

COMPUTER TECHNOLOGY (B.S.)

The Bachelor of Science in Computer Technology (B.S.C.T.) prepares students for professional work relating advancements in basic science to practical computer applications. This degree is an interdisciplinary program of study which provides a combination of professional courses in computer science, information systems, electronics, and information technology. The particular strengths of the program include:

- applied hands-on curriculum;
- hardware oriented laboratory experiences;
- scientific advancement merged with applications; and
- the various skills and knowledge required for the enhanced job market in this field.

The computer technology program offers excellent prospects for professional positions in both business and industry where the sophistication and implementation of computers dominate a broad spectrum of employment opportunities. This region of the state has a large concentration of technology firms that employ information system designers and application integrators. Classes are usually offered both during the day and in the evening.

Admission Requirements

The B.S.C.T. degree program is designed to admit students who satisfy the general undergraduate admission (<http://bulletins.wayne.edu/undergraduate/general-information/admission/>) requirements of the University and have an associate degree or equivalent course work in preparatory programs such as computer information systems, computer technology, data processing or closely related disciplines. A minimum grade point average (g.p.a.) of 2.5 is required for admission into the program. Students with a g.p.a. of 2.0 to 2.5 may be admitted as Pre-Engineering Technology students, and may be transferred into the B.S.C.T. program upon successful completion of pre-calculus (MAT 1800) and physical science courses, with a g.p.a. of 2.5 or above.

A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus.

Program Requirements

Candidates for the B.S.C.T. degree must earn a minimum of 124 credits, as outlined in one of the following major programs and including the University General Education Requirements (<http://bulletins.wayne.edu/undergraduate/general-information/general-education/>). A minimum of thirty semester credits must be earned from Wayne State, at least twenty-four of which must be in Division of Engineering Technology courses. All coursework must be completed in accordance with the academic procedures of the University (<http://bulletins.wayne.edu/undergraduate/general-information/academic-regulations/>) and the College (<http://bulletins.wayne.edu/undergraduate/college-engineering/academic-regulations/>) and must conform to Division (<http://bulletins.wayne.edu/undergraduate/college-engineering/engineering-technology-division/#academicregulationstext>) academic standards.

In order to graduate, the University requires a minimum 2.0 g.p.a. in total resident credit, and the Division a minimum 2.0 g.p.a. in total coursework in the area of specialization; as well as satisfaction of all University Undergraduate General Education Requirements.

Plan of Study: Due to wide variation in backgrounds of associate degree holders, as well as differing rates of progress of full- or part-time students, an individually-tailored plan of study will be developed for each

student, in conjunction with a faculty advisor. Courses will be selected based on the student's academic preparation, course prerequisites, and proposed scheduling of courses.

Required Background: Any student deficient in any courses listed under Lower Division (Community College) Technical Transfer Credit will be required to remove the deficiency before completion of fifteen credits in basic science/mathematics and technical core courses.

The Bachelor of Science in Computer Technology requires at least 124 credits as outlined below:

Code	Title	Credits
Basic Science and Mathematics		
CSC 1100	Problem Solving and Programming	4
MAT 1800	Elementary Functions (QE)	4
ET 3430	Applied Differential and Integral Calculus	4
(NSI) Natural Science Inquiry Courses (minimum 2)		6
(NSI) Natural Science Inquiry Lab		1
B.S.C.T. Technical Core		
CSC 3750	Introduction to Web Technology	3
CSC 4110	Software Engineering	4
CSC 4420	Computer Operating Systems	4
CSC 4710	Introduction to Database Management Systems	3
ET 3850	Reliability and Engineering Statistics	3
ET 3870	Engineering Economic Analysis	3
or ET 5870	Engineering Project Management	
ET 4999	Senior Design Project	3
EET 3100	Advanced Digital Design	3
EET 3720	Micro and Programmable Controllers	3
EET 4100	Computer Hardware Design	3
EET 5720	Computer Networking Applications	4
CSC/EET Upper Division Technical Electives		6
Lower Division Technical Transfer Credit		
CSC 2110	Computer Science I	4
CSC 2200	Computer Science II	4
EET 2100	Principles of Digital Design	3
EET 2720	Microprocessor Fundamentals	3
Lower Division Tech Electives		25
Communication Requirements		
(BC) Basic Composition courses		3
(IC) Intermediate Composition course (ENG 3050 required)		3
(OC) Oral Communication course		3
Other General Education Requirements		
(CI) Cultural Inquiry		3
(SI) Social Inquiry		3
(DEI) Diversity, Equity and Inclusion		3
(GL) Global Learning		3
(CL) Civic Literacy		3
Total Credits		124

Engineering Technology Honors

Engineering Technology Honors demands a higher level of performance and offers more personal supervision by faculty than the regular curriculum. It is recommended for qualified students who have an interest in research and plan to go on to graduate or professional schools. The Honors Program is open to students seeking the Bachelor of Science in Computer Technology, Electrical/Electronic Engineering Technology,

Electromechanical Engineering Technology, and Mechanical Engineering Technology. A cumulative grade point average of at least 3.3 is required for consideration for admission to and continuance in the program. Students are admitted on the recommendation of the Departmental Honors Program advisor. Interested students should contact the advisor and complete the Honors Plan of Work form when declaring their engineering technology major or at the beginning of the senior year. If a student has declared a major in engineering technology prior to entering the Honors Program, a new Declaration of Major must be completed for the Bachelor of Science with Honors.

Department Honors Requirements (12 credits minimum)

- Students must meet all the ordinary requirements of the Engineering Technology major, and must have a 3.3 GPA overall
- One 42XX honors seminar (HON 4200-4280) (Cr. 3)
- Thesis-Honors Option with ET 4999 (Cr. 3)
- Two Honors Options courses within the engineering technology major, taught by full-time faculty member (Cr. 3-4 each)