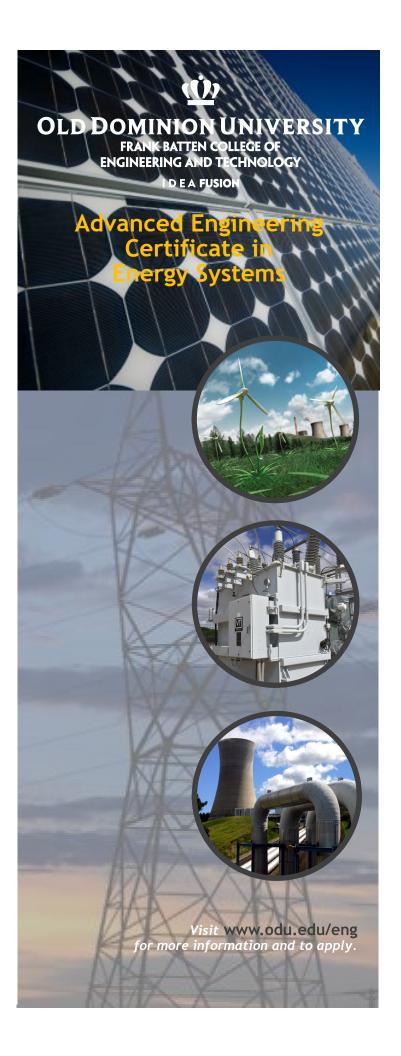
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Overview

The certificate program offered by Frank Batten College of Engineering and Technology is aimed at providing understanding of energy engineering and the increasing role of energy engineers in addressing growing energy needs. The new skills and advanced understanding developed in class will prepare students for employment in rapidly growing energy industries.

The certificate program will:

- ✓ Develop an understanding of the current status of energy issues, systems, and their management;
- ✓ Educate about varying energy resources and technologies, such as petroleum, coal, natural gas, nuclear, solar biomass, hydroelectric, and wind;
- ✓ Provide details on existing commercial processes and associated economics of various energy products;
- ✓ Foster a better understanding of public policies to provide greater momentum to the energy industry;
- ✓ Offer credits for future studies in the energy engineering in Hampton Roads region;
- ✓ Teach the environmental impacts of the various energy systems;
- \checkmark Prepare a skilled workforce for the energy industry.

Eligibility

- Bachelor of Science degree (or equivalent) in and engineering related field or undergraduate degree in another relevant STEM field
- Prerequisites for applicants from nonengineering fields include college-level mathematics, calculus based physics, and chemistry or biology.

Course Requirements

- Twelve credit hours of graduate course work.
- A grade point average of 3.00 or better.

Select four courses from the following list (Each course 3 credit hours.) At least 2 of the 4 courses must be at the 600— or higher level.

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|--|---------|--|
| CEE | 558 | Sustainable Development |
| CEE | 559 | Biofuels Engineering |
| CEE | 595 | Transportation Sustainability |
| CEE | 795/895 | Green Bldg Analysis/Design |
| ECE | 571 | Introduction to Solar Cells |
| ECE | 772/872 | 2 Fundamental of Solar Cells |
| ENGN | 671 | Carbon-Free Clean Energy |
| CEE | 659 | Carbon-Free Clean Energy |
| ENGN | 672 | Energy Systems Management |
| ENMA | 695 | Energy Systems Management |
| ENGN | 772/872 | 2 Fossil Energy |
| MAE | 513 | Energy Conversion |
| MAE | 605 | Advanced Classical |
| Thermodynamics | | |
| MAE | 795/895 | Topics in Mechanical and |
| Aerospace Engineering: Advanced Energy | | |

ECE 495/595 Power Systems Design and Analysis

Conversion.