

**Prof:** Dr. Peter M. Maurer  
**Office:** Rogers 220.08  
**Phone:** 710-7305

**Text:** David Gries  
*The Science of Programming*

**Email:** [Peter\\_Maurer@Baylor.edu](mailto:Peter_Maurer@Baylor.edu)  
**Web:** <http://cs.ecs.baylor.edu/~maurer>

**Office Hours:** 2:00-4:00 MTWRF

|            |                             |            |
|------------|-----------------------------|------------|
| 1. Jul 7   | Review of Syllabus          |            |
| 2. Jul 8   | Propositions and Predicates | Chapter 1  |
| 3. Jul 11  | Equivalence Transformations | Chapter 2  |
| 4. Jul 12  | Natural Deduction           | Chapter 3  |
| 5. Jul 13  |                             |            |
| 6. Jul 14  |                             |            |
| 7. Jul 15  | Predicates                  | Chapter 4  |
| 8. Jul 18  |                             |            |
| 9. Jul 19  |                             |            |
| 10. Jul 20 |                             |            |
| 11. Jul 21 | Arrays                      | Chapter 5  |
| 12. Jul 22 | Review                      |            |
| 13. Jul 25 | Mid Term                    |            |
| 14. Jul 26 |                             |            |
| 15. Jul 27 | Assertions                  | Chapter 6  |
| 16. Jul 28 |                             |            |
| 17. Jul 29 | Weakest Precondition        | Chapter 7  |
| 18. Aug 17 |                             |            |
| 19. Aug 2  | Skip, Abort, Composition    | Chapter 8  |
| 20. Aug 3  |                             |            |
| 21. Aug 48 | Assignment                  | Chapter 9  |
| 22. Aug 59 | Alternative                 | Chapter 10 |
| 23. Aug 8  | Iteration                   | Chapter 11 |
| 24. Aug 9  |                             |            |
| 25. Aug 10 | Final Exam                  |            |

### Course Objectives

The primary objective of this course is to train you to think logically about programs. At the end of the course you should be able to construct program proofs, reason precisely about programs, and construct logical arguments of a general nature. These skills will permit you to construct better, more reliable programs, and to detect bugs more easily.

### Grading

|            |     |
|------------|-----|
| Midterm    | 30% |
| Final Exam | 35% |
| Homework   | 25% |
| Quizzes    | 10% |

### Attendance

You are expected to attend every class.

You are responsible for all material given in class, even if it isn't in the book. If you miss class, it is your responsibility to obtain the missed material from another student. Lecture material will not be repeated.

***DO NOT COME LATE!***

***DO NOT LEAVE EARLY!***

### Cell Phones

Turn it off. If it rings, *DON'T ANSWER IT!*

### Seating

Sit wherever you want. If you're present, I'll know it, if you're not, I'll know that too.

### Class Participation

You are expected to read the material before class and be able to discuss it and answer questions in class. Failure to participate in class discussion, in particular answering questions in a way that makes it clear that you have not read the material, will result in loss of points for the "Quizzes" portion of your grade.

### Homework

Do it. Do it all. Do it *yourself*.

Do *extra* homework even if it wasn't assigned.

I don't care if you have an IQ of 256. If you don't do the homework, you won't pass the tests.

### Quizzes

Thursday is quiz day. Come prepared. Quizzes may be cumulative.

Wait a minute ...

*Today* is Tuesday.

Here's your quiz.

Three men who came to a hotel where there was only one vacant room. The desk clerk told them that there were three beds in the room, and if they wanted to rent it together the price would be \$30. The men agreed, and each paid \$10. Later that evening the desk clerk discovered that he had overcharged the men and the price of the room was actually only \$25. He sent the bell boy up to the room with a refund of five one-dollar bills. Since it was impossible to divide \$5 three ways and have it come out even, the men agreed to take one dollar each and give the two remaining dollars to the bell boy. A bit later, one of the men who fancied himself to be good at figures said, "We've been ripped off!" He explained it thus. "After the refund we each paid \$9, that's \$27 total. If we add the \$2 for the bell boy, that gives us only \$29."

What happened to the other dollar?