

ASSOCIATE OF SCIENCE/APPLIED SCIENCE IN SOFTWARE DEVELOPMENT (ASSD/AASSD)

(Please see the *Undergraduate Program Offerings by Campus* chart in the catalog for a list of Herzing campuses offering this program.)

PROGRAM DESCRIPTION

This program prepares students with the necessary academic knowledge and technical competencies for entry-level positions in the computer information systems and software development industry. These career opportunities may be in areas such as computer programming, desktop and distributed application design and development, database application design and development, and end-user support. Coursework is designed to lead into a bachelor's degree in software development and is designed to enhance and build upon the knowledge and skills of students with completed diploma coursework or practical experience. This associate's degree includes courses that provide a strong foundation for industry certifications. Depending on the student's core and elective courses, as well as their commitment to prepare outside of class, the student can take these industry certification exams from one or more of the following companies: Cisco, CompTIA, Microsoft, Oracle, VMware, and Red Hat. For a full listing of courses and their corresponding certifications, please talk to your admissions advisor.

PROGRAM OUTCOMES

Upon completion of their program, the student should be able to:

1. Demonstrate the ability to define, evaluate, recommend, and apply appropriate information solutions to a range of programming methods and languages to formulate business solutions.
2. Demonstrate proficiency in designing and developing software solutions utilizing knowledge of operating systems, programming languages, and networking systems.
3. Demonstrate the ability to write clear and concise technical reports and business communications in a variety of environments.
4. Demonstrate the ability to design and implement database solutions to meet organizational needs.
5. Think critically, both conceptually and by using mathematical analysis, write and speak effectively, use basic computer applications, and understand human behavior in the context of the greater society.

POTENTIAL OCCUPATIONAL TITLES

Potential occupational titles for this program include, but are not limited to, application software developer, systems software developer, and software quality assurance engineer/tester.

PROGRAM CONTENT

A minimum of 60.00 semester credit hours is required for graduation.

REQUIRED COURSES IN SOFTWARE DEVELOPMENT

All courses, 31.00 semester credit hours, are required.

Course Number	Course Name	Prerequisites/Corequisites	Semester Credit Hours
IS 122	Programming Logic	None	3.00
IS 123	Computer Networks	None	3.00
IS 127	Internet Foundation	IS 102	3.00
IS 128	Object-Oriented Programming 1	IS 122	3.00
IS 171	Visual Basic I	IS 122	3.00
IS 183	Database Concepts and Applications I	IS 122	3.00
IS 187	Computer Architecture and Troubleshooting I	None	3.00
IS 223	Object-Oriented Programming 2	IS 128	3.00

Course Number	Course Name	Prerequisites/Corequisites	Semester Credit Hours
IS 228	C++ Programming	IS 223	3.00
IS 273	Introduction to Computer Security	IS 123	3.00
IT 120	Technical Writing	EN 104	1.00

ELECTIVE COURSES IN SOFTWARE DEVELOPMENT

A minimum of 3.00 semester credit hours is required from the list below.

Course Number	Course Name	Prerequisites/Corequisites	Semester Credit Hours
IT 122	Portfolio Development	None	1.00
IS 192	Linux Administration	IS 123	3.00
IS 210	Discrete Structures for Computer Science	IS 122 and MA 107	3.00
IS 219	Database Concepts and Applications II	IS 183	3.00
IS 227	Legacy Systems Introduction	IS 122	3.00
IS 259	Web Scripting	IS 127	3.00
IS 318	C# Programming	IS 223	3.00
NT 181	Network and Server Operating Systems	IS 123 or IS 188	3.00

REQUIRED COURSES IN GENERAL EDUCATION

Students enrolled in this associate's degree must complete a minimum of 24.00 semester credit hours in general education distributed among the following disciplines. Refer to the General Education section of the catalog for Herzing University courses that would satisfy these requirements. *

- 4.00 Semester Credit Hours in Computer Applications ♦
- 3.00 Semester Credit Hours in English Composition
- 3.00 Semester Credit Hours in General Education Electives ♦
- 1.00 Semester Credit Hour in Information Literacy
- 4.00 Semester Credit Hours in Mathematics (College Algebra or Above)
- 3.00 Semester Credit Hours in Science or Humanities with a Critical Thinking Focus ** ▲ ♦
- 3.00 Semester Credit Hours in Social or Behavioral Science
- 3.00 Semester Credit Hours in Speech

* Transfer students may transfer courses that are within 1.00 semester credit hour of the courses listed above to meet these discipline requirements. Any resulting deficiency in the total of 24.00 semester credit hours required in general education may be made up with general education electives from any of the listed disciplines.

** A course with a critical thinking focus would be a course that addresses the theories and application of critical analysis with an emphasis on developing sequential reasoning skills. Examples may be courses in critical thinking, philosophy, logic, or science.

▲ Students in the state of Georgia must take a science course to fulfill this requirement.

♦ The state of Minnesota requires a minimum of 20.00 semester credit hours of general education for associate's degrees, not counting computer applications. However, all Herzing University students in the AASSD program must complete a minimum of 24.00 semester credit hours in general education, including computer applications, to complete the requirement for graduation from this associate's degree program. Minnesota students must complete at least 2.00 semester credit hours of general education in the humanities.

PERSONAL AND PROFESSIONAL DEVELOPMENT COURSES

2.00 semester credit hours are required.

Course Number	Course Name	Prerequisites/Corequisites	Semester Credit Hours
PD 121	Professional Development I	None	1.00
PD 202	Professional Development II	None	1.00