Curriculum Committee:

The options we have created each include the skills a Computer Information Systems worker will need to provide technical assistance and support services in a separate field. The core of each degree option (70%) is comprised of the following courses.

First Year Fall

CIS 100 Computing Careers Exploration 2

CIS 140W Intro to Operating Systems: Windows Clients 4

MTH 095 Intermediate Algebra or higher 5

CS 120 Concepts of Computing: Information Processing 4

Winter

CS 179 Introduction to Computer Networks 4

HI 101 Intro to Health Care and Public Health in the US 4

WR 121 Composition: Intro to Academic Writing 4

CIS 102 Problem Solving with Computers 4

Spring

CG 203 Human Relations at Work 3

CIS 125D Software Tools 1: Databases 4

CS 206 Co-op Ed: Computer Information Technology   
 Seminar 2

CS 133P Beginning Programming: Python 4

GIS 151 Digital Earth 4

Second Year Fall

WR 227 Technical Writing 4

CIS195 Web Authoring 1 3

Winter

Communication Requirement (see list above) 4

Spring

CS 280IS Coop Ed: Computer Information Systems 3

CIS 245 Project Management 4

Each option has 5 additional specialized courses (30%).

Computer Information Systems

Offered by the Computer Information Technology Department, 541.463.5221

Two-Year Associate of Applied Science Degree

(Also see the following Career Pathway Certificates of Completion: Database Specialist on page 87, Geographic Information Systems on page 124, Health Information Technology Specialist on page 88, Network Security on page 89, and Web Programming on page 91.)

Purpose To train entry level computer support specialists OR computer power users to work in a variety of organizational settings.

Learning Outcomes Graduates will be able to:

• use and assist users with the fundamental features of operating system, spreadsheet, and database software

• find solutions to fundamental computer related problems using known problem solving methods

• demonstrate understanding of fundamental computer networking concepts

• apply standard project management techniques.

• work as a member of a team.

The graduate of the Programming Option will also be able to:

- design, implement, test and debug client side web based computer programs using a variety of current tools and technologies.

- design, implement, test and debug object oriented desktop computer programs using a variety of current tools and technologies.

- understand the mathematical concepts of a programming related problem solving task and translate them into programming logic and expressions

The graduate of the Networking Option will also be able to:

- install and configure workstations, servers and networked printers

- understand the critical features of wireless networking

- understand network security issues and use appropriate tools to insure network integrity.

The graduate of the Health Information Technology Option will also be able to:

- demonstrate a working knowledge of medical terminology and the health care delivery system

- demonstrate an understanding of, and the ability to work with, a health care information system at all stages of the Information system life cycle\

- understand implementation and support of electronic health records

The graduate of the Geographic Information Systems Option will also be able to:

- collect and input data into a GIS system

- create, manage and update spatial data

- design and generate various cartographic products for planning or presentations

The graduate of the Accounting Applications Option will also be able to:

- understand accounting as the "language of business"

- use computerized and manual systems to record data and prepare accounting statements and reports

- use software including spreadsheets, and databases to input, manage, and interpret information to meet organizational needs

Job Openings Projected through 2020 \*

Lane County openings - 35 annually

Statewide openings - 309 annually

Wages

Lane County average hourly - $16.06; average annual - $33,405

Oregon average hourly - $17.55; average annual - $36,504

Costs (Estimate based on 2013-14 tuition and fees. Consult Lane’s website for updated tuition.)

Resident Tuition and Student Fees $10,467

Books and Materials $2,121

CIT Lab Fees $208

Total Estimate $12,796

Computer Systems Support course fees and other course fees may change during the year - see the online credit class schedule for fees assigned to courses.

Second Year Requirements A personal laptop is recommended for second-year students in the degree program Please contact the CIT Department for options and system requirements.

Program Lead Contact the Business and Computer Information Technology Division (BCIT), Bldg. 19, Rm. 137, 541.463.5221, BCITAdmin@lanecc.edu

Cooperative Education (Co-op) Co-op offers 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 Gerry Meenaghan, Cooperative Education Coordinator, Bldg. 19, Rm. 231A, 541.463.5883.

Note Students who need to take additional coursework to meet the entry prerequisites for the program should expect to spend additional terms beyond the six terms described below.

Elective Clusters Elective clusters are intended to provide an opportunity for Systems Support majors to take additional coursework in their areas of special interest. Systems Support majors take a minimum of two elective clusters of at least three courses from among these choices. Note that some elective courses may require additional prerequisites: consult the course catalog for prerequisites. Pathways certificates are available in some elective clusters.

Recommended Program Prerequisites

• take foundational writing courses to be prepared for WR 121 Academic Writing

• take mathematics courses to be prepared for MTH 095 Intermediate Algebra

• take study skills courses such as EL 115 Effective Learning to prepare for college-level coursework

• take computer classes or self-study equivalent to CIS 101 Computer Fundamentals

Course Requirements

1. All courses must be completed for a letter grade of C-, except for the Communications, Writing, Math, PE/Health, and Human Relations requirements and CS 206 which may be completed with a “Pass” grade.

2. Prerequisites are required for some courses. See course descriptions.

3. Programming sequences may not be offered Winter/Spring term. Speak to an Academic Advisor if you are interested in a specific sequence.

4. Choice of recommended communication courses:

   COMM 111 Fundamentals of Public Speaking 4

   COMM 130 Business and Professional Speech 4

   COMM 218 Interpersonal Communication 4

   COMM 219 Small Group Discussion 4

   COMM 220 Communications, Gender, and Culture 4

Programming Option

First Year \*\*\* can we list this just once? Fall

CIS 100 Computing Careers Exploration 2

CIS 140W Intro to Operating Systems: Windows Clients 4

MTH 095 Intermediate Algebra or higher 5

CS 120 Concepts of Computing: Information Processing 4

Total Credits 15

Winter

CS 179 Introduction to Computer Networks 4

HI 101 Intro to Health Care and Public Health in the US 4

WR 121 Composition: Intro to Academic Writing 4

CIS 102 Problem Solving with Computers 4

Total Credits 16

Spring

CG 203 Human Relations at Work 3

CIS 125D Software Tools 1: Databases 4

CS 206 Co-op Ed: Computer Information Technology   
 Seminar 2

CS 133P Beginning Programming: Python 4

GIS 151 Digital Earth 4

Total Credits 17

Second Year Fall

WR 227 Technical Writing 4

CIS195 Web Authoring 1 3

CS 133N Beginning Programming: C# 4

CIS 125M Software Tools 1: Mobile Apps 4

Total Credits 15

Winter

Communication Requirement (see list above) 4

Art 288 Intro to Web Design 3

CS 133JS Beginning Programming: JavaScript 4

CS 233N Intermediate Programming: C# 4

Total Credits 15

Spring

CS 280IS Coop Ed: Computer Information Systems 3

CIS 245 Project Management 4

CS 295P Web Development I: PHP 4

CS 234N Advanced Programming: C# 4

Total Credits 15

Networking Option

First Year Fall

CIS 100 Computing Careers Exploration 2

CIS 140W Intro to Operating Systems: Windows Clients 4

MTH 095 Intermediate Algebra or higher 5

CS 120 Concepts of Computing: Information Processing 4

Total Credits 15

Winter

CS 179 Introduction to Computer Networks 4

HI 101 Intro to Health Care and Public Health in the US 4

WR 121 Composition: Intro to Academic Writing 4

CIS 102 Problem Solving with Computers 4

Total Credits 16

Spring

CG 203 Human Relations at Work 3

CIS 125D Software Tools 1: Databases 4

CS 206 Co-op Ed: Computer Information Technology   
 Seminar 2

CS 133P Beginning Programming: Python 4

GIS 151 Digital Earth 4

Total Credits 17

Second Year Fall

WR 227 Technical Writing 4

CIS195 Web Authoring 1 3

CS 284 Network Security Fundamentals 4

CS 140U Introduction to Unix/Linux 4

Total Credits 15

Winter

Communication Requirement (see list above) 4

CS 240U Advanced Unix/Linux: Server Management 4

MTH 082 Math for Network Operations 4

CS 279 Essentials of Network Administration 4

Total Credits 16

Spring

CS 280SS Coop Ed: Computer Information Systems 3

CIS245 Project Management 4

CS 240W Advanced Windows: Server Management 4

CS 188 Wireless Networking 4

Total Credits 15

Health Information Technology Option

First Year Fall

CIS 100 Computing Careers Exploration 2

CIS 140W Intro to Operating Systems: Windows Clients 4

MTH 095 Intermediate Algebra or higher 5

CS 120 Concepts of Computing: Information Processing 4

Total Credits 15

Winter

CS 179 Introduction to Computer Networks 4

HI 101 Intro to Health Care and Public Health in the US 4

WR 121 Composition: Intro to Academic Writing 4

CIS 102 Problem Solving with Computers 4

Total Credits 16

Spring

CG 203 Human Relations at Work 3

CIS 125D Software Tools 1: Databases 4

CS 206 Co-op Ed: Computer Information Technology   
 Seminar 2

CS 133P Beginning Programming: Python 4

GIS 151 Digital Earth 4

Total Credits 17

Second Year Fall

WR 227 Technical Writing 4

CIS 225 Computer End-User Support 4

HO 100 Medical Terminology 1 3

HI107 Working with Health IT Systems 4

HIM120 Introduction to Health Information Management 3

Total Credits 18

Winter

Communication Requirement (see list above) 4

CIS 195 Web Authoring 1 3

HI 111 Selecting, Implementing, and Customizing

Electronic Health Records Systems 4

Total Credits 11

Spring

CS 280IS Coop Ed: Computer Information Systems 3

CIS245 Project Management 4

HIT 160 Practice Management 3

BT 123 MS EXCEL for Business 4

HI 208 Installation and Maintenance of Health IT 4

Total Credits 18

Geographic Information Science Option

First Year Fall

CIS 100 Computing Careers Exploration 2

CIS 140W Intro to Operating Systems: Windows Clients 4

MTH 095 Intermediate Algebra or higher 5

CS 120 Concepts of Computing: Information Processing 4

Total Credits 15

Winter

CS 179 Introduction to Computer Networks 4

HI 101 Intro to Health Care and Public Health in the US 4

WR 121 Composition: Intro to Academic Writing 4

CIS 102 Problem Solving with Computers 4

Total Credits 16

Spring

CG 203 Human Relations at Work 3

CIS 125D Software Tools 1: Databases 4

CS 206 Co-op Ed: Computer Information Technology   
 Seminar 2

CS 133P Beginning Programming: Python 4

GIS 151 Digital Earth 4

Total Credits 17

Second Year Fall

WR 227 Technical Writing 4

CIS 195 Web Authoring 1 3

CS 233P Intermediate Programming: Python 4

DRF 167 CAD 1 4

Total Credits 15

Winter

Communication Requirement (see list above) 4

GIS 245 - GIS 1 4

DRF 220 Building Information Modeling 4

CS 275 Database Systems and Modeling 4

Total Credits 16

Spring

CS 280IS Coop Ed: Computer Information Systems 3

CIS245 Project Management 4

GIS 246 GIS 2 4

CS 276 Database SQL Programming 4

Total Credits 15

Accounting Applications Option

First Year Fall

CIS 100 Computing Careers Exploration 2

CIS 140W Intro to Operating Systems: Windows Clients 4

MTH 095 Intermediate Algebra or higher 5

CS 120 Concepts of Computing: Information Processing 4

Total Credits 15

Winter

CS 179 Introduction to Computer Networks 4

HI 101 Intro to Health Care and Public Health in the US 4

WR 121 Composition: Intro to Academic Writing 4

CIS 102 Problem Solving with Computers 4

Total Credits 16

Spring

CG 203 Human Relations at Work 3

CIS 125D Software Tools 1: Databases 4

CS 206 Co-op Ed: Computer Information Technology   
 Seminar 2

CS 133P Beginning Programming: Python 4

GIS 151 Digital Earth 4

Total Credits 17

Second Year Fall

WR 227 Technical Writing 4

CIS 195 Web Authoring 1 3

BT 165 Introduction to the Accounting Cycle 4

BT 272 Tax concepts & Preparation 4

Total Credits 15

Winter

Communication Requirement (see list above) 4

BT 120 MS WORD for Business 4

BT 123 MS EXCEL for Business 4

BA 211 Financial Accounting 4

Total Credits 16

Spring

CS 280IS Coop Ed: Computer Information Systems 3

CIS245 Project Management 4

BT 163 QuickBooks 4

BT 276 Automated Accounting Systems 4

Total Credits 15