

EEL 3520: Information theory (Spring 2006)

Course: MWF 9:30-10:20

Office Hours: MF 10:30–11:30 ENGR 467

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## 1 Course Topics

- [Basic probability theory]
- [Introduction to Shannon information theory]
- [Overview of communication systems]
- [Discrete sources and entropy]
- [Channels and channel capacity]
- [Coding techniques]

## 2 References

- Elements of Information theory by Thomas M. Cover, Joy A. Thomas
- Applied Coding and information theory for engineers by R.B.Wells
- Principles of Communication Systems by Herbert Taub, Donald L. Schilling
- Schaum's outline of theory and problems of analog and digital communications by Hwei P. Hsu
- MIT Open Course Ware (<http://ocw.mit.edu>)
- Wikipedia (<http://wikipedia.org>)

### 3 Grade distribution

- 40% 4 midterm exams
- 40% Optional final exam
- 20% WebCT quizzes
- 5% Extra credit for exceptional class participation

In case you choose not to take the final exam, your scores from the midterms will be doubled to give your score out of 80.

### 4 Grading scale

90%-100%	<b>A</b>
85%-89%	<b>A-</b>
80%-84%	<b>B+</b>
75%-79%	<b>B</b>
70%-74%	<b>B-</b>
65%-69%	<b>C+</b>
60%-64%	<b>C</b>
55%-59%	<b>C-</b>
50%-54%	<b>D+</b>
45%-49%	<b>D</b>
40%-44%	<b>D-</b>
0%-39%	<b>F</b>

### 5 Attendance policy

Attending class is not mandatory, but it is highly recommended.