

# HERZING

## BACHELOR OF SCIENCE IN TECHNOLOGY MANAGEMENT WITH A MINOR IN COMPUTER NETWORKING AND SECURITY TECHNOLOGY (BTMCNST)

### PROGRAM DESCRIPTION

This program of study is designed to provide students with foundation skills and knowledge in various technical areas (e.g., information technology, computer-aided drafting, or electronics). In addition, this program is further designed to teach the student the necessary business skills and academic knowledge for entry-level management positions in a technical environment.

### PROGRAM OBJECTIVES

Upon completion of this program students should be able to demonstrate the ability to participate as a team member or to manage projects that:

1. Solve problems in an information technology business environment.
2. Integrate technological solutions into the business management environment.
3. Manage the creation of high-level language programs in support of organizational needs.
4. Supervise the design, maintenance, and recovery of relational database systems.
5. Communicate effectively to both individuals and groups, orally and in writing, using industry standard software.
6. Think critically at a conceptual level and by using mathematical analysis as well as the scientific method, write and speak effectively, use basic computer applications, and understand human behavior in the context of the greater society in a culturally diverse world.

### POTENTIAL JOB TITLES

Potential entry-level job position titles include a wide range of entry level management positions in the computer networking and security technology industry.

### PROGRAM CONTENT

A minimum of 131.00 semester credit hours is required for graduation.

### REQUIRED MANAGEMENT CORE COURSES

All courses, 33.00 semester credit hours, are required.

Course Number	Course Name	Prerequisites/Corequisites	Semester Credit Hours
AC 107	Accounting I	IS 102	3.00
AC 220	Finance	AC 107	3.00
BU 106	Introduction to Management	None	3.00
BU 204	The Digital Firm and Business Communications	BU 106	3.00
BU 206	Business Law I	None	3.00
BU 302	Leadership and Organizational Behavior	BU 106	3.00
BU 327	Business Ethics	BU 206	3.00
BU 345	Project Management	None	3.00
BU 407	Quantitative Decision Making	MA 204 or MA 225 or MA 320	3.00
EC 111	Principles of Microeconomics	None	3.00
EC 121	Principles of Macroeconomics	None	3.00

**REQUIRED COURSES IN COMPUTER NETWORKING AND SECURITY TECHNOLOGY**

All courses, 40.00 semester credit hours, are required.

Course Number	Course Name	Prerequisites/Corequisites	Semester Credit Hours
IS 112	Computer Networks	IS 102	4.00
IS 185	Computer Architecture and Troubleshooting I	None	4.00
IS 191	Linux Administration	IS 112	4.00
IS 282	Network Security	IS 191 and NT 180	4.00
IS 421	Firewall Security	IS 282	4.00
NT 180	Network and Server Operating Systems	IS 112 or IS 186	4.00
NT 200	Network Infrastructure Administration	NT 180	4.00
NT 210	Directory Services Administration	NT 180	4.00
NT 215	Routers and Switches	IS 112	4.00
<u>or</u>	<u>or</u>		
IS 284	Routers and Switches I	IS 112 or IS 185	
NT 320	Wireless Networking Fundamentals	IS 282	4.00

*Note: Students taking IS 284 Routers and Switches I must take IS 286 Routers and Switches II as an elective.*

**ELECTIVE COURSES IN COMPUTER NETWORKING AND SECURITY TECHNOLOGY**

A minimum of 16.00 semester credit hours is required. A minimum of 4.00 semester credit hours must be at the 300-level.

Course Number	Course Name	Prerequisites/Corequisites	Semester Credit Hours
HS 330	Cybercrime	IS 112	4.00
IS 103	Programming Logic	None	4.00
IS 108	Internet Foundation	IS 102	4.00
IS 182 *	Database Concepts and Applications	IS 103	3.00
IS 186	Computer Architecture and Troubleshooting II	IS 185	4.00
IS 214	SQL Server Administration	NT 180 (or NT 160 and NT 170)	4.00
IS 216	Database Concepts and Applications II	IS 182	3.00
IS 218	Web Graphics	IS 102	4.00
IS 239	TCP/IP	IS 112	4.00
IS 286	Routers and Switches II	IS 284	4.00
NT 120	Emerging Operating Systems	IS 112	4.00
NT 230	Building Scalable Internetworks	NT 215 or IS 286	4.00
NT 305	Virtualization	IS 112	4.00
NT 325	System Administration Scripting	IS 103	4.00
NT 341	Mail Servers	IS 191 and NT 210	4.00
NT 343	Computer and Network Forensics	IS 282	4.00
NT 353	Network Defense	IS 282	4.00

\* *Note: Students in the state of Ohio must take IS 182.*

## REQUIRED CAPSTONE OR INTERNSHIP

3.00 semester credit hours are required.

Course Number	Course Name	Prerequisites/Corequisites	Semester Credit Hours
BU 491	Capstone Project	Final semester	3.00
BU 495	Internship	Final semester, PGPA of at least 2.50, and PD 214	3.00

## REQUIRED COURSES IN GENERAL EDUCATION

Students enrolled in this bachelor's degree must complete a minimum of 37.00 semester credit hours in general education distributed among the following disciplines. A minimum of 9.00 semester credit hours must be upper level (300-400 level courses). Refer to the General Education section of the catalog for Herzing University courses that would satisfy these requirements. \*

- 1.00 Semester Credit Hour in Information Literacy
- 6.00 Semester Credit Hours in English Composition or Literature
- 3.00 Semester Credit Hours in Speech
- 4.00 Semester Credit Hours in Computer Applications ♦
- 7.00 Semester Credit Hours in Mathematics (College Algebra or Above)
- 4.00 Semester Credit Hours of Natural Science With a Lab Component
- 3.00 Semester Credit Hours in Social or Behavioral Science
- 3.00 Semester Credit Hours in Humanities With a Critical Thinking Focus \*\* ♦
- 3.00 Semester Credit Hours in Cultural Diversity
- 3.00 Semester Credit Hours of General Education Electives ♦

\* 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 37.00 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.

♦ The state of Minnesota requires a minimum of 30.00 semester credit hours of general education for bachelor's degrees, not counting computer applications. However, all Herzing University students in the BSTMCNST program must complete a minimum of 37.00 semester credit hours in general education, including computer applications, to complete the requirement for graduation from this bachelor's degree program. Minnesota students must complete at least 4.00 semester credit hours of general education in the humanities.

## PERSONAL AND PROFESSIONAL DEVELOPMENT COURSES

2.00 semester credit hours are required. Students taking the BU 495 Internship must also take PD 214.

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
PD 214	AS/AAS/BS/Diploma Internship Preparation	None	0.00

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit our website at <http://www.herzing.edu/academics/technology-management>