CURRICULUM PLAN COLLEGE OF ENGINEERING AND COMPUTER SCIENCES 2023-2024 MY ADVISOR'S NAME IS: _____

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.

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
CIT 150	Spreadsheet & Database Prin	♦	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 263	Web Programming I	♦	3	
CIT 265 or CIT 266	C# NET Programming or Applied C++ Programming	♦	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	

CODE	COURSE NAME		HRS	GRADE
CIT 365	Database Management	♦	3	
ART 214 or 219	Foundations: Grid/Chroma or Foundations: Frame/Time	♦	3	
MGT 320	Principles of Management	♦	3	
CIT 490/470	Senior Project or Internship (C)	♦	3	
MTH 140	Applied Calculus	● ♦	3	
MTH 220	Discrete Structures	● ♦	3	
IST 111 or BSC 104	Living Systems or Introduction to Biology	♦	4	
NRE 212	Energy	♦	3	
_____	Physical/Natural Science Elective	♦	4	
STA 150	Foundations of Statistics	♦	3	
STA 150L	Foundations of Statistics Lab	♦	1	

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
CIT 466	Database Programming	💧	3	
_____	CIT 300/400 Technical Elective	💧	3	
_____	CIT 300/400 Technical Elective	💧	3	
_____	CIT 300/400 Technical Elective	💧	3	

CODE	COURSE NAME		HRS	GRADE
CIT 416	Advanced Web Programming	💧	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 prerequisities.
- 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.

FOUR YEAR PLAN COLLEGE OF ENGINEERING AND COMPUTER SCIENCES 2023-2024 MY ADVISOR'S NAME IS: _____

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.

YEAR ONE

FALL SEMESTER					SPRING SEMESTER				
CODE	COURSE NAME		HRS	GRADE	CODE	COURSE NAME		HRS	GRADE
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 BSC 104/104L	Living Systems or Introduction to Biology w/ Lab	● ♦	4		ENG 201	Advanced Composition	●	3	
_____	Multicultural or International	●	3		FYS 100	First Year Sem Crit Thinking	●	3	
CS 105	Expl World with Computing	●	3		MTH 140	Applied Calculus	● ♦	3	
UNI 100	Freshman First Class		1						
TOTAL HOURS			**17**		**TOTAL HOURS**			**15**	

Summer Term (optional):

YEAR TWO

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

Summer Term (optional):

YEAR THREE

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

Summer Term (optional):

YEAR FOUR

FALL SEMESTER					SPRING SEMESTER				
CODE	COURSE NAME		HRS	GRADE	CODE	COURSE NAME		HRS	GRADE
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 490/470	Senior Project or Internship	● ♦	3	
_____	Free Elective		2						
TOTAL HOURS			**14**		**TOTAL HOURS**			**12**	

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.

CIT - COMPUTER AND WEB APP DEVELOPMENT - 2023-2024

INVOLVEMENT OPPORTUNITIES

- Student Government Association
- Campus Activity Board
- JMELI
- Commuter Student Advisory Board
- Community Engagement Ambassadors
- Club Sports
- Religious Organizations
- Political Organizations
- Residence Hall Association
- Cultural Organizations
- National Society of Leadership and Success
- Greek Life

RELATED MAJORS

- Computer Science
- Computer and Information Security
- Mechanical/Civil Engineering
- Digital Forensics

GRADUATION REQUIREMENTS

- Have a minimum of 120 credit hours (some colleges or majors require more);
- Have an overall and Marshall Grade Point Average of 2.00 or higher;
- Have an overall Grade Point Average of 2.00 or higher in the major area of study;
- Have earned a grade of C or better in English 201 or 201 H;
- Have met all major(s) and college requirements;
- Have met the requirements of the Core Curriculum;
- Have met the residence requirements of Marshall University, including 12 hours of 300/400 level coursework in the student's college (see section entitled "Residence Requirements" in the undergraduate catalogue);
- Be enrolled at Marshall at least one semester of the senior year;
- Have transferred no more than 72 credit hours from an accredited West Virginia two-year institution of higher education.

Colleges and specific programs may have unique requirements that are more stringent than those noted above. Students are responsible for staying informed about and ensuring that they meet the requirements for graduation.

This academic map is to be used as a guide in planning your coursework toward a degree. Due to the complexities of degree programs, it is unfortunate but inevitable that an error may occur in the creation of this document. The official source of degree requirements at Marshall University is DegreeWorks available in your myMU portal. Always consult regularly with your advisor.

YEAR ONE

Have questions? Need to talk? You already have a Friend-At-Marshall ready to help you succeed. Find your FAM Peer Mentor here: www.marshall.edu/fam

Stay on the Herd Path and come to class! Class attendance is more important to your success than your high school GPA, your class standing, or your ACT/SAT scores.

In order to graduate on time, you need to take an average of 15 credits per semester. Are you on track? Take 15 to Finish!

Develop relationships with professors who can serve as future references by attending their office hours.

Declare an area of emphasis within CIT before your 30th hour. Participate in a Career Exploration Experience (job shadow) to help decide career goals.

Join or create a club or organization on campus about a particular issue you care about. Marshall has more than 200 student organizations.

Sign up for Handshake! Handshake is the #1 place to launch a career with no connections, experience, or luck required. The platform connects up-and-coming talent with 650,000+ employers.

YEAR TWO

Are you completing enough credits to graduate on time? Dropping or failing a class can put you behind. Use summer terms to quickly get back on track.

Take a Community Based Learning (CBL) class that connects course content to the community. Stay engaged and make a difference.

Think about who can help you grow as a student and a professional—professors, advisors, alumni, etc.—and ask at least one to be your mentor.

Join professional associations in your field, like ACM or IEEE.

Have you considered adding a minor? Think about personal areas of interest you'd like to explore or how you might enhance your major with a related skill set.

College is a great time to experience the world! Consider studying abroad in the summer, during Spring Break, or for an entire semester.

Meet with a career education specialist to conduct a "gap analysis." Figure out the skills you'll need for the career you want while you still have time to build them.

YEAR THREE

Team up with a faculty mentor and apply for the John Marshall Scholars Award.

No need to wait until graduate school. Discuss undergraduate research opportunities with faculty in your major right now.

Are you on track to graduate? Meet with your advisor for your Junior Eval to make sure you know what requirements you have left.

Be at the top of your professional game! Prepare a final resume and practice your interview skills with a career coach in Career Education.

Networking is key! Attend a Career Expo to seek employment opportunities and network with employers in your field.

Join the Marshall Mentor Network and connect with professionals in your field to discuss your major, career path, and more.

Wanting to learn about a topic outside of those we offer? Consider an independent study.

YEAR FOUR

This is it! Are you on track to graduate? Meet with your advisor for your Senior Eval to see what requirements you have left.

Don't enter your field with zero experience! Secure an internship related to your field of study.

Apply to be a New Student Orientation Leader or a Campus Tour Guide.

Did you do really well in a hard course? Become a Tutor or a Supplemental Instructor.

Talk to faculty about pursuing optional professional certifications.

Take a pulse check. Know what you need to do every year to keep your grants, scholarships, or federal financial aid.

Want to continue your education and increase your opportunities? Talk to a faculty member about whether graduate school fits your career goals.

TRANSFERABLE SKILLS ASSOCIATED WITH THIS MAJOR

- Scientific Knowledge
- Communication Skills
- Ability to Work as Part of a Team
- Technology Literacy
- Flexibility
- Problem Solving
- Needs Assessment
- Integration of Technologies

ASSOCIATED CAREERS

- Application Development
- Software Solutions
- Data Validation
- Research Science
- Project Management
- Database Administration
- Product Development
- Process Development
- Analysis
- Quality Assurance/Control
- Environmental Analyses
- Forensics
- Agriculture
- Medicine
- Chemical Engineering
- Materials Science
- Pharmaceuticals
- Education
- Healthcare
- Sales
- Marketing

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