

Washtenaw Community College Comprehensive Report

CIS 282 Database Principles and Application Effective Term: Fall 2024

Course Cover

College: Business and Computer Technologies
Division: Business and Computer Technologies
Department: Computer Science & Information Technology
Discipline: Computer Information Systems
Course Number: 282
Org Number: 13410
Full Course Title: Database Principles and Application
Transcript Title: Database Principles and Applic
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission: Course Change
Change Information:

Consultation with all departments affected by this course is required.

Objectives/Evaluation

Rationale: Updating for Canvas
Proposed Start Semester: Winter 2025
Course Description: In this course, students will learn contemporary database theory and related practices. Topics include terminology, database structures, SQL (structured query language) concepts and application. This course is intended for anyone possessing a basic knowledge of programming who is interested in database theory and practice.

Course Credit Hours

Variable hours: No
Credits: 3
Lecture Hours: Instructor: 45 **Student:** 45
Lab: Instructor: 0 **Student:** 0
Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 45 **Student:** 45

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

No Level Required

Requisites

Level II Prerequisite

CPS 120 minimum grade "C"

or

Level II Prerequisite

CPS 171 minimum grade "C"

or

Level II Prerequisite

CPS 161 minimum grade "C"

General Education**General Education Area 7 - Computer and Information Literacy**

Assoc in Arts - Comp Lit

Assoc in Applied Sci - Comp Lit

Assoc in Science - Comp Lit

Request Course Transfer**Proposed For:****Student Learning Outcomes**

1. Identify concepts of data management for structured and unstructured data.

Assessment 1

Assessment Tool: Outcome-related final exam questions

Assessment Date: Winter 2024

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Answer key

Standard of success to be used for this assessment: 70% of the students will score 70% or higher.

Who will score and analyze the data: Departmental faculty

2. Apply techniques of data management.

Assessment 1

Assessment Tool: Outcome-related final exam questions

Assessment Date: Winter 2024

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Answer key

Standard of success to be used for this assessment: 70% of the students will score 70% or higher.

Who will score and analyze the data: Departmental faculty

Assessment 2

Assessment Tool: Outcome-related lab project

Assessment Date: Winter 2024

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Rubric

Standard of success to be used for this assessment: 70% of the students will score 70% or higher.

Who will score and analyze the data: Departmental faculty

Course Objectives

1. Identify the advantages of using a Relational Database Management System (RDBMS) when storing and manipulating data.

2. Identify concepts of database structures for both relational structured databases and unstructured databases.
3. Apply relational model techniques, including entity relationships and normalization.
4. Use Structured Query Language to manipulate tables in relational databases.
5. Describe the importance of database administration.
6. Identify transaction management functions.

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Computer workstations/lab

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Khaled Mansour</i>	<i>Faculty Preparer</i>	<i>Jan 18, 2024</i>
Department Chair/Area Director: <i>Scott Shaper</i>	<i>Recommend Approval</i>	<i>Jan 22, 2024</i>
Dean: <i>Eva Samulski</i>	<i>Recommend Approval</i>	<i>Jan 23, 2024</i>
Curriculum Committee Chair: <i>Randy Van Wagnen</i>	<i>Recommend Approval</i>	<i>Jun 04, 2024</i>
Assessment Committee Chair: <i>Jessica Hale</i>	<i>Recommend Approval</i>	<i>Jun 05, 2024</i>
Vice President for Instruction: <i>Brandon Tucker</i>	<i>Approve</i>	<i>Jun 08, 2024</i>

Washtenaw Community College Comprehensive Report

CIS 282 Database Principles and Application Effective Term: Winter 2022

Course Cover

College: Business and Computer Technologies
Division: Business and Computer Technologies
Department: Computer Science & Information Technology
Discipline: Computer Information Systems
Course Number: 282
Org Number: 13410
Full Course Title: Database Principles and Application
Transcript Title: Database Principles and Applic
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission: Three Year Review / Assessment Report
Change Information:
Pre-requisite, co-requisite, or enrollment restrictions
Objectives/Evaluation

Rationale: Update the master syllabus.

Proposed Start Semester: Fall 2021

Course Description: In this course, students will learn contemporary database theory and related practices. Topics covered include terminology, database structures, SQL (structured query language) concepts and application. This course is intended for anyone possessing a basic knowledge of programming who is interested in database theory and practice. The previous titles of this course are Small Systems Database and Relational Database Concepts and Application.

Course Credit Hours

Variable hours: No

Credits: 3

Lecture Hours: Instructor: 45 **Student:** 45

Lab: Instructor: 0 **Student:** 0

Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 45 **Student:** 45

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

No Level Required

Requisites

Level II Prerequisite

CPS 120 minimum grade "C"

or

Level II Prerequisite

CPS 171 minimum grade "C"

or

Level II Prerequisite

CPS 161 minimum grade "C"

General Education

General Education Area 7 - Computer and Information Literacy

Assoc in Arts - Comp Lit

Assoc in Applied Sci - Comp Lit

Assoc in Science - Comp Lit

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Identify concepts of data management for structured and unstructured data.

Assessment 1

Assessment Tool: Outcome-related final exam questions

Assessment Date: Winter 2024

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Answer key

Standard of success to be used for this assessment: 70% of the students will score 70% or higher.

Who will score and analyze the data: Departmental faculty

2. Apply techniques of data management.

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Assessment Date: Winter 2024

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Course Objectives

1. Identify the advantages of using a Relational Database Management System (RDBMS) when storing and manipulating data.
2. Identify concepts of database structures for both relational structured databases and unstructured databases.
3. Apply relational model techniques, including entity relationships and normalization.
4. Use Structured Query Language to manipulate tables in relational databases.
5. Describe the importance of database administration.
6. Identify the concurrency control function.
7. Identify transaction management functions.
8. Describe backup, recovery and security functions.

New Resources for Course**Course Textbooks/Resources**

Textbooks
 Manuals
 Periodicals
 Software

Equipment/Facilities

Computer workstations/lab

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Khaled Mansour</i>	<i>Faculty Preparer</i>	<i>Jul 25, 2021</i>
Department Chair/Area Director: <i>Cyndi Millns</i>	<i>Recommend Approval</i>	<i>Jul 26, 2021</i>
Dean: <i>Eva Samulski</i>	<i>Recommend Approval</i>	<i>Jul 27, 2021</i>
Curriculum Committee Chair: <i>Randy Van Wagnen</i>	<i>Recommend Approval</i>	<i>Oct 12, 2021</i>
Assessment Committee Chair: <i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>Nov 10, 2021</i>
Vice President for Instruction: <i>Kimberly Hurns</i>	<i>Approve</i>	<i>Nov 12, 2021</i>