

# Architectural Design/CAD Pathway



The Architectural Design/CAD pathway is a great program for students who dream of designing and creating the structures we use every day. **Students who complete 2 credits in this pathway will meet state ELA and Math testing requirements, and...**

- Develop design skills using drawing and Computer Aided Drafting (CAD) techniques
- Create “real world” architectural and mechanical plans, drawings and designs.
- Participate in regional, state, national and international design competitions.
- Earn college credits which can be applied directly into partner college programs.
- Meet Art requirements through their Pathway courses.

## This CTE Pathway is a great fit for students who...

- ✓ Enjoy designing things, sketching and drawing.
- ✓ Enjoy projects that allow for personal creativity and self-expression.
- ✓ Enjoy work that includes practical, hands-on problems and solutions.
- ✓ Are interested in architecture, engineering, construction, drafting or other careers involving design.

Start Your Pathway with 2 or more credits of Pathway courses

Then, After You Have Finished High School...

Finally, Begin Your Career!

Sample Plan for Career and College Readiness in this Pathway	
<b>Grade 9</b>	
English	
Math	
Science	
World History 9	Health
PE	Art
Elective	Elective
<b>Grade 10</b>	
English	
Math	
Social Studies	
Science	
PE	Art
<b>Design for Built Environment/CAD 1</b>	
<b>Grade 11</b>	
English	
Math	
US History	
Science	
Elective	Elective
<b>Design for Built Environment/CAD 2</b>	
<b>Grade 12</b>	
English	
Sr. Social Studies	
Personal Finance	PE
Elective	Elective
<b>Green Building Architectural Design</b>	
<b>Green Building Architectural Design</b>	

**Apply college credits earned in this pathway directly into these partner college programs:**

Lake WA Institute of Technology

- Mechanical Design Technology Certificate and AAS-T Programs
- AutoCAD Certificate Program

**Continue your training in another college program such as:**

Lake WA Institute of Technology

- Architectural Technology Certificate and AAS-T Programs

University of Washington

- Engineering
- Architecture

Washington State University

- Engineering
- Architecture

**Jobs you can get with 2-Years Post-High School Training:**

- Architectural and Civil Drafters
- Electrical and Electronics Drafters
- Mechanical Drafters
- Engineering Technicians
- Civil Engineering Technicians
- Surveying Technicians

**Jobs you can get with 4 or more Years Post-High School Training:**

- Architects
- Interior Designers
- Landscape Architects
- Surveyors
- Engineering (All areas)

**For more information on these and other occupations related to this pathway, visit**

<http://careerbridge.wa.gov/>



# Pathway Courses and Descriptions

Pathway Courses	Grades	Length	Equivalencies	EWHS	MHS	LHS	MTHS	SLHS
Design for Built Env./CAD 1*	9-12	1 credit, Full year	1 credit Art	✓	✓			
Design for Built Env./CAD 1-2*	9-12	2 credits, Full year	1 credit Art			ID	ID	ID
Design for Built Env./CAD 2*	10-12	1 credit, Full year	1 credit Art	✓	✓			
Green Building Architectural Design	11-12	2 credits, Full year	1 credit Art	✓	ID	ID	ID	ID

✓ *Course is available at this school*    ID = *Intra-District Course*    \* *College Credit Available*

## DESIGN FOR THE BUILT ENVIRONMENT/CAD 1

IAR221/222 (Year)

Grades 9-12

Equivalency: 1 credit Art

Learn techniques and methods of drafting as a universal language to convey ideas via drawings and technical plans. Students will create a set of house plans along with a scale model and/or a perspective rendering. Learn about construction codes, techniques, materials, and methods. **Students can earn college credit through this course.**

## DESIGN FOR THE BUILT ENVIRONMENT/CAD 2

IAR231/232 (Year)

Grades 10-12

Equivalency: 1 credit Art

Prerequisite: Design/CAD 1

Discover the phases of the design and construction process, from site analysis, structural design, drafting and building codes. Design projects using both board and computer aided design (CAD). **Students can earn college credit through this course.**



## DESIGN FOR THE BUILT ENVIRONMENT/CAD 1-2 (Intra-District)

VOC 111/112 (Yearlong, 2 period block)

Grades 10-12

Intra-District Program: Located at Edmonds Woodway HS, period 1/2 block class. Students from all District high schools may attend this program. District bus transportation is provided. Shared Student Form required for registration.

Equivalency: 1 credit Art

Prerequisite: Algebra 1

Explore your interest in architecture, engineering, the building trades, technical illustration, interior design, or an profession which demands knowledge of technical drawing. Learn techniques and methods of drafting as a universal language used to convey thoughts and ideas. Build models, illustrate and render projects using both board and computer aided design (CAD). An overview of construction codes, techniques, materials and methods are also presented. **Students can earn college credit through this course.**

## GREEN BUILDING ARCHITECTURAL DESIGN (Intra-District)

VOC211/212 (Yearlong, 2 period block)

Grades 11-12

Intra-District Program: Located at Edmonds Woodway HS, period 1/2 block class. Students from all District high schools may attend this program. District bus transportation is provided. Shared Student Form required for registration.

Equivalency: 1 credit Art

Prerequisite: Algebra 1, Design/CAD 1

Explore standards and applications used in designing efficient and sustainable built environments. Classroom atmosphere simulates a "real world" office environment in which projects are programmed, designed, presented, critiqued, revised, and developed into plans for construction, production, and presentation.

