

DEPARTMENT OF COMPUTER & INFORMATION SCIENCE

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

The program in information technology prepares students for careers in administering and supporting the computing infrastructures of an organization. The curriculum consists of an integrated set of courses in networking, web development and administration, database development and administration, systems administration, and computer forensics.

Curriculum Track 1:

Programming, Database, and Web

Both matrices below are sample plans for all coursework required for Track 1 and Track 2.

Freshman

Fall	Credits
ENGL 1013 Composition I ¹	3
MATH 1113 College Algebra ²	3
CSEC 1003 Introduction to Cybersecurity	3
TECH 1001 Orientation to the University ³	1
CSEC 1113 Introduction to Networking	3
COMS 1333 Web and Mobile Technologies	3
Total Hours	16

Spring	Credits
ENGL 1023 Composition II ¹	3
MATH 2243 Calculus for Business and Economics ⁴	3
COMS 1011 Programming Foundations I Lab and COMS 1013 Programming Foundations I	4
SS 1XXX Social Science Courses ¹	3
COMS 2703 Computer Hardware and Architecture	3
Total Hours	16

Sophomore

Fall	Credits
SCIL 1XXX Science with Laboratory ¹	4
COMS 2203 Programming Foundations II	3
ENGL 2053 Technical Writing	3
MATH 2703 Discrete Mathematics	3
COMS 2163 Scripting Languages	3
Total Hours	16

Spring	Credits
COMM 2173 Business and Professional Speaking ⁶	3
COMS 2213 Data Structures	3
STAT 2163 Introduction to Statistical Methods	3
COMS 2323 Programming in Python	3
COMS 2713 Survey of Operating Systems ⁵	3
Total Hours	15

Junior

Fall	Credits
SCIL 1XXX Science with Laboratory ¹	4
COMS 3233 Database Design and Implementation	3
COMS 3413 App Development	3
COMS 3523 Human Factors in Information Technology	3
Approved 3000-4000 level Elective	2
Total Hours	15

Spring	Credits
FAH 1XXX Fine Arts and Humanities Courses ¹	3
COMS 3053 Ethical Issues in Technology	3
COMS 3163 Web Programming	3
COMS 3243 Data Mining	3
Approved 3000-4000 level Elective	3
Total Hours	15

Senior

Fall	Credits
SS 1XXX Social Science Courses ¹	3
USHG 1XXX U.S. History and Government ¹	3
COMS 4033 Information Systems Analysis and Design	3
COMS 4913 Capstone I	3
Approved 3000-4000 level Elective	3
Total Hours	15

Spring	Credits
FAH 1XXX Fine Arts and Humanities Courses ¹	3
COMS 4213 Database Administration	3

Spring	Credits
COMS 4923 Capstone II	3
Approved 3000-4000 level Elective	3
Total Hours	12

Curriculum Track 2:

Network and Security

Freshman

Fall	Credits
ENGL 1013 Composition I ¹	3
MATH 1113 College Algebra ²	3
CSEC 1003 Introduction to Cybersecurity	3
TECH 1001 Orientation to the University ³	1
CSEC 1113 Introduction to Networking	3
COMS 1333 Web and Mobile Technologies	3
Total Hours	16

Spring	Credits
ENGL 1023 Composition II ¹	3
MATH 2243 Calculus for Business and Economics ⁴	3
COMS 1011 Programming Foundations I Lab and COMS 1013 Programming Foundations I	4
COMS 2703 Computer Hardware and Architecture	3
SS 1XXX Social Science Courses ¹	3
Total Hours	16

Sophomore

Fall	Credits
SCIL 1XXX Science with Laboratory ¹	4
COMS 2203 Programming Foundations II	3
CSEC 2223 Virtualization	3
MATH 2703 Discrete Mathematics	3
CSEC 2213 Network Forensics and Incident Response	3
Total Hours	16

Spring	Credits
ENGL 2053 Technical Writing	3
COMS 2163 Scripting Languages OR COMS 2323 Programming in Python	3
COMS 2213 Data Structures	3
COMS 2713 Survey of Operating Systems ⁵	3
COMM 2173 Business and Professional Speaking ⁶	3
Total Hours	15

Junior

Fall	Credits
FAH 1XXX Fine Arts and Humanities Courses ¹	3
COMS 3233 Database Design and Implementation	3
COMS 3363 Server Administration	3
CSEC 3123 Cyber Defense I	3
Approved 3000-4000 level Elective	3
Total Hours	15

Spring	Credits
SCIL 1XXX Science with Laboratory ¹	4
COMS 3053 Ethical Issues in Technology	3
COMS 3373 Data Center Operations	3
CSEC 3233 Cyber Defense II	3
Approved 3000-4000 level Elective	2
Total Hours	15

Senior

Fall	Credits
USHG 1XXX U.S. History and Government ¹	3
SS 1XXX Social Science Courses ¹	3
COMS 3523 Human Factors in Information Technology	3
COMS 4913 Capstone I	3
Approved 3000-4000 level Elective	3
Total Hours	15

Spring	Credits
FAH 1XXX Fine Arts and Humanities Courses ¹	3

Spring	Credits
COMS 4713 Networking Practicum	3
COMS 4923 Capstone II	3
Approved 3000-4000 level Elective	3
Total Hours	12

¹See appropriate alternatives or substitutions in "[General Education Requirements](#)".

²Student may waive this course by taking MATH 2243 Calculus for Business and Economics or MATH 2914 Calculus I instead and take an elective in its place.

³TECH 1013 Introduction to the University is a substitution for TECH 1001 Orientation to the University.

⁴MATH 2914 Calculus I is a substitution for MATH 2243 Calculus for Business and Economics.

⁵COMS 3703 Advanced Operating Systems is a substitution for COMS 2713 Survey of Operating Systems.

⁶COMM 2003 Public Speaking is a substitution for COMM 2173 Business and Professional Speaking.