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.

**Sample Plan for Career and College Readiness in this Pathway**

<table>
<thead>
<tr>
<th>Grade 9</th>
<th>English</th>
<th>Math</th>
<th>Science</th>
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</thead>
<tbody>
<tr>
<td>World History 9</td>
<td>Health</td>
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<td></td>
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<tr>
<td>PE</td>
<td>Art</td>
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<tr>
<td>Elective</td>
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<tr>
<th>Grade 10</th>
<th>English</th>
<th>Math</th>
<th>Social Studies</th>
<th>Science</th>
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<tr>
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<td>Art</td>
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<tr>
<th>Design for Built Environment/CAD 1</th>
<th>Grade 11</th>
<th>English</th>
<th>Math</th>
<th>US History</th>
<th>Science</th>
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<tr>
<th>Design for Built Environment/CAD 2</th>
<th>Grade 12</th>
<th>English</th>
<th>Sr. Social Studies</th>
<th>Personal Finance</th>
<th>PE</th>
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<tbody>
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<td>Elective</td>
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| Green Building Architectural Design | Green Building Architectural Design |

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/](http://careerbridge.wa.gov/)
### Pathway Courses and Descriptions

<table>
<thead>
<tr>
<th>Pathway Courses</th>
<th>Grades</th>
<th>Length</th>
<th>Equivalencies</th>
<th>EWHS</th>
<th>MHS</th>
<th>LHS</th>
<th>MTHS</th>
<th>SLHS</th>
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<tbody>
<tr>
<td>Design for Built Env./CAD 1*</td>
<td>9-12</td>
<td>1 credit, Full year</td>
<td>1 credit Art</td>
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<td>1 credit Art</td>
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✓ Course is available at this school  ID = Intra-District Course  * College Credit Available

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**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 a 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.