# 2018 - 2019 Major Map
## Information Technology, BS

**School/College:** Ira A. Fulton Schools of Engineering  
**Location:** Polytechnic campus

### Term 1 - 16 Credit Hours
- **ASU 101-TPS: The ASU Experience**
  - Hours: 1
- **IFT 100: Introduction to Information Technology**
  - Hours: 3  
  - Minimum Grade: C
- **IFT 101: Information Technology Programming Logic**
  - Hours: 3  
  - Minimum Grade: C
- **MAT 210: Brief Calculus (MA)**
  - Hours: 3  
  - Minimum Grade: C
- **HSE 101: Introduction to Human Systems Engineering (SB)**  
  - OR
  - **PSY 101: Introduction to Psychology (SB)**
  - Hours: 3  
  - Minimum Grade: C
- **ENG 101 or ENG 102: First-Year Composition**  
  - OR
  - **ENG 105: Advanced First-Year Composition**  
  - OR
  - **ENG 107 or ENG 108: First-Year Composition**
  - Hours: 3  
  - Minimum Grade: C

**Term hours subtotal:** 16

### Notes
- An SAT, ACT, Accuplacer, IELTS, or TOEFL score determines placement into first-year composition courses.
- ASU Mathematics Placement Assessment score determines placement into Mathematics course.
- ASU 101 is required of all freshman students; FSE 394 is required for all new transfer students.
- Prep for success using the Freshman Guide.
- Join a Fulton community.
- Explore engineering and technical professions.

### Term 2 - 16 - 32 Credit Hours
- **IFT 102: Introduction to Java Technologies**
  - Hours: 3  
  - Minimum Grade: C
- **IFT 200: Information Modeling, Storage and Retrieval**
  - Hours: 3  
  - Minimum Grade: C
- **ENG 101 or ENG 102: First-Year Composition**  
  - OR
  - **ENG 105: Advanced First-Year Composition**  
  - OR
  - **ENG 107 or ENG 108: First-Year Composition**
  - Hours: 3  
  - Minimum Grade: C
- **Humanities, Arts and Design (HU) AND Historical Awareness (H)**
  - Hours: 3
- **Natural Science - Quantitative (SQ)**
  - Hours: 4
- **Complete ENG 101 OR ENG 105 OR ENG 107 course(s).**

**Term hours subtotal:** 16

### Notes
- Create a Handshake profile.
- Get involved with EPICS, the Generator Labs, and the Fulton Start-Up Center.

### Term 3 - 32 - 48 Credit Hours
- **IFT 201: Computer and Network Systems: Organization and Administration**
  - Hours: 3  
  - Minimum Grade: C
- **IFT 250: Introduction to UNIX Utilities**
  - Hours: 3  
  - Minimum Grade: C
- **IFT 220: Managing Configurations and Active Directory**
  - Hours: 3  
  - Minimum Grade: C
- **MAT 243: Discrete Mathematical Structures**
  - Hours: 3  
  - Minimum Grade: C
- **Natural Science - Quantitative (SQ) OR Natural Science - General (SG)**
  - Hours: 4
- **Complete Mathematics (MA) requirement.**

**Term hours subtotal:** 16

### Notes
- Prep for success using the Sophomore Guide.
- Consult the Resume, Presentation, and Resource Library for tips on how to create a technical resume, job shadow, do informational interviews and mentor with alumni.

### Term 4 - 48 - 63 Credit Hours
  - Hours: 3  
  - Minimum Grade: C

**Term hours subtotal:** 16

### Notes
- Pursue an undergraduate research experience.
<table>
<thead>
<tr>
<th>Term 5</th>
<th>63 - 78 Credit Hours</th>
<th>Necessary course signified by ★</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFT 302: Foundations of Information and Computer System Security</td>
<td>3</td>
<td>C</td>
<td>• A secondary focus area is a group of courses comprising of 12 or more credit hours (at least 9 must be at the upper-division level) which form a coherent theme.</td>
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<tr>
<td>IFT 358: Network Information Communication Technology</td>
<td>3</td>
<td>C</td>
<td>• Plan for success using the Junior Guide.</td>
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<tr>
<td>TMC 330: Leading the Enterprise</td>
<td>3</td>
<td>C</td>
<td>• Network at competitions or professional societies.</td>
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<tr>
<td>Literacy and Critical Inquiry (L)</td>
<td>3</td>
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<tr>
<td>Secondary Focus Area</td>
<td>3</td>
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<td></td>
<td></td>
<td>Term hours subtotal: 15</td>
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</table>

<table>
<thead>
<tr>
<th>Term 6</th>
<th>78 - 93 Credit Hours</th>
<th>Necessary course signified by ★</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFT 301: Web Programming for Human Computer Interface</td>
<td>3</td>
<td>C</td>
<td>• A secondary focus area is a group of courses comprising of 12 or more credit hours (at least 9 must be at the upper-division level) which form a coherent theme.</td>
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<tr>
<td>IFT 372: Wireless Networking</td>
<td>3</td>
<td></td>
<td>• Research and prepare for graduate school.</td>
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<tr>
<td>TMC 470: Enterprise Planning and Implementation</td>
<td>3</td>
<td>C</td>
<td>• Apply for Fulton Schools 4+1 program.</td>
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</tr>
<tr>
<td>Primary Focus Area</td>
<td>3</td>
<td></td>
<td>• Develop a professional profile online.</td>
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<tr>
<td>Upper Division Secondary Focus Area</td>
<td>3</td>
<td></td>
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<tr>
<td>Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).</td>
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<td></td>
<td></td>
<td>Term hours subtotal: 15</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Term 7</th>
<th>93 - 108 Credit Hours</th>
<th>Necessary course signified by ★</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFT 401: Information Technology Capstone Project I</td>
<td>3</td>
<td>C</td>
<td>• A secondary focus area is a group of courses comprising of 12 or more credit hours (at least 9 must be at the upper-division level) which form a coherent theme.</td>
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<tr>
<td>Complete 2 courses:</td>
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<td>• Plan for success using the Senior Guide.</td>
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<tr>
<td>Upper Division Primary Focus Area</td>
<td>6</td>
<td></td>
<td>• Use Handshake to apply for full-time positions.</td>
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<tr>
<td>Upper Division Literacy and Critical Inquiry (L)</td>
<td>3</td>
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<td>• Complete an in-person or practice interview.</td>
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<tr>
<td>Upper Division Secondary Focus Area</td>
<td>3</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Term hours subtotal: 15</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Term 8</th>
<th>108 - 120 Credit Hours</th>
<th>Necessary course signified by ★</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFT 402: Information Technology Capstone Project II</td>
<td>3</td>
<td>C</td>
<td>• A secondary focus area is a group of courses comprising of 12 or more credit hours (at least 9 must be at the upper division level) which form a coherent theme.</td>
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<tr>
<td>Upper Division Primary Focus Area</td>
<td>3</td>
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<tr>
<td>HST 318: History of Engineering ((L or SB) &amp; G)</td>
<td>3</td>
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<tr>
<td>Upper Division Secondary Focus Area</td>
<td>3</td>
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<td></td>
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<td>Term hours subtotal: 12</td>
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</table>

- **IFT 259: Introduction to Internet Networking** 3 C
- **IFT 383: Shell and Script Programming with UNIX** 3 C
- **Humanities, Arts and Design (HU) AND Cultural Diversity in the U.S. (C)** 3
- **Social-Behavioral Sciences (SB)** 3

Term hours subtotal: 15

- **Term 5 63 - 78 Credit Hours Necessary course signified by ★**
- **Term 6 78 - 93 Credit Hours Necessary course signified by ★**
- **Term 7 93 - 108 Credit Hours Necessary course signified by ★**
- **Term 8 108 - 120 Credit Hours Necessary course signified by ★**
- 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.

Additional Focus Areas may be available; please check with your Academic Advisor for more information.

<table>
<thead>
<tr>
<th>Networking and Computer Systems Security Focus Area</th>
<th>Information Systems Focus Area</th>
<th>Enterprise Computing Focus Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFT 458: Middleware Programming and Database Security</td>
<td>IFT 333: Introduction to Big Data</td>
<td>IFT 333: Introduction to Big Data</td>
</tr>
<tr>
<td>IFT 482: Network Forensics</td>
<td>IFT 458: Middleware Programming and Database Security</td>
<td>TMC 320: Funding the Enterprise</td>
</tr>
<tr>
<td>IFT 483: Developing Security Policy</td>
<td>IFT 472: Managing the Cloud</td>
<td>TMC 410: Enterprise Operations</td>
</tr>
<tr>
<td>IFT 488: Systems Administration of UNIX</td>
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<td>TMC 430: Enterprise Strategy and Innovation</td>
</tr>
<tr>
<td>IFT 489: TCP/IP and Routing</td>
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</tbody>
</table>

**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 on the major map are current for the 2018 - 2019 academic year.