COMPUTER AND WEB APPLICATION DEVELOPMENT, EMPHASIS

Course Requirements

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/.

Code	Title	Credit Hours
Core Curriculum		
Core 1: Critical Thinking		
FYS 100	First Yr Sem Critical Thinking	3
STA 150	Foundations of Statistics	3
CS 105	Expl World with Computing (CT)	3
Core 2		
ENG 101	Beginning Composition	3
ENG 201	Advanced Composition	3
CMM 103	Fund Speech-Communication	3
MTH 140	Applied Calculus	3
NRE 111 & NRE 111L	Living Systems and Living Systems Lab (or BSC 104 and BSC 104L)	4
Core II Humanities		3
Core II Social Science		3
Core II Fine Arts		3
Additional University Requirements		
Writing Intensive		3
Writing Intensive		3
Multicultural or International		3
CIT 490	Capstone Project in CIT	3
or CIT 470	Internship in CIT	
Major-Specific		
CIT 150	Spreadsheet and Database Apps	3
CS 105	Expl World with Computing (CT)	3
CS 110	Computer Science I	3
CS 120	Computer Science II	3
CS 210	Data Structures and Algorithms	3
CIT 260	Instrumentation	3
CIT 265	C# NET Programming	3
or CIT 266	Applied C++ Programming	
CIT 263	Web Programming I	3
CIT 313	Web Programming II	3
CIT 332	Software Engineering I	3
CIT 333	Software Engineering II	3
CIT 352	Network Protocols and Admin	3
CIT 365	Database Management	3
ART 214	Foundations: Grid/Chroma	3
or ART 219	Foundations: Frame/Time	
MGT 320	Principles of Management	3
CIT 490	Capstone Project in CIT (C)	3
or CIT 470	Internship in CIT	
MTH 140	Applied Calculus	3
MTH 220	Discrete Structures	3
STA 150	Foundations of Statistics	3
STA 150L	Foundations of Statistics Lab	1
NRE 212	Energy	3
NRE 111 & NRE 111L	Living Systems and Living Systems Lab (or BSC 104 and BSC 104L)	4
Physical/Natural Science Elective		4
Area of Emphasis-Specific		
CIT 416	Advanced Web Programming	3
CIT 466	Database Programming	3
CIT Technical 300/400 Elective		3
CIT Technical 300/400 Elective		3
CIT Technical 300/400 Elective		3
Free Elective		3
Free Elective		2

Major Information

- Students are required to know and track their degree requirements for graduation or for entrance to a professional school.
- Coursework listed as "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. For example, a writing intensive literature course could satisfy the Core II Humanities requirement as well as the University writing intensive requirement.
- 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 prerequisite mathematics and science courses.
- The Computer and Information Technology major is a four-year program that requires a minimum of 120 credit hours.

Semester Plan

A major in Computer and Information Technology provides a solid grounding in the information technology field. CIT is a cutting-edge program with courses that are both highly theoretical while also extremely applied in nature. The Area of Emphasis in Computer and Web Application Development focuses on the development of applications for business, industry, and education. Students will learn the software engineering process and project management and learn to program in languages such as C++ and C#. Students also learn to specify, design, and build large-scale software systems for existing hardware.

First Year

First Semester		Credit Hours
CIT 150	Spreadsheet and Database Apps	3
ENG 101	Beginning Composition	3
NRE 111 & NRE 111L	Living Systems and Living Systems Lab (or BSC 104 and BSC 104L)	4
Multicultural or International		3
CS 105	Expl World with Computing (CT)	3
UNI 100	Freshman First Class	1
	Credit Hours	**17**

Second Semester		
CS 110	Computer Science I	3
CMM 103	Fund Speech-Communication	3
ENG 201	Advanced Composition	3
FYS 100	First Yr Sem Critical Thinking	3
MTH 140	Applied Calculus	3
	Credit Hours	**15**

Second Year

First Semester		
CS 120	Computer Science II	3
CIT 260	Instrumentation	3
CIT 263	Web Programming I	3
Core II Fine Arts		3
MTH 220	Discrete Structures	3
	Credit Hours	**15**

Second Semester		
ART 214 or ART 219	Foundations: Grid/Chroma or Foundations: Frame/Time	3
CIT 313	Web Programming II	3
CS 210	Data Structures and Algorithms	3
STA 150	Foundations of Statistics	3
STA 150L	Foundations of Statistics Lab	1
Social Science		3
	Credit Hours	**16**

Third Year

First Semester		
CIT 265 or CIT 266	C# NET Programming or Applied C++ Programming	3
CIT 332	Software Engineering I	3
CIT 365	Database Management	3
CIT Technical 300/400 Elective		3
Writing Intensive		3
	Credit Hours	**15**

Second Semester		
CIT 333	Software Engineering II	3
CIT 416	Advanced Web Programming	3
CIT Technical 300/400 Elective		3
Physical/Natural Science Elective		4
Core II Humanities		3
	Credit Hours	**16**

Fourth Year

First Semester		
CIT 352	Network Protocols and Admin	3
CIT 466	Database Programming	3
NRE 212	Energy	3
Free Elective		2
Writing Intensive		3
	Credit Hours	**14**

Second Semester		
CIT Technical 300/400 Elective		3
MGT 320	Principles of Management	3
Free Elective		3
CIT 490 or CIT 470	Capstone Project in CIT or Internship in CIT	3
	Credit Hours	**12**
	Total Credit Hours	**120**