Overview of courses

Core acoustics courses:
• Acoustics II
• Wave Phenomena
• Architectural Acoustics

Other courses
• Math courses (PGE, CSE, ME)
• Validation and UQ in Comp Models (ME)
• Psychoacoustics (CSD)
• Physics of Sensors (PHY)
• Many more…
ME 384N-2: Acoustics II

Spherical and cylindrical waves, radiation and scattering, multipole expansions, Green's functions, waveguides, sound beams, Fourier acoustics, Kirchhoff theory of diffraction, and arrays.

• Prof. Mark Hamilton
• MWF 9-10am
• Work load:
  • Weekly problem sets
  • 2 midterms + final exam
ME 384N-8: Wave Phenomena

Fourier acoustics and angular spectra; nearfield acoustical holography; Fraunhofer, Fresnel, and parabolic approximations; sound beams; Green's functions; Born approximation; propagation and scattering in moving, periodic, and random media.

- Prof. Mark Hamilton
- MWF 11am-noon
- Work load:
  - Weekly problem sets
  - 1 midterm + final exam*

- This course is unique to UT!
Human perception of sound, principles of room acoustics, sound-absorptive materials, transmission between rooms, and acoustical design of enclosed spaces.

- Prof. Mike Haberman
- TTh 9:30-11am
- Work load:
  - ~6 problem sets
  - 1 midterm + final
  - Project
Other Courses

PGE 382L: Numerical Methods in Petroleum/Geosystems Engineering
• Prof. Kamy Sepehrnoori
• MWF 10-11am
• The use of numerical methods and computers in the solution of petroleum and geosystems engineering problems.
• See also:
  CSE 386L Math Methods in Science and Engineering
  ME 380Q1: Engineering Analysis Analytical Methods

ME 397: Validation and Uncertainty Quantification in Computational Models
• Prof. Robert Moser
• MW 11am-1pm
Other Courses (cont.)

CSD 394K: Psychoacoustics
• Prof. Chang Liu
• TTh 2-3:30pm
• A review of current literature on diagnostic procedures; habilitation for hearing-impaired children or rehabilitation for adults. Anatomy and physiology of the peripheral auditory system; behavioral measures of auditory performance—masking, sound localization, pitch and loudness perception, temporary and permanent hearing loss.

PHY 386K: Physics of Sensors
• Multiple Profs
• TTh 4-5:30pm
• Physical principles of acoustic, optical, electromagnetic, radiation, and motion sensors.
Other Courses (cont.)

ME 397: Proposal Writing
ME 397: Teaching Engineering
PHY 397K: Electromagnetic Theory I
CE 397: Sensors/Signal Interpretation
CSE 383L: Numerical Analysis: Differential Equations
CSE 385S: Complex Analysis
ASE 362K: Compressible Flow
Tips

Keyword search

These LINKS
Course evaluation results
Grade distributions

Summary

Core Courses:
Acoustics II, Wave Phenomena, Architectural Acoustics

Other good courses:
Maths, Validation and UQ, Psychoacoustics, Physics of Sensors