



2016 – 2017  
Career Technical Programs

Advanced Technology Division  
541.463.5380

lanecc.edu

# Drafting

Associate of Applied Science Degree  
One-Year Certificate of Completion

**Program Coordinator** Tracy Rea, Bldg. 15, Rm. 201, 541.463.5151, [reat@lanecc.edu](mailto:reat@lanecc.edu)

**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 will be able to:

- 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 line-type 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.
- students will produce 3D parametric models that enable learners to think and create in three dimensions with sophisticated design software. These solid models are the principal means of communicating design ideas and developing new products and systems in the Architectural, Engineering and Construction Industries. Students will then be able to utilize a 3D printer to create an actual model.
- 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.

**Admission Information** See [lanecc.edu/advtech/dft](http://lanecc.edu/advtech/dft) or contact the Advanced Technology Division, [AdvTechPrograms@lanecc.edu](mailto:AdvTechPrograms@lanecc.edu)

**Advising & Counseling** [classes.lanecc.edu/course/view.php?id=31255](http://classes.lanecc.edu/course/view.php?id=31255)

**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 Marv Clemons, Drafting Co-op Coordinator, Bldg. 12, Rm. 120A, 541.463.3158, [clemonsm@lanecc.edu](mailto:clemonsm@lanecc.edu)

**Job Openings Projected through 2020**

Lane County openings 2 annually

Statewide openings 53 annually

**Wages**

Lane County average hourly \$22.90 to \$26.67; average annual \$47,628 to \$ 55,479

Oregon average hourly \$24.83 to \$26.83; average annual \$51,636 to \$55,799

**Costs** (Estimate based on 2015-16 tuition and fees. Consult Lane's website for updated tuition.)

|   |          |
|---|----------|
| Books .....                                     | \$2,093  |
| Program Specific Fees .....                     | \$371    |
| Resident Tuition and General Student Fees ..... | \$10,167 |

Total Estimated Cost \$12,631

Course fees may change during the year. See the online credit class schedule for fees assigned to courses.

## Course Requirements

1. Prerequisites are required for some courses. See course descriptions.
2. PE/Health requirement, WR 121, and DRF 206 must be completed with a grade of "Pass" or "C-" or better.
3. Human Relations and Health/PE choices are listed on the Associate of Applied Science degree page.
4. All DRF and CST courses must be completed with a letter grade, not P/NP, and must be passed with a grade of "C-" or better to satisfy program requirements.
5. Minimum placement score of 68 in Reading OR completion of RD080 OR RD087 And EL115 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.

| First Year  | Fall        |
|---|-------------|
| CS 120 Concepts of Computing: Information Processing .. | 4           |
| DRF 142 Graphic Concepts .....                          | 2           |
| DRF 167 CAD 1 .....                                     | 4           |
| MTH 075 Applied Algebra for Technicians .....           | 4           |
|   | Winter      |
| CST 122 Construction Codes .....                        | 2           |
| DRF 168 CAD 2 .....                                     | 4           |
| DRF 208 Residential Buildings .....                     | 4           |
| Human Relations Requirement .....                       | 3           |
| MTH 085 Applied Geometry for Technicians .....          | 4           |
|   | Spring      |
| DRF 121 Mechanical Drafting .....                       | 4           |
| DRF 137 Architectural Drafting-Plans .....              | 4           |
| DRF 206 Co-op Ed: Drafting Seminar .....                | 2           |
| DRF 245 Solid Modeling .....                            | 3           |
| Choice of: .....  | 4           |
| WR 121 Introduction to Academic Writing                 |             |
| WR 121_H Introduction to Academic Writing               |             |
|   | Second Year |
| DRF 205 Structures .....                                | 4           |
| DRF 210 Commercial Buildings .....                      | 4           |
| DRF 232 Mechanical Design .....                         | 4           |
| DS 155 Heavy Equipment Hydraulics .....                 | 1           |
| PE/Health Requirement .....                             | 3           |
|   | Winter      |
| DRF 207 Strength of Materials .....                     | 4           |
| DRF 220 Building Information Modelling .....            | 4           |
| DRF 233 Geometric Tolerancing .....                     | 4           |
| WR 227 Technical Writing .....                          | 4           |

# Drafting

|  | Spring |
|--|--------|
| DRF 211 Sustainable Building Systems .....       | 4      |
| DRF 234 PowerTrains and Accessories Design ..... | 4      |
| ET 121 Shop Practices .....                      | 2      |
| ENGR 280D Co-op Ed: Drafting .....               | 3      |

## Drafting

**Offered by the Advanced Technology Division, 541.463.5380**

**One-Year Certificate of Completion**

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**Costs** (Estimate based on 2015-16 tuition and fees. Consult Lane's website for updated tuition.)

|   |         |
|---|---------|
| Books .....                                     | \$1,325 |
| Program Specific Fees .....                     | \$140   |
| Resident Tuition and General Student Fees ..... | \$5,253 |

Total Estimated Cost \$6,718

Course fees may change during the year. See the online credit class schedule for fees assigned to courses.

**Gainful Employment Disclosure**

Standard Occupational Classification: 17-3011.01

Go to the Department of Labor's O\*Net website for a profile of this occupation:

Architectural Drafters [Onetonline.org/link/summary/17-3011.01](http://Onetonline.org/link/summary/17-3011.01)

Or check on these O\*Net Related Occupations:

Civil Drafters [onetonline.org/link/summary/17-3011.02](http://onetonline.org/link/summary/17-3011.02)

Mechanical Drafters [onetonline.org/link/summary/17-3013.00](http://onetonline.org/link/summary/17-3013.00)

In academic year 2014-15, 9 students completed this certificate.

The program is designed to take 4 terms, or about 15 months of study to complete.

Lane Community College is committed to protecting student privacy and does not publish this rate for ten or fewer graduates.

For privacy reasons under FERPA, loan information is not disclosed for programs with fewer than 10 graduates in the reported year.

Explanation of costs: [lanecc.edu/esfs/credit-fees-and-expenses](http://lanecc.edu/esfs/credit-fees-and-expenses)

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| Choice of: .....  | 4      |
| WR 121 Introduction to Academic Writing                 |        |
| WR 121_H Introduction to Academic Writing               |        |

To request this information in an alternate format please contact the Center for Accessible Resources at (541) 463-5150 or [accessibleresources@lanecc.edu](mailto:accessibleresources@lanecc.edu).

AA/EEO/Veterans/Disabilities Employer—9/16