EE 379B - Digital Communication II: Coding

Course Information

Instructor:

John M. Cioffi
Office: Packard 363
Phone: 723-2150
email: cioffi@stanford.edu
Office hours: TTh 4:00 - 5:30 pm

Teaching Assistant 1:

Moshe Malkin
Office: Packard 077
Phone: 724-3411
email: mmalkin@stanford.edu
Office hours: MTu 5:30 – 6:30 pm, Packard 036 (basement)

Teaching Assistant 2:

Jungsub Byun
Office: Packard 360
Phone: 723-2525
email: jbyun@stanford.edu
Office hours: Tue 5:30 - 6:30 pm, Packard 036 (basement)

Administrative Assistant:

Pat Oshiro
Office: Packard 365
Phone: 650-723-2681, Fax: 650-724-3652
email: poshiro@stanford.edu

Lecture Time and Location:

TTh 2:45-4:00 am, Skilling 193
Broadcast Live by SCPD, channel E3
Videos of the lectures can also be found at Stanford Online

Help Session:

M 4:15-5:05 pm, Skilling 193
Broadcast Live by SCPD, channel E2
Videos of the help session can also be found at Stanford Online

Class Web Page:

www.stanford.edu/class/ee379b/

Class Email List:

The class e-mail list is automatically generated from the list of officially registered students in Axess. If you are **not** registered but would still like to receive class announcements, please subscribe to the class email list by sending an email to majordomo@lists.stanford.edu with a blank subject line and the body of message reading: subscribe ee379b.

Text:

Course reader chapters will become available on class web site as we approach the material. A slightly outdated bound version of the course reader is available from the Stanford Bookstore. On the first day of class we will distribute the first few pages of the course reader. ***Also, the problem sets may get updated in back of chapters so trust the web site, not the bookstore version.***

Grading:

Homework: 30%
Midterm exam: 30%
Final exam: 40%

Midterm Exam Time and Location:

Thursday, May 4th, in class. (open book, open notes)

Final Exam Time and Location:

Monday, June 12th : 7:00 - 10:00 pm, location TBD.

Homework Policy:

Homework will be distributed on Tuesday, and due the following Wednesday by **12:00 pm**. You may also put it in the homework "**IN**" box just outside Packard 365 (Pat's office). For late submissions, there is 10% penalty per working day and no credit will be given after 1 week.

Please label your homework not only with your name but also with the assignment number. If you are an SCPD student, please be sure to use the coversheet provided by SCPD or at least put your company name in the upper right corner where it is less likely to be overlooked.

Graded homework will be in the metal "OUT" crate in the bookcase outside the door of Packard 365. Expect to find your grade on the second page of your homework. This will allow you to have access to your graded work without compromising the privacy of your classmates.

Homework and final exam will be held only until the 4th week of the next quarter, so claim them quickly if you wish to keep these items.

Reserved Texts:

- Constrained Coding and Soft Iterative Decoding by J. Fan, Kluwer: Boston, 2001.
- Turbo Coding by C. Heegard and S.B. Wicker, Kluwer: Boston, 1999.

- Turbo Codes, Principals and Applications, B. Vucetic & J. Yuan, Kluwer: Boston, 2000.
- Fundamentals of Convolutional Coding by R. Johannesson and K. Zigangirov, IEEE Press, New York, 1999.
- Trellis Coding by C. Schlegal, IEEE Press: New York, 1997.
- Elements of Information Theory, Cover and Thomas, Wiley, NY, latest edition.
- Precoding and Signal Shaping for Digital Transmission by R.F.H. Fischer, Wiley: NY, 2002.
- Trellis Decoding of Block Codes by B. Honary and G. Markarian, Kluwer: Boston, 1997.