



Architectural Drafting and Planning

Youth Apprenticeship

ARCHITECTURAL DRAFTING AND PLANNING

Youth apprentices develop the skills needed to read, edit, and create architectural drawings. In the second year, youth apprentices expand their skills in developing specific residential and/or commercial design pieces.

Length of Apprenticeship: One or two years

COMPETENCIES

Youth apprentices work with a job site mentor to demonstrate the following competencies.

Year 1 and Year 2: Youth apprentices must complete a **total of 10** competencies. **Nine** must be from the list below. If necessary, employers can substitute **1** competency with another occupationally appropriate skill. That skill should be added to the competency list for assessment.

Architectural Drafting Competencies Year 1	Architectural Planning Competencies Year 2
<ol style="list-style-type: none">1. Interpret technical drawings2. Use measuring devices3. Perform file management tasks4. Copy documents and plans5. Research building codes and site requirements6. Compile site data7. Use design software8. Develop drawings such as plans, elevations, and sections9. Apply basic annotation to drawings10. Dimension drawings	<ol style="list-style-type: none">1. Create a floor plan2. Draw a site plan3. Draw a floor system and foundation plan4. Draw sectional views5. Draw elevation views6. Develop a stair section drawing7. Revise drawings8. Create interior elevations9. Create schedules10. Create presentation drawings

POST-SECONDARY PATHWAY OPPORTUNITIES

There are several post-secondary pathway opportunities in this area. Following is partial list.

- Architectural Design and Technology
- Interior Design
- Architectural Structural Engineering Technology



Architectural Drafting and Planning

Youth Apprenticeship
ON-THE-JOB LEARNING (OJL) PERFORMANCE STANDARDS
GUIDE

YOUTH APPRENTICE INFORMATION

Youth Apprentice Name	
YA Coordinator	YA Consortium
School District	High School Graduation Date

REQUIREMENTS

Level One Requirements

Youth apprentices must complete ALL the items listed below. Check completed areas.

- ☐ Year 1 Competency checklist
- ☐ Employability Skills checklist (in this OJL Guide) or the DPI Employability Skills Certificate
- ☐ Related instruction equal to 1 high school credit or at least 3 college credits
- ☐ Minimum of 450 work hours

Level Two Requirements

Youth apprentices must complete ALL the items listed below. Check completed areas.

- ☐ Year 2 Competency checklist
- ☐ Employability Skills checklist (in this OJL Guide) or the DPI Employability Skills Certificate
- ☐ Related instruction equal to 2 high school credits or at least 6 college credits
- ☐ Minimum of 900 work hours

HOURS

Record the hours the youth apprentice worked.

Total Hours Employed	Company Name	Telephone Number

CAREER PREPARATION

Youth apprentices must complete **one** of the following during Youth Apprenticeship participation:

- ☐ 1. Student is participating in a local or regional career pathway*.

Identify the pathway below:

For more information contact the [Wisconsin Department of Public Instruction](#). Additional help may be found on the WI DPI [Wisconsin Pathways – Regional Career Pathways](#) and [DPI Career Clusters and Pathways](#) web pages.

***Local and Regional career pathways** as defined by the WI DPI means that a student is participating in or has completed at least one CTE class in a cluster pathway sequence and has completed at least one of the other career pathway components: instructional related course, work-based learning, dual college credit, and/or career and technical student organization.

- ☐ 2. Student has completed one of the following certificates during their YA program or possess current certification earned previously.

A copy of the certificate must be uploaded with the completed checklist. Select the certificate from the list below.

- ☐ Autodesk Inventor- Imperial or Metric
- ☐ Autodesk REVIT- Imperial or Metric
- ☐ Autodesk Maya
- ☐ Autodesk 3dsMax
- ☐ Autodesk Fusion 360
- ☐ MS- Technology Associate (MTA)
- ☐ MS- Office Specialist (MOS) – any TWO certifications
- ☐ Certified SolidWorks Associate (CSWA) - Academic
- ☐ Certified SolidWorks Professional (CSWP)
- ☐ Other certificates identified by the Career and Technical Education (CTE) Approved Certifications List related to this occupational field (or related to this occupation) dwd.wisconsin.gov/det/cte/incentive/ (YA certificates excluded)

Title of Certification:

- ☐ 3. Student is participating in a [Dual Enrollment Course](#) connected to any postsecondary education provider including UW System, Wisconsin Association of Independent Colleges and Universities (WAICU), and any of the 16 Wisconsin Technical Colleges (WTCS).

College Name:

College Course Title:

Course Number:

For more information on Dual Enrollment opportunities, please click on one of the below resources:

- [WTCS](#)
- [WAICU](#)

- UW System – connect with the college of choice.

SIGNATURES

The On-the-Job Learning (OJL) Performance Standards Guide includes a list of competencies youth apprentices learn through mentoring and training at the worksite.

Instructions for the Worksite Employers/Mentors and School-Based or YA coordinators.

This document should be reviewed with the employer / mentor, school-based or YA coordinator on a regular basis with the youth apprentice to record progress and plan future steps to ensure completion of the required competencies. Mentors, school-based / YA coordinator, and the apprentice sign below.

Employer/Mentor Signature	Employer/Mentor Signature
Employer/Mentor	Employer/Mentor
Business/Company	Business/Company
Date Signed	Date Signed
School-Based and/or YA Coordinator Signature	School-Based and/or YA Coordinator Signature
School-Based and/or YA Coordinator	School-Based and/or YA Coordinator
School District or Organization	School District or Organization
Date Signed	Date Signed
Youth Apprentice Signature	Youth Apprentice Signature
Youth Apprentice	Youth Apprentice
School District / High School	School District / High School
Date Signed	Date Signed

EMPLOYABILITY SKILLS

Youth apprentices must demonstrate key employability skills.

The DWD YA program employability skills requirement may be attained and demonstrated through two processes. (See options listed below.) Employability skills must be completed for every year a student is in the program. The DPI Employability Skills Certificate may be counted as meeting one of those two years, provided the certificate is earned in the same year the student is enrolled in youth apprenticeship or they can complete the YA Employability Skills in the OJL. The Employability Skills Certificate must be obtained through the DPI.

1. If a student has successfully completed a Wisconsin Department of Public Instruction (DPI) State-Certified Cooperative Education, [Co-Op Employability Skill certification](#) then they have met the YA Employability Skills requirement for that year. A copy of the student's DPI Co-Op Employability Skill Certificate must be maintained on file with their YA regional consortium.

☐ Earned Wisconsin Employability Skills Certificate (checked if applicable) or,

2. Completed and rated "Employability Skills" through this YA OJL guide as described below.

3	Exceeds Expectations: Exceeds entry-level criteria; requires minimal supervision; consistently displays this behavior
2	Meets Expectations: Meets entry-level criteria; requires some supervision; often displays this behavior
1	Working to Meet Expectations: Needs improvement; requires much assistance and supervision; rarely displays this behavior

The following skills are required of all youth apprentices.

Employability Skills		Rating		
Competency and Rating Criteria		Minimum Rating of 2 for EACH Check Rating		
		1	2	3
1. Develops positive work relationships with others. <i>Examples of qualities and habits that the employee might exhibit include . . .</i>		Year 1 Rating		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Year 2 Rating		
<ul style="list-style-type: none"> • Interacts with others with respect and in a non-judgmental manner • Responds to others in an appropriate and non-offensive manner • Helps co-workers and peers accomplish tasks or goals • Applies problem-solving strategies to improve relations with others • When managing others, shows traits such as compassion, listening, coaching, team development, and appreciation 		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>2. Communicates effectively with others</p> <p><i>Examples of qualities and habits that the employee might exhibit include . . .</i></p> <ul style="list-style-type: none"> • Adjust the communication approach for the target audience, purpose, and situation to maximize impact • Organizes messages/information in a logical and helpful manner • Speaks clearly and writes legibly • Models behaviors to show active listening • Applies what was read to actual practice • Asks appropriate questions for clarity 	Year 1 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Year 2 Rating		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>3. Collaborates with others</p> <p><i>Examples of qualities and habits that the employee might exhibit include . . .</i></p> <ul style="list-style-type: none"> • Works effectively in teams with people of diverse backgrounds regardless of sex, race, ethnicity, nationality, sexuality, religion, political views, and abilities • Shares responsibility for collaborative work and decision making • Uses the problem-solving process to work through differences of opinion in a constructive manner to achieve a reasonable compromise • Avoids contributing to an unproductive group conflict • Shares information and carries out responsibilities in a timely manner 	Year 1 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Year 2 Rating		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>4. Maintains composure under pressure</p> <p><i>Examples of qualities and habits that the employee might exhibit include . . .</i></p> <ul style="list-style-type: none"> • Uses critical thinking to determine the best options or outcomes when faced with a challenging situation • Carries out assigned duties while under pressure • Acts in a respectful, professional, and non-offensive manner while under pressure • Applies stress management techniques to cope under pressure 	Year 1 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Year 2 Rating		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>5. Demonstrates integrity</p> <p><i>Examples of qualities and habits that the employee might exhibit include . . .</i></p> <ul style="list-style-type: none"> • Carries out responsibilities in an ethical, legal and confidential manner • Responds to situations in a timely manner • Takes personal responsibility to correct problems • Models behaviors that demonstrate self-discipline, reliability, and dependability 	Year 1 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Year 2 Rating		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<p>6. Performs quality work</p> <p><i>Examples of qualities and habits that the employee might exhibit include . . .</i></p> <ul style="list-style-type: none"> • Carries out written and verbal directions accurately • Completes work efficiently and effectively • Performs calculations accurately • Conserves resources, supplies, and materials to minimize costs and environmental impact • Uses equipment, technology, and work strategies to improve workflow • Applies problem-solving strategies to improve productivity • Adheres to worksite regulations and practices • Maintains an organized work area 	Year 1 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Year 2 Rating		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>7. Provides quality goods or services (internal and external)</p> <p><i>Examples of qualities and habits that the employee might exhibit include . . .</i></p> <ul style="list-style-type: none"> • Shows support for the organizational goals and principles by own personal actions • Displays a respectful and professional image to customers • Displays an enthusiastic attitude and desire to take care of customer needs • Seeks out ways to increase customer satisfaction • Produces goods to workplace specifications 	Year 1 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Year 2 Rating		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>8. Shows initiative and self-direction</p> <p><i>Examples of qualities and habits that the employee might exhibit include . . .</i></p> <ul style="list-style-type: none"> • Prioritizes and carries out responsibilities without being told • Responds with enthusiasm and flexibility to handle tasks that need immediate attention • Reflects on any unsatisfactory outcome as an opportunity to learn • Improves personal performance by doing something different or differently • Analyzes how own actions impact the overall organization • Supports own action with sound reasoning and principles • Balances personal activities to minimize interference with work responsibilities 	Year 1 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Year 2 Rating		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>9. Adapts to change</p> <p><i>Examples of qualities and habits that the employee might exhibit include . . .</i></p> <ul style="list-style-type: none"> • Shows flexibility and willingness to learn new skills for various job roles • Uses problem-solving and critical-thinking skills to cope with changing circumstances • Modifies own work behavior based on feedback, unsatisfactory outcomes, efficiency, and effectiveness • Displays a "can do" attitude 	Year 1 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Year 2 Rating		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

10. Demonstrates safety and security regulations and practices <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> • Follows personal safety requirements • Maintains a safe work environment • Demonstrates professional role in an emergency • Follows security procedures • Maintains confidentiality 	Year 1 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Year 2 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Applies job-related technology, information, and media <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> • Applies technology effectively in the workplace • Assesses and evaluates information on the job • Assesses training manuals, website, and other media related to the job 	Year 1 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Year 2 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Fulfills training or certification requirements for employment <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> • Participation in required career-related training and/or educational programs • Passing certification tests to qualify for licensure and/or certification • Participation in company training or orientation 	Year 1 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Year 2 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Sets personal goals for improvement <i>Examples of qualities and habits that the employee might exhibit include . . .</i> <ul style="list-style-type: none"> • Setting goals that are specific and measurable • Setting work-related goals that align with the organization's mission • Identifying strategies to reach goals • Reflecting on goal progress to regularly evaluate and modify goals 	Year 1 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Year 2 Rating		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ARCHITECTURAL DRAFTING YEAR 1 COMPETENCIES

Youth apprentices must complete a **total of 10 competencies**. **Nine** must be from the list below. If necessary, employers can substitute **1** competency with another occupationally appropriate skill. That skill should be added to the competency list for assessment.

Rating Scale

3: Exceeds entry level criteria | Requires minimal supervision | Consistently displays this behavior

2: Meets entry level criteria | Requires some supervision | Often displays this behavior

1: Needs improvement | Requires much assistance and supervision | Rarely displays this behavior

Competency and Rating Criteria	Minimum Rating of 2 for EACH Check Rating		
	1	2	3
1. Interpret technical drawings <ul style="list-style-type: none"> locate information in the drawing identify lines, views, symbols, and representations interpret dimensions and scale 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Use measuring devices <ul style="list-style-type: none"> select appropriate measuring device calibrate device if needed obtain an accurate reading record measurements using proper symbols utilize a metric scale 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Perform file management tasks <ul style="list-style-type: none"> follow the company's organizational system for both paper and digital files search for files find and open files copy files rename or add filenames to files 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Copy documents and plans <ul style="list-style-type: none"> operate copy machines operate printers, plotters, and scanners 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Research building codes and site requirements <ul style="list-style-type: none"> determine categories of applicable codes required by site, systems, and structures locate resources to conduct code and site research look up codes, zoning ordinances and regulations to determine the applicable requirements for a project 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Competency and Rating Criteria	Minimum Rating of 2 for EACH Check Rating		
	1	2	3
6. Compile site data <ul style="list-style-type: none"> develop a site base drawing document property lines analyze the grade investigate setbacks and other site restrictions 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Use design software <ul style="list-style-type: none"> demonstrate view use in design software draw objects that match given designs import/export drawings to/from various graphic formats convert an existing hard copy drawing to an electronic format select appropriate scale apply naming conventions, line types, and object management to drawing apply notes and/or leaders to drawing apply lettering, fonts, line thickness and type 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Develop drawings such as plans, elevations, and sections <ul style="list-style-type: none"> select proper views utilize view range properties to show pertinent information use model lines and details lines to supplement two dimensional views as necessary show hidden features and centerlines as required utilize sheet and title block features 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Apply basic annotation to drawings <ul style="list-style-type: none"> apply common rules for font size place dimension and extension lines apply adequate drawing notations use appropriate abbreviations place notes appropriately 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Dimension drawings <ul style="list-style-type: none"> dimensions are drawn with the appropriate line leaders of the correct weight dimensions are placed according to convention dimensions supply all needed measurements 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Competency Substitute (if you replaced a competency above, note the competency and rating)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			

ARCHITECTURAL PLANNING YEAR 2 COMPETENCIES

Year two youth apprentices must complete a total of **10 competencies**. **Nine** must be from the list below. If necessary, employers can substitute **1** competency with another occupationally appropriate skill. That skill should be added to the competency list for assessment.

Rating Scale

3: Exceeds entry level criteria | Requires minimal supervision | Consistently displays this behavior

2: Meets entry level criteria | Requires some supervision | Often displays this behavior

1: Needs improvement | Requires much assistance and supervision | Rarely displays this behavior

Competency and Rating Criteria	Minimum Rating of 2 for EACH Check Rating		
	1	2	3
1. Create a floor plan <ul style="list-style-type: none"> lay out exterior limits of structure block out exterior and interior walls with appropriate thickness indicate openings in exterior and interior walls draw door and window sizes draw other floor plan features add dimensions, notes and room labels draw material symbols indicate scale of drawing and view title indicate north arrow 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Draw a site plan <ul style="list-style-type: none"> compile site measurements and other data analyze measurement, service, utility, zoning and coding, and ecosystem data with worksite professional select size and scale for plan identify parcel features indicate modifications of any existing site elements place proposed structure on site with favorable orientation considering site-specific information estimate the amount of cut and/or fill necessary to build a structure estimate the increase in storm water runoff from a site indicate scale of drawing and view title indicate north arrow 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Draw a floor system and foundation plan <ul style="list-style-type: none"> contains structural components sized for the design includes dimensions, scale, notes, labels, and view title indicates symbols and references indicates north arrow 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Competency and Rating Criteria	Minimum Rating of 2 for EACH Check Rating		
	1	2	3
4. Draw sectional views <ul style="list-style-type: none"> • indicate finished floor level(s) • indicate finished ceiling level(s) • detail windows and doors components • letter wall and roof finishes, roof pitch, chimney, decks, and porches • add dimensions, scale, notes, labels, and view title • indicate true width of walls • indicate all openings in interior or exterior walls • indicate typical sections of standard built-in features • note wall materials or finish • indicate fixtures, built-ins, trim and molding, and utilities 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Draw elevation views <ul style="list-style-type: none"> • draw grade line • project construction lines from plans • indicate finished floor level(s) • draw windows and doors • draw roof outline • letter wall and roof finishes, roof pitch, chimney, decks, windows, and porches • add dimensions, scale, notes, labels, and view title • indicate all openings in exterior walls • indicate typical sections • note exterior wall materials or finish • show property line • show mechanical items 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Develop a stair section drawing <ul style="list-style-type: none"> • draw finished floor and finished ceiling lines heights • calculate and lay out risers, treads, and landings • indicate framing around stairs • identify materials used to construct stairs • draw trim features • dimension total rise and run • indicate headroom clearance and stairwell opening • add dimensions, notes and labels 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Revise drawings <ul style="list-style-type: none"> • make modifications to drawing • track revisions 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Competency and Rating Criteria	Minimum Rating of 2 for EACH Check Rating		
	1	2	3
8. Create interior elevations <ul style="list-style-type: none"> place elevation markers crop and individualize elevations tag interior design features and finishes tag plumbing fixtures tag lighting 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Create schedules <ul style="list-style-type: none"> layout window schedules layout door schedules 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Create presentation drawings <ul style="list-style-type: none"> rendering shows landscape components rendering shows interior and exterior surface textures rendering shows shadows rendering contains camera views to depict 3D model presentation contains color presentation shows legend 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Competency Substitute (if you replaced a competency above, note the competency and rating)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			

RELATED INSTRUCTION

YEAR 1: Indicate which related instruction courses the youth apprentice completed:

Course Title	Credits	Location

YEAR 2 (If applicable): Indicate which related instruction courses the youth apprentice completed:

Course Title	Credits	Location



Post-Program Completion Survey

Youth Apprenticeship

YA POST-PROGRAM COMPLETION SURVEY

The [Post-Program Completion Survey](#) form is to be provided to each student completing the Youth Apprenticeship program to capture information on the student's plans after leaving the program. The form should be filled out during the final meeting between the student, mentor, and Local Youth Apprenticeship Coordinator, when the final checklist is filled out and signed. Information captured on this form must be entered online using the Youth Apprenticeship Online Data Application (YODA) System.

DWD is an equal opportunity employer and service provider. If you have a disability and need assistance with this information, please dial 7-1-1 for Wisconsin Relay Service. Please contact the Division of Employment and Training at 888-258-9966 and press 6 to request information in an alternate format, including translated to another language.

