**Cyber Security & Forensic Computing Study Plan – Academic Year 2023–2024**

**Total Credit Hours: 132 credit hours**

**First Year: First Semester (Total: 17 credit hours)**

* MATH 101 – Calculus I (4 credit hours)  
  Prerequisite: MATH 002
* ENGL 101 – First Year Composition (3 credit hours)  
  Prerequisite: ENGL 005
* GIAS 101 – Islamic Culture (3 credit hours)  
  Prerequisite: none
* GHAL xxx – Humanities, Arts, and Languages Elective (3 credit hours)  
  Prerequisite: none
* CS 111 – Introduction to Computing and Programming (4 credit hours)  
  Prerequisite: PCS 001

**First Year: Second Semester (Total: 18 credit hours)**

* MATH 102 – Calculus II (4 credit hours)  
  Prerequisite: MATH 101
* ENGL 102 – Introduction to Report Writing (3 credit hours)  
  Prerequisite: ENGL 101
* CS 232 – Computer Networks (4 credit hours)  
  Prerequisite: CS 111
* CS 112 – Object Oriented Programming (4 credit hours)  
  Prerequisite: CS 111
* FC 112 – Introduction to Cyber Security (3 credit hours)  
  Prerequisite: CS 232  
  Co-requisite: CS 232

**Second Year: First Semester (Total: 18 credit hours)**

* ENGL 201 – Technical Writing (3 credit hours)  
  Prerequisite: ENGL 102
* CS 201 – Introduction to Discrete Systems (3 credit hours)  
  Prerequisite: MATH 102
* CS 221 – Fundamentals of Operating Systems (4 credit hours)  
  Prerequisite: CS 112  
  Co-requisite: CS 211
* CS 211 – Data Structures and Algorithms (4 credit hours)  
  Prerequisite: CS 112
* FC 281 – Offensive Security and Ethical Hacking (4 credit hours)  
  Prerequisite: CS 232, FC 112  
  Co-requisite: CS 221

**Second Year: Second Semester (Total: 15 credit hours)**

* STAT 232 – Probability and Statistics (3 credit hours)  
  Prerequisite: MATH 102
* SE 262 – Software Engineering (3 credit hours)  
  Prerequisite: CS 112
* FC 254 – Operating System Hardening (3 credit hours)  
  Prerequisite: CS 221, FC 112
* FC 382 – Defense Mechanisms (3 credit hours)  
  Prerequisite: FC 281
* CS 224 – Computer Architecture and Organization (3 credit hours)  
  Prerequisite: CS 111

**Third Year: First Semester (Total: 18 credit hours)**

* CS 317 – Web Application Development (3 credit hours)  
  Prerequisite: CS 112  
  Co-requisite: CS 351
* CS 351 – Fundamentals of Database Systems (4 credit hours)  
  Prerequisite: CS 112
* FC 331 – Software Security (3 credit hours)  
  Prerequisite: FC 112
* AI 381 – Artificial Intelligence I (3 credit hours)  
  Prerequisite: CS 112
* FC 383 – Advanced Secure Network Design (3 credit hours)  
  Prerequisite: FC 382
* FC 315 – Ethics and Professionalism in Cyber Security (2 credit hours)  
  Prerequisite: none

**Third Year: Second Semester (Total: 17 credit hours)**

* GIAS 102 – Arabic Language Skills (3 credit hours)  
  Prerequisite: none
* FC 302 – Introduction to Digital Forensics (4 credit hours)  
  Prerequisite: FC 112
* FC 312 – Web Application Security (4 credit hours)  
  Prerequisite: CS 317
* FC 362 – Cyber Security Risk Management (3 credit hours)  
  Prerequisite: FC 112
* FC 322 – Advanced Cryptography (3 credit hours)  
  Prerequisite: STAT 232, CS 201

**Summer Practical Training (Total: 1 credit hour)**

* FC 394 – Summer Practical Training (1 credit hour)  
  Prerequisite: All FC3xx Courses

**Fourth Year: First Semester (Total: 16 credit hours)**

* FC 491 – Capstone Project I (3 credit hours)  
  Prerequisites: FC 254, FC 281, FC 331, FC 383, FC 302, FC 312
* FC 403 – Advanced Digital Forensics (4 credit hours)  
  Prerequisite: FC 302
* FC 407 – Security and Privacy Standards and Policies (3 credit hours)  
  Prerequisite: CS 112
* FC xxx – Professional Elective II (3 credit hours)  
  Prerequisite: none
* FC xxx – Professional Elective I (3 credit hours)  
  Prerequisite: none

**Fourth Year: Second Semester (Total: 12 credit hours)**

* FC 492 – Capstone Project II (3 credit hours)  
  Prerequisite: FC 491
* C3S xxx – College Elective I (3 credit hours)  
  Prerequisite: none
* C3S xxx – College Elective II (3 credit hours)  
  Prerequisite: none
* GSOS xxx – Social Sciences Elective (3 credit hours)  
  Prerequisite: none