COMPUTERS AND INFORMATION SYSTEMS A.A.S.

61 Semester Credit Hours; Curriculum: 0121

This degree prepares students to provide an entry-level support of computers and information systems in a business environment or to serve as a liaison between the IT department and other departments in the organization. Students will learn computer hardware, software, programming and networks. Special focus is placed on data and data analytics.

***Note**: Refer to* IAI General Education Courses *page for guidelines on General Education course selection.*

Code	Title	Hours
General Education Requirements		
Area A — Communications		
EGL 101	Composition I	3
Select one of the following:		3
EGL 102	Composition II	
EGL 111	Introduction to Business and Technical Writing (recommended)	
EGL 211	Writing Digital Content	
EGL 212	Technical Writing Applications	
SPE 103	Effective Speech (recommended)	
Area B — Mathematics		
One course from Area B (Mathematics) (MAT 114 or higher required)		4
MAT 114	Applied Mathematics I (recommended)	
Area C — Science		
No course needed		0
Area D — Social and Behavioral Sciences		
One course from a social or behavioral science discipline		3
Area E — Humanities/Fine Arts		
One course from a humanities or fine arts discipline		3
Area F — Global Studies [1]		
One course that satisfies Global Studies requirement		0-3
Area G — U.S. Diversity Studies [2]		
One course that satisfies U.S. Diversity Studies requirement		0-3
Total Hours		**16**

1 *Students may take a Global Studies course that satisfies both Area F and another Area requirement.*

2 *Students may take a U.S. Diversity Studies course that satisfies both Area G and another Area requirement.*

Code	Title	Hours
Major Requirements		
CIS 101	Introduction to Computer Information Systems	3
CIS 102	Job Search Principles and Tools	1
CIS 131	Web Page Development	3-4
or ART 259	Introduction to Web Design	
CIS 136	Project Management Fundamentals Using Agile Principles	3
CIS 201	Information Systems for Business	3
CIS 203	Managing Information Systems	3
CIS 208	Visual Basic for Applications	4
CIS 212	No Code Machine Learning	3
CIS 240	Data Visualization Using Tableau	3
Select one of the following:		3-4
CIS 180	Introduction to Visual Basic .NET Programming	
CIS 211	Java Programming	
CIS 227	C# Programming	
CSC 157	Python Computer Science I	
BUS 101	Introduction to Business	3
CAB 135	Electronic Spreadsheeting Using Excel	2
CAB 150	Visio Fundamentals	2
or CAB 235	Advanced Spreadsheeting Using Excel	
CNS 105	Networking Essentials (or any higher-numbered CNS course)	3
CNS/CIS 218	Linux Essentials	3
ELT 130	PC Hardware and Maintenance Concepts	3
Total Hours		**45**

Internship (recommended):
An internship is vital for a Computers and Information Systems degree as it provides hands-on, real-world experience, allowing students to apply their theoretical knowledge, gain practical skills, and build a professional network crucial for launching a successful career in the field. In addition to finding internships on their own, students are welcome to use Oakton's Internship program for assistance. Visit www.oakton.edu/internships or email internships@oakton.edu for more information.

Computers and Information Systems Pathway

The following Pathway is recommended for students pursuing an Associate in Applied Science degree in Computers and Information Systems. For more information or program specific advising contact the program co-coordinators. **General Education courses should be selected from the List of IAI General Education Courses.**

First Year		
Semester One		**Hours**
EGL 101	Composition I	3
MAT 114	Applied Mathematics I	4
CAB 135	Electronic Spreadsheeting Using Excel	2
CIS 101	Introduction to Computer Information Systems	3
CNS 105	Networking Essentials	3
	Hours	**15**
Semester Two		
Select one of the following:		3
EGL 102	Composition II	
EGL 111	Introduction to Business and Technical Writing (recommended)	
EGL 211	Writing Digital Content	
EGL 212	Technical Writing Applications (recommended)	
SPE 103	Effective Speech (recommended)	
CAB 150 or CAB 235	Visio Fundamentals or Advanced Spreadsheeting Using Excel	2
CIS 131 or ART 259	Web Page Development or Introduction to Web Design	3-4

Select one of the following:		3-4
CIS 180	Introduction to Visual Basic .NET Programming	
CIS 211	Java Programming	
CIS 227	C# Programming	
CSC 157	Python Computer Science I	
CIS/CNS 218	Linux Essentials	3
	Hours	**14-16**
Second Year		
Semester One		
BUS 101	Introduction to Business	3
CIS 201	Information Systems for Business	3
CIS 212	No Code Machine Learning	3
CIS 240	Data Visualization Using Tableau	3
Select one of the following:		3
SOC 101	Introduction to Sociology [1]	
SOC 103	Social Problems [2]	
SOC 104	Sociology of Marriage and Family [1]	
SOC 230	Sociology of Sex and Gender [1]	
SOC 232	Sociology of Race and Ethnicity [1]	
SSC 105	Introduction to Ethnic Studies [1]	
	Hours	**15**
Semester Two		
CIS 102	Job Search Principles and Tools	1
CIS 136	Project Management Fundamentals Using Agile Principles	3
CIS 203	Managing Information Systems	3
CIS 208	Visual Basic for Applications	4
ELT 130	PC Hardware and Maintenance Concepts	3
Select one of the following:		3
ART 114	Art History: Art of the Non-Western World [3]	
EGL 130	Introduction to Global Literature [3]	
HUM 161	Global Cinema [3]	
HUM 165	Introduction to World Music [3]	
HUM 210	World Mythologies [3]	
HUM 220	Asian Humanities [3]	
PHL 205	World Religions [3]	
PHL 215	Asian Philosophy [3]	
	Hours	**17**
	Total Hours	**61-63**

1 *Course fulfills the U.S. Diversity Studies requirement. At least one U.S. Diversity Studies course is required for degree completion.*

2 *Course fulfills both the Global Studies and U.S. Diversity Studies requirement.*

3 *Course fulfills the Global Studies requirement. At least one Global Studies course is required for degree completion.*

Note: Pathway is a recommended sequence and selection of courses. Part-time students should contact the department chair to discuss a part-time pathway as well as course prerequisites and recommendations.

Program Learning Outcomes

1. Communicate orally and in writing with a variety of audiences using appropriate concepts and terminology.
2. Choose which software program should be used to produce a document electronically.
3. Apply the computer concepts and skills learned to solve business problems.
4. Troubleshoot computer software, computer hardware, and networks and recommend possible solutions.
5. Use the tools to analyze, design, and implement information systems.
6. Demonstrate effective team work skills.
7. Utilize No-Code Machine Learning tools to classify and sort data, and then train models to make valid predictions from that data.
8. Create effective data visualizations to convey information to various audiences.
9. Apply ethical and societal concerns regarding computer technology.