









2022 - 2023 Major Map

Information Technology, BS

School/College: [Ira A. Fulton Schools of Engineering](#)
TSIFTBS

Term 1 - A 0 - 7 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 ASU 101-TPS: The ASU Experience OR FSE 310: Transfer Success in Engineering	1		<ul style="list-style-type: none"> ASU 101 is required of all first-year students; FSE 310 is required for all new transfer students; LIA 294 is highly recommended for all new veteran students. Prep for success using the First-Year Student Guide. Join a Fulton community. Explore engineering and technical professions.
 IFT 101: Information Technology Programming Logic	3	C	
ENG 101 or ENG 102: First-Year Composition OR			
ENG 105: Advanced First-Year Composition OR	3	C	
ENG 107 or ENG 108: First-Year Composition			
Term hours subtotal:	7		
Term 1 - B 7 - 13 Credit Hours	Hours	Minimum Grade	Notes
IFT 103: Operating System Architecture	3	C	<ul style="list-style-type: none"> View ASU Online first-year student registration information here.
HSE 101: Introduction to Human Systems Engineering (SB)	3	C	
Term hours subtotal:	6		
Term 2 - A 13 - 22 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 IFT 166: Introduction to Internet Networking	3	C	<ul style="list-style-type: none"> Create a Handshake profile. Get involved with EPICS, the Generator Labs, and the Fulton Start-Up Center.
ENG 101 or ENG 102: First-Year Composition OR			
ENG 105: Advanced First-Year Composition OR	3	C	
ENG 107 or ENG 108: First-Year Composition			
IFT 200: Information Modeling, Storage and Retrieval	3	C	
Term hours subtotal:	9		
Term 2 - B 22 - 28 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
IFT 210: Introduction to Java Technologies	3	C	
Humanities, Arts and Design (HU) AND Historical Awareness (H)	3		
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
Term hours subtotal:	6		
Term 3 - A 28 - 37 Credit Hours	Hours	Minimum Grade	Notes
IFT 250: Introduction to UNIX Utilities	3	C	<ul style="list-style-type: none"> Prep for success using the Sophomore Guide.
MAT 210: Brief Calculus (MA)	3	C	
Humanities, Arts and Design (HU) AND Cultural Diversity in the U.S. (C)	3		
Term hours subtotal:	9		
Term 3 - B 37 - 44 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes

IFT 202: Foundations of Information and Computer System Security	3	C
Natural Science - Quantitative (SQ)	4	
🚩 Complete Mathematics (MA) requirement.		
Term hours subtotal:	7	

Term 4 - A 44 - 53 Credit Hours Critical course signified by 🚩	Hours	Minimum Grade	Notes
🚩 IFT 266: Network Information Communication Technology	3	C	<ul style="list-style-type: none"> Pursue an undergraduate research experience. Apply for internships. Attend career fairs and events.
HSE 230: Statistics for Human Systems Research I (CS)	3	C	
Social-Behavioral Sciences (SB)	3		
Term hours subtotal:	9		

Term 4 - B 53 - 60 Credit Hours	Hours	Minimum Grade	Notes
IFT 220: Managing Configurations and Active Directory	3	C	
Natural Science - Quantitative (SQ) OR Natural Science - General (SG)	4		
Term hours subtotal:	7		

Term 5 - A 60 - 69 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ IFT 381: Information System Security	3	C	<ul style="list-style-type: none"> Plan for success using the Junior Guide. Network at student organization competitions or professional societies.
IFT 301: Web Programming for Human Computer Interface	3	C	
Literacy and Critical Inquiry (L)	3		
Term hours subtotal:	9		

Term 5 - B 69 - 75 Credit Hours	Hours	Minimum Grade	Notes
IFT 320: Managing the Cloud	3	C	
MAT 243: Discrete Mathematical Structures	3		
Term hours subtotal:	6		

Term 6 - A 75 - 81 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ IFT 300: Intermediate Database Management Systems	3	C	<ul style="list-style-type: none"> Research and prepare for graduate school. Apply for a Fulton Schools 4+1 program. Develop a professional profile online.
Upper Division Primary Focus Area	3	C	
Term hours subtotal:	6		

Term 6 - B 81 - 90 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ IFT 310: Information Systems Project Development	3	C	<ul style="list-style-type: none"> A secondary focus area is a group of courses comprising of 9 or more credit hours (at least 3 must be at the upper-division level) which form a coherent theme.
Secondary Focus Area	3		
Upper Division Primary Focus Area	3	C	
★ Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).			
Term hours subtotal:	9		

Term 7 - A 90 - 99 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ IFT 401: Information Technology Capstone Project I	3	C	<ul style="list-style-type: none"> A secondary focus area is a group of courses comprising of 9 or more credit hours (at least 3 must be at the
IFT 372: Wireless Fundamentals	3	C	
Secondary Focus Area	3		

Term hours subtotal: 9

upper-division level) which form a coherent theme.

- Plan for success using the **Senior Guide**.
- Use **Handshake** to apply for full-time positions.
- Complete an in person or virtual **practice interview**.

Term 7 - B 99 - 105 Credit Hours	Hours	Minimum Grade	Notes
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IFT 383: Shell and Script Programming with UNIX 3 C

Primary Focus Area 3 C

Term hours subtotal: 6

Term 8 - A 105 - 111 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
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★ IFT 402: Information Technology Capstone Project II 3

HST 318: History of Engineering ((L or SB) & G) 3

Term hours subtotal: 6

Term 8 - B 111 - 120 Credit Hours	Hours	Minimum Grade	Notes
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Upper Division Primary Focus Area 3 C

Upper Division Secondary Focus Area 3

Upper Division Literacy and Critical Inquiry (L) 3

Term hours subtotal: 9

- A secondary focus area is a group of courses comprising of 9 or more credit hours (at least 3 must be at the upper-division level) which form a coherent theme.

- Students choose one primary focus area (12 hours). Students must take primary focus area courses sequentially in order to meet the prerequisites of subsequent upper-division courses.

Hide Course List(s)/Track Group(s)

Networking Focus Area	Information Systems Focus Area	Security Focus Area
IFT 366: TCP/IP and Routing	IFT 360: Applications in Artificial Intelligence	IFT 380: Advanced Systems Configuration Management
IFT 420: Cloud Architecture for Information Technology	IFT 365: Applied Programming Language for Information Technology	IFT 422: Cloud Security and Operations for Information Technology
IFT 460: Managing Intelligent Devices in an Enterprise Environment	IFT 370: Mobile Computing and Applications for Information Technology	IFT 475: Security Analysis
IFT 466: Advanced Computer Networks for Information Technology	IFT 380: Advanced Systems Configuration Management	IFT 482: Network Forensics
IFT 488: Systems Administration of UNIX	IFT 410: Big Data Tools and Practices	IFT 483: Developing Security Policy
IFT 494: Wireless Architecture	IFT 421: Data in the Cloud for Information Technology	IFT 494: Cybersecurity Compliance
	IFT 458: Middleware Programming and Database Security	
	IFT 460: Managing Intelligent Devices in an Enterprise Environment	
	IFT 494: Appl Multi Tier End to End Application Development	

Notes:

- First-Year Composition: All students are placed in ENG 101 unless submission of SAT, ACT, Accuplacer, IELTS, or TOEFL score, or college-level transfer credit or test credit equivalent to ASU's first-year composition course(s), determine otherwise. Students on Polytechnic, Downtown Phoenix and West Campuses are encouraged to complete the Directed Self-Placement survey to choose the first-year composition option they believe best suits their needs. Visit: <https://cisa.asu.edu/DSP>
- Mathematics Placement Assessment score determines placement in first mathematics course.

Total Hours: 120

Upper Division Hours: 45 minimum

Major GPA: 2.00 minimum

Cumulative GPA: 2.00 minimum

Total hrs at ASU: 30 minimum

Hrs Resident Credit for

Academic Recognition: 56 minimum

Total Community College Hrs: 64 maximum

General University Requirements Legend

General Studies Core Requirements:

- Literacy and Critical Inquiry (L)
- Mathematical Studies (MA)
- Computer/Statistics/Quantitative Applications (CS)
- Humanities, Arts and Design (HU)
- Social-Behavioral Sciences (SB)
- Natural Science - Quantitative (SQ)
- Natural Science - General (SG)

General Studies Awareness Requirements:

- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed next to courses on the major map were valid for the 2022 - 2023 academic year. Please refer to the course catalog for current General Studies designations at time of class registration. General Studies credit is applied according to the designation the course carries at the time the class is taken.