



BACHELOR OF SCIENCE IN TECHNOLOGY MANAGEMENT WITH A MINOR IN SOFTWARE DEVELOPMENT (BSTMSD)

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 POSITION TITLES

Potential entry-level job position titles include a wide range of entry-level management positions related to the technical discipline elected in the minor or transferred into the program from a technical associate's degree.

PROGRAM CONTENT

A minimum of 124.00 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 or IT 345 | Project Management or Information Technology Project Management | None IS 102 | 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 |

| Course Number | Course Name | Prerequisites/Corequisites | Semester Credit Hours |
|---------------|------------------------------|----------------------------|-----------------------|
| EC 121 | Principles of Macroeconomics | None | 3.00 |

REQUIRED COURSES IN SOFTWARE DEVELOPMENT

All courses, 35.00 semester credit hours, are required.

| Course Number | Course Name | Prerequisites/Corequisites | Semester Credit Hours |
|---------------|---|----------------------------|-----------------------|
| IS 103 | Programming Logic | None | 4.00 |
| IS 109 | Object-Oriented Programming 1 | IS 103 | 4.00 |
| IS 112 | Computer Networks | IS 102 | 4.00 |
| IS 182 | Database Concepts and Applications I | IS 103 | 3.00 |
| IS 185 | Computer Architecture and Troubleshooting I | None | 4.00 |
| IS 207 | Object-Oriented Programming 2 | IS 109 | 4.00 |
| IS 210 | Discrete Structures for Computer Science | IS 103 and MA 107 | 3.00 |
| IS 272 | Introduction to Computer Security | IS 112 | 3.00 |
| IS 328 | Software Engineering I | IS 207 | 3.00 |
| IS 358 | Software Engineering II | IS 328 | 3.00 |

ELECTIVE COURSES IN TECHNOLOGY ▶

A minimum of 8.00 semester credit hours are required. Students may take Information Systems (IS), Information Technology (IT), or Networking and Security Technology (NT) courses. At least 4.00 semester credit hours must be at the 200- to 400-level. IS 165 may not be taken as an elective course.

- ▶ Completion of BU 345 Project Management or IT 345 Information Technology Project Management eliminates either course as an additional elective (see Required Management Core Courses). Completion of BU 482 Strategic Management or IS 481 IT Strategic Management eliminates either course as an additional elective.

OPEN ELECTIVE COURSES ▶

A minimum of 6.00 semester credit hours of open electives is required. A minimum of 3.00 semester credit hours must be at the 300-400-level. IS 165 may not be taken to satisfy this requirement.

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 |
| IS 491 | Capstone Project | Final semester | 3.00 |
| IS 495 * | Internship | Final semester and PD 214 | 3.00 |

* Online students in some states may not be allowed to take this internship due to state restrictions.

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 to 400-level courses). 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 Cultural Diversity
- 6.00 Semester Credit Hours in English Composition or Literature
- 3.00 Semester Credit Hours of General Education Electives ♦
- 3.00 Semester Credit Hours in Humanities With a Critical Thinking Focus ** ♦
- 1.00 Semester Credit Hour in Information Literacy
- 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 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 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 BSTMSD 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 either the BU 495 or IS 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 |