All emphases share the same Core and Capstone

- CIS 100: IT & Society
- CIS 112: Database Concepts
- CIS 220: Object-Oriented Programming
- CIS 271: Digital and Social Media
- CIS 400: Service-Learning Project Management

All emphases require students to take six additional CIS courses with three at the upper level and meet their User Needs, Analysis and Modeling, Coding and Production, and Design and Interaction requirements while also selecting electives according to the following rules:

**Computer Science**

- CIS 320: Data Structures
- MTH 151: Calculus I
- MTH 152: Calculus II
- MTH 211: Foundations of Higher Mathematics

**Take One of:**
- CIS 230: Artificial Intelligence
- CIS 241: Data Mining
- CIS 341: Numerical Computation

**Take One of:**
- MTH 311: Introduction to Number Theory
- MTH 330: Introduction to Graph Theory
- MTH 361: Discrete Mathematical Structures

**Take One of:**
- MTH 217: Linear Algebra

**Interaction Design**

- CIS 301: Human Computer Interaction

**Take Two of:**
- CIS 105: Game Design and Development
- CIS 245: Information Visualization
- CIS 375: Advanced Web and Mobile Development

**Data Science**

- Take Three of:
  - CIS 230: Artificial Intelligence
  - CIS 241: Data Mining
  - CIS 245: Information Visualization
  - CIS 341: Numerical Computation

**Take Three of:**
- CIS 265: Digital Video
- CIS 275: Web Design
- CIS 361: Digital Imaging
- CIS 375: Advanced Web and Mobile Development

**Web and Mobile Technologies**

- CIS 275: Web Design

**Digital Media**

- Take Three of:
  - CIS 265: Digital Video
  - CIS 275: Web Design
  - CIS 361: Digital Imaging
  - CIS 375: Advanced Web and Mobile Development

Specific offerings of the topics courses CIS 297 and CIS 397 may also count towards various CIS emphases.