



**THE OHIO STATE UNIVERSITY**  
COLLEGE OF ENGINEERING

# Capstone Design: Information Systems

## CSE 5915

### Credit Hours:

4.00

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### Course Levels:

Undergraduate (1000-5000 level)

Graduate (5000-8000 level)

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### Course Components:

Lecture

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### Course Description:

Capstone design project; information system principles: database design methods and tools, indexing, searching, application development, testing, evaluation; teamwork, written and oral communication skills.

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### Prerequisites and Co-requisites:

Prereq: 3241 or 5241, and 2501 or Philos 1338, and CSE 3901 or 3902 or 3903, and second writing course; or Grad standing.

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### Course Goals / Objectives:

- Master synthesizing and applying prior knowledge to designing and implementing solutions to open-ended computational problems while considering multiple realistic constraints
- Master design and implementation of an information systems project
- Master using database design methods and tools
- Be competent in evaluating design alternatives
- Be competent with software design and development practices and standards
- Be competent with deadline driven projects in a team setting
- Be competent with issues of project management, such as teamwork, project scheduling, individual and group time management
- Be competent with presenting work to a range of audiences and peers
- Be competent with techniques for effective written communication for a range of purposes
- Be familiar with researching and evaluating computing tools and practices for solving given problems
- Be familiar with analyzing professional issues, including ethical, legal and security issues, related to computing projects

**Course Topics:**

- Description of information systems projects
  - Multimedia (image, audio, video, text) and scientific data management
  - Web-based Information Systems
  - Requirement analysis, initial design, project proposals
  - Project design progress
  - User-interfaces, initial demonstrations
  - Project implementations, testing
  - Final demonstrations
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**Designation:**

Elective