


















# CYBER FORENSICS AND SECURITY, B.S.


 - General Education Course

 - Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

The Core Curriculum is designed to foster critical thinking skills and introduce students to basic domains of thinking that transcend disciplines. The Core applies to all majors. Information on specific classes in the Core can be found at <https://www.marshall.edu/gened/>.

## Course Requirements


Code	Title	Credit Hours
<b>Core Curriculum</b>		
<i>Core 1: Critical Thinking</i>		
FYS 100	First Yr Sem Critical Thinking	3
	Critical Thinking Course	5
	Critical Thinking Course	3
<i>Core 2</i>		
ENG 101  	Beginning Composition	3
ENG 201 	Advanced Composition	3
CMM 103 	Fund Speech-Communication	3
MTH 140  	Applied Calculus	3
FSC 224 	Intro to Forensic Science	4
	Core II Humanities	3
CJ 200 	Intro to Criminal Justice	3
	Core II Fine Arts	3
<i>Additional University Requirements</i>		
CFS 440	Digital Evidence (Writing Intensive)	4
CFS 460	Applied Cyber Forensics (Writing Intensive)	4
	Multicultural or International	3
CFS 490 	Capstone	3
<b>Major-Specific</b>		
NRRM 200	Analytical Methods: Statistics	4
MTH 140  	Applied Calculus	3
FSC 224 	Intro to Forensic Science	4
	Physical/Natural Science Elective Sequence 1	4
	Physical/Natural Science Elective Sequence 2	3
CIT 163 	Intro to Programming: C++	3
CIT 263 	Web Programming I	3
CIT 352	Network Protocols and Admin	3
CIT 365	Database Management	3
CJ 200 	Intro to Criminal Justice	3
CJ 314	Crime Scene Investigation	3
CJ 424	Computer Crime	3
CFS 200	Introduction to CFS	3
CFS 261	Introduction to Linux	3
CFS 305	Open Source Intelligence	3
CFS 357	Network Penetration and Attack	4

CFS 400	Intro to Cyber Forensics	3
CFS 440	Digital Evidence	4
CFS 448	Multimedia Forensics	3
CFS 460	Applied Cyber Forensics	4
CFS 454	Network Defense	4
CFS 462	Network Forensics	4
CFS 467	Mobile Device Forensics	4
	CTS Technical Elective	3
	CTS Technical Elective	3
CFS 490 	Capstone	3
	Free Elective	4
	Free Elective	3
	Free Elective	3
	Free Elective	1

## Major Information

- Students are required to know and track their degree requirements for graduation or for entrance to a professional school.
- Coursework listed as "free elective" may vary for each student. Students are encouraged to use elective hours toward a minor or toward prerequisites.
- Students are strongly encouraged to select courses that meet two or more Core or College requirements.
- Course offerings and course attributes are subject to change semesters. Please consult each semesters schedule of courses for availability and attributes.
- Math is based on an ACT Mathematics score of 24 or higher. Students with an ACT Mathematics score less than 24 will be placed in the appropriate mathematics and science courses.
- Prior to entering their junior year, students are required to pass a background check (no arrests or convictions) and supply two letters of reference that attest to the student's character. Under certain very limited circumstances, this requirement may be waived. That decision will be made by a review committee comprised of the university digital forensic and information assurance faculty along with the department chair. The background check is done at the student's expense.

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## Semester Plan

The Bachelor of Science in Cyber Forensics and Security prepares students to meet the challenges of today's cyber threats. Cyber Forensics and Security skills are in high demand in law enforcement, business, government, defense, intelligence, and the private sector. The program has a solid foundation in science, technology, and communication skills. Students learn to conduct forensic analysis on a variety of devices and systems, defend a network, testify in court, and conduct penetration tests among other skills.

**First Year****First Semester**

ENG 101	Beginning Composition	3
FYS 100	First Yr Sem Critical Thinking	3
	Multicultural or International	3
	Core II Fine Arts	3
	Core II Humanities (CT)	3
UNI 100	Freshman First Class	1

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**Credit Hours** **16**

**Second Semester**

CIT 163	Intro to Programming: C++	3
CJ 200	Intro to Criminal Justice	3
ENG 201	Advanced Composition	3
CFS 200	Introduction to CFS	3
	Free Elective	3

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**Credit Hours** **15**

**Second Year****First Semester**

CIT 352	Network Protocols and Admin	3
CFS 400	Intro to Cyber Forensics	3
NRRM 200	Analytical Methods: Statistics	4
	Physical/Natural Science Elective - Seq 1	4

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**Credit Hours** **14**

**Second Semester**

CIT 263	Web Programming I	3
CFS 261	Introduction to Linux	3
CMM 103	Fund Speech-Communication	3
MTH 140	Applied Calculus	3
	Physical/Natural Science Elective - Seq 2	3

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**Credit Hours** **15**

**Third Year****First Semester**

CIT 365	Database Management	3
CFS 305	Open Source Intelligence	3
CFS 357	Network Penetration and Attack	4
CFS 460	Applied Cyber Forensics	4

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**Credit Hours** **14**

**Second Semester**

CJ 424	Computer Crime	3
CFS 454	Network Defense	4
CFS 462	Network Forensics	4
	Free Elective	3
	Free Elective	1

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**Credit Hours** **15**

**Fourth Year****First Semester**

CJ 314	Crime Scene Investigation	3
CFS 467	Mobile Device Forensics	4
CFS 448	Multimedia Forensics	3
FSC 224	Intro to Forensic Science	4
	Select one of the following CFS Technical Electives:	3

CFS 420	Incident Response	
CFS 430	Exploit Development	
CFS 461	Cyber Warfare	
CFS 445	Mobile & Web Pen Testing	
CFS 464	Network Security	
CFS 480	Special Topics	

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**Credit Hours** **17**

**Second Semester**

CFS 440	Digital Evidence	4
CFS 490	Capstone	3
	Free Elective	4

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Select one of the following CFS Technical Electives: 3

CFS 420	Incident Response	
CFS 430	Exploit Development	
CFS 445	Mobile & Web Pen Testing	
CFS 461	Cyber Warfare	
CFS 464	Network Security	
CFS 480	Special Topics	

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**Credit Hours** **14**

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**Total Credit Hours** **120**