

# Welcome to CS 457/657!

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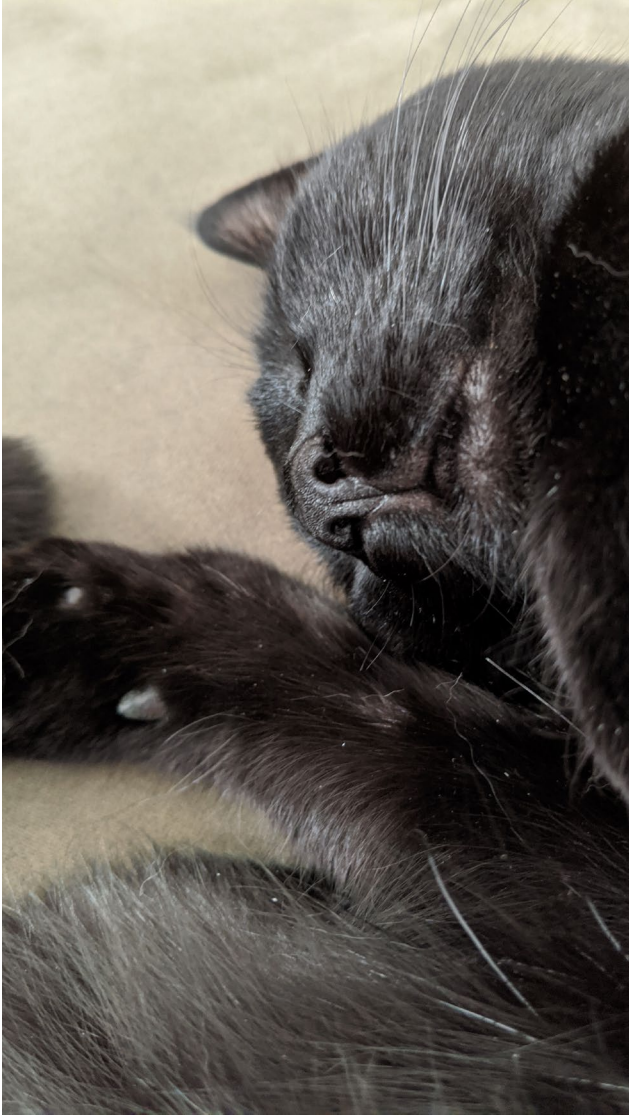
ERIN KEITH

# Goals

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1. Get to know me
2. Get to know each other
3. Get to know the course
4. A little review

You'll need a piece of paper for answering questions throughout class. You'll upload it to WebCampus at the end.



# About Me

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1. Name?
  - Erin Keith
2. How many years have you been in college?
  - 1999 – 2000
  - 2004 – 2006
  - 2009 – 2015
3. How many years have you been coding?
  - since January 2006
4. A favorite or unusual hobby?
  - I play Magic the Gathering
  - I hate birds but am an excellent birder.

# About Me

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- Experience:
  - Software Engineer for about 6 years
- Teaching:
  - Part time – starting Spring 2017
  - Full time – starting Spring 2019



# My Values

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## Community:

These are likely people you are going to continue to work with. Consider treating them with compassion and respect. Help each other.



# My Values

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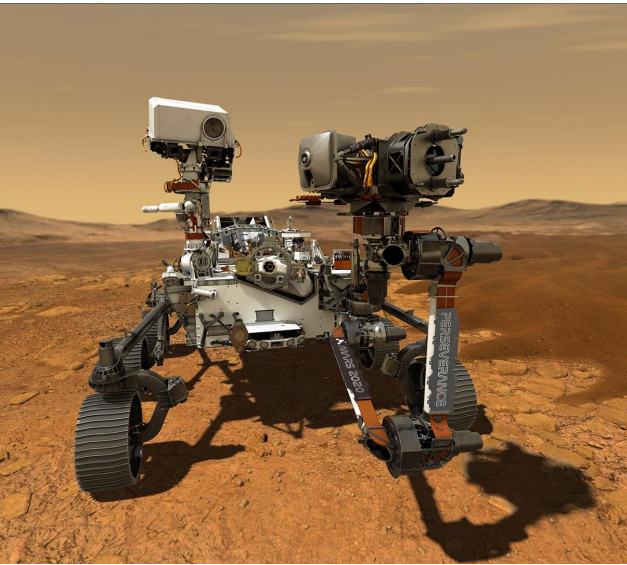
## Compassion:

If you're having a problem, please contact me ASAP!! This applies to physical, mental, emotional, technological, and emergency problems. You can just shoot me a brief email so we can try to work around your issue, but ***the sooner I know the more I can help!***



# My Values

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## Perseverance:

Life is hard and college is hard, but **perseverance is not giving up**. It is persistence and tenacity, the effort required to do something and keep doing it till the end, even if it's hard.

# Well, hello there!

In groups, discover the answers to these questions for each member:

1. Name
2. How many years have you been in college?
3. How many years have you been coding?
4. A favorite or unusual hobby

As a group:

1. Choose someone who will share the introductions with the class
2. Decide on two or more values or expectations members of your group share

You'll have about 5 minutes to chat.



# CS 457/657: Databases

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An overview of existing systems

- physical data organization
- relational, network and hierarchical models
- data manipulation languages, data definition languages
- database protection
- database application using ~~INGRES~~ PostgreSQL

# Course Topics

Week	Topics, Readings	Assignments
1	Getting Started, Ch 1	In Class Activities as assigned
2	Background, Ch 2	In Class Activities as assigned, HW 1
3	Background, Ch 5	In Class Activities as assigned, HW 2
4	Background, Ch 5	In Class Activities as assigned
5	SQL Introduction, Ch 6	In Class Activities as assigned, HW 3
6	SQL Introduction, Ch 6	In Class Activities as assigned, HWW 4
7	SQL Introduction, Ch 7	In Class Activities as assigned
8	Midterm	Midterm
9	Database Design, Ch 3	In Class Activities as assigned, HW 5
10	Spring Break	
11	Database Design, Ch 4	In Class Activities as assigned, HW 6
12	Databases in Software Systems, Ch 9	In Class Activities as assigned, Final Project Design
13	Databases in Software Systems	In Class Activities as assigned, Final Project
14	Databases in Software Systems, Ch 8	In Class Activities as assigned, Final Project Demo
15	Advanced Topics	Grad Student Presentations, Presentation Feedback
16	Final	Final

Database Systems: The Complete Handbook (2<sup>nd</sup> edition)

# Technologies

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## WebCampus

- Announcements
- Assignments

## Discord

- invitation link in Syllabus on WebCampus
- change your nickname to the full name you'd like us to use in this class

## Programming

- PostgreSQL
- Python

# Grade Breakdown

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Category	Weight
In Class Activities	25%
Homework	25%
Final Project	20%
Midterm Exam	15%
Final Exam	15%

# In Class Activities

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## **Lecture attendance is required.**

- Please come to class prepared to engage in problem solving, coding, and other exercises or activities.
- There will be in class activities which are only available during class time. They may not be posted in WebCampus ahead of time.
- The two lowest grades from the **In Class Activities** category will be dropped; it is your responsibility to plan accordingly.

# Homework Assignments

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Homework assignments require designing and implementing your solutions to posed problems, **individually** (unless otherwise indicated).

- There are 6 homework assignments scheduled this term.
- The instructions to each homework assignment will be posted on WebCampus.

# Final Project

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There will be a final project where you put all of the components of the course together into a working project.

- This will include a design document and recorded demo.

# Exams

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There will be 2 exams:

- Midterm: Wednesday, 3/13 in class
- Final Exam: Monday, 5/13 @ 3pm

**Please let me know ASAP if you think you cannot make these exams.**



# CS 657

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Students enrolled in CS 657 will have an additional assignment.

- For one of the approved advanced topics, give a lesson in class
- All other students in the course will provide feedback on the lesson

# Plagiarism

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***presenting code written by another person as your own work***

- any section of code used from course resources should be acknowledged in the comments
  - lecture slides
  - textbook
- avoid using sections of code from outside sources
  - Stack Overflow
  - ChatGPT
  - these resources can be used help explain concepts or errors

# Plagiarism

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I will be using an automated tool to flag plagiarism, at which point I will review the work.

- if plagiarism is detected, all students involved will receive a 0 for the assignment
- if the issue is not resolved or plagiarism continues, an Academic Charging Letter will be filed with the student.
- ***Please contact me if you are struggling in any way!***

# Course Prerequisite

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CS 202

- Principles of Object-Oriented design

# OOP Principles

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# Moving Toward Systems

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## DATA STRUCTURES

- hold collections of data in our programs
- provide behavior specific to those collections
- available while program is running

## DATABASES

## **SYSTEMS!**

- organize lots of data
- persistent
- exists even while the software is not running
- independent of our programs
- could be available to other programs

# Communication

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When you email me, please include  
“**CS 457**” or “**CS 657**”

in the subject. (I’m teaching 3 other  
classes this term).

# Goals

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# Next Class

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Module:

Week 1: Intro, Ch 1

Topic:

**An Overview of Databases**

