This document is a guide for preparing yourself for the midterm exam on Mar 9, 2004. It covers the text and in class discussion. I will list some of the key concept and key questions.

Chapter one. What is the basic difference between phonetics and phonology? what are segments? syllables? intercostals? elastic recoil? volume velocity? What are typical values of Volume Velocity during speech? what levels does it reach during aspiration? Which are more numerous consonants or vowels? why? what is turbulent, laminar airflow? what are transients?

Chapter two. In the source filter theory an acoustic source excites a resonance filter. Why does the vocal apparatus function as a quarter wave tube? Sound is a wave and thus obeys the relationship between frequency, wavelength, and speed of propagation, what is this relationship? simple harmonic motion a pendulum swinging in a circle produces a sine wave. In a sine wave where does one see the wavelength, frequency and amplitude? what is damped oscillation? what is the resonant frequency of a neutral vowel? assuming a pharyngeal-oral airspace that is 17 cm in length, what is the resonant frequency? (c=33140 cm/sec). spectrum envelop? harmonics? how do harmonic and formant frequency differ?

Chapter three. Why are males, females, and children able to communicate when they have differing lengths of the pharyngeal/oral tube? what are the oral constriction rule R1? pharyngeal constriction F1 rule? Back tongue constriction F2 rule? front tongue constriction F2 rule? lip rounding rule? Can you transcribe: heed, hid, hayed, head, had, hod, hawed, hoed, hood, who'd, HUD, hide, how'd, ahoyed? What did you learn from plotting your own vowels?

Chapter four. describe the apparatus responsible for speech sounds. what is the role of the arytenoids, ventricular folds, vocal folds, aryepiglottic folds, epiglottis, crico thyroid muscles, in K N Stevens model the equation relating position of the bottom side of the glottal folds is composed of two elements, what are these? why is the modal voice glottal source wave asymmetric around its centerline? how does subglottal airpressure effect frequency of oscillation of the glottal folds? what are the roll-off values of modal voice, breathy voice, tense voice? why are they as they are? what is the effect of nasalization on vowel formants? what is the role of the aryepiglottal folds in forming glottal consonants? the epiglottis?

Chapter five. What is prosody? suprasegments? what is the relation between subglottal pressure and F0? breath group? strap muscles? In Ross, Edmondson, et al how are affective and linguistic prosody related? How does this evidence bear on the question
of the relationship of paralinguistic to phonological systems? what is the role of duration in speech? what is tone space in a tone language?