

ARCHITECTURE, ENGINEERING, AND CONSTRUCTION TECHNOLOGY (AAS-T)

(100 credits)

Program Description

Are you interested in being part of a team that creates the built environment – homes, schools, hospitals, roads, bridges, etc.? When you study Architecture, Engineering, and Construction (AEC) Technology at SPSCC, you gain experience to build a better tomorrow. From creating 2D drawings of cabinets to 3D modeling of land, buildings, and construction trades – there are opportunities abound. Join a long history of serving the community with a successful track record of our students finding gainful employment.

This program differs from the Architecture, Engineering and Construction (AEC) Technology Associate in Applied Science degree by offering more general education as part of the core requirement, making it more transferrable to colleges and universities who chose to articulate with South Puget Sound Community College. The two current accepted articulations for this AAS-T degree is the Sustainable Building Technology degree with South Seattle College (<https://southseattle.edu/programs/sustainable-building-science-technology/>) and The Evergreen State College as part of their up-side-down degree.

Program graduates will use industry standard software tools to translate conceptual ideas into 2D plans and 3D models. Experienced workers may advance to project managers, virtual design and construction (VDC) coordinators, plan checkers, detailers and/or BIM technicians. A typical work week will consist of 40 hours, but overtime may be required to meet deadlines. Graduates can work for engineering and architectural firms, contractors, government agencies, and a wide variety of related industries.

Career Opportunities

Program graduates will use industry standard software tools to translate conceptual ideas into 2D plans and 3D models. Experienced workers may advance to project managers, virtual design and construction (VDC) coordinators, plan checkers, detailers and/or BIM technicians. A typical work week will consist of 40 hours, but overtime may be required to meet deadlines. Graduates can work for engineering and architectural firms, contractors, government agencies, and a wide variety of related industries.

- Architectural Engineer
- Architectural and Civil Drafter
- Urban and Regional Planner

Program Information

- Students should expect early exposure to a wide range of software applications
- Textbooks and required tools are estimated to range from \$300.00 - \$500.00 for the 2-Year program
- An Autodesk certified personal computer is highly recommended. Estimated cost \$1000 - \$1500
- Program experiences will include E-Learning and innovative use of technology

ADMISSION: The AEC Technology Program has a limited enrollment policy with program curriculum pathways starting in Fall and Spring quarters only.

Outcomes

South Puget Sound Community College believes that all students need to develop a broad range of abilities that will not only make them more effective in their professional pursuits but will enhance their capacity to relate well to others in their daily lives.

- Use industry standard software to: Communicate how a building is constructed, Identify conflicts between and among building systems, Design large public works infrastructures, Create virtual building models
- Communicate orally and in writing to diverse team members, colleagues, supervisors, and customers
- Present completed professional resume and portfolio that demonstrates skills, employment history, interests, and accomplishments
- Think critically, ethically, and creatively to solve work-related problems, and initiate professional growth and learning
- Apply general principles of project management to classroom work

The SPSCC college-wide abilities are embedded into each program:

- Effective Communication
- Information Literacy
- Analytical Reasoning
- Multicultural Awareness
- Social Responsibility

Courses by Quarter

Courses by Quarter

Code	Title	Credits
Option 1: FALL Start		
Quarter 1		
Transition Studies		
Quarter 2		
CCS 101	Pathways to Success	3
ENGL 090 or ENGL 095	Integrated Reading and Writing I Integrated Reading and Writing II	5
MATH 092 or ABE 065	Mathematical Reasoning Contextualized Math II	5
PSYC& 100	General Psychology ¹	5
Quarter 3		
AEC 101	Fundamentals of Drafting	5
ENGL 098	Transitional English Composition	5

or ENGL& 101	English Composition I	
CMATH 107	Clippers Math In Society ²	5
Quarter 4		
AEC 102	Introduction to CAD	5
AEC 103	Introduction to 3D Modeling	5
Select one of the following:		5
ENVS& 100	Survey of Environmental Science	
ENVS 102	Climate Change & Society	
ENVS 203	Climate and Energy Solutions	
Quarter 5		
AEC 120	Construction Methods and Materials	5
AEC 160	Introduction to Civil Engineering and Survey	5
Select one of the following:		5
BUS 260	Principles of Management: Diversity	
PSYC 116	Psychology of Human Relations: Diversity	
CMST& 210	Interpersonal Communication: Diversity	
CMST& 230	Small Group Communication: Diversity	
CMST& 240	Intercultural Communication: Diversity	
HUM 121	Multicultural America: Diversity	
Quarter 6		
AEC 121	Architectural BIM I	5
AEC 161	Civil CAD I	5
AEC 171	Commercial BIM I	5
Quarter 7		
AEC 122	Architectural BIM II	5
AEC 162	Civil CAD II	5
AEC 172	Commercial BIM II	5
Quarter 8		
AEC 263	Civil CAD III	5
AEC 264	Survey I	3
AEC 273	Building Information Modeling III	5
AEC 274	Building Information Modeling IV	4

Code	Title	Credits
Option 2: WINTER Start		
Quarter 1		
Transition Studies		
Quarter 2		
ENGL 090	Integrated Reading and Writing I	5
or ENGL 095	Integrated Reading and Writing II	
MATH 092	Mathematical Reasoning	5
or ABE 065	Contextualized Math II	
PSYC& 100	General Psychology ¹	5
CCS 101	Pathways to Success	3
Quarter 3		
ENGL 098	Transitional English Composition	5
or ENGL& 101	English Composition I	
CMATH 107	Clippers Math In Society ²	5
Select one of the following:		5
BUS 260	Principles of Management: Diversity	
PSYC 116	Psychology of Human Relations: Diversity	
CMST& 210	Interpersonal Communication: Diversity	

CMST& 230	Small Group Communication: Diversity	
CMST& 240	Intercultural Communication: Diversity	5
HUM 121	Multicultural America: Diversity	
Quarter 4		
AEC 101	Fundamentals of Drafting	5
AEC 103	Introduction to 3D Modeling	5
Select one of the following:		5
ENVS& 100	Survey of Environmental Science	
ENVS 102	Climate Change & Society	
ENVS 203	Climate and Energy Solutions	
Quarter 5		
AEC 102	Introduction to CAD	5
AEC 120	Construction Methods and Materials	5
AEC 160	Introduction to Civil Engineering and Survey	5
Quarter 6		
AEC 121	Architectural BIM I	5
AEC 161	Civil CAD I	5
AEC 171	Commercial BIM I	5
Quarter 7		
AEC 122	Architectural BIM II	5
AEC 162	Civil CAD II	5
AEC 172	Commercial BIM II	5
Quarter 8		
AEC 263	Civil CAD III	5
AEC 264	Survey I	3
AEC 273	Building Information Modeling III	5
AEC 274	Building Information Modeling IV	4

¹ To meet BAS college-level transferable Psychology and Natural World requirements, required for AAS-T.

² Some students may place directly into MATH& 107 Math in Society

Code	Title	Credits
To meet upper division BAS general education requirements (30cr):		
ENGL& 102	Composition II	5
PHYS& 114	General Physics I w/Lab	5
MATH& 146	Introduction to Statistics	5
CMST& 220	Public Speaking	5
VLPA Elective		
General Elective Course from Any Distribution (https://catalog.spscc.edu/distribution-requirements/aa-as-dt-degrees/)		5

Pathway Maps

South Puget Sound Community College has provided pathways and associated recommended courses for ease of student selection based upon a student's career interest. Please review the pathway maps for required and recommended courses.

Architecture, Engineering, and Construction Technology Pathway Map
Associate in Applied Science-Transfer degree
72cr AEC courses + 28cr Gen Eds for BAS (**see PSYC& and ENV&) = 100 Credits **required** for AAS-T
Option1 = Fall Start

Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 5	Qtr. 6	Qtr. 7	Qtr. 8
Transfer Studies	CEC 101 (3cr) Pathways to Success	AEC 101 (3cr) Fundamentals of Drafting Fall	AEC 101 (3cr) Introduction to CAD Winter	AEC 120 (3cr) Construction Methods and Materials Spring	AEC 121 (3cr) Architectural CAD I Fall	AEC 122 (3cr) Architectural CAD II Winter	AEC 260 (3cr) Civil CAD I Spring
	ENGL 090 (5cr) Integrated Reading and Writing I ENGL 095 (5cr) Integrated Reading and Writing II Choose one: MATH 092 (5cr) Mathematical Reasoning AEC 095 (5cr) Contextualized Math I	ENGL 090 (5cr) Transitional English Composition ENGL& 101 (5cr) English Composition I	AEC 103 (3cr) Introduction to 3-D Modeling Winter **Choose ONE: ENVS& 100 (5cr) Survey of Environmental Science ENVS 102 (3cr) Climate Change & Society ENVS 203 (5cr) Climate and Energy Solutions	AEC 160 (3cr) Introduction to Civil Engineering and Survey Spring Choose One (3cr): Human Relations /Diversity, recommended BUS 260 (3cr) Principles of Management: Diversity PSYC 116 (3cr) Psychology of Human Relations: Diversity CMST& 210 (3cr) Interpersonal Communication: Diversity CMST& 210 (3cr) Small Group Communication: Diversity CMST 240 (3cr) Intercultural Communication: Diversity HUM 121 (3cr) Multicultural America: Diversity	AEC 161 (3cr) Civil CAD I Fall	AEC 162 (3cr) Civil CAD II Winter	AEC 264 (3cr) Survey I Spring
		CMATH 107 (3cr) Clipper's Math in Society* Includes ability to complete MATH&99 MATH& 107 *Some students may place directly into MATH& 107			AEC 171 (3cr) Building Information Modeling I Fall	AEC 172 (3cr) Building Information Modeling II Winter	AEC 279 (3cr) Building Information Modeling III Spring
	**PSYC& 100 (3cr) General Psychology						AEC 274 (4cr) Building Information Modeling IV Spring

† See page 3 for additional general education courses needed to meet BAS completion requirements (beyond the AAS-T) which can be taken at SPSCC or the BAS awarding institution.
** * To meet BAS college-level transferable Psychology and Natural World requirements, **required** for AAS-T.

Option2 = Winter Start

Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 5	Qtr. 6	Qtr. 7	Qtr. 8
Transfer Studies	ENGL 090 (5cr) Integrated Reading and Writing I ENGL 095 (5cr) Integrated Reading and Writing II Choose one: MATH 092 (5cr) Mathematical Reasoning AEC 095 (5cr) Contextualized Math I	ENGL 090 (5cr) Transitional English Composition ENGL& 101 (5cr) English Composition I	AEC 101 (3cr) Fundamentals of Drafting Winter	AEC 101 (3cr) Introduction to CAD Spring	AEC 121 (3cr) Architectural CAD I Fall	AEC 122 (3cr) Architectural CAD II Winter	AEC 260 (3cr) Civil CAD I Spring
		CMATH 107 (3cr) Clipper's Math in Society* Includes ability to complete MATH&99 MATH& 107 *Some students may place directly into MATH& 107	AEC 103 (3cr) Introduction to 3-D Modeling Winter	AEC 120 (3cr) Construction Methods and Materials Spring	AEC 161 (3cr) Civil CAD I Fall	AEC 162 (3cr) Civil CAD II Winter	AEC 264 (3cr) Survey I Spring
	**PSYC& 100 (3cr) General Psychology	Choose One (3cr): Human Relations /Diversity, recommended BUS 260 (3cr) Principles of Management: Diversity PSYC 116 (3cr) Psychology of Human Relations: Diversity CMST& 210 (3cr) Interpersonal Communication: Diversity CMST& 210 (3cr) Small Group Communication: Diversity CMST 240 (3cr) Intercultural Communication: Diversity HUM 121 (3cr) Multicultural America: Diversity	**Choose ONE: ENVS& 100 (5cr) Survey of Environmental Science ENVS 102 (3cr) Climate Change & Society ENVS 203 (5cr) Climate and Energy Solutions	AEC 160 (3cr) Introduction to Civil Engineering and Survey Spring	AEC 171 (3cr) Building Information Modeling I Fall	AEC 172 (3cr) Building Information Modeling II Winter	AEC 279 (3cr) Building Information Modeling III Spring
	CEC 101 (3cr) Pathways to Success						AEC 274 (4cr) Building Information Modeling IV Spring

† See next page for additional general education courses needed to meet BAS completion requirements (beyond the AAS-T) which can be taken at SPSCC or the BAS awarding institution.
** * To meet BAS college-level transferable Psychology and Natural World requirements, **required** for AAS-T.

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† To meet upper division BAS general education requirements (30cr):
ENGL& 102 (5cr) English Composition II
PHYS& 116 (5cr) Physics w/ Lab Natural Science
MATH& 146 (3cr) Statistics
WPA&TBD (5cr) Active
CMST& 220 (5cr) Public Speaking
Elective (3cr) TBD