

## **COURSE SYLLABUS**

### **ARCHITECTURAL AND ORNAMENTAL CONSTRUCTION**

#### **Course Description:**

The Ornamental courses is designed to provide the Iron Worker student with training in architectural and ornamental construction including constructing curtain walls, window walls, sloped walls and skylights, storefronts, entrance ways, cable walls, glazing systems, glass rails, applying sealants, testing curtain wall and window wall systems, installing swing doors, door closers, sliding doors, mall fronts, revolving doors, rolling service doors, anchors and fasteners, stairs, ladders, catwalks, grating, fence, guard rails, detention systems, and miscellaneous architectural and ornamental work.

#### **Course Objective:**

The objective of this course is to enable a student to safely work in architectural and ornamental construction.

#### **Learning Outcomes:**

Upon successful completion of this course, the student will be able to:

- Construct curtain walls, window walls, sloped walls and skylights.
- Construct storefronts, entrance ways, and cable walls.
- Install glazing systems, glass rails, and apply sealants.
- Test curtain wall and window wall systems.
- Install swing doors, door closers, sliding doors, mall fronts, revolving doors, and rolling service doors.
- Install anchors and fasteners, stairs, ladders, catwalks and grating
- Install fence, guard rails, and detention systems
- Install miscellaneous architectural and ornamental work
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#### **Target Audience:**

This course is mandatory for all Apprentices and available for all Journeymen.

#### **Length of Course:**

This course is designed to be offered for a total of 50 hours – 30 hours of classroom instruction and 20 hours of hands-on lab or shop training.

## **Course Materials:**

- **Architectural and Ornamental Ironworking** Reference Manual
- **Architectural and Ornamental Ironworking** Student Workbook and Drawings
- **Architectural and Ornamental Ironworking** Instructor Guide (for instructors only)
- **Architectural and Ornamental Ironworking** DVD
- **Assignment Sheets** (in the Student Workbook)
- **Job Sheets** (in the Student Workbook)
- **Tests** (in the Instructor Guide)

### **A Word about Safety**

The importance of safety will be addressed and reinforced in all hands-on activities in the classroom, in the shop, and on the job site.

### **Course Assignments**

There is a least one assignment sheet for each unit of instruction (as outlined by the specific objectives in each unit). Students will complete these assignment sheets prior to and/or during course sessions as determined by the instructor. Job sheets will be completed as part of some units. Most job sheets will be completed in the lab or shop area and/or outside in a work area.

### **Course Grading Criteria:**

To successfully complete this course, the student must complete all of the assignment sheets, demonstrate the required skills in the lab or shop, and pass the knowledge tests.

### **Course Attendance:**

All course sessions are mandatory and while missed time can be made up, missing a course session will affect your ability to successfully complete this course. Speak with the instructor to arrange make-up time if necessary.

### **Course Schedule:**

NOTE: The following Course Schedule is set up for blocks or classes 3 hours in length. If your course sessions are more or less than 3 hours, you will need to adjust the number of sessions accordingly.

<b>Date</b>	<b>Topics/Activities</b>
Session 1	Introductions Review of the course syllabus including the course objectives Discussion of classroom and outside assignments Curtain wall systems Lecture and discussion
Session 2	Curtain wall systems Lecture and discussion Skills demonstrations, apprentices practice and skills testing
Session 3	Curtain wall systems Lecture and discussion Skills demonstrations, apprentices practice and skills testing
Session 4	Test – Curtain wall systems Window Wall Systems Lecture and discussion Skills demonstrations, apprentices practice and skills testing
Session 5	Window Wall Systems Lecture and discussion
Session 6	Test – Window Wall Systems Lecture and discussion Skills demonstrations, apprentices practice and skills testing

- Session 7 Sloped Walls and Skylights  
Lecture and discussion  
Skills demonstrations, apprentices practice and skills testing
- Session 8 Sloped Walls and Skylights  
Lecture and discussion  
Skills demonstrations, apprentices practice and skills testing
- Session 9 Test – Sloped Walls and Skylights  
Storefronts, entranceways, and cable walls  
Lecture and discussion
- Session 10 Storefronts, entranceways, and cable walls  
Lecture and discussion  
Skills demonstrations, apprentices practice and skills testing
- Session 11 Test – Storefronts, entranceways, and cable walls  
Sealants  
Lecture and discussion  
Skills demonstrations, apprentices practice and skills testing
- Session 12 Sealants  
Lecture and discussion  
Skills demonstrations, apprentices practice and skills testing
- Session 13 Test – Sealants  
Glazing systems and glass rails  
Lecture and discussion
- Session 14 Glazing systems and glass rails  
Lecture and discussion  
Skills demonstrations, apprentices practice and skills testing
- Session 15 Test – Glazing systems and glass rails  
Testing window and curtain wall systems  
Lecture and discussion  
Skills demonstrations, apprentices practice and skills testing
- Session 16 Testing window and curtain wall systems  
Lecture and discussion  
Skills demonstrations, apprentices practice and skills testing
- Session 17 Test – Testing window and curtain wall systems  
Course summary