MY ADVISOR'S NAME IS: _____

COMPUTER INFO & TECH
GAME AND SIMULATION 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 Sem Crit Thinking	●	3	_____
STA 225	Critical Thinking Course	●	5	_____
MTH 229	Critical Thinking Course	●	3	_____

Additional University Requirements

CODE	COURSE NAME	HRS	GRADE
_____	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 229	Calculus/Analytic Geom I (CT)	●♦	5	_____
NRE 111 or BSC 104	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
IST 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 266	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 229	Calculus/Analytic Geom I (CT)	●♦	5	_____
STA 225	Introductory Statistics (CT)	●♦	3	_____
IST 111 or BSC 104	Living Systems or Introduction to Biology	♦	4	_____
NRE 212	Energy	♦	3	_____
_____	Physical/Natural Science Elective	♦	4	_____
MTH 220	Discrete Structures	●♦	3	_____

AREA OF EMPHAS

Students who wish to add an area of emphasis in Web and Mobile Applications Development must take the following specific courses:

CODE	COURSE NAME		HRS	GRADE
CIT 340	Game Development I	♦	3	_____
CIT 440	Computer Graphics for Gaming	♦	3	_____
CIT 441	Game Development II	♦	3	_____
CIT 443	Game Development III	♦	3	_____
CIT 446	3D Modeling and Animation	♦	3	_____

CODE	COURSE NAME		HRS	GRADE
CIT 447	Modeling/Simulation Development	♦	3	_____
CIT 448	Mobile Game Development	♦	3	_____
MTH 329	Elementary Linear Algebra	♦	3	_____
_____	Free 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 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 3xx-4xx level.

◆ Area of Emphahsis   ◆ 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.

MY ADVISOR'S NAME IS: _____

COMPUTER INFO & TECH
GAME AND SIMULATION 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. Game development combines sound principles of computer application development with computer game development. This connection better serves students who are coming to Marshall University with aspirations of developing computer, console, and mobile games.

YEAR ONE

FALL SEMESTER					SPRING SEMESTER				
CODE	COURSE NAME		HRS	GRADE	CODE	COURSE NAME		HRS	GRADE
IST 150	Spreadsheet & Database Prin	♦	3	_____	CS 110	Computer Science I	♦	3	_____
ENG 101	Beginning Composition	●	3	_____	ENG 201	Advanced Composition	●	3	_____
NRE 111/ BSC 104	Living Systems or Introduction to Biology	●♦	4	_____	FYS 100	First Year Sem Crit Thinking	●	3	_____
_____	Core II Social Science (M/I)	●	3	_____	MTH 132	Precalculus with Sci Applica	●♦	5	_____
CS 105	Expl World with Computing (CT)	●	3	_____					
TOTAL HOURS			**16**		**TOTAL HOURS**			**14**	

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	_____
MTH 229	Calculus/Analytic Geom I (CT)		5	_____	MTH 220	Discrete Structures	●♦	3	_____
_____	Core II Fine Arts	●	3	_____	CMM 103	Fund Speech Communication	●	3	_____
TOTAL HOURS			**17**		**TOTAL HOURS**			**15**	

Summer Term (optional):

YEAR THREE

FALL SEMESTER					SPRING SEMESTER				
CODE	COURSE NAME		HRS	GRADE	CODE	COURSE NAME		HRS	GRADE
CIT 266	Applied C++ Programming	♦	3	_____	CIT 333	Software Engineering II	♦	3	_____
CIT 332	Software Engineering I	♦	3	_____	CIT 441	Game Development II	♦	3	_____
CIT 365	Database Management	♦	3	_____	CIT 446	3D Modeling and Animation	♦	3	_____
CIT 340	Game Development I	♦	3	_____	_____	Physical/Natural Science Elective	♦	4	_____
MTH 329	Elementary Linear Algebra	♦	3	_____	_____	Writing Intensive	●	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 443	Game Development III	♦	3	_____
CIT 440	Computer Graphics for Gaming	♦	3	_____	CIT 448	Mobile Game Development	♦	3	_____
CIT 447	Modeling/Simulation Development	♦	3	_____	MGT 320	Principles of Management	♦	3	_____
NRE 212	Energy	♦	3	_____	STA 225	Introductory Statistics (CT)	●	3	_____
_____	Core II Humanities (WI)	●	3	_____	CIT 490/470	Senior Project or Internship	●♦	3	_____
TOTAL HOURS			**16**		**TOTAL HOURS**			**15**	

Summer Term (optional):

◆ Area of Emphahsis   ◆ 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 - GAME AND SIMULATION DEVELOPMENT - 2019-2020

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

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.

Attend an intercultural festival or event on campus or in town.

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.

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.

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.

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

- Product Development
- Process Development
- Systems Analysis
- Quality Assurance/Control
- Environmental Analyses
- Forensics
- Medicine
- Materials Science
- Education
- Healthcare
- Sales
- Marketing
- Software Solutions
- Application Development
- Project Management

MARSHALL

Marshall University
College of Science
1 John Marshall Drive
Huntington, WV 25755
1-304-696-2372
cos@marshall.edu
marshall.edu/cos