Visual Guide to the CIS Major

Catalog Text: 11 CIS courses, including CIS 100, 112, 220, 271, either CIS 301 or CIS 310, and CIS 400 (the capstone experience). In addition, students must take at least one additional course with each of the following designations: Coding and Production, Design and Interaction, and Analysis and Modeling. At least four of the eleven total courses must be at the 300-level or higher.

Introductory Core
All students take these, and upper level offerings draw on these as prerequisites.

- CIS 100: IT & Society
- CIS 112: Database Concepts
- CIS 220: Object-Oriented Programming
- CIS 271: Digital and Social Media

Electives
Students take a mix of constrained and free electives. A minimum of three of these must be at the 300-level or higher.

- User Needs
  - CIS 301: Human Computer Interaction
  - CIS 310: Systems Analysis

- Coding and Production
  - CIS 265: Digital Video
  - CIS 275: Web Design
  - CIS 280: Scripting Languages
  - CIS 320: Data Structures
  - CIS 341: Numerical Computation
  - CIS 361: Digital Imaging
  - CIS 375: Advanced Web and Mobile Development

- Analysis and Modeling
  - CIS 230: Artificial Intelligence
  - CIS 241: Data Mining
  - CIS 245: Information Visualization
  - CIS 310: Systems Analysis
  - CIS 320: Data Structures
  - CIS 335: Information Security
  - CIS 341: Numerical Computation

- Design and Interaction
  - CIS 245: Information Visualization
  - CIS 265: Digital Video
  - CIS 271: Digital and Social Media
  - CIS 275: Web Design
  - CIS 301: Human Computer Interaction
  - CIS 361: Digital Imaging
  - CIS 375: Advanced Web and Mobile Development

- CIS Elective
  - Any CIS course at any level may be used here.

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Capstone Experience
Students should plan on taking this course in the spring of their senior year.

- CIS 400: Service-Learning Project Management

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

Key:
- : Required Course
- : Select One Course
- : Any CIS Course