MY ADVISOR'S NAME IS: _____

COMPUTER SCIENCE

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	_____
MTH 229	Critical Thinking Course	5	_____
_____	Critical Thinking Course	3	_____

Additional University Requirements

CODE	COURSE NAME	HRS	GRADE
_____	Writing Intensive	3	_____
_____	Writing Intensive	3	_____
_____	Multicultural or International	3	_____
CS 490	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 229	Calculus I (CT)	5	_____
_____	Core II Physical/Natural Science	4	_____
_____	Core II Humanities	3	_____
_____	Core II Social Science	3	_____
_____	Core II Fine Arts	3	_____

MAJOR-SPECIFIC

All Computer Science majors are required to take the following courses:

CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
MTH 220	Discrete Structures	3	_____	CS 410	Database Engineering	3	_____
MTH 229	Calculus I	5	_____	CS 430	Cyber Security	3	_____
MTH 230	Calculus II	4	_____	CS 490	Senior Project (C)	3	_____
MTH 329	Elementary Linear Algebra	3	_____	ENGR 222	Engineering Cost Analysis	3	_____
STA 345	Applied Probability & Stats	3	_____	ENG 354	Scientific & Technical Writing	3	_____
CS 110	Computer Science I	3	_____	MGT 320	Principles of Management	3	_____
CS 120	Computer Science II	3	_____	_____	CS Elective	3	_____
CS 210	Data Structures & Algorithms	3	_____	_____	CS Elective	3	_____
CS 215	Adv Data Structures & Algorithms	3	_____	_____	Science w/ Lab	4	_____
CS 300	Programming Languages	3	_____	_____	Science w/ Lab	4	_____
CS 305	Software Engineering I	3	_____	_____	Science w/ Lab	4	_____
CS 310	Software Engineering II	3	_____	_____	Free Elective	3	_____
CS 320	Internetworking	3	_____	_____	Free Elective	3	_____
CS 330	Operating Systems	3	_____	_____	Free Elective	2	_____
CS 360	Automata & Formal Languages	3	_____				
CS 402	Computer Architecture	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 "free elective" may vary for each student. Students are encouraged to use elective hours toward a minor or toward prerequisities.
- Science w/ Lab may be met by completeting any three courses with labs from the following science areas: BSC 120 or above, CHM 211 and CHM 217 or above, GLY 200 and GLY 210L or above, PHY 201 or PHY 211 and PHY 202 or above.

- CS elective may be met by completing any two of the following courses: CS 315, 370, 404, 405, 425, 435, 440, 455, or a special topics course CS 480-483.
- Course offerings and course attributes are subject to change each semester. Please consult each semester's schedule of courses for availability and attributes.

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

MY ADVISOR'S NAME IS: _____

COMPUTER SCIENCE

The Bachelor of Science in Computer Science program prepares students for careers in computer science through learning based on practice and grounded in theory. Students learn how to analyze, design, build, test, and deploy computer based systems by making technical trade offs between performance, scalability, availability, reliability, security, maintainability, cost and societal impact. Marshall's computing facilities are state-of-the-art and readily available to students.

YEAR ONE

FALL SEMESTER				SPRING SEMESTER			
CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
CS 110	Computer Science I	3	_____	CS 120	Computer Science II	3	_____
MTH 229	Calculus I (CT)	5	_____	ENG 201	Advanced Composition	3	_____
ENG 101	Beginning Composition	3	_____	FYS 100	First Year Sem Crit Thinking	3	_____
CMM 103	Fund Speech Communication	3	_____	MTH 220	Discrete Structures	3	_____
UNI 100	Freshman First Class	1	_____	MTH 230	Calculus II	4	_____
TOTAL HOURS		**15**		**TOTAL HOURS**		**16**	

Summer Term (optional): _____

YEAR TWO

FALL SEMESTER				SPRING SEMESTER			
CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
CS 210	Data Structures & Algorithms	3	_____	CS 215	Advanced Data Struct & Algorithms	3	_____
ENG 354	Scientific & Technical Writing	3	_____	CS 300	Programming Languages	3	_____
MTH 329	Elementary Linear Algebra	3	_____	STA 345	Applied Probability & Stats	3	_____
_____	Core II Physical/Natural Science (Science w/ Lab)	4	_____	_____	Science w/ Lab	4	_____
_____	Core II Social Science (CT, M/I)	3	_____	_____	Core II Fine Arts	3	_____
TOTAL HOURS		**16**		**TOTAL HOURS**		**16**	

Summer Term (optional): _____

YEAR THREE

FALL SEMESTER				SPRING SEMESTER			
CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
CS 305	Software Engineering I	3	_____	CS 310	Software Engineering II	3	_____
CS 320	Internetworking	3	_____	CS 402	Computer Architecture	3	_____
CS 330	Operating Systems	3	_____	CS 430	Cyber Security	3	_____
MGT 320	Principles of Management	3	_____	CS 410	Database Engineering	3	_____
_____	Core II Humanities (WI)	3	_____	ENGR 222	Engineering Cost Analysis	3	_____
TOTAL HOURS		**15**		**TOTAL HOURS**		**15**	

Summer Term (optional): _____

YEAR FOUR

FALL SEMESTER				SPRING SEMESTER			
CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
_____	CS Elective	3	_____	CS 490	Senior Project (C)	3	_____
_____	Science w/ Lab	4	_____	_____	CS Elective	3	_____
CS 360	Automata & Formal Languages	3	_____	_____	Free Elective	3	_____
_____	Writing Intensive	3	_____	_____	Free Elective	3	_____
				_____	Free Elective	2	_____
TOTAL HOURS		**13**		**TOTAL HOURS**		**14**	

Summer Term (optional): _____

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

COMPUTER SCIENCE — 2023-2024

INVOLVEMENT OPPORTUNITIES

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

RELATED MAJORS

- Computer and Information Technology
- Computer and Information Security
- Business
- Education

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.

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

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

Join the Computer Club and reach out for community activities.

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.

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.

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

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

Want to continue your education and increase your opportunities? Talk to a faculty member about whether graduate school fits you career goals.
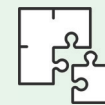
Meet with a career education specialist to conduct a "gap analysis." Figure out the skills you'll need for the career you want while you still have time to build them.

YEAR THREE

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

Develop a study strategy for optional certification exams. Discuss with your faculty advisor.

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

Run for Student Government and represent your fellow students while making a long-term difference on Marshall's campus.

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

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

Strengthen your resume and enhance your presentation skills. Present what you've learned at an academic conference off campus.

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.

Prepare to present at the URDC Undergraduate Research and CS Symposium in April.

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.

Take a senior project class with Community Based Learning that connects course content to the community. Stay engaged and make a difference.

Explore peer leadership opportunities through the FAM program, or apply to be a UNI Peer Mentor.

Talk to faculty about pursuing optional professional certifications.

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

TRANSFERABLE SKILLS ASSOCIATED WITH THIS MAJOR

- Analytical Skills
- Design Skills
- Oral and Written Communication Skills
- Critical Thinking Skills
- Leadership Skills
- The Ability to Work as Part of a Team

ASSOCIATED CAREERS

- Programmer
- Web Developer
- Application Developer
- Networking
- Hardware/Software Developer
- Database Administrator
- Tech Support

MARSHALL

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