BUILDING CONSTRUCTION TECHNOLOGY

BUILDING CONSTRUCTION TECHNOLOGY

pcc.edu/programs/bldg-construction/

CAREER AND PROGRAM DESCRIPTION

Career possibilities exist for those going into business for themselves or seeking employment in the construction industry. PCC offers associate degrees and a certificate in several construction industry specialties. This program is designed to help students develop the technical qualifications and life skills needed to enter the construction industry, as well as to help those currently in the construction trades upgrade and learn new skills.

Building Construction Technology AAS Degree: This degree is designed to help students learn the skills a carpenter needs to build a house. Coursework includes hands-on instruction in the BCT shop, or at the BCT work site, in Tool Safety, Residential Concrete, Floor/Wall/Roof Framing, Exterior/Interior Finish, Cabinetmaking, and Remodeling. Classroom instruction consists of lectures and exercises that will teach skills in Residential Printreading, Materials and Methods, Building Codes, Estimating, Construction Math, Drafting, and Sustainable Building.

Graduates might work in the construction field as framers, carpenters, remodelers, site supervisors, concrete workers, siding installers, roofers, trim carpenters, etc. After gaining job site experience, graduates might even start their own construction companies. For specific courses required to complete this degree, see the term by term list under “Building Construction Technology.” For students who plan to complete the degree in two years, fall term is the best time to begin, since most courses are only offered once each year. However, many students enter the program in winter, spring, or summer terms. Students who enter the program during these terms should see a BCT advisor during their first term for help in sequencing courses.

Design/Build Remodeling AAS Degree: This degree offers coursework in building construction and interior design with a focus on kitchen and bath remodeling and design. This degree is affiliated with the National Kitchen and Bath Association (NKBA) and follows NKBA kitchen and bath planning guidelines. Upon graduation, and gaining industry experience, students can take the Certified Kitchen and/or Bath exam to become a certified designer. A graduate might work as a kitchen and/or bath designer, remodeler, cabinet installer, project superintendent, project manager, estimator, or showroom and sales associate. College level reading and writing skills, basic math skills are required. Individual courses may have prerequisites which are included in the course description. Students must complete the coursework requirements outlined in the PCC catalog under Associates of Applied Science Degree.

Construction Management AAS Degree: Our Construction Management (CM) program provides students with the technical and management skills and qualifications necessary to secure employment in a management capacity within the construction industry. Our curriculum prepares students for entry level management and supervisory positions in the residential and commercial fields of construction, offering classes in estimating, scheduling, construction law, safety, building systems, materials and methods of construction, blueprint reading, project management and more. CM graduates seek employment as project engineers, estimators, schedulers, project managers and field supervisors. Others become owner’s representatives, developers, and general and specialty contractors. Graduates who earn the AAS degree in Construction Management may transfer to Oregon Institute of Technology to pursue a Bachelor of Science in Operations Management. Also, a Bachelor’s of Applied Science in Technology and Management is offered to AAS CM degree holders by both OIT and Southern Oregon University (SOU). The SOU program is online. OIT offers courses at OIT’s Portland Metro area campus in Wilsonville.

DEGREE AND CERTIFICATES OFFERED

ASSOCIATE OF APPLIED SCIENCE DEGREE

Building Construction Technology
Building Construction Technology: Construction Management
Building Construction Technology: Design/Build Remodeling Option

LESS THAN ONE-YEAR CERTIFICATE

Building Construction Technology

Academic Prerequisites

- Students new to the building construction technology program must take the college’s placement tests for math and writing administered through the assessment centers prior to program advising and registration.
- Students must be enrolled in or have completed MTH 20 or have placed into MTH 58 or MTH 60 or above on the Numerical Test and have enrolled in or completed (WR 90 or IRW 90) or placed into (WR 115 or IRW 115 or above).
- Students must complete BCT 106 with a grade of "C" or "P" better or acquire department approval before enrolling in classes requiring the use of hand or power tools.

Academic Requirements

None

Non-Academic Prerequisites

- None

Non-Academic Requirements

- None

ASSOCIATE OF APPLIED SCIENCE DEGREE

Building Construction Technology (p. 1)
Building Construction Technology: Construction Management (p. 2)
Building Construction Technology: Design/Build Remodeling Option (p. 3)

BUILDING CONSTRUCTION TECHNOLOGY AAS DEGREE

Minimum 97 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. Some courses specified within the program may be used as 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

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

First Term		Credits
BCT 102	Residential Printreading	3
BCT 103	Residential Materials and Methods	3
BCT 104	Construction Math §	3
BCT 106	Hand Tool/Power Tool Use and Safety	3
General Education: 1 course		
Second Term		
ARCH 110	Introduction to Architectural Drawing	2
BCT 127	Residential Concrete	6

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BCT 135 or ARCH 132	Residential Building Codes or Residential Building Codes	2
COMM 215 or COMM 111	Communicating in Teams and Small Groups [*,Z] or Public Speaking (COMM111=COMM111Z)	4
BCT Degree Electives		3
Third Term		
BCT 118	Introduction to Space Planning and Design	2
BCT 120	Floor Framing	3
BCT 121	Wall Framing	3
BCT 122	Roof Framing I	3
BCT 123	Roof Framing II	3
General Education: 1 course		3
Fourth Term		
BCT 128	Exterior Finish	6
BCT 129	Mechanical Planning for Kitchens and Baths	4
BCT 223	Finished Stair Construction	3
BCT 229	Introduction to Kitchens and Baths	4
Fifth Term		
BCT 203	Interior Finish	6
BCT 219	Cabinetmaking I	6
General Education: 1 course		
Sixth Term		
BCT 204B	Construction Estimating - Residential	3
BCT 206	Sustainable Construction Practices	3
BCT 211	Remodeling	6
WR 227 or WR 122	Technical Writing (WR227=WR227Z) [Z] or Composition II (WR122=WR122Z)	4
	Total Credits	97

*
Could be used as General Education

§
Course cannot be substituted for another course

Z
This course is part of Oregon Common Course Numbering. The following courses are equivalent:
COMM 111 and COMM 111Z
WR 122 and WR 122Z
WR 227 and WR 227Z

BUILDING CONSTRUCTION TECHNOLOGY DEGREE ELECTIVES

Code	Title	Credits
BCT 100	Overview to the Construction Industry	3
BCT 105	CAD for Constructors I	3
BCT 116	Alternative Building Design	3
BCT 129	Mechanical Planning for Kitchens and Baths	4
BCT 130	Construction Safety	3
BCT 132	Revit for Constructors	3
BCT 133	Commercial Materials and Methods	3
BCT 134	Construction Scheduling	3
BCT 150	Mechanical, Electrical and Plumbing	4
BCT 202C	Business Principles for Construction	3
BCT 204C	Construction Estimating - Commercial	3
BCT 206	Sustainable Construction Practices	3
BCT 213	Commercial Printreading	3
BCT 214	Advanced Construction Estimating	3
BCT 216	Cabinetry I	2
BCT 217	Cabinetry II	2
BCT 218	Woodworking Projects	2
BCT 221	Construction Law for the Contractor	3
BCT 222	Engineering for Constructors	3
BCT 223	Finished Stair Construction	3
BCT 225	Construction Project Management	3
BCT 226	Finish Carpentry	2
BCT 229	Introduction to Kitchens and Baths	4
BCT 244	Kitchen and Bath Cabinet Installation	2
BCT 280A	Cooperative Education: Building Construction	1-12
BCT 280C	Cooperative Education BCT Design/Build Remodeling	1-5

CONSTRUCTION MANAGEMENT AAS DEGREE

Minimum 91 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. Some courses specified within the program may be used as 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

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

First Term		Credits
BCT 100	Overview to the Construction Industry	3
BCT 102	Residential Printreading [1]	3
BCT 103	Residential Materials and Methods [1]	3
BCT 104	Construction Math [§1]	3
BCT 170	Excel for Contractors	2
Second Term		
ARCH 110	Introduction to Architectural Drawing	2
BCT 119	Bluebeam for Construction	1
BCT 134	Construction Scheduling [1]	3
BCT 135 or ARCH 132	Residential Building Codes or Residential Building Codes	2
BCT 202C	Business Principles for Construction	3
BCT CAD Electives		3
Third Term		
BCT 117	Graphic Communication for Contractors	1
BCT 133	Commercial Materials and Methods	3
BCT 136 or ARCH 133	Commercial Building Codes or Commercial Building Codes	2
BCT 221	Construction Law for the Contractor	3
COMM 111 or COMM 215	Public Speaking (COMM111=COMM111Z) [*,Z] or Communicating in Teams and Small Groups	4
BCT CAD Electives		3
Fourth Term		
BCT 139	Procore	1
BCT 150	Mechanical, Electrical and Plumbing	4
BCT 204C	Construction Estimating - Commercial	3
BCT 213 or ARCH 162	Commercial Printreading or Commercial Print Reading	3

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CG 209	Job Finding Skills	1
WR 227 or WR 122	Technical Writing (WR227=WR227Z) [Z] or Composition II (WR122=WR122Z)	4
Fifth Term		
BCT 206	Sustainable Construction Practices	3
BCT 214	Advanced Construction Estimating	3
BCT 222 or ARCH 122	Engineering for Constructors or Structural Systems 2	3
General Education: 2 courses		
Sixth Term		
BCT 130	Construction Safety	3
BCT 207 or BA 111	Construction Accounting or Introduction to Accounting	3
BCT 208	Introduction to Lean for Constructors	1
BCT 225	Construction Project Management	3
General Education: 1 Course		
Seventh Term		
BCT 280A	Cooperative Education: Building Construction [2]	3
	Total Credits	91

*
Could be used as General Education

§
Course cannot be substituted for another course.

1
Class may be challenged by petitioning for course by examination.

2
Credits for this class may vary from one to six depending on the nature and duration of the cooperative experience. This class may be taken more than one time until the required number of credits is fulfilled. See advisor for details.

Z
This course is part of Oregon Common Course Numbering. The following courses are equivalent:
COMM 111 and COMM 111Z
WR 122 and WR 122HZ
WR 227 and WR 227Z

BCT CAD ELECTIVES

Code	Title	Credits
ARCH 126	Introduction to AutoCAD	3
ARCH 127		3
ARCH 136	Intermediate AutoCAD	3
ARCH 237	Introduction to Revit Architecture	3
ARCH 247	Intermediate Revit Architecture	3
BCT 105	CAD for Constructors I	3
BCT 125	Chief Architect for Remodelers	3
BCT 132	Revit for Constructors	3

DESIGN/BUILD REMODELING AAS DEGREE

Minimum 103 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. Some courses specified within the program may be used as 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

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

First Term		Credits
BCT 102	Residential Printreading	3
BCT 103	Residential Materials and Methods	3
BCT 104	Construction Math §	3
BCT 106	Hand Tool/Power Tool Use and Safety	3
General Education: 1 course		
Second Term		
ARCH 110	Introduction to Architectural Drawing	2
BCT 127	Residential Concrete	6
BCT 135	Residential Building Codes	2
COMM 215 or COMM 111	Communicating in Teams and Small Groups *,Z or Public Speaking (COMM111=COMM111Z)	4
BCT CAD Electives		3
Third Term		
BCT 117	Graphic Communication for Contractors	1
BCT 118	Introduction to Space Planning and Design	2
BCT 120	Floor Framing	3
BCT 121	Wall Framing	3
BCT 122	Roof Framing I	3
BCT CAD Electives		3
General Education: 1 course		3
Fourth Term		
BCT 128	Exterior Finish	6
BCT 129	Mechanical Planning for Kitchens and Baths	4
BCT 229	Introduction to Kitchens and Baths	4
WR 227 or WR 122	Technical Writing (WR227=WR227Z) [Z] or Composition II (WR122=WR122Z)	4
Fifth Term		
BCT 202C	Business Principles for Construction	3
BCT 203	Interior Finish	6
BCT 219	Cabinetmaking I	6
ID 238	Advanced Kitchen and Bath Planning	3
Sixth Term		
BCT 204B	Construction Estimating - Residential	3
BCT 206	Sustainable Construction Practices	3
BCT 211	Remodeling	6
BCT 244	Kitchen and Bath Cabinet Installation	2
General Education: 1 course		
	Total Credits	103

*
Could be used as General Education

§
Course cannot be substituted with another course.

Z
This course is part of Oregon Common Course Numbering. The following courses are equivalent:
COMM 111 and COMM 111Z
WR 122 and WR 122Z
WR 227 and WR 227Z

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BCT CAD ELECTIVES

Code	Title	Credits
ARCH 126	Introduction to AutoCAD	3
ARCH 127		3
ARCH 136	Intermediate AutoCAD	3
ARCH 237	Introduction to Revit Architecture	3
ARCH 247	Intermediate Revit Architecture	3
BCT 105	CAD for Constructors I	3
BCT 125	Chief Architect for Remodelers	3
BCT 132	Revit for Constructors	3

BUILDING CONSTRUCTION TECHNOLOGY LESS THAN ONE-YEAR CERTIFICATE

Minimum 37 credits. Students must meet all certificate requirements.

Course of Study

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

First Term		Credits
BCT 102	Residential Printreading	3
BCT 103	Residential Materials and Methods	3
BCT 104	Construction Math	3
BCT 106	Hand Tool/Power Tool Use and Safety	3
Second Term		
ARCH 110	Introduction to Architectural Drawing	2
BCT 127	Residential Concrete	6
BCT 135 or ARCH 132	Residential Building Codes or Residential Building Codes	2
BCT Degree Electives		3
Third Term		
BCT 120	Floor Framing	3
BCT 121	Wall Framing	3
BCT 122	Roof Framing I	3
BCT 123	Roof Framing II	3
	Total Credits	37

BUILDING CONSTRUCTION TECHNOLOGY DEGREE ELECTIVES

Code	Title	Credits
BCT 100	Overview to the Construction Industry	3
BCT 105	CAD for Constructors I	3
BCT 116	Alternative Building Design	3
BCT 129	Mechanical Planning for Kitchens and Baths	4
BCT 130	Construction Safety	3
BCT 132	Revit for Constructors	3
BCT 133	Commercial Materials and Methods	3
BCT 134	Construction Scheduling	3
BCT 150	Mechanical, Electrical and Plumbing	4
BCT 202C	Business Principles for Construction	3
BCT 204C	Construction Estimating - Commercial	3
BCT 206	Sustainable Construction Practices	3
BCT 213	Commercial Printreading	3
BCT 214	Advanced Construction Estimating	3
BCT 216	Cabinetry I	2
BCT 217	Cabinetry II	2
BCT 218	Woodworking Projects	2
BCT 221	Construction Law for the Contractor	3
BCT 222	Engineering for Constructors	3
BCT 223	Finished Stair Construction	3
BCT 225	Construction Project Management	3
BCT 226	Finish Carpentry	2
BCT 229	Introduction to Kitchens and Baths	4
BCT 244	Kitchen and Bath Cabinet Installation	2
BCT 280A	Cooperative Education: Building Construction	1-12
BCT 280C	Cooperative Education BCT Design/Build Remodeling	1-5