

# LANDSCAPE TECHNOLOGY

pcc.edu/programs/landscape-tech

## CAREER AND PROGRAM DESCRIPTION

Prepare for entry level and supervisory work in landscape construction, landscape management, landscape design and environmental landscape management. In the construction area, students work with landscape contractors installing landscapes. Those specializing in management work primarily in maintaining existing landscapes both private and public. Landscape designers work with clients and contractors to produce residential design. Those specializing in environmental landscape management will work in sustainable landscape practices including bioswales, greenroofs and restoration. Upon application to the Landscape Contractors Board and presentation of transcripts and diploma, students completing the Associate of Applied Science Degree in Landscape Technology will be eligible to sit for the Landscape Contractors licensing exam.

The Landscape Technology AAS Degree courses are designed to develop knowledge and skills in plant care, plant identification, tree care, soils, irrigation, landscape business operations, estimating and bidding, and construction practices. With proper licensing and experience, many students establish their own business in construction, maintenance or design. Employment can include work with retail and wholesale nurseries, garden centers, landscape contractors, landscape designers, positions in landscape maintenance and gardening, and at landscape and horticultural suppliers. Students are prepared for landscape construction work including installing hardscapes, irrigation and drainage systems and planting. Students are also prepared for landscape management work including maintaining residential, estate, commercial and public properties, golf courses, private and public gardens, and parks.

The Landscape Technology Design AAS Degree courses are developed to build knowledge and skills in plant identification, soils, irrigation, site measurement and analysis, drafting and CAD. Students completing the curriculum will have the skills needed to produce landscape designs. Required landscape design courses meet the educational requirement for certification with the Association of Professional Landscape Designers. Students are prepared to work in the landscape design and construction field, performing services for residential and small commercial projects. They may work for landscape contractors, landscape designers, or be self employed.

The Environmental Landscape Management Technology AAS Degree courses will develop skills and knowledge in Landscape Technology, Biology and Environmental Science to prepare students for careers working with natural resources and sustainable landscape technologies. Students who complete the degree will have a broad background in science and the technical skills to construct, maintain and monitor sustainable landscape systems such as bioswales, greenroofs and environmental restoration projects.

The Landscape Service Technician Certificate core of courses in the first year are designed to develop knowledge and skills in plant care, plant identification, soils, irrigation, basic landscape design and construction practices. Students successfully completing this curriculum may seek entry level positions with landscape companies and will have completed the educational requirement for applying a combination of education and work experience as qualifying to sit for the State of Oregon Landscape Contractors licensing exam. Students are prepared for entry level positions in sales, construction or maintenance at wholesale and retail nurseries, landscape installation companies, or landscape management companies. Credits earned through this degree apply to subsequent LAT certificates and degrees.

The Landscape Entry Level Certificate courses prepare students for entry level work in landscape management and/or construction.

Credits earned through this degree apply to subsequent LAT certificates and degrees.

Following the listed sequence of courses and entry into the program in the fall is recommended although not required by the program.

## DEGREES AND CERTIFICATES OFFERED

### ASSOCIATE OF APPLIED SCIENCE DEGREE

Landscape Technology  
Landscape Technology: Design  
Environmental Landscape Management Technology

### LESS THAN ONE-YEAR CERTIFICATE

Arboriculture Career Pathway Certificate  
Landscape Service Technician Career Pathway Certificate  
Landscape Technology Entry Level Career Pathway Certificate

### Academic Prerequisites

- None. See individual courses for prerequisites.

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- None. See individual courses for prerequisites.

### Academic Requirements

Requirements vary depending upon the degree or certificate. See following details:

- Landscape Technology AAS, Landscape Design AAS, Landscape Service Technician Certificate, and Landscape Technology Entry Level Career Pathways Certificate:
  - All LAT, HOR, CSS, and MSD courses must be completed for a grade of "C" or "P" or better.
- Environmental Landscape Management Technology AAS:
  - All LAT, HOR, CSS, BI, ESR, and MSD courses must be completed for a grade of "C" or "P" or better.

### Non-Academic Prerequisites

- None

### Non-Academic Requirements

- None

### ASSOCIATE OF APPLIED SCIENCE DEGREE

Landscape Technology (p. 1)  
Landscape Technology: Design (p. 2)  
Environmental Landscape Management Technology (p. 3)

### LANDSCAPE TECHNOLOGY AAS DEGREE

Minimum 90 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Math/computation competency is met through the courses in the program of study indicated with a § symbol. Students should consult with program advisors for course planning.

### Course of Study <sup>2</sup>

The coursework listed below is required. The following is an example of a term-by-term breakdown.

First Term		Credits
LAT 101	Introduction to the Landscape Industry	2
LAT 236	Landscape Math §	3
Plant ID Electives		3
General Education: 1 course		3
Second Term		
CSS 200	Soils and Plant Nutrition	4

LAT 115	Tool and Equipment Safety, Operation and Maintenance	3
LAT 272	Sustainable Landscaping	3
Plant ID Electives		3
Third Term		
LAT 102	Plant Establishment and Maintenance	3
LAT 108	Landscape Irrigation I	3
Plant ID Electives		3
General Education: 1 course		
Fourth Term		
LAT 280A	Cooperative Education: Landscape <sup>1</sup>	3
Landscape Technology Electives		3
General Education: 2 courses		
Fifth Term		
LAT 106	Plant Anatomy and Physiology	4
LAT 111	Landscape Construction Practices	3
LAT 223	Site Evaluation	3
Landscape Technology Electives		3
Sixth Term		
LAT 104	Pesticides	3
LAT 240	Tree Care	3
LAT 243	Landscape Business Operations	3
LAT 264	Landscape Estimating and Bidding	3
Seventh Term		
LAT 224	Grading and Drainage	3
LAT 250	Plant Health Care	3
LAT 276	Employment & Careers in the Landscape Industry	2
Eighth Term		
LAT 280A	Cooperative Education: Landscape	3
MSD 101	Principles of Management and Supervision	3
Landscape Technology Electives		3
Total Credits		90

§ Course cannot be substituted with another course.

<sup>1</sup> Students with one year documented work experience may take an additional 3 credits of General Education or landscape electives in place of cooperative work experience. Arrange with the landscape department chair.

<sup>2</sup> Most LAT classes are only offered once a year. First term corresponds to the fall term, second term to winter term, third term to spring term, and 4th term to summer term. Students may start the program at any time of the year. Please contact the LAT program advisor for more guidance.

**LANDSCAPE TECHNOLOGY DEGREE ELECTIVES**

Code	Title	Credits
HOR 226	Plant Materials - Deciduous	3
HOR 227	Plant Materials - Evergreens	3
HOR 228	Plant Materials - Flowering	3
HOR 272	Summer Annuals & Perennials	3
HOR 285	Permaculture Design	7
HOR 290	Introduction to Landscape Design	3
HOR 291	Landscape Design III	3
LAT 103	Beekeeping	2

LAT 109	Plant Propagation	3
LAT 112	The Nature of Green Infrastructure	1
LAT 214	Landscape Design II	3
LAT 219	Landscape Illustration	3
LAT 225	Water Gardens	3
LAT 237A	Landscape Problem Solving-Fall	1
LAT 237B	Landscape Problem Solving-Winter	1
LAT 237C	Landscape Problem Solving-Spring	1
LAT 238	Ecosystem-Based Landscaping Practices	1
LAT 242	Arborist Tree Climbing	3
LAT 262	Native Plants of Oregon	3
LAT 271	Computer-Aided Landscape Design	3
LAT 275	Introduction to Landscape Night Lighting	3
LAT 279	Computer-Aided Landscape Design II	3
LAT 280C	Cooperative Work Experience-Landscape Design	3

**PLANT IDENTIFICATION ELECTIVES**

Code	Title	Credits
HOR 226	Plant Materials - Deciduous	3
HOR 227	Plant Materials - Evergreens	3
HOR 228	Plant Materials - Flowering	3
HOR 272	Summer Annuals & Perennials	3
LAT 262	Native Plants of Oregon	3

**LANDSCAPE DESIGN AAS DEGREE**

Minimum 96 credits. Students must meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Math/computation competency is met through the courses in the program of study indicated with a § symbol. Students should consult with program advisors for course planning.

**Course of Study <sup>2</sup>**

The coursework listed below is required. The following is an example of a term-by-term breakdown.

Term	Course	Credits	
First Term	HOR 290	Introduction to Landscape Design	3
	LAT 101	Introduction to the Landscape Industry	2
	LAT 236	Landscape Math <sup>§</sup>	3
	Plant ID Electives		3
Second Term	CSS 200	Soils and Plant Nutrition	4
	LAT 271	Computer-Aided Landscape Design	3
	LAT 272	Sustainable Landscaping	3
	Plant ID Electives		3
Third Term	LAT 102	Plant Establishment and Maintenance	3
	LAT 108	Landscape Irrigation I	3
	LAT 279	Computer-Aided Landscape Design II	3
	Plant ID Electives		3
Fourth Term	WR 121 or WR 122 or WR 227	Composition I (WR121=WR121Z) <sup>Z</sup> or Composition II (WR122=WR122Z) or Technical Writing (WR227=WR227Z)	4
	Landscape Design Electives		3
General Education: 2 courses			

Fifth Term		
LAT 106	Plant Anatomy and Physiology	4
LAT 111	Landscape Construction Practices	3
LAT 214	Landscape Design II	3
LAT 223	Site Evaluation	3
LAT 237A	Landscape Problem Solving-Fall	1
Sixth Term		
HOR 291	Landscape Design III	3
LAT 115A	Tools and Equipment Seminar	2
LAT 237B	Landscape Problem Solving-Winter	1
LAT 243	Landscape Business Operations	3
LAT 264	Landscape Estimating and Bidding	3
General Education: 1 course		
Seventh Term		
LAT 219	Landscape Illustration	3
LAT 224	Grading and Drainage	3
LAT 237C	Landscape Problem Solving-Spring	1
LAT 276	Employment & Careers in the Landscape Industry	2
General Education: 1 course		
Eighth Term		
LAT 280C or LAT 280A	Cooperative Work Experience- Landscape Design <sup>1</sup> or Cooperative Education: Landscape	3
Landscape Design Electives		3
Total Credits		96

§  
Course cannot be substituted with another course.

1  
Students with one year documented work experience in landscape design may take an additional 3 credits of LAT elective courses in lieu of cooperative work experience. Arrange with landscape department chair.

2  
Most LAT classes are only offered once a year. First term corresponds to the fall term, second term to winter term, third term to spring term, and fourth term to summer term. Students may start the program at any time of the year. Please contact the LAT program advisor for more guidance.

Z  
This course is part of Oregon Common Course Numbering. The following courses are equivalent:  
WR 121 and WR 121Z  
WR 122 and WR 122Z  
WR 227 and WR 227Z

**LANDSCAPE DESIGN DEGREE ELECTIVES**

Code	Title	Credits
HOR 226	Plant Materials - Deciduous	3
HOR 227	Plant Materials - Evergreens	3
HOR 228	Plant Materials - Flowering	3
HOR 272	Summer Annuals & Perennials	3
HOR 285	Permaculture Design	7
LAT 103	Beekeeping	2
LAT 104	Pesticides	3
LAT 109	Plant Propagation	3
LAT 112	The Nature of Green Infrastructure	1
LAT 115	Tool and Equipment Safety, Operation and Maintenance	3

LAT 219	Landscape Illustration	3
LAT 225	Water Gardens	3
LAT 238	Ecosystem-Based Landscaping Practices	1
LAT 240	Tree Care	3
LAT 242	Arborist Tree Climbing	3
LAT 250	Plant Health Care	3
LAT 262	Native Plants of Oregon	3
LAT 275	Introduction to Landscape Night Lighting	3

**PLANT IDENTIFICATION ELECTIVES**

Code	Title	Credits
HOR 226	Plant Materials - Deciduous	3
HOR 227	Plant Materials - Evergreens	3
HOR 228	Plant Materials - Flowering	3
HOR 272	Summer Annuals & Perennials	3
LAT 262	Native Plants of Oregon	3

**ENVIRONMENTAL LANDSCAPE MANAGEMENT TECHNOLOGY AAS DEGREE**

Minimum 92 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Math/computation competency is met through the courses in the program of study indicated with a § symbol. Student should consult with program advisors for course planning.

**Course of Study<sup>2</sup>**

The coursework listed below is required. The following is an example of a term-by-term breakdown.

First Term		Credits
BI 141	Habitats: Life of the Forest <sup>*</sup>	4
ESR 150	Environmental Studies Orientation	1
ESR 200	Introduction to Environmental Systems	4
LAT 236	Landscape Math <sup>§</sup>	3
Second Term		
CSS 200	Soils and Plant Nutrition	4
LAT 104	Pesticides	3
LAT 115	Tool and Equipment Safety, Operation and Maintenance	3
LAT 272	Sustainable Landscaping	3
Third Term		
BI 143	Habitats: Freshwater Biology <sup>*</sup>	4
LAT 102	Plant Establishment and Maintenance	3
LAT 108	Landscape Irrigation I	3
LAT 262	Native Plants of Oregon	3
Fourth Term		
LAT 280A	Cooperative Education: Landscape	3
	Environmental LAT Degree Elective	3
General Education: 1 course		
Fifth Term		
ESR 202	Applied Environmental Studies: Prep for Problem Solving	4
LAT 106	Plant Anatomy and Physiology	4
LAT 223	Site Evaluation	3
General Education: 1 course		
Sixth Term		
ESR 201	Applied Environmental Studies: Science/Policy Consideration	4
LAT 243	Landscape Business Operations	3

LAT 264	Landscape Estimating and Bidding	3
Environmental LAT Degree Elective		3
Seventh Term		
ESR 204	Introduction to Environmental Restoration	4
LAT 224	Grading and Drainage	3
LAT 250	Plant Health Care	3
LAT 276	Employment & Careers in the Landscape Industry	2
Eighth Term		
LAT 280A	Cooperative Education: Landscape <sup>1</sup>	3
Environmental LAT Degree Elective		3
Total Credits		92

\* Could be used as General Education.  
 § Course cannot be substituted for another course.  
 1

Students with one year documented work experience in landscape management may take an additional 6 credits of elective courses in lieu of cooperative work experience. Arrange with landscape department chair.

<sup>2</sup> Most LAT classes are only offered once a year. First term corresponds to the fall term, second term to winter term, third term to spring term, and 4th term to summer term. Students may start the program at any time of the year. Please contact the LAT program advisor for more guidance.

**ENVIRONMENTAL LANDSCAPE DEGREE ELECTIVES**

Code	Title	Credits
BI 101	Biology I	4
BI 101H	Biology I: Honors	4
BI 102	Biology II	4
BI 103	Biology III	4
BI 141	Habitats: Life of the Forest	4
BI 142	Habitats: Marine Biology	4
BI 143	Habitats: Freshwater Biology	4
BI 145	Intro. to Fish and Wildlife Conservation and Management	4
BI 160	Ecology/Field Biology: Coast	2
BI 161	Ecology/Field Bio: Great Basin	2
BI 163	Organic Gardening	4
BI 164	Bird Identification and Ecology	4
BI 198	Independent Study - Biology	1-4
BI 200B	Principles of Ecology: Field Biology	4
BI 202	Botany: An Introduction to the Plant Kingdom	4
BI 211	Principles of Biology I	5
BI 212	Principles of Biology II	5
BI 213	Principles of Biology III	5
BI 280A	Cooperative Education: Biology	1-10
BI 298	Independent Study	1-4
ESR 140	Introduction to Sustainability	4
ESR 141	Introduction to Individual Sustainability	4
ESR 171	Environmental Science: Biological Perspectives	4

ESR 172	Environmental Science: Chemical Perspectives	4
ESR 173	Environmental Science: Geological Perspectives	4
ESR 298	Independent Study: Environmental Science	1-4
GEO 242	GIS Programming	5
GEO 265	Intro to GIS & Mapping Techniques	4
GEO 266	GIS Analysis	4
GEO 267	Geospatial Applications	4
HOR 226	Plant Materials - Deciduous	3
HOR 227	Plant Materials - Evergreens	3
HOR 228	Plant Materials - Flowering	3
HOR 272	Summer Annuals & Perennials	3
HOR 285	Permaculture Design	7
HOR 290	Introduction to Landscape Design	3
HOR 291	Landscape Design III	3
LAT 101	Introduction to the Landscape Industry	2
LAT 103	Beekeeping	2
LAT 109	Plant Propagation	3
LAT 111	Landscape Construction Practices	3
LAT 112	The Nature of Green Infrastructure	1
LAT 214	Landscape Design II	3
LAT 219	Landscape Illustration	3
LAT 225	Water Gardens	3
LAT 237A	Landscape Problem Solving-Fall	1
LAT 237B	Landscape Problem Solving-Winter	1
LAT 237C	Landscape Problem Solving-Spring	1
LAT 238	Ecosystem-Based Landscaping Practices	1
LAT 240	Tree Care	3
LAT 242	Arborist Tree Climbing	3
LAT 271	Computer-Aided Landscape Design	3
LAT 275	Introduction to Landscape Night Lighting	3
LAT 280C	Cooperative Work Experience-Landscape Design	3

**LESS THAN ONE-YEAR: CAREER PATHWAY CERTIFICATE**

Arboriculture (p. 4)  
 Landscape Service Technician (p. 5)  
 Landscape Technology Entry Level (p. 5)

**ARBORICULTURE CAREER PATHWAY CERTIFICATE**

Minimum 12 credits. Students must meet all certificate requirements. The Arboriculture Certificate is a Career Pathway. All courses are contained in the Landscape Technology AAS Degree.

**Arboriculture Career Pathway Courses**

Code	Title	Credits
HOR 226	Plant Materials - Deciduous	3
or HOR 227	Plant Materials - Evergreens	
or HOR 228	Plant Materials - Flowering	
LAT 240	Tree Care	3
LAT 242	Arborist Tree Climbing	3
LAT 280A	Cooperative Education: Landscape	3
Total Credits		12

**LANDSCAPE SERVICE TECHNICIAN CAREER PATHWAY CERTIFICATE**

Minimum 32 credits. Students must meet all certificate requirements. The Landscape Service Technician Certificate is a Career Pathway. All courses are contained in the Landscape Technology AAS Degree

**Course of Study <sup>1</sup>**

The coursework listed below is required. The following is an example of a term-by-term breakdown.

First Term		Credits
LAT 101	Introduction to the Landscape Industry	2
LAT 236	Landscape Math	3
Landscape Service Technician Electives		3
Second Term		Credits
LAT 115	Tool and Equipment Safety, Operation and Maintenance	3
LAT 272	Sustainable Landscaping	3
Landscape Service Technician Electives		6
Third Term		Credits
LAT 102	Plant Establishment and Maintenance	3
LAT 108	Landscape Irrigation I	3
Landscape Service Technician Electives		6
<b>Total Credits</b>		<b>32</b>

<sup>1</sup> Most LAT classes are only offered once a year. First term corresponds to the fall term, second term to winter term, third term to spring term. Students may start the program at any time of the year. Please contact the LAT program advisor for more guidance.

**LANDSCAPE SERVICE TECHNICIAN ELECTIVES**

Code	Title	Credits
CSS 200	Soils and Plant Nutrition	4
HOR 226	Plant Materials - Deciduous	3
HOR 227	Plant Materials - Evergreens	3
HOR 228	Plant Materials - Flowering	3
HOR 272	Summer Annuals & Perennials	3
HOR 285	Permaculture Design	7
HOR 290	Introduction to Landscape Design	3
HOR 291	Landscape Design III	3
LAT 102	Plant Establishment and Maintenance	3
LAT 103	Beekeeping	2
LAT 104	Pesticides	3
LAT 106	Plant Anatomy and Physiology	4
LAT 109	Plant Propagation	3
LAT 111	Landscape Construction Practices	3
LAT 112	The Nature of Green Infrastructure	1
LAT 115	Tool and Equipment Safety, Operation and Maintenance	3
LAT 214	Landscape Design II	3
LAT 219	Landscape Illustration	3
LAT 223	Site Evaluation	3
LAT 224	Grading and Drainage	3
LAT 225	Water Gardens	3
LAT 237A	Landscape Problem Solving-Fall	1
LAT 237B	Landscape Problem Solving-Winter	1
LAT 237C	Landscape Problem Solving-Spring	1
LAT 238	Ecosystem-Based Landscaping Practices	1

LAT 240	Tree Care	3
LAT 242	Arborist Tree Climbing	3
LAT 243	Landscape Business Operations	3
LAT 250	Plant Health Care	3
LAT 262	Native Plants of Oregon	3
LAT 264	Landscape Estimating and Bidding	3
LAT 271	Computer-Aided Landscape Design	3
LAT 275	Introduction to Landscape Night Lighting	3
LAT 276	Employment & Careers in the Landscape Industry	2
LAT 279	Computer-Aided Landscape Design II	3
LAT 280A	Cooperative Education: Landscape	1-10
LAT 280C	Cooperative Work Experience-Landscape Design	3

**LANDSCAPE TECHNOLOGY ENTRY LEVEL CAREER PATHWAY CERTIFICATE**

Minimum 17 credits. Students must meet all certificate requirements. The Landscape Technology Entry Level Certificate is a Career Pathway. All courses are contained in the Landscape Technology AAS Degree.

**Course of Study <sup>1</sup>**

The coursework listed below is required. The following is an example of a term-by-term breakdown.

First Term		Credits
LAT 101	Introduction to the Landscape Industry	2
LAT 236	Landscape Math	3
Second Term		Credits
LAT 272	Sustainable Landscaping	3
LAT Entry Level Career Pathway Electives		3
Third Term		Credits
LAT 102	Plant Establishment and Maintenance	3
LAT Entry Level Career Pathway Electives		3
<b>Total Credits</b>		<b>17</b>

<sup>1</sup> Most LAT classes are only offered once a year. First term corresponds to the fall term, second term to winter term, third term to spring term. Students may start the program at any time of the year. Please contact the LAT program advisor for more guidance.

**LAT ENTRY LEVEL ELECTIVES**

Code	Title	Credits
CSS 200	Soils and Plant Nutrition	4
HOR 226	Plant Materials - Deciduous	3
HOR 227	Plant Materials - Evergreens	3
HOR 228	Plant Materials - Flowering	3
HOR 272	Summer Annuals & Perennials	3
HOR 285	Permaculture Design	7
HOR 290	Introduction to Landscape Design	3
HOR 291	Landscape Design III	3
LAT 103	Beekeeping	2
LAT 104	Pesticides	3
LAT 106	Plant Anatomy and Physiology	4
LAT 108	Landscape Irrigation I	3
LAT 109	Plant Propagation	3
LAT 111	Landscape Construction Practices	3
LAT 112	The Nature of Green Infrastructure	1

LAT 115	Tool and Equipment Safety, Operation and Maintenance	3
LAT 115A	Tools and Equipment Seminar	2
LAT 214	Landscape Design II	3
LAT 219	Landscape Illustration	3
LAT 223	Site Evaluation	3
LAT 224	Grading and Drainage	3
LAT 225	Water Gardens	3
LAT 237A	Landscape Problem Solving-Fall	1
LAT 237B	Landscape Problem Solving-Winter	1
LAT 237C	Landscape Problem Solving-Spring	1
LAT 238	Ecosystem-Based Landscaping Practices	1
LAT 240	Tree Care	3
LAT 242	Arborist Tree Climbing	3
LAT 243	Landscape Business Operations	3
LAT 250	Plant Health Care	3
LAT 262	Native Plants of Oregon	3
LAT 264	Landscape Estimating and Bidding	3
LAT 271	Computer-Aided Landscape Design	3
LAT 275	Introduction to Landscape Night Lighting	3
LAT 276	Employment & Careers in the Landscape Industry	2
LAT 279	Computer-Aided Landscape Design II	3
LAT 280A	Cooperative Education: Landscape	1-10
LAT 280C	Cooperative Work Experience-Landscape Design	3