

BACHELOR OF INFORMATION TECHNOLOGY (BIT) AND MASTER OF SCIENCE IN CYBER TECHNOLOGY (MSCT)

Dr. Shakil Akhtar, Program Coordinator

ShakilAkhtar@clayton.edu

Program Requirements

Entrance requirements for the Bachelor of Information Technology and Master of Science in Cyber Technology combined degree are:

- 3.0 GPA
- Junior Standing
- Acceptance into Graduate School

Freshman – Junior Standing Requirements

Students will complete all the course requirements for undergraduate Bachelor of Information Technology (<https://catalog.clayton.edu/academic-catalog/information-mathematical-sciences/computer-science-information-technology/information-technology-bit/>).

Senior Standing Requirements

Students will complete up to 6 credit hours of approved graduate-level CSCI courses in the final 2 semesters along with their remaining undergraduate coursework.

The student must submit the following to Graduate Admissions during their senior year: application, application processing fee, and transcripts from all institutions attended.

Suggested Course Sequence

Please note: This is a suggested course sequence only.

Course	Title	Credit Hours
First Year		
First Semester		
ENGL 1101	English Composition I	3
MATH 1101 or MATH 1111	Intro to Mathematical Modeling or College Algebra	3
CRIT 1101	Critical Thinking	3
POLS 1101	American Government	3
ITFN 1101	Foundations-Information Tech.	3
Credit Hours		15
Second Semester		
ENGL 1102	English Composition II	3
MATH 1221	Finite Mathematics	3
HIST 2111 or HIST 2112	Survey of US History to 1877 or US HIST Since Reconstruction	3
ITFN 1201	Foundations of Database Design	3
ITFN 1401	Foundations of Webmaster	3
Credit Hours		15
Second Year		
First Semester		
Literature, Philosophy, or Foreign Language ^{Core Area C1}		3

AFAM 2010 or ECON 1101 or ECON 2105 or ECON 2106 or PSYC 1101 or SOCI 1101 or WST 2010	Intro-African American Studies ^{Core Area E4} or Economic of Financial Literacy or Principles of Macroeconomics or Principles of Microeconomics or Intro to General Psychology or Introduction to Sociology or Intro to Women's Studies	3
CSCI 1301	Computer Science I	3
MATH 1401	Elementary Statistics	3
ITFN 1502	Fnds. of Networking & Security	3
Credit Hours		15
Second Semester		
Fine Arts OR Intermediate Foreign Language ^{Core Area C2}		3
HIST 1111 or HIST 1112 or HIST 2750 or POLS 2401	Survey-PreModern World History ^{Core Area E2} or Survey of Modern World History or Critical Trends and Issues or Intro to Global Issues	3
CSCI 1302	Computer Science II	3
ITFN 2214	Web Application Development	3
ITFN 2512	Interm. Networking & Security	3
Credit Hours		15
Third Year		
First Semester		
Foreign Languages or Communication ^{Core Area B2}		2
Natural Sciences with Lab ^{Core Area D1}		4
ITFN 3003	Professional Dev. and Ethics	3
ITFN 3103	Human-Computer Interaction	3
ITFN 3112	System Analysis and Design	3
Credit Hours		15
Second Semester		
Natural Sciences ^{Core Area D1}		3
ITFN 3144	Informatics Project Management	3
ITFN 3316	SW Security, Testing, and QA	3
ITFN 3601	Operating Systems	3
Free Elective		3
Credit Hours		15
Total Credit Hours		90

Networking and Security Concentration

Course	Title	Credit Hours
Fourth Year		
First Semester		
ITFN 4154	Informatics Integration	3
ITFN 4433	Web Integration	3
ITNW 4501	Network Planning and Design	3
CSCI 5701	Introduction to Cybersecurity ^{1, 2}	3
Free Elective		3
Credit Hours		15
Second Semester		
ITFN 4014	Internship Cooperative	3
ITNW 4502	Secure Networks & Comm. Protoc	3
CSCI 5317	Operating Systems Admin& Secur ^{2, 3}	3
Free Elective		3
Free Elective		3
Credit Hours		15
Total Credit Hours		30

Database Administration Concentration

Course	Title	Credit Hours
Fourth Year		
First Semester		
ITFN 4154	Informatics Integration	3
ITFN 4433	Web Integration	3
ITDB 4201	Advanced Database Modeling	3
ITDB 4203	Database Admin & Architecture	3
CSCI 5701	Introduction to Cybersecurity ^{1, 2}	3
Credit Hours		15
Second Semester		
ITFN 4014	Internship Cooperative	3
ITDB 4202	Database Applications	3
CSCI 5317	Operating Systems Admin& Secur ^{2, 3}	3
Free Elective		3
Free Elective		3
Credit Hours		15
Total Credit Hours		30

Informatics Concentration

Course	Title	Credit Hours
Fourth Year		
First Semester		
ITFN 4154	Informatics Integration	3
ITFN 4433	Web Integration	3
Any 4000 IT Course		3
CSCI 5701	Introduction to Cybersecurity ^{1, 2}	3
Free Elective		3
Credit Hours		15
Second Semester		
ITFN 4014	Internship Cooperative	3
CSCI 5317	Operating Systems Admin& Secur ^{2, 3}	3
Upper Division IT Elective		3
Free Elective		3
Free Elective		3
Credit Hours		15
Total Credit Hours		30

Applied Project Track (Fifth year)

Course	Title	Credit Hours
Fifth Year		
First Semester		
CSCI 5306	Computer & Networks Security	3
CSCI 5601	Software Security	3
Concentration Course		3
CSCI 6574	Research Techniques	3
Credit Hours		12
Second Semester		
CSCI 6599	Special Project	3
Concentration Course		3
Concentration Course		3
Concentration Course		3
Credit Hours		12
Total Credit Hours		24

Thesis Track (FIFTH YEAR)

Course	Title	Credit Hours
Fifth Year		
First Semester		
CSCI 5601	Software Security	3
CSCI 5306	Computer & Networks Security	3
CSCI 6574	Research Techniques	3
Concentration Course		3
Credit Hours		12
Second Semester		
CSCI 6600	Thesis	3
Concentration Course		3
Concentration Course		3
Concentration Course		3
Credit Hours		12
Total Credit Hours		24

¹ Students who take CSCI 5701 Introduction to Cybersecurity in their senior year should NOT take CSCI 4701 or ITMM 4423.

² Dual Credit-Course counts towards both degrees.

³ Students who take CSCI 5317 Operating Systems Admin& Secur should NOT take CSCI 4317 or ITFN 4601.