CPS 430/542: Database Management Systems/Fall 2005

**Objectives** (from the undergraduate bulletin): The goal of CPS 430/542 (3 semester hours) is to study physical and logical organization of databases: the entity-relationship model; relational database model; the data definition and data manipulation language of a commercial database management system; integrity constraints; conceptual database design. Examples will be presented in Oracle and SQL in the UNIX programming environment.

**Meeting Times:** M W 4:30–5:45p, SC150

**Instructor:** Dr. Saverio Perugini, 229–4079, AN145, sperugin@udayton.edu

**Office Hours:** M W 3:30-4:30p, T Th 5:45–6:45p, or walk in any time; and by appointment.

**Graduate Assistant:** Karthik Ganesan Pillai, 229–2199, MH21, ganesakz@notes.udayton.edu

**GA Office Hours:** W F 11:00a–1:00p, and by appointment

**Course Webpage:** http://academic.udayton.edu/SaverioPerugini/courses/cps430/

If you need accommodations due to a documented disability or have emergency medical information to share with the instructor, please meet with the instructor ASAP.

**Pre-requisites:** CPS 350 (Data Structures and Algorithms) with a minimum grade of C for students enrolled in CPS 542. No exceptions. In addition, students are expected to have strong problem-solving and logical-reasoning skills and a positive attitude toward learning new things.


**Evaluation:** There will be approximately 10 homeworks, which will involve a mix of theoretical questions and small programming exercises. We will drop your lowest homework score. In addition, there will be a substantial semester-long project to be submit in approximately four phases, each covering a different aspect of database systems (modeling, normalization, queries, and optimization). The project will require a fair amount of thought and design. There will be a midterm and comprehensive final exam (4:30–6:20p, 12/12, SC150). **Breakdown:** homeworks (25%), project (20%), quizzes (5%), midterm exam (20%), final (30%). Final letter grades of A, A-, B+, B, B-, C+, C, C-, and D will start at 93, 90, 87, 83, 80, 77, 73, 70, and 60, respectively.

**Addendum for CPS 542 Students:** Each assignment/exam will contain extra problems for students enrolled in CPS 542. In addition, CPS 542 students are required to submit an additional project phase or write a research paper of publishable quality (more on this later). A final average of 73 or better is required of a graduate student to pass the course.

**Workload:** CPS 430/542 is not easy! It is a challenging course and moves at a very fast pace. It may appear deceptively simple at first but, unless you start early, you will be unable to complete the assignments. You will be required to think critically and independently for graded work and not just replicate what you have seen in class. Spending a minimum of 9 hours of work outside of class each week studying and experimenting with the concepts is required. I strongly advise you to see me to discuss any problems you may have before you are evaluated. Having said all of this, CPS 430/542 will be exciting, fun, and can be your claim to fame. Database systems are ubiquitous in our information age and mastery of their underlying concepts and application is essential for any computing professional.
Course Policies:

1. **Late assignments will not be accepted. No exceptions. No excuses.**

2. Attendance is mandatory at all examinations. Any missed exam will count as a zero toward the final grade.

3. Make-up quizzes will not be given. However, your lowest quiz score will be dropped.

4. Re-grades will not be considered after one week from the date that the assignment/exam was made available for pickup.

5. E-mail will be sent only to your UD Lotus Notes account.

6. Students are expected to conduct themselves in a professional manner.

7. Switch all cell phones, pagers, and similar devices to a silent mode during class.

8. The use of laptop computers or similar devices is not permitted in class unless you have a documented disability which requires such a device for taking notes.

9. Make no assumptions about any policy. Always clarify with the instructor first.

**Ethics:** To achieve the course goals, students must work on their assignments individually. Questions or discussions related to graded work must be directed only to the instructor and GA. All submitted work must be your own in full. The policy on academic dishonesty set forth in the student handbook (pp. 36–38) will be strictly enforced in this course. **Evidence indicating a violation of the university policy or our policies on ethics will be dealt with severely as per the student handbook and will result in the penalty of a double-weighted zero for the assignment/exam which will not be dropped.**

No student should ever feel that they must resort to academic dishonesty. Please come talk to us if you are struggling with the course or an assignment. There is plenty of help available to you from ethical sources (instructor, GA) and we are happy to help. It is much easier to explain a poor grade to parents, potential employers, or graduate admission committees than a violation of the university policy on academic dishonesty. No grade is worth your integrity. Honesty in your academic work will develop into professional integrity. The faculty and students of the University of Dayton will not tolerate any form of academic dishonesty.

**Extra credit:**

*Participate in a Research Study:* Students may be given the opportunity to participate in a research experiment or submit an assignment requiring comparable time, such as a 5-page research paper, for extra credit equivalent to one homework assignment.

*Serve as a Scribe:* Each lecture will offer the opportunity to volunteer as a scribe for credit equivalent to a quiz. The scribe for a particular class period is responsible for taking detailed and neat notes in a notebook supplied by the instructor. In addition, the scribe will type the notes in a format specified by the instructor (e.g., outline style in plain ASCII text), e-mail the instructor the produced file within 24 hours of the lecture, and bring the notebook to the next class so it can be passed to the scribe for that period. The instructor will make the electronic version of each lecture summary available from the course webpage. The scribe’s grade will be based on the quality of the notes taken in the notebook (accuracy, detail, and neatness), the quality of the file produced, and adherence to the delivery and transfer protocol.