WELCOME
to the Department of Nuclear Engineering

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Radiation and life

Overview
Preparation
Experience
Career Path

- Solar Radiation
- Cosmic Rays
- Consumer Products
- Radons
- Radioactive Waste
- Nuclear Power
- Nuclear Medicine
- X-Rays
- Other People
- Terrestrial Radiation
- Food and Drink

CAUTION
RADIATION HAZARD
Modern Uses of Small Amounts of Radioactive Material or Radiation

- Aerosol (Smoke) Detectors
- Airport Inspection Systems
- Lantern Mantles
- Fluorescent Lamp Starters
- Welding Rods
- Fluid, Density and Thickness Gauges
- Check Sources
- Depleted Uranium Counterweights and Shielding

Modern Uses of Large Amounts of Radioactive Materials or Radiation

- Nuclear Power
- Nuclear Propulsion
- Nuclear Weapons
- Food and Medical Supply Irradiation
- Industrial Radiography
- Scientific Research
- Medical X rays
- Nuclear Medicine
- Space applications
Innovative changes made in power

Safer  More economic  More advanced
Modern uses of nuclear energy, radioactive and radiation tolerant materials...

- Power
- Propulsion
- Materials
- Defense applications
- Food and Medical Supply Sterilization
- Industrial Radiography
- Research
- Medical X rays
- Nuclear Medicine
Who are we?

- Largest nuclear engineering department in U.S.
  - 350+ undergraduate students
  - 150+ graduate students
- Nationally ranked programs (public institutions)
  - Undergraduate, ranked 2nd
  - Graduate, ranked 2nd
- Only department in U.S. with 2 nuclear reactors on campus
- Strong, exceptional facilities
Experience

• Robust academic program
• Early professional engagement through professional organizations
  – (ANS, ASME, WIN, INMM, …)
• Research
• Internship and co-op programs
• International study opportunities
  – (Europe, China, Japan, India, …)
• Mentoring by faculty
  – (2 individual advisors for each student, mentor groups led by faculty research groups)
I WANT A JOB IN NUCLEAR

SCIENCE
Science exercises the mind and teaches logical thinking. It encourages looking at things in different ways.

TECHNOLOGY
Technology skills increase your ability to use, understand, and change many of the tools you already use, like computers or your cell phone, and to help develop new ones.

ENGINEERING
Engineering uses science and math, and applies them to design, create, or modify nearly any structure, machine, or material.

MATHEMATICS
Math skills give you the ability to identify and analyze patterns and use logic. It develops critical thinking skills and problem-solving skills.

I like to work with my hands.
I like to help people.
I am logical, precise, and creative.
I'm good with numbers.
I'm good with all of these

maybe you would be interested in becoming a...

Power Plant Operator, Distributor, or Dispatcher
55,900 jobs in 2010 expected to be steady through 2020

Nuclear Medicine
21,900 jobs in 2010 with 19% expected increase in positions through 2020

Nuclear Engineer
19,100 jobs in 2010 with 10% expected increase in positions through 2020

Applied Mathematician
3,100 jobs in 2010 with 16% expected increase in positions through 2020

National Security and Nonproliferation Experts
email: nuclear@tamu.edu

http://engineering.tamu.edu/nuclear

Call: 979.845.4161