

# COMPUTER INFO & TECH COMPUTER AND WEB APP DEVELOPMENT

## REQUIREMENTS

**CORE CURRICULUM** 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 [marshall.edu/gened](http://marshall.edu/gened).

### CORE 1: CRITICAL THINKING

CODE	COURSE NAME	HRS	GRADE
FYS 100	First Year Seminar	3	_____
CS 105	Critical Thinking Course	3	_____
_____	Critical Thinking Course	3	_____

#### Additional University Requirements

_____	Writing Intensive	3	_____
_____	Writing Intensive	3	_____
_____	Multicultural or International	3	_____
CIT 490/470	Capstone	3	_____

### CORE 2:

CODE	COURSE NAME	HRS	GRADE
ENG 101	Beginning Composition	3	_____
ENG 201	Advanced Composition	3	_____
CMM 103	Fund Speech-Communication	3	_____
MTH 140	Mathematics	5	_____
NRE 111 or BSC 104	Core II Physical/Natural Science	4	_____
_____	Core II Humanities	3	_____
_____	Core II Social Science	3	_____
_____	Core II Fine Arts	3	_____

## MAJOR

All Computer Information Technology majors are required to take the following courses:

CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
CIT 150	Spreadsheet & Database Prin	3	_____	CIT 365	Database Management	3	_____
CS 105	Expl World with Computing (CT)	3	_____	ART 214 or 219	Foundations: Grid/Chroma or Foundations: Frame/Time	3	_____
CS 110	Computer Science I	3	_____	MGT 320	Principles of Management	3	_____
CS 120	Computer Science II	3	_____	CIT 490/470	Senior Project or Internship (C)	3	_____
CS 210	Data Structures and Algorithms	3	_____	MTH 140	Applied Calculus	3	_____
CIT 260	Instrumentation	3	_____	MTH 220	Discrete Structures	3	_____
CIT 263	Web Programming I	3	_____	IST 111 or BSC 104	Living Systems or Introduction to Biology	4	_____
CIT 265 or 266	C# NET Programming or Applied C++ Programming	3	_____	NRE 212	Energy	3	_____
CIT 313	Web Programming II	3	_____	_____	Physical/Natural Science Elective	4	_____
CIT 332	Software Engineering I	3	_____	STA 150	Foundations of Statistics	3	_____
CIT 333	Software Engineering II	3	_____	STA 150L	Foundations of Statistics Lab	1	_____
CIT 352	Network Protocols and Admin	3	_____				

## AREA OF EMPHASIS

Students who wish to add an area of emphasis in Computer and Web Application Development must take the following courses:

CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
CIT 466	Database Programming	3	_____	CIT 416	Advanced Web Programming	3	_____
_____	CIT 300/400 Technical Elective	3	_____	_____	Free Elective	3	_____
_____	CIT 300/400 Technical Elective	3	_____	_____	Free Elective	2	_____
_____	CIT 300/400 Technical Elective	3	_____				

## 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, 40 of which must be at the 300-400 level.

Area of Emphasis

Major Requirement

College Requirement

General Education Requirement

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

# COMPUTER INFO & TECH COMPUTER AND WEB APP DEVELOPMENT

A major in Computer and Information Technology provides a solid grounding in the information technology field. CIT is a cutting-edge program rooted and grounded in courses that are both highly theoretical while also extremely applied in nature. It focuses on the development of computer applications for business, industry, and education that run on the personal computer or that integrate various hardware pieces into the computer system as a whole. 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.

	FALL SEMESTER				SPRING SEMESTER			
	CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
YEAR ONE	CIT 150	Spreadsheet & Database Prin	◆	3	CS 110	Computer Science I	◆	3
	ENG 101	Beginning Composition	●	3	🌳 CMM 103	Fund Speech Communication	●	3
	NRE 111 or	Living Systems or Introduction	●◆	4	ENG 201	Advanced Composition	●	3
	BSC 104/104L	to Biology w/ Lab			FYS 100	First Year Sem Crit Thinking	●	3
		Multicultural or International	●	3	MTH 140	Applied Calculus	●◆	3
	CS 105	Expl World with Computing	●	3				
	UNI 100	Freshman First Class		1				
	<b>TOTAL HOURS</b>		<b>17</b>	<b>TOTAL HOURS</b>			<b>15</b>	

Summer Term (optional):

	FALL SEMESTER				SPRING SEMESTER			
	CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
YEAR TWO	CS 120	Computer Science II	◆	3	ART 214 or	Foundations: Grid/Chroma or	◆	3
	🌳 CIT 260	Instrumentation	◆	3	219	Foundations: Frame/Time		
	🌳 CIT 263	Web Programming I	◆	3	CS 210	Data Structures and Algorithms	◆	3
		Core II Fine Arts	●	3	🌳 CIT 313	Web Programming II	◆	3
	MTH 220	Discrete Structures	●◆	3		Social Science	◆	3
					STA 150	Foundations of Statistics	◆	3
					STA 150L	Foundations of Statistics Lab	◆	1
	<b>TOTAL HOURS</b>		<b>15</b>	<b>TOTAL HOURS</b>			<b>16</b>	

Summer Term (optional):

	FALL SEMESTER				SPRING SEMESTER			
	CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
YEAR THREE	🌳 CIT 265 or	C# NET Programming or Applied	◆	3	🌳 CIT 333	Software Engineering II	◆	3
	CIT 266	C++ Programming			CIT 416	Advanced Web Programming	◆	3
	🌳 CIT 332	Software Engineering I	◆	3		CIT 300/400 Technical Elective	◆	3
	CIT 365	Database Management	◆	3		Physical/Natural Science Elective	◆	4
		CIT 300/400 Technical Elective	◆	3		Core II Humanities	●	3
		Writing Intensive (CT)	●	3				
		<b>TOTAL HOURS</b>		<b>15</b>	<b>TOTAL HOURS</b>			<b>16</b>

Summer Term (optional):

	FALL SEMESTER				SPRING SEMESTER			
	CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
YEAR FOUR	CIT 352	Network Protocols and Admin	◆	3		CIT 300/400 Technical Elective	◆	3
	CIT 466	Database Programming	◆	3	MGT 320	Principles of Management	◆	3
	NRE 212	Energy	◆	3		Free Elective		3
		Writing Intensive	●	3	CIT	Senior Project or Internship	●◆	3
		Free Elective		2	490/470			
		<b>TOTAL HOURS</b>		<b>14</b>	<b>TOTAL HOURS</b>			<b>12</b>

Summer Term (optional):

◆ Area of Emphasis

◆ Major Requirement

■ College Requirement

● General Education Requirement

🌳 Milestone Course: This is a key success marker for your major. See your advisor to discuss importance of this course in your plan of study.