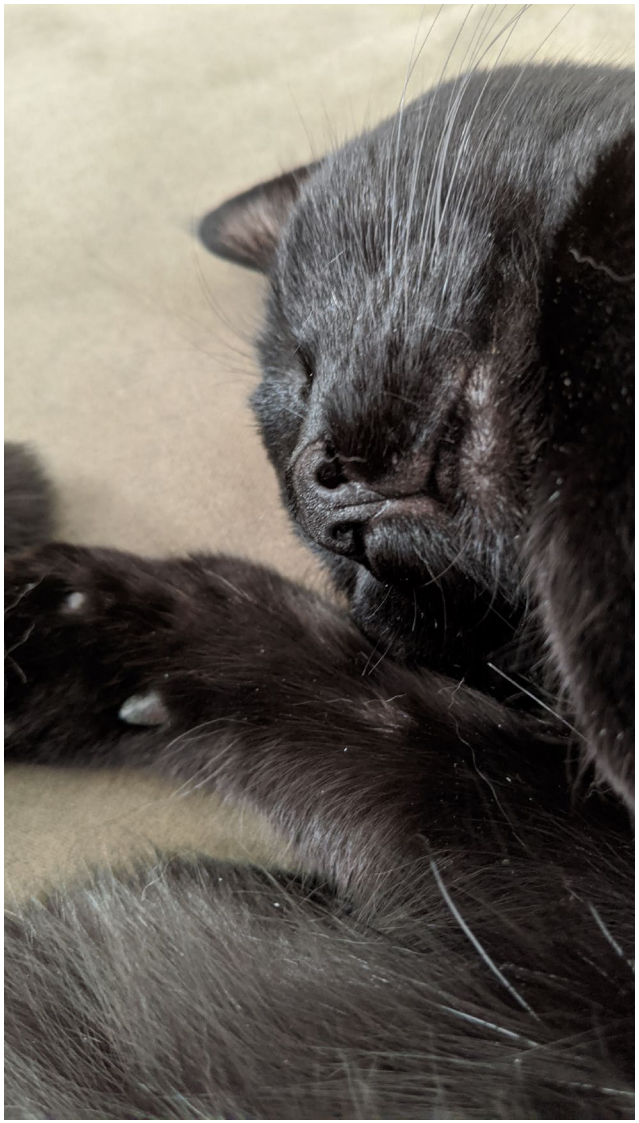
Welcome to CS 457/657!

ERIN KEITH

Goals

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

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

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

My Values

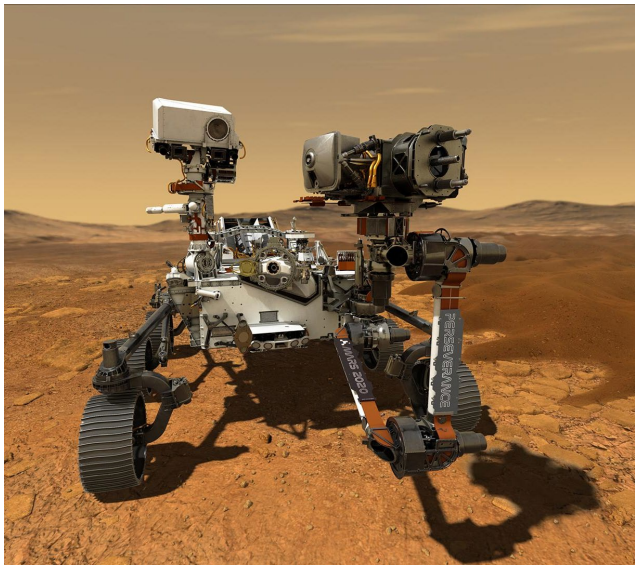
Community:

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

My Values

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

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

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 (2nd edition)

Technologies

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

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

In Class Activities

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

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

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

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

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

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

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

CS 202

- Principles of Object-Oriented design

OOP Principles

Moving Toward Systems

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

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

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

Goals

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

Next Class

Module:

Week 1: Intro, Ch 1

Topic:

An Overview of Databases