Computer Information Systems

Level I Information Technology Certificate *Program Code 161A*
Associate in Applied Business Degree - Information Technology *Program Code 160A*

Advisors: Charles Olszewski, (269) 927-8749, olszewski@lakemichigancollege.edu

Program Prerequisites

Proficiency in reading, English, and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.

Degree & Certificate Requirements — Credit Hours

College Requirements

English 101, English Composition 3
English 103, Technical Writing 3
History 201, American History to 1865, or
History 202, American History 1865 to Present, or
Political Science 101, National Government, or
Political Science 102, State Governments 3
** Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ..... 1 or 3

Support Courses

Mathematics 128, Pre-Calculus Algebra 4
Psychology 201, Introduction to Psychology 3
Communication 101, Introduction to Public Speaking 3
Philosophy 250, Sophomore Seminar in Philosophy, or
Philosophy 102 Intro to Logic 3
Business Administration 204, Principles of Economics (Micro) 3
Business Administration 201, Principles of Accounting I 4
Biology 101, Biological Science 4

Major Requirements

*Computer Information Systems 106, Intro to Operating Systems 3
*Computer Information Systems 108, Computer Operations, Microcomputing 3
Computer Information Systems 145, Computer Programming. COBOL 1 3
Computer Information Systems 155, Comparative Operating Systems 3
Computer Information Systems 200, PC Hardware 3
Computer Information Systems 251, Computer Programming. BASIC 3
Computer Information Systems 254, Computer Programming. C 3
Computer Information Systems 260, Computer Programming. Visual BASIC 3
Computer Information Systems 264, Computer Programming. C++ 3

Electives (Select 6 credit hours)

*Computer Information Systems 111, Database Concepts 3
*Computer Information Systems 118, Basic Web Design 3
*Computer Information Systems 140, Computer Networking Fundamentals 3
Computer Information Systems 145, Computer Programming. COBOL 1 3
Computer Information Systems 261, Co-op 1 or BUSA/OIS 261 3
Computer Information Systems 156, Practical Computer Security 3
Computer Information Systems 208, Adv. Microcomputer Applications 3
Computer Information Systems 242, Windows Server 3
Computer Information Systems 245, Computer Programming. COBOL 2 3
Computer Information Systems 250, Advanced Topics, CIS 4
Computer Information Systems 255, Structured Query Language 3
Computer Information Systems 265, Computer Programming. Visual BASIC 2 ... 3

* Indicates courses needed for Level I certificate.
** Transferring students are encouraged to take PHED 212 or PHED 214.

You should notify your advisor and the co-op coordinator of your intention to take CIS 261 before beginning your second-year classes.

About the Area of Study

The CIS Information Technologies option emphasizes the overall business support function of computer information systems. It can lead to careers as database managers and computer support specialists.

Associate's Degree

When you complete the 63-credit program, you may apply for an Associate in Applied Business degree.

Level I certificate is 15 credit hours.

Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit **www.lakemichigancollege.edu/transfer**

Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

Level I Certificate Program

Semester 1	Semester 2
CIS 106	CIS 111
CIS 108	CIS 118
CIS 140	

Associate's Degree Program

Semester 1	Semester 2
ENGL 101	ENGL 103
BUSA 204	BUSA 201
COMM 101	CIS 111
CIS 106	CIS 108
CIS 145	CIS 200
PHED 200	

Semester 3	Semester 4
MATH 128	Elective
PSYC 201	PHIL 250
CIS 140	CIS 261
CIS 155	CIS 118
Elective	POSC 101 or POSC 102 or HIST 201 or HIST 202

Computer Information Systems

Level I Certificate PC and Network Technician *Program Code 161B*
Associate in Applied Business Degree - Networking *Program Code 160B*
Certificate of Achievement - Cisco *Program Code 165*

Advisors: Charles Olszewski, (269) 927-8749, olszewski@lakemichigancollege.edu

Program Prerequisites

Proficiency in reading, English, and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.

Degree & Certificate Requirements — Credit Hours

College Requirements

English 101, Engish Composition 3
English 103, Technical Writing 3
History 201, American History to 1865, or
History 202, American History 1865 to Present, or
Political Science 101, National Government, or
Political Science 102, State Governments 3
** PHED 200, Healthful Living, or
PHED 212, Health and Fitness, or PHED 214, Personal Health ..... 1 or 3

Support Courses

MATH 122, Intermediate Algebra 4
PSYC 201, Introduction to Psychology 3
BUSA 204, Principles of Economics (Micro) 3
BUSA 201, Principles of Accounting I 4
PHYS 101, General Physics I, or any Group 1a or b 4

Major Requirements

#* CIS 100 Intro to computer literacy, or
#*CIS 106 Intro to Operating Systems, or
#*CIS 108 Computer Operations, Microcomputing 3
#* CIS 140 Computer Networking Fundamentals 3
#* CIS 155 Comparative Operating Systems 3
#* CIS 156 Practical Security 3
#* CIS 200 PC Hardware 3
#* CIS 226 Cisco INTRO review 3
CIS 228 Switched and Routed Networks 3
CIS 242 Windows Servers 3

Electives (Select 9 credit hours)

COMM 101, Introduction to Public Speaking 3
PHIL 250, Sophomore Seminar in Philosophy, or
PHIL 102, Intro to Logic 3
CIS 111 Database Concepts 3
CIS 117 Intro Game Design Theory 3
CIS 118 Basic Web Design 3
CIS 124 Database skills 1
CIS 136 Game Design II 3
CIS 219 Advanced Web Design 3
CIS 220 Web Programming 3
CIS 221 Server Side Programming 3
CIS 224 Advanced Database skills 1
CIS 227 Cisco ICND 2/CCNA review 3
CIS 241 Switching and Routing 3
CIS 250 Advanced Topics, CIS 4
CIS 251 Computer Programming - BASIC 3
CIS 254 Computer Programming - C 3
CIS 255 Structured Query Language 3
CIS 260 Computer Programming - Visual Basic 3
CIS 261 Co-op I 3
CIS 264 Computer Programming - C++ 3

* Indicates courses needed for Level I certificate.
** Transferring students are encouraged to take PHED 212 or PHED 214.
# Indicates courses need for Certificate of Achievement - Cisco

You should notify your advisor and the co-op coordinator of your intention to take CIS 261 before beginning your second-year classes.

About the Area of Study

The CIS Networking option emphasizes the networking software, hardware, and preparation for certification exams. It can lead to careers in network and computer systems administration working with local area networks, wide area networks, Internet and Intranet systems, and network segments.

Associate's Degree

When you complete the 63-credit program, you may apply for an Associate in Applied Business degree.

Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit **www.lakemichigancollege.edu/transfer**

Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

Level I Certificate Program PC and Network Technician

Semester 1	Semester 2
CIS 100, 106, or 108	CIS 155
CIS 140	CIS 200
CIS 156	CIS 226

Cisco Certificate of Achievement

Semester 1	Semester 2
CIS 100, 106, or 108	CIS 155
CIS 140	CIS 200
CIS 156	CIS 226
Semester 3	**Semester 4**
CIS 228	CIS 227
CIS 242	ENGL 101

Associate Degree Program

Semester 1	Semester 2
ENGL 101	ENGL 103
CIS 100, 106 or 108	CIS 155
CIS 140	CIS 200
CIS 156	CIS 226
College requirement, support course, or elective	College requirement, support course, or elective
Semester 3	**Semester 4**
CIS 228	College requirement, support course, or elective
CIS 242	
College requirement, support course, or elective	

Computer Information Systems

Level I Certificate Programming Option *Program Code 161C*
Associate in Applied Business Degree - Programming Option *Program Code 160C*

Advisors: Charles Olszewski, (269) 927-8749, olszewski@lakemichigancollege.edu

Program Prerequisites

Proficiency in reading, English, and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.

Degree & Certificate Requirements — Credit Hours

College Requirements

English 101, English Composition 3
English 103, Technical Writing 3
History 201, American History to 1865, or
History 202, American History 1865 to Present, or
Political Science 101, National Government, or
Political Science 102, State Governments 3
** Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ..... 1 or 3

Support Courses

Math 128, Pre-Calculus Algebra 4
Psychology 201, Introduction to Psychology 3
Communication 101, Introduction to Public Speaking 3
Philosophy 250, Sophomore Seminar in Philosophy, or
Philosophy 102, Intro to Logic 3
Business 204, Principles of Economics (Micro) 3
Business 201, Principles of Accounting I 4
Biology 101, Biological Science 4

Major Requirements

*CIS 106, Intro to Operating Systems 3
*CIS 108, Computer Operations, Microcomputing 3
CIS 155, Comparative Operating Systems 3
CIS 200, PC Hardware 3
*CIS 251, Computer Programming - BASIC 3
CIS 254, Computer Programming - C 3
*CIS 260, Computer Programming - Visual BASIC 3
*CIS 264, Computer Programming - C++ 3

Electives (select 6 credit hours)

CIS 111, Database Concepts 3
CIS 118, Basic Web Design 3
CIS 140, Computer Networking Fundamentals 3
CIS 145, Computer Programming - COBOL I 3
CIS 156, Practical Computer Security 3
CIS 208, Adv. Microcomputer Applications 3
CIS 242, Windows Server 3
CIS 245, Computer Programming - COBOL II 3
CIS 250, Advanced Topics, CIS 4
CIS 255, Structured Query Language 3
CIS 261, Co-op I, or BUSA 261 or OIS 261 3
CIS 265, Computer Programming - Visual BASIC 2 3

* Indicates courses needed for Level I certificate.
** Transferring students are encouraged to take PHED 212 or PHED 214.

You should notify your advisor and the co-op coordinator of your intention to take CIS 261 before beginning your second-year classes.

About the Area of Study

The CIS Programming option will allow you to develop skills in a variety of popular programming languages. Programmers can be found in almost every industry including telecommunications, financial institutions, educational institutions, government agencies, and management firms.

Associate's Degree & Certificate Options

When you complete th e 63-credit program, you may apply for an Associate in Applied Business degree.

Level I certificate is 15 credit hours.

Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit **www.lakemichigancollege.edu/transfer**

Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

Level I Certificate Program

Semester 1
CIS 106
CIS 108

Semester 2
CIS 251

Semester 3
CIS 260

Semester 4
CIS 254

Associate's Degree Program

Semester 1
ENGL 101
BUSA 204
COMM 101
CIS 106
CIS 251
PHED 200

Semester 2
ENGL 103
BUSA 201
CIS 260
CIS 108
MATH 128

Semester 3
PSYC 201
CIS 155
CIS 200
CIS 245
Elective

Semester 4
Elective
PHIL 250
CIS 261
CIS 264
POSC 101 or
POSC 102 or
HIST 201 or
HIST 202

Computer Information Systems

Level I Certificate Web Option *Program Code 161D*
Associate in Applied Business Degree - Web Option *Program Code 160D*

Advisors: Charles Olszewski, (269) 927-8749, olszewski@lakemichigancollege.edu

Program Prerequisites

Proficiency in reading, English, and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisite

Degree & Certificate Requirements — Credit Hours

College Requirements

English 101, English Composition 3
English 103, Technical Writing 3
History 201, American History to 1865, or
History 202, American History 1865 to Present, or
Political Science 101, National Government, or
Political Science 102, State Governments 3
** PHED 200, Healthful Living, or
PHED 212, Health and Fitness, or PHED 214, Personal Health ..... 1 or 3

Support Courses

Math 128, Pre-Calculus Algebra 4
Psychology 201, Introduction to Psychology 3
Communication 101, Introduction to Public Speaking 3
Philosophy 102, Intro to Logic, or
Philosophy 250, Sophomore Seminar in Philosophy 3
Business 204, Principles of Economics (Micro) 3
Business 201, Principles of Accounting I 4
Biology 101, Biological Science 4

Major Requirements

CIS 106, Intro to Operating Systems 3
*CIS 108, Computer Operations, Microcomputing 3
*CIS 118, Basic Web Design 3
*CIS 219, Professional Web Design 3
*CIS 220, Web Programming 3
CIS 200, PC Hardware 3
*CIS 221 Server-Side Scripting 3
*CIS 251, Computer Programming - BASIC 3

Electives (Select 6 credit hours)

CIS 111, Database Concepts 3
CIS 145, Computer Programming - COBOL 1 3
CIS 156, Practical Computer Security 3
CIS 208, Adv. Microcomputer Applications 3
CIS 242, Windows Server 3
CIS 245, Computer Programming - COBOL 2 3
CIS 250, Advanced Topics, CIS 4
CIS 254, Computer Programming - C 3
CIS 255, Structured Query Language 3
CIS 260, Computer Programming - Visual BASIC 3
CIS 261, Co-op I, or BUSA 261 or OIS 261 3
CIS 264, Computer Programming - C++ 3
CIS 265, Computer Programming - Visual BASIC 2 3

* Indicates courses needed for Level I certificate.
** Transferring students are encouraged to take PHED 212 or PHED 214.

You should notify your advisor and the co-op coordinator of your intention to take CIS 261 before beginning your second-year classes.

About the Area of Study

The CIS Web option will allow you to develop skills in a variety of popular Web design and programming languages. Web Designers and Programmers can be found in almost every industry including telecommunications, financial institutions, educational institutions, government agencies, and management firms. Web Design and Maintenance are regular features on any business whether large or small.

Associate's Degree & Certificate Options

When you complete the 63-credit program, you may apply for an Associate in Applied Business degree.
Level I certificate is 15 credit hours.

Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit
www.lakemichigancollege.edu/transfer

Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

Level I Certificate Program

Semester 1	Semester 2	Semester 3
CIS 106	CIS 118	CIS 219
CIS 108	CIS 251	

Associate's Degree Program

Semester 1	Semester 2
ENGL 101	ENGL 103
BUSA 204	BUSA 201
COMM 101	CIS 118
CIS 106	CIS 251
CIS 108	CIS 200
PHED 200	

Semester 3	Semester 4
MATH 128	Elective
PSYC 201	PHIL 250
CIS 219	CIS 261
CIS 220	CIS 221
Elective	POSC 101 or POSC 102 or HIST 201 or HIST 202