2.163J/6.455J/12.518
Sonar, Radar and Seismic Signal Processing
Fall 2006

Administrative Information

Instructors:	Prof. Arthur B. Baggeroer
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Teaching Asst.:	Costas Pelekanakis Room 5-345, x 3-7798 gas@mit.edu
Administrator:	Mr. Geoffrey Fox Room 5-204, x 3-9344
Office hours:	Inst: M/W 4:00 - 5:00 @ 5-204 TA: Th 2:00 - 4:00 @ 5-345
Text:	There is no single text that is appropriate for the subject. We will use class notes supplemented by journal articles and selected readings. A reference list will be distributed.
Quizzes:	There will be three quizzes during the semester. The second one will be a take home quiz. You may use your class notes during the "in-class" quizzes. You may use any texts or references for the take home quiz, but they must be cited. There is no final.
Homework:	Homework will be assigned approximately every other week. We will have several "computer assisted" problems this semester. While MATLAB has proven to be the most convenient language for this, others are certainly acceptable. We will discuss the most convenient form of implementing this in class. You may discuss the homework with classmates but we expect that the solutions and computer programs to be your own efforts.
Grades:	The quizzes each count 30% and the homework 10% in forming an initial grade determination. The opinions of the instructor and

the teaching assistant about your mastery of the subject material determines the final grade.

Prerequisites: There are essentially three prerequisites for the subject: linear systems, Fourier analysis and probability. There are several subjects from different courses that serve as appropriate preparation. We intend to enforce these prerequisites because there is not enough time to devote to a review. A "diagnostic quiz," which does not influence your grade, is attached. If you have significant difficulty with it, consult the instructor before continuing in the subject.

Comments: This subject is taught with the expectation of a lot of interaction between the students and the instructor. We will attempt to make reference to a lot of practical problems that appear in the analysis from radar, sonar and seismic systems to provide a practical detting for the signal processing discussed. Please do not hesitate to ask questions.