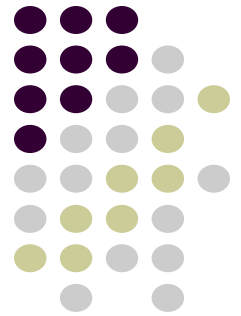




Nuclear Engineering Graduate Program



Masters Degree Program in Nuclear Engineering Department of Mechanical Engineering Virginia Commonwealth University

A significant number of new fission reactors are now being constructed for the first time in about 30 years. Two issues motivate this renewed interest in nuclear power generation: dependence on foreign oil and global warming. Fission-based power generation can reduce the country's insatiable appetite for fossil fuel, and no carbon dioxide or any other heat-trapping gases is generated as a result of nuclear power generation. Along with other pollutants, a coal-fired power plant, in contrast, annually releases 10 billion kg of carbon dioxide into the atmosphere for each 1000 MW of electric capacity. Furthermore, for now and the near future at least, the cost of electricity from nuclear power plants is far less than any of the alternative energy technologies now contemplated, such as solar, biomass and wind. Nuclear power must be part of any future solution to the energy crisis. The new graduate program at VCU will help train the next generation of nuclear engineers.

A masters degree program in nuclear engineering commenced at Virginia Commonwealth University in the Fall of 2007. The program is administered by the Department of Mechanical Engineering, and the non-thesis masters degree requires thirty credit hours of course work to complete.

Sample Courses

- Topics in Nuclear Engineering, EGRN 610
- Engineering Mathematics, EGRM 512
- Reactor Theory, EGRN 620
- Energy Conversion Systems, EGRM 545
- Economics of Nuclear Power, EGRN 660
- Convective Heat Transfer, EGRM 602
- Nuclear Power Plants, EGRN 630
- Characterization of Materials, EGRM 609
- Nuclear Safety, EGRN 640
- Advanced Fluid Mechanics, EGRM 561
- Nuclear Radiation and Shielding, EGRN 650
- Computational Fluid Mechanics, EGRM 570

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