CMPSC 465 **Martin Fürer** **Data Structures and Algorithms**

Course Information Spring 2011

Professor:	TAs:	
Martin Fürer	Divya Muthukumaran	Xiaomei Zhang
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Office hours:	Office hours:	Office hours:
3 – 4 Wed Fri	2 - 3 Mon Thu	3 - 4 Tue Thu

Prerequisite: CMPSC 360 or MATH 311W

Angel: Homeworks, announcements, and grades will be posted on Angel.
You find Angel at `https://cms.psu.edu/`

Web page: `http://www.cse.psu.edu/~furer/465`

Location and Time: 105 Wartik 12:20 – 1:10 M W F Section 1
105 Wartik 1:25 – 2:15 M W F Section 2

Textbook: T.H. Cormen, Ch.E. Leiserson, R.L. Rivest, and C. Stein, Introduction to Algorithms, 3rd Edition, MacGraw-Hill, MIT Press, 2009.

There are many other books on Data Structures and Algorithms which contain much of the same material. Here is a list of examples. The top four (and our textbook) will be on reserve in the Engineering Library.
Anany Levitin, "Introduction to The Design & Analysis of Algorithms," Addison Wesley, Second Edition, 2007.
Sara Baase and Allen Van Gelder, "Computer Algorithms, Introduction to Design & Analysis," 3rd Edition, Addison Wesley, 2000.
Mark Allen Weiss, "Data Structures and Algorithm Analysis in C++," Addison-Wesley, 3rd Edition, 2007
Jon Kleinberg and Éva Tardos, "Algorithm Design," Addison-Wesley, 2006.
Robert Sedgewick, Algorithms in C++, 3rd Ed., Parts 1–4 1999, Part 5 2002.
Other examples are the books of E. Horowitz and S. Sahni, G. Brassard and P. Bratley, G. L. Heileman, H. Lewis and L. Denenberg, U. Manber, J. Nievergelt and K.H. Hinrichs, D. Wood, and the old books of A.V. Aho, J.E. Hopcroft and J.D. Ullman.

Syllabus: Roughly Chapters 1 –25 (except 14, 19 and 20) and Appendices A, B.
Some modifications will probably be made.

Homeworks: The homework assignments have to be done individually. Cheating will be handled according to Penn State policy. You are allowed to discuss the problems and their solutions, but you have to write up your solution by yourself not seeing any other solutions.

Most problems involve some mathematical reasoning. For a good performance, you will have to study the course material well. There will be no programming assignments.

Some problems will not be graded. You have to do them first, because they check your understanding of the basics.

To make the difficult job of the TAs a little easier, we use the following rule. If you cannot solve a problem, instead of writing some garbage hoping for partial credit, you just write, "I go for 30%," and you get 30% of the points for that problem. Naturally, the better solution is to start early and have time to ask questions and understand the problem. The 30% option is not available on exams.

Late Homeworks: The homeworks are due at the BEGINNING of class. There is a 10% deduction for late homework handed in the same day until 5 p.m. The homework is still accepted the following day until 5 p.m in my office with 30% deduction, and another 24 hours later with 50% deduction. You may slip your homework under the door in 346F IST after writing the TIME AND DATE on your paper. On weekends, you may submit electronically, because the IST building might be locked. No credit will be given after 5 p.m. two days after the due day. **Any justified exceptions have to be arranged at least a day before the homework is due.**

Forwarding Mail: The class web page will be used for announcements. Occasionally, I might want to contact the class by email to your Angel account. If you don't regularly check email on Angel, you can forward it to your usual email account.

Exams and Grading:

First Mid-Term	20 %	8:15 – 10:15 pm, Thursday, 2/10/11,	26 Hosler
Second Mid-Term	20 %	8:15 – 10:15 pm, **Monday**, 3/28/11,	26 Hosler
Final Exam	20 %	To be announced	
Homeworks	40 %	About seven or eight problem sets	

All exams are closed book.

Most Important:

Let me know immediately if you have a conflict with the exams.