DRAFTING TECHNOLOGY

DRT F101  Introduction to Drafting
3 Credits
Offered As Demand Warrants
Introduction to basic drafting skills necessary to communicate in the
building, construction, design and process technology industries for
freshman-level students and for certificate or associate degree-seeking
students. Limited manual drafting techniques will be used to gain basic
skills and to contrast the speed and accuracy to that of computer-aided
drafting (CAD).
Lecture + Lab + Other: 2 + 2 + 0

DRT F110  Computer Literacy for Technicians
3 Credits
Offered As Demand Warrants
Introduction to operating systems and their applications to technology.
Emphasis will be placed on computer literacy for technology and
industrial business applications relevant to technicians.
Lecture + Lab + Other: 2 + 2 + 0

DRT F112  Introduction to GIS
3 Credits
Offered As Demand Warrants
Provides drafters with a general overview of what GIS is, who uses GIS,
where GIS is used, and how GIS information is obtained and assimilated.
There will be a section of practical use on one of the following systems:
Manifold, Autodesk MAP or Arch View.
Lecture + Lab + Other: 3 + 0 + 0

DRT F115  Graphics I
3 Credits
Offered As Demand Warrants
Study and application of methods, problems and solutions in graphic
design using AutoCAD and Viz.
Lecture + Lab + Other: 3 + 0 + 0

DRT F121  Construction Documents and Drawings
3 Credits
Offered As Demand Warrants
Reading and interpretation of construction documents for residential,
light commercial and heavy commercial structures using conventional
symbols and representation.
Lecture + Lab + Other: 3 + 0 + 0

DRT F123  Uniform Building Code
3 Credits
Offered As Demand Warrants
Covers the minimum required construction standards of the Uniform
Building Code. Use of local zoning ordinances and the UBC as
comprehensive building guides and their principal aspects applied to
various building types and trades. Concentrates on zoning, the UBC and
some fire codes. Mechanical and electrical codes are introduced only for
student familiarity.
Recommended: Working knowledge of building systems.
Lecture + Lab + Other: 3 + 0 + 0

DRT F140  Architectural Drafting
3 Credits
Offered As Demand Warrants
Architectural drafting principles including site plans, foundations, floor
plans, elevations, architectural sections, framing plans, area plans and
graphic standards.
Lecture + Lab + Other: 2 + 2 + 0

DRT F141  Architectural Concepts
2 Credits
Offered As Demand Warrants
Architectural drafting concepts including basic site plans, foundations,
floor plans, elevations, architectural sections, framing plans, area plans
and graphic standards. Also available online via UAF eCampus.
Lecture + Lab + Other: 2 + 0 + 0

DRT F145  Structural Drafting
3 Credits
Offered As Demand Warrants
Introduces technical skills needed by structural drafters and technicians
to work with structural engineers. Includes office practices, staff
relationships, and structural drawing production. Develops computer-
aided drafting skills in symbols, conventions, dimensioning systems,
sheet organizations, code analysis and research methods for steel, wood,
and reinforced concrete buildings.
Prerequisites: DRT F170 or permission of program coordinator.
Lecture + Lab + Other: 3 + 0 + 0

DRT F150  Civil Drafting
3 Credits
Offered As Demand Warrants
Civil drafting principles including plotting traverse and surveys by bearing
distance, latitudes and departures, topographic drawings and maps,
contours and elevations, profiles and highway curves, cross-section
drawings and grading plans.
Lecture + Lab + Other: 2 + 2 + 0

DRT F151  Civil Concepts
2 Credits
Offered As Demand Warrants
Overview of civil drafting concepts and survey drafting including the
plotting of traverse and surveys by bearing and distance.
Lecture + Lab + Other: 2 + 0 + 0

DRT F155  Mechanical and Electrical Drafting
3 Credits
Offered As Demand Warrants
Introduces technical analysis, theory, code requirements, and CAD
techniques to produce construction drawings for mechanical and
electrical building systems. Includes drafting conventions, drawing
symbols, terminology, and research methods for residential and
commercial building systems and equipment.
Prerequisites: DRT F170 or permission of program coordinator.
Lecture + Lab + Other: 3 + 0 + 0

DRT F170  Beginning CAD
3 Credits
Offered As Demand Warrants
Instruction in basic working knowledge of CAD software and its
applications in drafting. Topics covered include an introduction to CAD
software applications, basic CAD skills and tools, through plotting
finished drawings. Practical applications.
Lecture + Lab + Other: 2 + 2 + 0
DRT F210  Intermediate CAD
3 Credits
Offered As Demand Warrants
Techniques for construction and drafting output using CAD. Emphasis will be on the construction drawings produced for a building project and the software tools used in this process.
**Prerequisites:** DRT F170 or enrolled as a CE Major or permission of the program coordinator.
*Lecture + Lab + Other: 2 + 2 + 0*

DRT F250  Civil Drafting II -- Advanced
3 Credits
Offered As Demand Warrants
Techniques of highway design, boundaries, right of way layouts, curves and grades, bridges, cut and fill detail drawings, gas and water services, sewers, culverts, signs and guard rails.
**Prerequisites:** DRT F150; DRT F151; or permission of program coordinator.
*Lecture + Lab + Other: 2 + 2 + 0*

DRT F260  Drafting Internship
1-6 Credits
Offered As Demand Warrants
Supervised work experience in process organizations. Assignments will be individually arranged with cooperating organizations from the private and public sectors. A maximum of 6 credits may be earned.
**Prerequisites:** Permission of program coordinator.
*Lecture + Lab + Other: 0 + 3-18 + 0*

DRT F270  Advanced CAD
3 Credits
Offered As Demand Warrants
Advanced areas of CAD (3-D, menu modifications and Auto lisp).
**Prerequisites:** DRT F170; DRT F210; or permission of program coordinator.
*Lecture + Lab + Other: 2 + 2 + 0*