Course Information

CSE 305 – Principles of Database Systems
Fall 2016
Stony Brook University
Instructor: Dr. Paul Fodor

http://www.cs.stonybrook.edu/~cse305
Course Description

- [https://www.cs.stonybrook.edu/students/Undergraduate-Studies/courses/CSE305](https://www.cs.stonybrook.edu/students/Undergraduate-Studies/courses/CSE305)
- “The design of database management systems to obtain consistency, integrity, and availability of data. Conceptual models and schemas of data: relational, hierarchical, and network. Students undertake a semester project that includes the design and implementation of a database system.”
- **Prerequisites**: C or higher: CSE 219 or CSE 260; CSE major.
Course Outcomes

• The following are the official course goals agreed upon by the faculty for this course:
  • An ability to design database management systems through E/R design and the theory of normalization.
  • An ability to use relational query languages.
  • An ability to design and implement a database system, via a significant project.
Major Topics

- ER-modeling, functional dependencies, normal forms, relational algebra, SQL, constraints and triggers, datalog, data storage, indexes, query processing, simple query optimization.
- Principles of Database Systems
- The Relational Model and SQL DDL
- Conceptual Design Using the ER Model
- Relational Algebra and SQL
- Using SQL in an Application
- Schema Refinement and Normalization
- Storing Data: Disk and Files
- File Organization and Indexing
- Implementation of Relational Operations
- Relational Query Optimization
Dr. Paul Fodor  
214 New Computer Science Building  
Office hours: Tuesdays and Thursdays 5:00PM-6:30PM.  
I am also available by appointment  
Class email (forwarded to all the instructors and teaching assistants, fast response): cse305ta@cs.stonybrook.edu  
Email: paul (dot) fodor (at) stonybrook (dot) edu  
Please include “CSE 305” in the email subject and your name in your email correspondence
General Information

• Meeting Information:
  • Lectures: MoWe 4:00PM - 5:20PM, Javits Lecture Hall 109.

• Course Web page:
  http://www.cs.stonybrook.edu/~cse305

• Blackboard will be used for assignments, grades and course material
Textbook


- The next three books are optional, and are listed as handy references.
Grading Schema

- Homework, projects, and quizzes -- 25%
- Midterm exams (2) -- 40% (20% each)
- Final exam -- 35%
Exam dates

• Midterm exam 1: Monday 10/10/2016, classtime, in classroom.
• Midterm exam 2: Monday 11/14/2016, classtime, in classroom.
• Final exam: Tuesday, 12/13, 8:30pm-10:30pm, in classroom.
Assignments

• Homework assignments due on fixed dates and times.
  • no late submission is permitted
• All assignments should be submitted electronically
  • Blackboard
Regrading of Homework/Exams

• Please meet with a TA or the instructor and arrange for regrading.

• You have one week from the day grades are posted or mailed or announced

• Late requests will not be entertained
Software

- MySQL is used for most homework or projects
  - we will have department accounts, but you should install your own!!!
  - MySQL Workbench: Interface and database development software
- Use git for all the code that you will write: we will have department accounts, but you should also get your own on BitBucket (private) or GitHub (if you sign up with the @StonyBrook.edu email, then you have 2 years of private repositories). Do not develop your homework assignments in public repositories!
- Other software will be presented later
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Disability Support Services

- If you have a physical, psychological, medical or learning disability, contact the DSS office at Room 128 ECC. Phone 632-6748/TDD
- If you are planning to take an exam at DSS office, you need to tell me ahead of time for every exam.
- All documentation of disability is confidential.
Academic Integrity

- You can discuss general assignment concepts with other students: explaining how to use systems or tools and helping others with high-level design issues.
- You **MAY NOT share** assignments, source code or other answers by copying, retyping, looking at, or supplying a file.
  - Assignments are subject to manual and automated similarity checking (We do check! and our tools for doing this are much better than cheaters think).
- If you cheat, you will be brought up on academic dishonesty charges - we follow the university policy:
  - [http://www.stonybrook.edu/uaa/academicjudiciary](http://www.stonybrook.edu/uaa/academicjudiciary)

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Catastrophic events

- Major illness, death in family, …
- Formulate a plan (with your CEAS academic advisor) to get back on track
- Advice
  - Once you start running late, it’s really hard to catch up
Please

• Please be on time
• Please show respect for your classmates
• Please turn off (or use vibrate for) your cellphones

...  

• On-topic questions are welcome
Welcome and Enjoy!