ARTICULATION AGREEMENT

between

Trowel Trades

Apprenticeship Training Program

and

Washtenaw Community College

Associate of Science in Construction Supervision
Associate of Applied Science in Construction Supervision
Associate of Applied Science in Journeyman Industrial

ARTICULATION AGREEMENT

between

Trowel Trades

Apprenticeship Training Program

and

Washtenaw Community College (WCC)

Associate of Science in Construction Supervision
Associate of Applied Science in Construction Supervision
Associate of Applied Science in Journeyman Industrial

Article I

Agreement on Principle

WCC and the union organization agree that students completing the specified program through the union should be able to transfer credits smoothly, avoiding duplication and loss. Therefore, WCC and the union organization agree to enter into this program articulation agreement, thus ensuring that program completers can transfer to Washtenaw's program efficiently, with both parties cooperating as equal partners to maintain their programs' integrity.

Article II

Agreement of Program Specifics

WCC and the union organization agree that any student who has successfully completed the program may transfer the credits as indicated on the attached Articulation Guide toward the specified degree(s) at WCC. The requirements are:

1. Complete the program through the union organization and apply for admission to WCC.
2. Complete the orientation process and qualify for enrollment in 100 and 200 level courses or participate in appropriate preparatory coursework.
3. Submit a copy of one of the following documents to the Student Connection at WCC to receive transfer credit:
    a. Department of Labor's Office of Apprenticeship (DOL/OA) Certificate of Completion
    b. Union organization verification of program completion.
4. Complete the WCC academic program and graduation requirements as specified on the Articulation Guide and in the WCC Bulletin.
5. Apply for graduation.

Article III
Agreement on Communication

The union organization and WCC agree to cooperate in communicating with each other and with their common and respective publics concerning the established relationship between the two institutions.

Communication may include the development of various kinds of publications to inform those who might benefit personally or professionally from this agreement. Faculty and staff at both institutions will share the information in this agreement with interested and qualified students and both institutions will provide counseling and advising to students and prospective students.

Article IV
Maintenance and Review Body and Procedures

At least one administrative or faculty member from each institution will be appointed to act as agents for the implementation of this agreement and to communicate changes to respective faculty members, advisors, counselors, and others to whom the information is pertinent. WCC and the union organization agree to communicate annually any curriculum changes in their respective programs that may affect this articulation agreement and to review the agreement for revision and possible renewal during the third year.

ARTICULATION AGREEMENT

between

Bricklayer

Apprenticeship Training Program

and

Washtenaw Community College

Associate of Science in Construction Supervision

Associate of Applied Science in Construction Supervision

Associate of Applied Science in Journeyman Industrial

ARTICULATION GUIDE

Description	Approx Hours	WCC Credit Hours
BAC 110 Introduction to Brick and Blocklaying Apprenticeship This course is the introduction to brick and block laying for new apprentices. Course topics include the expectations of the apprenticeship program, role of International Masonry Institute (IMI), quality assurance and the construction process.	Total Hours: 90	Credit Hours: 3
BAC 101 Safety Practices The impact of the Occupational Safety and Health Act and obtaining the required certifications will be addressed. The purpose of this course is to teach job safety practices and procedures.	Total Hours: 60	Credit Hours: 2
BAC 111 Introduction to Masonry Construction This course introduces the basic concepts of masonry construction including how and where various materials are used and the required tools and equipment.	Total Hours: 60	Credit Hours: 2
BAC 102 Professional Skills Development This course is an introduction to human relation skills needed on the job site. Workplace skills such as effective communication, motivation, working with supervisors, teamwork and Equal Employment Opportunity Commission (EEOC) will be covered.	Total Hours: 60	Credit Hours: 2
BAC 100 Labor and Trade Union History and Impacts The history and future of labor and trade unions, with particular emphasis on the International Union of Bricklayer and Allied Craftsworker, will be explored. Topics also include objectives and methods of organized labor and the legal and institutional framework of collective bargaining.	Total Hours: 30	Credit Hours: 1

BAC 112 Mortar Manipulation This is an introductory course in the types and physical properties of mortars. An overview of mortar materials, the manufacture of mortar and the specific manipulations of mortar are also covered.	Total Hours: 90	Credit Hours: 3
BAC 210 Introduction to Blocklaying The course topics include common concrete masonry units, parts of a block and wall, joints, bonds, procedures, techniques and steps to basic blocklaying.	Total Hours: 90	Credit Hours: 3
BAC 211 Introduction to Bricklaying This course covers the basic principles and skills used in bricklaying. Topics include types and properties of brick, structural bonds and applying mortar.	Total Hours: 90	Credit Hours: 3
BAC 212 Masonry Wall Construction The purpose of this course is to teach the fundamentals of basic masonry wall construction and applicable reinforcement concepts. Types of masonry construction and their descriptions; methods of layout; bonds; veneer, composite, and cavity walls; openings; anchoring devices; and grouting are covered.	Total Hours: 90	Credit Hours: 3
BAC 213 Masonry Construction Techniques and Restoration This course will cover basic repair and restoration of masonry in addition to specialty masonry construction techniques. Topics include cleaning, pointing, arches, brick pavers, structural glazed tiles, fireplaces and chimneys.	Total Hours: 90	Credit Hours: 3
BAC 230 Advanced Masonry Layout and Estimating This course covers advanced layout and estimating for masonry construction projects. Topics include blueprint interpretation, dimensional layout, quantity takeoffs, material estimating, and planning for complex masonry work.	Total Hours: 90	Credit Hours: 3
BAC 231 Structural Masonry Systems This course examines structural masonry systems used in contemporary construction. Topics include load-bearing masonry, reinforced masonry, movement joints, bond beams, lintels, and coordination of masonry with structural framing systems.	Total Hours: 90	Credit Hours: 3
BAC 232 Masonry Codes, Inspection, and Quality Control This course covers code requirements, inspection procedures, and quality control standards applicable to masonry work. Topics include tolerances, documentation, testing, compliance, and evaluation of completed masonry installations.	Total Hours: 90	Credit Hours: 3

BAC 233 Masonry Restoration and Historic Preservation This course focuses on restoration and preservation of existing masonry structures. Topics include historic materials, cleaning methods, repair sequencing, repointing, matching materials, and stabilization of existing masonry systems.	Total Hours: 120	Credit Hours: 4
BAC 240 Masonry Project Supervision and Leadership This course addresses project supervision and leadership in the masonry trades. Topics include crew coordination, workflow planning, productivity, communication, documentation, and leadership responsibilities on construction projects.	Total Hours: 120	Credit Hours: 4
APP 113	Total Hours: 90	Credit Hours: 3
TOTAL:	Total Hours: 1350	Credit Hours: 45

ARTICULATION AGREEMENT

between

Cement Mason

Apprenticeship Training Program

and

Washtenaw Community College

Associate of Science in Construction Supervision

Associate of Applied Science in Construction Supervision

Associate of Applied Science in Journeyman Industrial

ARTICULATION GUIDE

Description	Approx Hours	WCC Credit Hours
BAC 130 Introduction to Cement Mason Apprenticeship This course is the introduction to cement masonry for new apprentices. Course topics include orientation to the apprenticeship, basic materials, tools, terminology, introductory concrete practices, and related safety.	Total Hours: 90	Credit Hours: 3
BAC 101 Safety Practices The impact of the Occupational Safety and Health Act and obtaining the required certifications will be addressed. The purpose of this course is to teach job safety practices and procedures.	Total Hours: 60	Credit Hours: 2
BAC 131 Introduction to Cement Masonry Construction This course introduces fundamental cement masonry construction concepts. Topics include concrete materials, aggregate, cement, admixtures, placement considerations, surface preparation, and introductory finishing practices.	Total Hours: 60	Credit Hours: 2
BAC 102 Professional Skills Development This course is an introduction to human relation skills needed on the job site. Workplace skills such as effective communication, motivation, working with supervisors, teamwork and Equal Employment Opportunity Commission (EEOC) will be covered.	Total Hours: 60	Credit Hours: 2
BAC 100 Labor and Trade Union History and Impacts The history and future of labor and trade unions, with particular emphasis on the International Union of Bricklayer and Allied Craftsworker, will be explored. Topics also include objectives and methods of organized labor and the legal and institutional framework of collective bargaining.	Total Hours: 30	Credit Hours: 1

BAC 132 Concrete Materials, Mixing, and Placement This course covers the preparation, properties, mixing, handling, and placement of concrete in cement masonry construction. Topics include concrete types, consistency, batching, reinforcement considerations, placement methods, and quality considerations.	Total Hours: 90	Credit Hours: 3
BAC 230 Advanced Masonry Layout and Estimating This course covers advanced layout and estimating for masonry construction projects. Topics include blueprint interpretation, dimensional layout, quantity takeoffs, material estimating, and planning for complex masonry work.	Total Hours: 90	Credit Hours: 3
BAC 133 Flatwork, Forms, and Finishing This course provides instruction in flatwork, form construction, screeding, floating, edging, jointing, and finishing methods for horizontal concrete installations.	Total Hours: 90	Credit Hours: 3
BAC 134 Structural Concrete and Reinforcement This course focuses on structural concrete systems and related assemblies. Topics include reinforced concrete placement, embedded items, forming systems, tolerances, sequencing, and coordination with structural components.	Total Hours: 90	Credit Hours: 3
BAC 135 Concrete Repair, Restoration, and Surface Treatment This course covers advanced cement masonry techniques for repair and restoration. Topics include patching, resurfacing, crack repair, cleaning, coating preparation, and preservation-oriented treatment of concrete surfaces.	Total Hours: 90	Credit Hours: 3
BAC 136 Decorative Concrete and Specialty Finishes This course covers decorative and specialty concrete applications. Topics include coloring, stamping, exposed aggregate, texturing, specialty finishes, and treatment of architectural concrete surfaces.	Total Hours: 90	Credit Hours: 3
BAC 137 Structural Systems, Codes, and Inspection This course examines structural systems, applicable codes, inspection procedures, and quality control standards related to cement masonry work. Topics include tolerances, testing, documentation, compliance, and evaluation of completed installations.	Total Hours: 90	Credit Hours: 3
BAC 138 Concrete Construction Equipment and Advanced Applications This course addresses equipment and advanced applications used in cement masonry work. Topics include power tools, placing and finishing equipment, specialty applications, sequencing, troubleshooting, and productivity in the field.	Total Hours: 90	Credit Hours: 3

BAC 139 Cement Mason Project Supervision and Leadership This course focuses on supervision and leadership in cement masonry projects. Topics include crew coordination, workflow planning, productivity, communication, documentation, and leadership responsibilities on construction projects.	Total Hours: 120	Credit Hours: 4
BAC 140 Concrete Quality Control and Testing This course covers quality control procedures and testing methods used in concrete construction. Topics include consistency, sampling, curing considerations, defect identification, corrective action, and evaluation of completed concrete work.	Total Hours: 120	Credit Hours: 4
APP 113	Total Hours: 90	Credit Hours: 3
TOTAL:	Total Hours: 1350	Credit Hours: 45

ARTICULATION AGREEMENT

between

Tile Setter, Tile Finisher

Apprenticeship Training Program

and

Washtenaw Community College

Associate of Science in Construction Supervision

Associate of Applied Science in Construction Supervision

Associate of Applied Science in Journeyman Industrial

ARTICULATION GUIDE

Description	**Approx Hours**	**WCC Credit Hours**
BAC 120 Introduction to Tile Mechanic Apprenticeship This course is the introduction to tile setting for new apprentices. Course topics include the expectations of the apprenticeship program, role of International Masonry Institute (IMI) and the construction process.	Total Hours: 30	Credit Hours: 1
BAC 101 Safety Practices The impact of the Occupational Safety and Health Act and obtaining the required certifications will be addressed. The purpose of this course is to teach job safety practices and procedures.	Total Hours: 60	Credit Hours: 2
BAC 100 Labor and Trade Union History and Impacts The history and future of labor and trade unions, with particular emphasis on the International Union of Bricklayer and Allied Craftsworker, will be explored. Topics also include objectives and methods of organized labor and the legal and institutional framework of collective bargaining.	Total Hours: 30	Credit Hours: 1
BAC 121 Introduction to Tile Mechanic This course introduces the basic concepts of tile work including how and where various materials are used, adhesives and the required tools and equipment.	Total Hours: 90	Credit Hours: 3
BAC 102 Professional Skills Development This course is an introduction to human relation skills needed on the job site. Workplace skills such as effective communication, motivation, working with supervisors, teamwork and Equal Employment Opportunity Commission (EEOC) will be covered.	Total Hours: 60	Credit Hours: 2
BAC 122 Basic Tile Setting	Total Hours: 120	Credit Hours: 4

This course is an introduction to basic tile setting. Topics include surface preparation, substrate installation and cutting, setting and finishing tile.		
BAC 220 Wall Tile Installation This course is an introduction to installing wall tile. Methods of installing wall tile on concrete, wood, gypsum board, glass fiber mesh and reinforced board will be covered.	Total Hours: 90	Credit Hours: 3
BAC 221 Floor and Stair Tile Installation This course will cover basic installation of floor and stair tile. Methods of installing tile on interior wood and cement subfloors and concrete, wood and metal stairs will be included.	Total Hours: 90	Credit Hours: 3
BAC 222 Applications for Tile Installation This course is an introduction to the application of tile installations. Bathtub, shower, foundation, curbs, countertop, ceiling/soffit, mantel, hearth and swimming pools tile installation will be covered.	Total Hours: 90	Credit Hours: 3
BAC 223 Tile Layout, Techniques and Restoration This course will cover tile layout, techniques and restoration. Topics will include layout design principles, renovation and repair, cleaning, caulking, quarry tile, domes, arches and columns.	Total Hours: 60	Credit Hours: 2
BAC 224 Tile and Stone Materials Science This course examines the properties and performance characteristics of tile, stone, mortars, adhesives, grouts, membranes, and related materials used in tile work.	Total Hours: 60	Credit Hours: 2
BAC 225 Advanced Tile Layout and Estimating This course covers advanced layout and estimating for tile and stone construction projects. Topics include blueprint interpretation, dimensional layout, quantity takeoffs, pattern planning, and material estimating for complex tile work.	Total Hours: 60	Credit Hours: 2
BAC 226 Tile and Stone Specialty Applications This course focuses on specialty tile and stone applications. Topics include decorative installations, specialty surfaces, moisture-sensitive installations, accessories, and non-routine installation conditions.	Total Hours: 90	Credit Hours: 3

BAC 227 Tile and Stone Codes, Inspection, and Quality Control This course covers code considerations, inspection procedures, and quality control standards relevant to tile and stone work. Topics include tolerances, substrate review, testing, documentation, compliance, and evaluation of completed installations.	Total Hours: 90	Credit Hours: 3
BAC 228 Tile Finishing, Grouting, and Surface Treatment This course covers finishing operations associated with tile installation. Topics include grouting, pointing, sealing, cleaning, caulking, protection, and final surface treatment of completed tile and stone assemblies.	Total Hours: 120	Credit Hours: 4
BAC 229 Tile Project Supervision and Leadership This course addresses supervision and leadership in tile and stone projects. Topics include crew coordination, workflow planning, productivity, communication, documentation, and leadership responsibilities on construction projects.	Total Hours: 120	Credit Hours: 4
APP 113	Total Hours: 90	Credit Hours: 3
TOTAL:	Total Hours: 1350	Credit Hours: 45

ARTICULATION AGREEMENT

between

Pointer Cleaner Caulker

Apprenticeship Training Program

and

Washtenaw Community College

Associate of Science in Construction Supervision

Associate of Applied Science in Construction Supervision

Associate of Applied Science in Journeyman Industrial

ARTICULATION GUIDE

Description	Approx Hours	WCC Credit Hours
BAC 150 Introduction to PCC Apprenticeship This course is the introduction to the Pointer-Cleaner-Caulker (PCC) trade for new apprentices. Topics include the role of PCC craftworkers, typical restoration projects, expectations of the apprenticeship program, and basic safety and work practices.	Total Hours: 60	Credit Hours: 2
BAC 101 Safety Practices The impact of the Occupational Safety and Health Act and obtaining the required certifications will be addressed. The purpose of this course is to teach job safety practices and procedures.	Total Hours: 90	Credit Hours: 3
BAC 100 Labor and Trade Union History and Impacts The history and future of labor and trade unions, with particular emphasis on the International Union of Bricklayer and Allied Craftsworker, will be explored. Topics also include objectives and methods of organized labor and the legal and institutional framework of collective bargaining.	Total Hours: 30	Credit Hours: 1
BAC 151 PCC Tools, Materials, and Equipment This course introduces the tools, equipment, and materials used in PCC work. Topics include hand and power tools, brushes and sprayers, cleaning agents, sealants, mortars, and access equipment used for restoration and waterproofing.	Total Hours: 90	Credit Hours: 3
BAC 102 Professional Skills Development This course is an introduction to human relation skills needed on the job site. Workplace skills such as effective communication, motivation, working with supervisors, teamwork and Equal Employment Opportunity Commission (EEOC) will be covered.	Total Hours: 60	Credit Hours: 2

BAC 152 Masonry Cleaning and Surface Preparation This course covers cleaning and surface preparation for masonry restoration. Topics include evaluation of existing masonry, selection and use of cleaning methods, stain and biological growth removal, and preparation of substrates for pointing and caulking.	Total Hours: 90	Credit Hours: 3
BAC 153 Pointing and Repointing Techniques This course focuses on pointing and repointing of masonry joints. Topics include mortar removal, joint preparation, matching mortar, placement and tooling of joints, curing considerations, and quality standards for repointing work.	Total Hours: 90	Credit Hours: 3
BAC 154 Caulking and Sealant Systems This course addresses caulking and sealant applications in building enclosures. Topics include joint design, sealant types, backer rods, joint preparation, application techniques, and troubleshooting of failed sealant joints.	Total Hours: 90	Credit Hours: 3
BAC 155 Building Enclosure and Waterproofing This course examines building enclosure systems and waterproofing practices. Topics include air and moisture barriers, flashing, expansion joints, sealant coordination with other systems, and strategies to manage water infiltration in new and existing masonry.	Total Hours: 90	Credit Hours: 3
BAC 156 Access, Rigging, and Elevated Work Platforms This course covers access systems used in PCC work. Topics include ladders, pipe scaffold, suspended scaffolds, swing stages, rigging principles, inspection, and safe operation in accordance with applicable standards.	Total Hours: 90	Credit Hours: 3
BAC 157 Masonry Repair, Restoration, and Patching This course focuses on repair and patching of damaged masonry. Topics include crack repair, Dutchman repairs, unit replacement, patching materials and methods, and coordination of repairs with cleaning, pointing, and caulking work.	Total Hours: 90	Credit Hours: 3
BAC 158 PCC Codes, Inspection, and Quality Control This course covers codes, standards, and quality control procedures related to PCC work. Topics include project specifications, inspection procedures, tolerances, documentation, testing, and evaluation of completed restoration and waterproofing work.	Total Hours: 90	Credit Hours: 3
BAC 159 PCC Project Supervision and Leadership This course addresses supervision and leadership in PCC projects. Topics include crew coordination, workflow planning, production tracking, communication with project teams, documentation, and leadership responsibilities on restoration and waterproofing projects.	Total Hours: 150	Credit Hours: 5
BAC 160 Advanced PCC Applications and Specialty Systems This course covers advanced PCC applications and specialty systems. Topics include façade stabilization, structural crack injection, specialty coatings, complex sealant systems, and coordination of multiple restoration and waterproofing techniques on high-profile projects.	Total Hours: 150	Credit Hours: 5

APP 113	Total Hours: 90	Credit Hours: 3
TOTAL:	Total Hours: 1350	Credit Hours: 45

ARTICULATING CREDITS

Apprenticeship credits (table above)	42 credits
Gen Ed earned through apprenticeship program (applicable to AAS only):	
APP 113	3 credits