

**Major:** Information Engineering Technology  
**College:** Engineering & Computer Science  
**Degree:** Bachelor of Information Engineering Technology (B.I.E.T)

**Limited Access Program:** No

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### Program Description

The Computer Science and Engineering department at Florida Atlantic University (FAU) offers a Bachelor of Information Engineering Technology (BIET) degree program that provides more hands-on, practical skills with advanced concepts to increase productivity than the computer science or computer engineering programs. This program also provides a consistent path from the Associate of Science (A.S.) degree to a bachelor's degree emphasizing practical skills in programming, database, networking, web-based applications, and computer security as well as technical communications and project management. It has less mathematics and natural science than programs in Computer Science or Computer Engineering. Graduates of the BIET program are prepared for careers in business, industry, and government, in which engineering principles are applied to the management of various sorts of information. Such positions include computer and information system managers, medical information specialists, computer systems administrators, systems analysts, network managers, and multimedia developers. FAU's BIET degree is designed in compliance with the accreditation criteria. Classes for this new degree program are currently offered at FAU's Davie and Port St. Lucie campuses.

### Admission Requirements

The BIET program is designed to articulate with A.S. degree programs offered by community colleges in areas such as Computer Programming and Analysis, Network Services Technology, Computer Information Technology, Computer Engineering Technology, and Computer Science (Networks or Programming). Specific local articulation agreements are being developed with Indian River Community College, Broward Community College, and Miami-Dade College. Students transferring from a Florida community college should normally have completed an articulated A.S. program. Students who have completed at least 60 lower-division credits toward an A.S. degree program, including at least 30 credits of approved technical coursework, and who commit to complete their A.S. degree, may also be admitted to the program.

### Degree Requirements

The minimum number of credits required for the BIET degree is 124 credits, but the program will typically require up to 136 credits. The difference depends on the number of applicable general education, mathematics, and science courses included in the A.S. degree program. The degree will be awarded to students who:

1. Meet all University general requirements for transfer students, including the general education requirements and foreign language admission requirement.
2. Satisfy all degree requirements for the department.
3. Hold an A.S. degree in an appropriate area of computing technology or hold an A.A. degree or equivalent at the time of admission to the program. Students who have been in an A.S. program must complete the A.S. degree.

### Transfer Credits

Credit will be given for all courses designated by the community college as meeting the requirements for transfer to a four-year university degree program. Block credit will be given for up to 30 credits of transferable computing technology courses including a course in C or C++ programming. In addition, students are expected to have completed the following general education, mathematics, and science courses or an equivalent number of credits in comparable courses.

College Writing I	ENC 1101	3
College Algebra	MAC 1105	3
Introductory Statistics	STA 2023	3
Social Science course		3
Humanities course		3

Free Electives 6

*Note: It is desirable for the social science and humanities courses to carry Gordon Rule writing credit. Other required courses listed below may also be included in the transfer program.*

### **Additional General Education Courses**

Students must take the following courses to complete the general education requirement.

Writing for Tech Professions	ENC 2210	3
Social Science course		3
Humanities course		3

*Note: ENC 2210 at FAU is an honors course. It must be taken instead at the community college. The writing, social science, and humanities courses must be Gordon Rule writing courses.*

### **Mathematics and Science Courses**

The following mathematics and science courses are required in addition to those listed above under the Transfer Credits paragraph.

Trigonometry	MAC 1114	3
Methods of Calculus	MAC 2233	3
Discrete Structures	COT 3100	3
College Physics I*	PHY 2053	3
College Physics I Lab	PHY 2053L**	1
College Physics II*	PHY 2054	3
College Physics II Lab	PHY 2054L **	1

\* College Physics is 3 credits at BCC, MDC, and IRCC; 4 credits at FAU and PBCC

\*\* Physics lab is General Physics Lab, PHY 2048L and 2049L, at FAU and PBCC.

### **Professional Courses**

In order to enhance their professional skills, students must complete the following courses.

Public Speaking	SPC 2601	3
Social and Ethical Issues in Computing	ISM 4042	3

### **Bachelor of Information Engineering Technology Program (BIET)**

#### **Core and Technical Courses**

All students must take the following core courses, which total 29 credits, in addition to the 30 block credits from the A.S. degree program:

Block credit from A.S.		27
Introductory Programming in C or C++ from A.S.		3
Foundations of Computer Science	COT 3002	3
Foundations of Computer Science Lab	COT 3002L	1
Introduction to Internet Computing	COP 3813	3
Applied Data Structures	CET 3350	3
Database Application Development	CET 4427	3
Applied Operating Systems	CET 4505	3
Computer Organization and Design	CET 4333	3
Applied Software Engineering	CET 3383	3
Applied Project Management	ETI 4448	3
Capstone Project	CET 4915	4

### **Information Engineering Technology**

#### **Electives**

To satisfy the elective requirement, all students must take 12 credits selected from the following courses.

Introduction to Local Area Network Technology	CET 4483	3
Introduction to Wide Area Network Technology	CET 4748	3
Internet Computing II	CET 4589	3
Introduction to Data and Network Security	CIS 4363	3
Web Services	COP 4814	3
Computer Networking Lab	CET 4741L	3
Co-operative Education – IET*	CET 3949	1
Topics in IET	CET 4930	1-3
Directed Independent Study**	COT 4900	1-3

Other CSE courses approved by advisor

\* Three semesters of Co-operative Education – IET at one credit each count as one three-credit elective.

\*\* At most one Directed Independent Study course may be included in the program.

**Sample Four-Year-Plus-One-Semester  
Program of Study for Bachelor of Information  
Engineering Technology  
A.S. Program at Community College**

(63 credits total) A.S. credits in BIET		51
Writing for Technical Professions	ENC 2210	3
Trigonometry	MAC 1114	3
Foundations of Computer Science	COT 3002	3
Foundations of Computer Science Lab	COT 3002L	1
Introduction to Internet Computing	COP 3813	3
Public Speaking	SPC 2601	3
Methods of Calculus	MAC 2233	3
Applied Software Engineering	CET 3383	3
Computer Organization and Design	CET 4333	3
Applied Data Structures	CET 3350	3
Social Science*		3
Discrete Structures	COT 3100	3
College Physics I	PHY 2053	3
College Physics I Lab	PHY 2053L	1
Database Application Development	CET 4427	3
Technical Elective		3
Humanities*		3
College Physics II	PHY 2054	3
College Physics II Lab	PHY 2054L	1
Applied Project Management	ETI 4448	3
Technical Electives		6
Capstone Project	CET 4915	4
Social and Ethical Issues in Computing	ISM 4042	3
Applied Operating Systems	CET 4505	3
Technical Elective		3
Total		124-136***

\* FAU Core: One of the humanities or social science courses listed elsewhere in the catalog that satisfy the FAU Core Curriculum requirements for all baccalaureate students. Gordon Rule Writing courses must be passed with a grade of "C" or better.

\*\* Gordon Rule Writing course requires grade of "C" or better.

\*\*\* A minimum of 124 credits is required for the program.

Additional A.S. credits may bring total to 136.