Lecture Tu and Th 9:00 - 10:15 in BNR 314, Laboratory: Mon 2:30-5:00; Wed 2:30-5:00, Fri 8:00-10:30, in BNR 14
Prerequisite PubH 3310 or 4310
Lab Fee for this course is $100.00. Lab fees used to maintain equipment and purchase new equipment when needed.

Lab Schedule is Wed, Fri, Mon Laboratory Topic

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Grading: 50% on the three one-hour exams, 35% on the final, and 15% on the laboratory exercises and lab reports
Each exam is split into a closed book portion followed by an open book portion.
Approximate grading scale: A: ≥88%, B: ≥77-88%, C: ≥65-77%, and D: ≥50-65, <50 will not pass.

After completing this course, the student should be able to:

1. Define terms used in noise; recall the physics of sound, the physiology of hearing and noise induced hearing loss, and acceptable noise exposure criteria; use noise measurement instruments; and apply noise abatement controls within a hearing conservation program.
2. Define terms used in vibration; recall the physics of vibration and its adverse health effects; and evaluate and control vibration.
3. Define terms used in thermal stresses; recall the physics of heat transfer; discuss the biological/health effects from heat and cold; employ thermal measurement instruments and interpret results; and apply elementary controls.
4. Define terms used in nonionizing radiation; recall the physics of nonionizing electromagnetic radiation; discuss the biological/health effects from ultraviolet, visible, infrared, and radio-frequency radiation, extremely low frequency electric and magnetic fields, and lasers; apply measurement fundamentals for nonionizing radiation; describe program requirements; and apply elementary controls.
5. Define terms used in ionizing radiation; describe the sources of, the physics behind, and biological consequences of exposure to the four major types of ionizing radiation; explain radiation detection instruments, dosimetry, and attenuation versus shielding; be able to use a radio nuclide’s half-life to determine its activity; and recall the agencies that regulate ionizing radiation.

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