

# ARCHITECTURAL TECHNOLOGY

## Fall 2014

- **Spokane Community College**
- 1810 North Greene Street
- Spokane, WA 99217-5399
- <http://www.scc.spokane.edu/>

## Degrees and Certificates

- [AAS-T - SCC](#)

## Tuition and Fees

<http://www.ccs.spokane.edu/TuitionFees>

## Program Description

The Architectural Technology program prepares students to become CAD drafters for the building design industry. Students focus on gaining proficiency with Computer Aided Drafting (CAD), 3-D modeling and Building Information Modeling (BIM) applications utilizing principles of design, the design process, building codes and building materials as they relate to building projects. This program prepares the drafter to translate ideas, rough sketches, specifications, calculations and existing drawings into drawings used within each phase of the design and construction process.

Students enter the program in the fall quarter. Program classes are typically held 7:30 a.m. –2:30 or 3:30 pm, Monday through Thursday. Please note that the classes listed below are intended for program students only. Other students are only allowed to register upon the approval of the instructor after prerequisites have been met. Students are expected to do a significant amount of reading and should be able to work at a computer for seven hours per day.

The first year consists of developing residential building design drawings and documents used by architects and building design engineers. Students use the most commonly used software utilized in the building design industry to gain proficiency in 2-D and 3-D Computer Aided Drafting (CAD). In addition, the first year consists of manual drafting, orthographic projections, freehand sketching, presentation graphics (isometric and perspective pictorial drawing), light construction principles (materials and methods), use of drafting expressions, international residential codes and sustainability issues. Emphasis is placed on architectural construction documents, which include site plans, floor plans, roof plans, footing and foundation plans, framing plans, exterior elevations, building and wall sections, window and door schedules, stair design, interior elevations, details and plumbing, HVAC, electrical and lighting plans. Graphic representation using computer software is used in the production of documents of the common phrases of architectural design including programming, schematic design, design development and construction documents. Utilization of the above is finalized in the development of residential

working drawings.

Students will receive a Residential Architectural Technology Certificate after completing the first three quarters of the AAS degree. Prior to taking courses in this program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university to determine which of the courses in this program are transferable to their intended university. Students who want to continue on in the second year will be permitted to do so and upon successful completion of the second year, will receive an AAS degree. Additionally, students who want an AAS-T transfer degree may take five additional SCC courses and are eligible to apply for acceptance into Washington State University Architecture program with a junior standing. A 3.0 GPA or higher is required in all courses for acceptance at WSU. Prior to taking courses in this program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university.

The second year consists of developing architectural working drawings using Computer Aided Drafting (CAD) and Building Information Modeling (BIM) related to commercial building design. Class projects will be developed from a preliminary design utilizing drafting techniques, standards and practices of the profession, including office procedure knowledge, use of building materials; structural framing systems as used in the building industry and study of the International Building Code.

### **First Quarter**

<a href="#">ARCHT112</a>	Introduction to Architectural Drafting	5
<a href="#">ARCHT120</a>	Residential Architecture Theory	5
<a href="#">ARCHT126</a>	Introduction to Computer Aided Drafting	5
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### **Second Quarter**

<a href="#">ARCHT122</a>	Architectural Design 1	7
<a href="#">ARCHT130</a>	Residential Building Materials	4
<a href="#">ARCHT134</a>	Electrical and Mechanical Systems	4
<a href="#">ART&amp; 100</a>	Art Appreciation	5
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### **Third Quarter**

<a href="#">ARCHT125</a>	Residential Building Codes	2
<a href="#">ARCHT132</a>	Introduction to Construction Documents/CAD	8

<a href="#">ARCHT139</a>	Delineation	5
<a href="#">MATH&amp;141</a>	Precalculus I <sup>1</sup>	5
		20

### **Fourth Quarter**

<a href="#">ARCHT238</a>	Introduction to Commercial Drafting/Design	6
<a href="#">ARCHT242</a>	Commercial Construction Documents/CAD	4
<a href="#">ARCHT246</a>	Commercial Architecture Theory	5
<a href="#">PHYS 101</a>	General Physics	5
		20

### **Fifth Quarter**

<a href="#">ARCHT225</a>	Portfolio	1
<a href="#">ARCHT240</a>	Commercial Building Codes	3
<a href="#">ARCHT250</a>	Introduction to Commercial Building Materials	4
<a href="#">ARCHT252</a>	Advanced Commercial Construction Documents/CAD	8
<a href="#">ENGL&amp;101</a>	English Composition I	5
		21

### **Sixth Quarter**

<a href="#">ARCHT215</a>	Issues in Sustainable Architecture	5
<a href="#">ARCHT262</a>	Electrical Mechanical Systems Application/CAD	6
<a href="#">ARCHT263</a>	Advanced Commercial Building Materials	4
<a href="#">CMST&amp;220</a>	Public Speaking	5
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116 credits are required for the AAS-T

<sup>1</sup> *MATH& 141 is a prerequisite of PHYS 101 and must have been completed with a 2.0 or better.*