

Wagner College
CS 422 – DATABASE SYSTEMS

TEXTBOOKS: *Database Systems: The Complete Book (Required)*
 H. G. Molina, J. D. Ullman & J. Widom
 Prentice Hall, 2002
 ISBN: 0-13-031995-3

Database Management Systems (Recommended)
 R. Ramakrishnan and J. Gehrke, McGraw-Hill, 2003
 ISBN: 0-07-246563-8

INSTRUCTOR: Dr. Adrian Ionescu <http://www.wagner.edu/faculty/users/ionescu/>

EMAIL: ionescu@wagner.edu

OFFICE: Room 117, Megerle Science Hall, x3245

OFFICE HOURS: MW 10:00 AM – 12:00 PM
 TTH 04.00 – 6:00 PM (by appointment only)

COURSE WEB PAGE: <http://ionescu.pageout.net/>

OBJECTIVES: The course deals with the use of database systems (DBSs). Most commercial computer applications involve the use of a DBS to store information. When you use a credit card, information about your card and each transaction is stored in a database. The NYS Department of Motor Vehicles keeps track of your driver license and your car in databases. This course will cover the design of database systems, important database theory, SQL, relational databases, and logical databases.

OUTLINE: Chapter 1 – The Worlds of Database Systems.
 Chapter 2 – The Entity-Relationship Data Model.
 Chapter 3 – The Relational Data Model.
 Chapter 4 – Other Data Models.
 Chapter 5 – Relational Algebra.
 Chapter 6 – The Database Language SQL.
 Chapter 7 - Constraints and Triggers.
 Chapter 8 - System Aspects of SQL.
 Chapter 9 - Object-Orientation in Query Languages.
 Chapter 10 - Logical Query Languages.

As time permits:

Chapter 11 - Data Storage.
Chapter 12 - Representing Data Elements.
Chapter 13 - Index Structures.
Chapter 14 - Multidimensional and Bitmap Indexes.
Chapter 15 - Query Execution.
Chapter 16 - The Query Compiler.
Chapter 17 - Coping With System Failures.
Chapter 18 - Concurrency Control.

Chapter 19 - Information Integration.
Chapter 20 - Information Integration.

GRADING POLICY: You are responsible for all material covered in class, as well as that in the text.

- MIDTERM (30%)
- FINAL EXAMINATION (40%)
- HOMEWORK/PROJECTS/CLASS PARTICIPATION (30%)

COURSE POLICIES:

- There will be no make-up examinations. *A student who is unable to attend a major examination due to illness or other emergency is required to contact his instructor within 24 hours of the exam time.* If an exam is missed due to an emergency, the final will be counted twice; once as a final, and once in place of the missed exam. Late homework will not be graded.
- Any preceding policies may be waived at my discretion

GRADING SCALE: Letter grades will be determined by the following scale, where 100 corresponds to the highest point total earned by any student in the class:

Average	Grade
93 - 100	A
90 - 92	A-
87 - 89	B+
83 - 86	B
80 - 82	B-
77 - 79	C+
73 - 76	C
70 - 72	C-
67 - 69	D+
60 - 66	D
< 60	F

For inclement weather updates or other announcements please check your e-mail and the following page regularly: <http://www.wagner.edu/faculty/users/ionescu/notes.htm>.

If you have a disability for which you may be requesting an accommodation, you are encouraged to contact both your instructor and Dina Assante in the Academic Advisement Center, 390-3278 as early as possible in the term.