ARCHITECTURE, ENGINEERING, AND CONSTRUCTION TECHNOLOGY (AAS)

(90 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.

The Architecture, Engineering and Construction (AEC) Technology Associate in Applied Science Program, which is from here on referred to as the AEC Program, is designed to prepare students for entry-level employment in various sectors of the AEC Industry.

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 Building Information Modeling (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 Building Information Modeling (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 to \$500 for the 2-Year program

- An Autodesk certified personal computer is highly recommended.
 Estimated cost \$1000 to \$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 Winter 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		
ENGL 090	Integrated Reading and Writing I	5
or ENGL 095	Integrated Reading and Writing II	
Quarter 3		
MATH 101	Technical Mathematics I	5
AEC 101	Fundamentals of Drafting	5
CCS 101	Pathways to Success	3
Quarter 4		
ENGL 098	Transitional English Composition	5
or ENGL& 101	English Composition I	
AEC 102	Introduction to CAD	5
AEC 103	Introduction to 3D Modeling	5
Quarter 5		

AEC 120	Construction Methods and Materials	5	AEC 161	Civil CAD I	5
AEC 160	Introduction to Civil Engineering and	5	AEC 171	Commercial BIM I	5
	Survey		Quarter 7		
Select one of the foll	•	5	AEC 122	Architectural BIM II	5
BUS 260	Principles of Management: Diversity		AEC 162	Civil CAD II	5
PSYC 116	Psychology of Human Relations: Diversity		AEC 172	Commercial BIM II	5
HUM 121	Multicultural America: Diversity		Quarter 8		
CMST& 210	Interpersonal Communication: Diversity		AEC 263	Civil CAD III	5
CMST& 230	Small Group Communication: Diversity		AEC 264	Survey I	3
CMST& 240	Intercultural Communication: Diversity		AEC 273	Building Information Modeling III	5
Quarter 6			AEC 274	Building Information Modeling IV	4
AEC 121	Architectural BIM I	5			
AEC 161	Civil CAD I	5	Code	Title	Credits
AEC 171	Commercial BIM I	5	Option 3: Part Time		
Quarter 7			Quarter 1		
AEC 122	Architectural BIM II	5	Transition Studies		
AEC 162	Civil CAD II	5	Quarter 2		
AEC 172	Commercial BIM II	5	MATH 101	Technical Mathematics I	5
Quarter 8			ENGL 090	Integrated Reading and Writing I	5
AEC 263	Civil CAD III	5	or ENGL 095	Integrated Reading and Writing II	
AEC 264	Survey I	3	CCS 101	Pathways to Success	3
AEC 273	Building Information Modeling III	5	Quarter 3		
AEC 274	Building Information Modeling IV	4	AEC 101	Fundamentals of Drafting	5
			ENGL 098	Transitional English Composition	5
Code	Title	Credits	or ENGL& 101	English Composition I	
Option 2: WINTER St	art		Quarter 4		
Quarter 1			AEC 102	Introduction to CAD	5
Transition Studies			AEC 103	Introduction to 3D Modeling	5
Quarter 2			Quarter 5		
ENGL 090	Integrated Reading and Writing I	5	AEC 160	Introduction to Civil Engineering and	5
or ENGL 095	Integrated Reading and Writing II			Survey	
Quarter 3			AEC 161	Civil CAD I	5
AEC 101	Fundamentals of Drafting	5	Quarter 6		
AEC 103	Introduction to 3D Modeling	5	AEC 120	Construction Methods and Materials	5
CCS 101	Pathways to Success	3	A E O 1 C O		
Quarter 4			AEC 162	Civil CAD II	5
			Quarter 7	Civil CAD II	5
AEC 102	Introduction to CAD	5		Civil CAD III	5 5
AEC 102 AEC 120	Introduction to CAD Construction Methods and Materials	5 5	Quarter 7		
			Quarter 7 AEC 263	Civil CAD III	5
AEC 120 AEC 160	Construction Methods and Materials	5	Quarter 7 AEC 263 AEC 264	Civil CAD III Survey I	5
AEC 120 AEC 160 Quarter 5	Construction Methods and Materials Introduction to Civil Engineering and Survey	5	Quarter 7 AEC 263 AEC 264 Quarter 8	Civil CAD III Survey I	5 5
AEC 120 AEC 160	Construction Methods and Materials Introduction to Civil Engineering and Survey Transitional English Composition	5	Quarter 7 AEC 263 AEC 264 Quarter 8 Select one of the following	Civil CAD III Survey I owing:	5 5
AEC 120 AEC 160 Quarter 5	Construction Methods and Materials Introduction to Civil Engineering and Survey Transitional English Composition English Composition I	5 5	Quarter 7 AEC 263 AEC 264 Quarter 8 Select one of the foll BUS 260	Civil CAD III Survey I owing: Principles of Management: Diversity	5 5
AEC 120 AEC 160 Quarter 5 ENGL 098	Construction Methods and Materials Introduction to Civil Engineering and Survey Transitional English Composition	5 5	Quarter 7 AEC 263 AEC 264 Quarter 8 Select one of the foll BUS 260 PSYC 116	Civil CAD III Survey I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity	5 5
AEC 120 AEC 160 Quarter 5 ENGL 098 or ENGL& 101 MATH 101 Select one of the foll	Construction Methods and Materials Introduction to Civil Engineering and Survey Transitional English Composition English Composition I Technical Mathematics I owing:	5 5 5	Quarter 7 AEC 263 AEC 264 Quarter 8 Select one of the foll BUS 260 PSYC 116 HUM 121	Civil CAD III Survey I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity Multicultural America: Diversity	5 5
AEC 120 AEC 160 Quarter 5 ENGL 098 or ENGL& 101 MATH 101	Construction Methods and Materials Introduction to Civil Engineering and Survey Transitional English Composition English Composition I Technical Mathematics I owing: Principles of Management: Diversity	5 5 5	Quarter 7 AEC 263 AEC 264 Quarter 8 Select one of the foll BUS 260 PSYC 116 HUM 121 CMST& 230	Civil CAD III Survey I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity Multicultural America: Diversity Small Group Communication: Diversity	5 5
AEC 120 AEC 160 Quarter 5 ENGL 098 or ENGL& 101 MATH 101 Select one of the foll	Construction Methods and Materials Introduction to Civil Engineering and Survey Transitional English Composition English Composition I Technical Mathematics I owing:	5 5 5	Quarter 7 AEC 263 AEC 264 Quarter 8 Select one of the foll BUS 260 PSYC 116 HUM 121 CMST& 230 CMST& 240	Civil CAD III Survey I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity Multicultural America: Diversity Small Group Communication: Diversity	5 5
AEC 120 AEC 160 Quarter 5 ENGL 098 or ENGL& 101 MATH 101 Select one of the foll BUS 260	Construction Methods and Materials Introduction to Civil Engineering and Survey Transitional English Composition English Composition I Technical Mathematics I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity Multicultural America: Diversity	5 5 5	Quarter 7 AEC 263 AEC 264 Quarter 8 Select one of the foll BUS 260 PSYC 116 HUM 121 CMST& 230 CMST& 240 Quarter 9	Civil CAD III Survey I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity Multicultural America: Diversity Small Group Communication: Diversity Intercultural Communication: Diversity	5 5 5
AEC 120 AEC 160 Quarter 5 ENGL 098 or ENGL& 101 MATH 101 Select one of the foll BUS 260 PSYC 116	Construction Methods and Materials Introduction to Civil Engineering and Survey Transitional English Composition English Composition I Technical Mathematics I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity Multicultural America: Diversity Interpersonal Communication: Diversity	5 5 5	Quarter 7 AEC 263 AEC 264 Quarter 8 Select one of the foll BUS 260 PSYC 116 HUM 121 CMST& 230 CMST& 240 Quarter 9 AEC 121	Civil CAD III Survey I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity Multicultural America: Diversity Small Group Communication: Diversity Intercultural Communication: Diversity Architectural BIM I	5 5 5
AEC 120 AEC 160 Quarter 5 ENGL 098 or ENGL& 101 MATH 101 Select one of the foll BUS 260 PSYC 116 HUM 121	Construction Methods and Materials Introduction to Civil Engineering and Survey Transitional English Composition English Composition I Technical Mathematics I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity Multicultural America: Diversity	5 5 5	Quarter 7 AEC 263 AEC 264 Quarter 8 Select one of the foll BUS 260 PSYC 116 HUM 121 CMST& 230 CMST& 240 Quarter 9 AEC 121 AEC 171	Civil CAD III Survey I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity Multicultural America: Diversity Small Group Communication: Diversity Intercultural Communication: Diversity Architectural BIM I	5 5 5
AEC 120 AEC 160 Quarter 5 ENGL 098 or ENGL& 101 MATH 101 Select one of the foll BUS 260 PSYC 116 HUM 121 CMST& 210	Construction Methods and Materials Introduction to Civil Engineering and Survey Transitional English Composition English Composition I Technical Mathematics I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity Multicultural America: Diversity Interpersonal Communication: Diversity	5 5 5	Quarter 7 AEC 263 AEC 264 Quarter 8 Select one of the foll BUS 260 PSYC 116 HUM 121 CMST& 230 CMST& 240 Quarter 9 AEC 121 AEC 171 Quarter 10	Civil CAD III Survey I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity Multicultural America: Diversity Small Group Communication: Diversity Intercultural Communication: Diversity Architectural BIM I Commercial BIM I	5 5 5
AEC 120 AEC 160 Quarter 5 ENGL 098 or ENGL& 101 MATH 101 Select one of the foll BUS 260 PSYC 116 HUM 121 CMST& 210 CMST& 230	Construction Methods and Materials Introduction to Civil Engineering and Survey Transitional English Composition English Composition I Technical Mathematics I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity Multicultural America: Diversity Interpersonal Communication: Diversity Small Group Communication: Diversity	5 5 5	Quarter 7 AEC 263 AEC 264 Quarter 8 Select one of the folion BUS 260 PSYC 116 HUM 121 CMST& 230 CMST& 240 Quarter 9 AEC 121 AEC 171 Quarter 10 AEC 122	Civil CAD III Survey I owing: Principles of Management: Diversity Psychology of Human Relations: Diversity Multicultural America: Diversity Small Group Communication: Diversity Intercultural Communication: Diversity Architectural BIM I Commercial BIM I Architectural BIM II	5 5 5 5

AEC 274	Building Information Modeling IV	5
CMST& 210	Interpersonal Communication: Diversity	

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 90 Credits Option 1 = Fall Start

Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 5	Qtr. 6	Qtr. 7	Qtr. 8
ransition Studies	ENGL 090 (5cr) Integrated Reading and Writing I ENGL 095 (5cr) Integrated Reading and Writing II	MATH 101 (Scr) Technical Mathematics	ENGL 098 (Scr.) Transitional English Composition ENGL® 101 (Scr.) English Composition I	AEC 120 (Scr) Construction Methods and Materials Spring	AEC 121 (Scr) Architectural CAD I Fall	AEC 122 (5cr) Architectural CAD II Winter	AEC 263 (5cr) Civil CAD III Spring
		AEC 101 (5cr) Fundamentals of Drafting Fall	AEC 102 (5cr) Introduction to CAD Winter	AEC 160 (Scr) Introduction to Civil Engineering and Survey Spring	AEC 161 (5cr) Civil CAD / Fall	AEC 162 (5cr) Civil CAD II Winter	AEC 264 (3cr) Survey I Spring
		CCS 108 [Scr] Fathways to Success	ARC 103 (Scr) introduction to 3-D Addeling Winter	Onces One (Scr) (Human Relations / Diversity (Human Relations / Diversity (Human Relations / Diversity (Human Relations / Diversity Human Relations / Diversity Human Relations / Diversity Human Relations / Diversity Human Relations / Diversity (Human Relations / Diversity Human Relations / Diversity Human Relations / Diversity (Human	AEC 121 (Ser) Suilaing information Modelling I	ACC 172 (Ser) Saluling information Modelling II Winter	ASC 273 (Scr) Building information Modeling III Spring
							AEC 274 (4cr) Building Information Modeling IV Spring

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Option2 = Winter Start

Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 5	Qtr. 6	Qtr. 7	Qtr. 8
Transition Studies	ENGL 090 (Scr) Integrated Reading and Writing I ENGL 095 (Scr) Integrated Reading and Writing II	AEC 101 (Scr) Fundamentals of Drafting Winter	AEC 102 (Scr) Introduction to CAD Spring	ENGL 098 (Scr) Transitional English Composition ENGL& 101 (Scr) English Composition (AEC 121 (5cr) Architectural CAD I Fall	AEC 122 (Scr) Architectural CAD II Winter	AEC 263 (Scr) Civil CAD III Spring
		AEC 103 (5cr) Introduction to 5-D Modeling Winter	AEC 120 (5cr) Construction Methods and Materials Spring	MATH 101 (Scr) Technical Mathematics	AEC 161 (5cr) Civil CAD I Fall	AEC 162 (5cr) Civil CAD II Winter	AEC 264 (3cr) Survey I Spring
		CCS 193 (Ser) Pathways to Success	Acc Sel (Scr) introduction to Civil introduction to Civil Engineering and Survey.	Chaste One (Scri) (ruman Relations) (/Diversity) (ruman Relations) (/Diversity) 8015 260 (Scri) 8015 260 (Scri) Anticopenent (Diversity) Relations (Psychology of Human Hullia 12 (Scri) (Hullia	AEC 131 (Ser) Suiding information According i	AEC 372 (Ser) Saliding information Acadeling ii Winter	A&C 273 (Scr) Sulding information Adodeling issues Spring
							AEC 274 (4cr) Building information Modeling IV Spring

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Architecture, Engineering, and Construction Technology Pathway Ma Associate in Applied Science [PART_TIME track]

90 Credits										
Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 5	Qtr. 6	Qtr. 7	Qtr. 8	Qtr. 9	Qtr. 10	Qtr. 11
Transition Studies	MATH 101 (Scr) Technical Mathematics	AEC 101 (Scr) Fundamentals of Drafting winter	AEC 102 (5cr) Introduction to CAD spring	AEC 160 (5cr) Introduction to Civil Engineering and Survey fall	AEC 120 (5cr) Construction Methods and Materials winter	AEC 263 (5cr) Civil CAD III spring	Choose One (Scr): (Human Relations /Diversity, recommended) BUS 260 (Scr)	AEC 121 (Scr) Architecturol CAD I fall	AEC 122 (Scr) Architectural CAD II winter	AEC 273 (Scr) Building Information Modeling III spring
	ENGL 090 (Scr) Integrated Reading and Writing I ENGL 095 (Scr) Integrated Reading and Writing II	ENGL 098 (Scr) Transitional English Composition ENGL& 101 (Scr) English Composition I	AEC 103 (5cr) Introduction to 3-D Modeling spring	AEC 161 (Scr) Civil CAD I fall	AEC 162 (Scr) Civil CAD II winter	AEC 264 (3cr) Survey / spring	Principles of Management: Diversity PSYC 116 (Scr) Psychology of Human Relations: Diversity HUM121 (Scr)	AEC 171 (Scr) Building Information Modeling I fall	AEC 172 (Scr) Building Information Modeling II winter	AEC 274 (4cr) Building Information Modeling IV spring
	CCS 101 (3cr) Pathways to Success						Multicultural America: Diversity (Scr) Interpersonal Communication: Diversity CMSTR 230 (Scr) Small Group Communication: Diversity CMSTR 230 (Scr) Intercultural Communication: Diversity			