing and Glazing, and ATPT-1320 Safety Standards for Construction (OSHA-10); or departmental approval.*

**ATGL-2815 Special Topics: Glazier Welding: 3G**

**4 Credits**

Comprehensive course covering welding processes used in the glazing industry. Course includes processes, applications and welding safety. Welding processes include horizontal, vertical and overhead applications. The student will perform related welding tasks related to the glazing trade and in compliance with current industry standards.

*Lecture: 4 hours*

*Prerequisite(s): Departmental approval and a member in good standing with the International Union of Painters and Allied Trades.*