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

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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		

AFO 100		_	AFO 161	of all OAD I	-
AEC 120	Construction Methods and Materials	5	AEC 161	Civil CAD I	5
AEC 160	Introduction to Civil Engineering and Survey	5	AEC 171	Commercial BIM I	5
Select one of the foll	•	5	Quarter 7	A LS A LONAII	_
BUS 260	Principles of Management: Diversity	3	AEC 122	Architectural BIM II	5
PSYC 116	Psychology of Human Relations: Diversity		AEC 162	Civil CAD II	5
HUM 121	Multicultural America: Diversity		AEC 172	Commercial BIM II	5
CMST& 210	Interpersonal Communication: Diversity		Quarter 8	o: '! o.p !!!	_
CMST& 210	Small Group Communication: Diversity		AEC 263	Civil CAD III	5
CMST& 230	Intercultural Communication: Diversity		AEC 264	Survey I	3
	intercultural Communication. Diversity		AEC 273	Building Information Modeling III	5
Quarter 6 AEC 121	Architectural BIM I	5	AEC 274	Building Information Modeling IV	4
AEC 121	Civil CAD I	5	Code	Title	Credits
AEC 161	Commercial BIM I	5	Option 3: Part Time		
Quarter 7	Commercial blw i	Э	Quarter 1		
AEC 122	Architectural BIM II	5	Transition Studies		
	Civil CAD II	5	Quarter 2		
AEC 162 AEC 172	Commercial BIM II	5	MATH 101	Technical Mathematics I	5
	Commercial blw II	Э	ENGL 090	Integrated Reading and Writing I	5
Quarter 8	Circil CAD III	_	or ENGL 095	Integrated Reading and Writing II	ŭ
AEC 263	Civil CAD III	5	CCS 101	Pathways to Success	3
AEC 264	Survey I	3	Quarter 3	. allimajo to cassess	
AEC 273	Building Information Modeling III	5 4	AEC 101	Fundamentals of Drafting	5
AEC 274	Building Information Modeling IV	4	ENGL 098	Transitional English Composition	5
Code	Title	Credits	or ENGL& 101	English Composition I	Ŭ
Option 2: WINTER St	art		Quarter 4	English composition i	
Quarter 1			AEC 102	Introduction to CAD	5
Transition Studies			AEC 103	Introduction to 3D Modeling	5
Quarter 2			Quarter 5	g	
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	AEC 162	Civil CAD II	5
Quarter 4			Quarter 7		
AEC 102	Introduction to CAD	5	AEC 263	Civil CAD III	5
AEC 120	Construction Methods and Materials	5	AEC 264	Survey I	5
AEC 160	Introduction to Civil Engineering and	5	Quarter 8		
	Survey		Select one of the foll	owing:	5
Quarter 5			BUS 260	Principles of Management: Diversity	
ENGL 098	Transitional English Composition	5	PSYC 116	Psychology of Human Relations: Diversity	
or ENGL& 101	English Composition I		HUM 121	Multicultural America: Diversity	
MATH 101	Technical Mathematics I	5	CMST& 230	Small Group Communication: Diversity	
Select one of the foll	owing:	5	CMST& 240	Intercultural Communication: Diversity	
BUS 260	Principles of Management: Diversity		Quarter 9	·	
PSYC 116	Psychology of Human Relations: Diversity		AEC 121	Architectural BIM I	5
HUM 121	Multicultural America: Diversity		AEC 171	Commercial BIM I	5
CMST& 210	Interpersonal Communication: Diversity		Quarter 10		
CMST& 230	Small Group Communication: Diversity		AEC 122	Architectural BIM II	5
CMST& 240	Intercultural Communication: Diversity		AEC 172	Commercial BIM II	5
Quarter 6			Quarter 11		
AEC 121	Architectural BIM I	5	AEC 273	Building Information Modeling III	5
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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 (ENGL 095 (Scr) Integrated Reading and Writing (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 (Scr) 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 10.0 (Ser) Pothways to Success	AEC 160 (Scr) introduction to Civil Regineering and Surrey Spring	Choise for (Scri) (Full Human Relations) (Polerativa) (Po	ABC 121 (Ser) soliding information According I fall	AEC 127 (Ser) sullain information Accideing II Winter	AEC 273 (Scr) soliding information Anddeling is 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 (Scr) Introduction to CAD spring	AEC 160 (Scr) Introduction to Civil Engineering and Survey fall	AEC 120 (Scr) Construction Methods and Materials winter	AEC 263 (Scr) Civil CAD III spring	Choose One (Scr): (Human Relations /Diversity, recommended) BUS 260 (Scr)	AEC 121 (Scr) Architectural CAD I fall	AEC 122 (Scr) Architectural CAD II winter	AEC 273 (Scr) Building Information Modeling III spring
	INOL 000 (Ser) integrated integrated integrated wheeling and Writing It NOL 095 (Ser) integrated integrated integrated Reading and Writing II (SC 100 (Ser) Fethways to Success	ENGLOSSIGN Tronzibonal English Compasition ENGLOSSIGN ENGLOSSIGN ENGLOSSIGN ENGLOSSIGN ENGLOSSIGN Compasition Compasition i	AEC 103 (Scr) Introduction to 3-0 Modeling spring	AEC 151 (Sc) Coir CAD fall	AEC 136 (Scr) CMI 62 (Scr) CMI 62 (MI 62 MI winter	AEC 264 (2er) Sumey / spring	Frinciples of Monagement: Obversity PSYC 116 [Src] Psychology of Human Relations: Diversity Human Relations: Diversity HUMI21 [Src] Moltzethy HUMI21 [Src] Moltzethy CMSTR 220 [Src] Diversity CMSTR 230 [Src] Small Group Communication: Diversity CMSTR 230 [Src] Communication: Diversity CMSTR 230 [Src] Interpressional Communication: Diversity CMSTR 230 [Src] Interpressional Communication: Diversity CMSTR 230 [Src] Diversity CMSTR 240	AEC 171 (Ser) Boulding Information Modeling I	AEC 172 (Scr) Bould of the Control	AEC 274 (Acr) Soliding Information Modeling IV spring