

# Database and Information Systems Track

## Objectives

Prepares students to apply database principles, algorithms, and optimization techniques to design, build, and manage current and future database and information systems.

**All major required courses, all track requirements and track selectives, and their pre-requisites, regardless of department, must be completed with a grade of C or better.**

### Required Courses (4)

Course	Title
<b><u>CS 34800</u></b>	Information Systems
<b><u>CS 38100</u></b>	Introduction to the Analysis of Algorithms
<b><u>CS 44800</u></b>	Introduction to Relational Databases
<b><u>CS 37300</u></b> or <b><u>CS 47300</u></b>	Data Mining and Machine Learning or Web Information Search & Management

**Choose at least one course from each of the following three (3) categories.**

### Electives

Course	Title
	<b>Computing Systems - 1 From the Following List</b>
<b><u>CS 35200</u></b>	Compilers: Principles and Practice
<b><u>CS 35300</u></b>	Principles of Concurrency and Parallelism
<b><u>CS 35400</u></b>	Operating Systems
	<b>Information Assurance - 1 From the Following List</b>
<b><u>CS 35500</u></b>	Introduction to Cryptography
<b><u>CS 42600</u></b>	Computer Security
	<b>Related Studies - 1 From the Following List</b>
<b><u>CS 37300</u></b>	Data Mining and Machine Learning
<b><u>CS 42200</u></b>	Computer Networks
<b><u>CS 47100</u></b>	Introduction to Artificial Intelligence
<b><u>CS 47300</u></b>	Web Information Search & Management
<b><u>CS 47800</u></b>	Introduction to Bioinformatics

<b><u>CS 48300</u></b>	Introduction to the Theory of Computation
<b>CS 49000</b>  or  <b>CS 49700</b>  or  <b>EPICS 411 00/41200</b>	Senior Project   Honors Research Project   Honors Research Project

**Note: Senior Project must be at least 3 credits and approved by the track chair. (Examples: EPICS 41100/41200 Senior Design, CS 49000, CS 49700 Honors Research Project)**

**Note: No course can be counted both for required and elective credit. This is true for all tracks.**

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