

COMMONWEALTH UNIVERSITY

# DIGITAL FORENSICS & CYBERSECURITY

# **Bachelor of Science (BS)**

This degree map is based on the current Academic Catalog and is subject to change. Please note that the degree map is designed to give you a sense of roughly how courses might be distributed over a 4-year degree. Your exact schedule will differ depending on a range of factors though we recommend taking a minimum of 15 credits each fall and spring semester. Regular consultation with your academic advisor is the best way to make sure that you are taking the courses you need in the right order to ensure efficient progress through your degree program.

# Sample 4-Year Plan

First Year			
Fall Courses	Credits	Spring Courses	Credits
DGFR 121 File Systems 1	3	DGFR 122 File Systems 2	3
First Year Seminar	3	General Education Course	3
MATH 130 Finite Mathematics	3	STAT 141 Intro. To Statistics (Quantitative General Education)	3
CMSC 115 Python Programming (Technology General Education)	3	CMSC 150 Database Design(early)	3
General Education Course	3	Writing General Education Course	3
Semester Total	15	Semester Total	15
	Seco	ond Year	
Fall Courses	Credits	Spring Courses	Credits
DGFR 219 Intro. To Linux	3	DGFR 275 Intro. To Networks	3
ENGL 270 Technical Writing	3	COMM 101 Public Speaking (Oral Communications General Education Course)	3
MATH 230 Discrete Mathematical Structures	3	CMSC 357 Database Design (late)	3
PHIL 203 Business Ethics (Ethics General Education Course)	3	General Education Course	3
General Education Course	3	General Education Course	3
Semester Total	15	Semester Total	15
	Thi	rd Year	•
Fall Courses	Credits	Spring Courses	Credits
DGFR 311 Security Fundamentals	3	DGFR 318 Small Devices	3
DGFR 317 DF Software	3	DGFR 417 Adv. Topics (regular)	3
General Education Course	3	Digital Forensics Elective	3
General Education Course	3	General Education Course	3
Elective	3	General Education Course	3
Semester Total	15	Semester Total	15
	Fou	rth Year	
Fall Courses	Credits	Spring Courses	Credits
Digital Forensics Elective	3	Digital Forensics Elective	3
DGFR 417 Adv. Topics (late)	3	Elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Semester Total	15	Semester Total	15

# Winter/Summer College - Optional

While not required, Winter and Summer sessions are offered each year and may help you stay on track or get ahead. You may take up to seven (7) credits during Winter College and up to 14 credits during Summer College.

# DIGITAL FORENSICS & CYBERSECURITY

# **Curriculum Checklist**

### **REQUIRED DF Courses (24 credits)**

- \_\_\_\_ DGFR 121 Digital Forensics File Systems 1 (3)
- \_\_\_\_ DGFR 122 Digital Forensics File Systems 2 (3)\*
- DGFR 219 Intro to Linux for D.F. (3) DGFR 275 Introduction to Networks (3)\*
- \_\_\_\_ DGFR 215 Introduction to Networks (3) \_\_\_\_ DGFR 311 Security Fundamentals (3)\*
- \_\_\_\_ DGFR 317 Digital Forensics Software (3)\*
- \_\_\_\_ DGFR 318 Small Devices (3)\*
- DGFR 417 Advanced Topics in Digital Forensics (3)\*

#### Digital Forensics Electives (At least 9 credits)

- DGFR 257 Secure System Design and Administration (3)\*
- DGFR 319 UNIX/LINUX for Digital Forensics (3)\*
- \_\_\_\_ DGFR 331 Electronic Discovery (3)\*
- \_\_\_\_ DGFR 351 Enterprise Network Investigations (3)\*
- \_\_\_\_ DGFR 371 Penetration Testing (3)\*
- \_\_\_\_ DGFR 419 Independent Study in Digital Forensics (3)\*
- DGFR 431 Current Issues in Cybercrime (3)\*
- \_\_\_\_ DGFR 451 Malware Forensics (3)\*
- DGFR 471 Internet of Things (IoT) Forensics (3)\*
- \_\_\_\_ DGFR 498 Internship in DF (At most 3 credit hours) (3)\*

## REQUIRED Math & CS Courses (15 to 16 credits)

- \_\_\_\_ CMSC 115 Python Programming (3)
- \_\_\_\_ CMSC 150 Database Design (3)
- MATH 130 Finite Mathematics (3) OR
- MATH 160 Calculus 1 (4)\*
- \_\_\_\_ STAT 141 Intro to Statistics (3) OR
- STAT 241 Probability and Statistics (3)\* MATH 230 Discrete Mathematical Structures\* OR
- MATH 230 Discrete Mathematical Structures ^ OF MATH 250 Discrete Mathematics (3)\*

#### **Other Required Courses**

\_\_\_\_ ENGL 270 Technical Writing (3)



# General Education Requirements

## (45 credits)

Note: Some requirements may be fulfilled by coursework in your major program including directed Gen Ed courses noted below

- Foundations (15 credits)
  - STAT 141 -- Introduction to Statistics
    COMM 101 Public Speaking
- Interconnections (9 credits)
- Citizenship & Responsibility (6 credits from at least two goals)
   PHIL 203 Business Ethics
- Natural World & Technologies (9 credits)
  CMSC 115 Python Programming
- Creativity & Expression (6 credits)

## **Degree Requirements**

All students must obtain a minimum of 120 credits, (a minimum of 42 credits must be advanced coursework), complete all General Education requirements, and all requirements for the selected major. Meet with your advisor and consult Degree Works to monitor your progress and for all graduation requirements.

A minimum GPA of 2.0 in the major and overall are required.

\*Denotes advanced coursework

Students must take a minimum of 42 credits of advanced coursework. Advanced coursev courses, and general education courses. Courses that meet this requirement are designa Banner.

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