Lane Community College SM

2011 - 2012
Career and Technical Programs

Advanced Technology Division
541.463.5380

lanecc.edu

Drafting

Two-Year Associate of Applied Science Degree
One-Year Certificate of Completion Program

Purpose To prepare students for careers in architectural and mechanical drafting. The profession requires attention to detail and the ability to learn mathematical, visual, and communication skills. Architectural Drafters may work for a residential designer, a structural engineer, an architect, a cabinet shop, or a construction firm. Mechanical Drafters may work in the manufacture of electronics, precision sheet metal, heavy equipment, steel fabrication, process piping, and plastics.

Learning Outcomes The graduate of the one-year program will:

- demonstrate basic competence in the use of at least one CAD software program. (Setup a drawing, create and modify text and geometry, use associative dimensioning correctly, create, store, and use blocks or symbols, manage object properties including linetype and layer, create objects in three dimensions, and print or plot drawings using a correct scale.)
- demonstrate basic graphical literacy.
- explain basic standard practices in architectural and mechanical drafting.
- interpret the concepts of a problem-solving task and translate them into mathematical language, and solve using mathematical operations.

In addition to the above outcomes, the graduate of the two-year program will:

- use graphic principles in the solution of problems relating to drafting and/or design.
- access information from public libraries, research libraries, online sources, appropriate codes and standards, professional organizations, and vendor catalogs.
- produce drawings in accordance with industry standards, e.g., ANSI/ASME, AIA, building codes.

Employment Trends Statewide, 267 annual openings for drafters are projected in Oregon and 23 openings are projected annually in Lane County.

Wages Statewide average, $22 hourly (one-year certificate, $9-12, hourly), $42,000 annually. Lane County average, $19 hourly, $39,000 annually. Typical entry-level wages are between $9-15 hourly.

Costs in Addition to Tuition and Registration Fees (estimates)*

Books	$1,250
Tools	$ 25
Class Fees	$ 315
Total	$1,590

*Subject to change without notice.

Prerequisites Minimum placement score of 68 in Reading OR completion of RD 080 OR prior college. A high school diploma or equivalent is recommended for all applicants to this program. Basic computer literacy skills are a prerequisite to any CAD course.

Admission Information Contact the Advanced Technology Division or see *lanecc.edu/advtech/DFT/index.htm*

Cooperative Education (Co-op) Co-op offers drafting students college credit and a grade for on-the-job work experience related to their educational and career goals. Through Co-op students connect theory and practice, develop skills, expand career knowledge, and make contacts for the future. Work schedules and work sites vary. Contact Tamara Pinkas, Drafting Co-op Coordinator, Bldg. 19, Rm. 231D, 541.463.5011, *pinkast@lanecc.edu*

Two-Year Associate of Applied Science Degree

First Year	**Fall**
DRF 142 Graphic Concepts *,D,G	2
DRF 167 CAD 1 *,D,G	4
CS 120 Concepts of Computing: Information Processing or higher computer science	4
MTH 076 Applied Geometry for Technicians*,D,G or higher mathematics	4
Total Credits	14
	Winter
CST 122 Construction Codes D,G	2
DRF 168 CAD 2 *,D,G	4
DRF 208 Residential Buildings *,D,G	4
Human Relations Requirement R	3
MTH 086 Applied Algebra for Technicians * or higher	4
Total Credits	17
	Spring
DRF 121 Mechanical Drafting *,D,G	4
DRF 137 Architectural Drafting - Plans *,D,G	4
DRF 206 Co-op Ed: Drafting Seminar *,D	2
DRF 245 Solid Modeling *,D,G	3
WR 121 Introduction to Academic Writing *,D	4
Total Credits	17

Drafting

Second Year	**Fall**
DRF 205 Drafting: Structures *,D,G	4
DRF 210 Commercial Buildings *,D,G	4
DRF 232 Mechanical Design *,D,G	4
DS 155 Heavy Equipment Hydraulics*,D,G	1
PE/Health requirement D,R	3
Total Credits	16

	Winter
DRF 207 Drafting: Strength of Materials *,D,G	4
DRF 220 Building Information Modeling*,D,G	4
DRF 233 Geometric Tolerancing *,D,G	4
WR 227 Technical Writing *	4
Total Credits	16

	Spring
DRF 211 Mechanical Systems and Environmental Design *,D,G	4
DRF 234 Power Trains *,D,G	4
DRF 203 Electrical Drafting*,D,G	2
ENGR 280D Co-op Ed: Drafting D,G	3
Total Credits	13

One-Year Certificate of Completion

	Fall
DRF 142 Graphic Concepts *,D,G	2
DRF 167 CAD 1 *,D,G	4
Choice of: CIS 101 Computer Fundamentals; CS 120 Concepts of Computing: Information Processing or higher computer science course	3-4
MTH 076 Applied Geometry for Technicians*,D,G or higher mathematics	4
Total Credits	13-14

	Winter
CST 122 Construction Codes D,G	2
DRF 168 CAD 2 *,D,G	4
DRF 208 Residential Buildings *,D,G	4
Human Relations Requirement D	3
MTH 086 Applied Algebra for Technicians* or higher mathematics*	4
Total Credits	17

	Spring
DRF 121 Mechanical Drafting *,D,G	4
DRF 137 Architectural Drafting-Plans*,D,G	4
DRF 206 Co-op Ed: Drafting Seminar D	2
DRF 245 Solid Modeling*,D,G	3
WR 121 Introduction to Academic Writing *,D or higher writing	4
Total Credits	17

Standard footnotes:
* Prerequisite required
B Must be passed with grade of "B" or better to use as a prerequisite
D Degree or certificate requirement; must be passed with grade of "C-" or better
G Must be taken for a grade, not P/NP; major requirement
R Required for AAS degree