Instructor:
Karyn Moore karyn@cmu.edu, 3009 HBH, 412-268-8465
Office Hours: See Course Website.

Faculty Assistant:
Carole McCoy cm4w@andrew.cmu.edu, 2102 HB, 412-268-6077

Teaching Assistants:
TAs, office hours & location will be posted on Course Website for each TA by end of first week.

Meeting Times and Locations:
Section A1 – Monday, Wednesday 9:00 – 10:20, Room HBH 2009
Section B1 – Monday, Wednesday, 10:30 – 11:50, Room HBH 2009

Class Web Site: cmu.instructure.com

Textbooks

There are no required texts. All reference material will be provided by the instructor.

Course Rationale

Most organizations depend on databases for delivery of goods and services, allocation of resources, and support of management decision making and policy analysis. Policy analysts and managers also find database packages like Microsoft Access valuable for personal use, especially in getting data ready for use.
Course Objectives

Almost all databases used in organizations today are relational databases—the most flexible and easiest to use type of database. This course covers design and implementation of relational databases at the introductory level, including tables, forms, queries, and reports.

At the end of the course, you will able to:

- Formulate basic and advanced relational database queries using a query tool such as Access’s Query by Example.
- Create database queries using Structured Query Language (SQL)
- Describe the rationale for the basic design principals of relational databases such as referential integrity and foreign keys.
- Interpret an entity relationship diagram for an existing relational database including participation and cardinality.
- Create an entity relationship diagram based on an organization’s data and business rules.
- Create a physical relational database design based on an entity relationship diagram.
- Design and implement simple customized database user interfaces including forms using a development tool.
- Use macros to automate the use of Access and Excel for data analysis.

Course Structure

The class meetings consists of lectures, discussions, and in-class Access labs. You do not need to bring your laptop to class. The course content is organized as follows:

I. Effective & efficient use of database systems. (8 lectures)
   - Relational database architecture
   - Database queries.

II. Database systems design and development. (3 lectures)
   - Relational database design and modeling
   - End-user development of basic database components: tables, reports, and forms

III. Use of Access & Excel for basic data analysis. (2 lectures)
Course Schedule

Please refer to the separate document titled Course at a Glance (posted to Course Website) for a listing of weekly lecture topics, labs, and assignments. Assignment due dates are also posted in this document.

Student Evaluation

Your work will be evaluated on a combination of individual homework assignments, a group database project, quizzes, and a final exam.

Final grades are based on the following weights:

- Individual assignments (5)*  20%
- In-class lab assignments (3)  6%
- Prep work (4)  8%
- Group assignment (1)  6%
- Quizzes (2)**  12%
- Final exam  48 - 60%

Total  100%

* Late pass can be used on one of these five assignments. Use of late pass allows 48 hour extension
** Quiz scores are only factored into final course grade when they are higher than final exam score.

Final letter grades are assigned to your body of work in this course according to the following scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>97% to 100%</td>
<td>Exceptional</td>
</tr>
<tr>
<td>A</td>
<td>93% to 96%</td>
<td>Excellent</td>
</tr>
<tr>
<td>A-</td>
<td>90% to 92%</td>
<td>Very Good</td>
</tr>
<tr>
<td>B+</td>
<td>87% to 89%</td>
<td>Good</td>
</tr>
<tr>
<td>B</td>
<td>83% to 86%</td>
<td>Acceptable</td>
</tr>
<tr>
<td>B-</td>
<td>80% to 82%</td>
<td>Fair</td>
</tr>
<tr>
<td>C+</td>
<td>77% to 79%</td>
<td>Poor</td>
</tr>
<tr>
<td>C</td>
<td>73% to 76%</td>
<td>Very Poor</td>
</tr>
<tr>
<td>C-</td>
<td>70% to 72%</td>
<td>Minimal Passing</td>
</tr>
<tr>
<td>R</td>
<td>less than 70%</td>
<td>Failing</td>
</tr>
</tbody>
</table>
The average grade in a required Heinz course is expected to be 3.33-3.4, equivalent to a B+. This expected average reflects the degree of difficulty and/or breadth of coverage for a core course. I do not apply any curve when determining students’ final grades.

Late Homework Policy and Make-up Exams

Assignments

Normally, late homework is not accepted without prior approval. If you have an extenuating circumstance (illness, accident, unexpected family matter, etc.), notify me as early as possible and I will take that into consideration.

You will have ONE late pass you can use on an individual assignment (not the prep work, lab work, or group work.) The late pass allows you to submit the assignment work 48 hours (2 days) after the due date and still receive full credit.

Exam Date

You are expected to take the final exam at the time indicated on the Course Schedule. If you need to take the final exam at a different time, you should bring this request to me as soon as possible, at least one week before the scheduled exam. Please be aware that I may not be able to grant your request.

Policy on Collaboration and Cheating

Excluding assignments that are assigned as group work, the work you submit should reflect individual effort. You are encouraged to discuss assignments with fellow students, but the final work product must reflect your knowledge and effort, not your classmates’.

Cheating includes but is not necessarily limited to:

1. Submission of work that is not your own for papers, assignments, lab exercises, or exams.
2. Submission or use of falsified data.
3. Theft of or unauthorized access to an exam, current or previous.
4. Use of an alternate, stand-in or proxy during an examination.
5. Use of unauthorized material including textbooks, internet material, notes, or computer programs in the preparation of an assignment or during an examination, unless otherwise indicated.
6. Supplying or communicating in any way unauthorized information to another student for the preparation of an assignment or during an examination.
7. Collaboration in the preparation of a solution to a problem unless expressly allowed by the instructor.
8. Plagiarism which includes, but is not limited to, failure to indicate the source with quotation marks or footnotes where appropriate if any of the following are reproduced in the work submitted by a student:
   a. A graphic element.
   b. A proof.
   c. A phrase, written or musical
   d. Specific language.
   e. An idea derived from the work, published or unpublished, of another person.
   f. Program code or algorithms.

If you are unsure about what is acceptable collaboration, you should consult with me.

**Penalties for Cheating**

Penalties imposed are at the instructor’s discretion. In this class, the penalty imposed can be any of the following depending on the violation:

- zero on the assignment
- a letter reduction on final grade (final grade of A- becomes B-)
- a failing grade in the course

Regardless of the penalty imposed, all incidents of cheating are reported to the Associate Dean. Additional penalties may be imposed.

**Classroom Etiquette**

As research on learning shows, unexpected noises and movement automatically divert and capture people's attention, which means you are affecting everyone’s learning experience if your cell phone, pager, laptop, etc. makes noise or is visually distracting during class. For this reason, your mobile devices should be silenced and not used during class.

You are not permitted to use your laptop or other electronic computing devices during class. Desktop computers in the classroom may only be used for in-class exercises.

Please limit your peer conversations during class. If you must chat with your neighbor, please sit at the far corners of the room to be less distracting. I may ask you to leave class if I find your repeated conversations distracting.

You may record classroom activities ONLY for personal, educational use or for the educational use of another student currently enrolled in the class. **You must first obtain my permission prior to recording any lecture.** The recording may not be further copied, distributed, published or otherwise used for any other purpose without my express written consent. All students are advised that classroom activities may be taped by students for this purpose.

I appreciate you arriving on time for class.