

ENERGY EDUCATION PROGRAMS

ENERGY EDUCATION AT UND

The University of North Dakota's (UND) College of Engineering and Mines Institute for Energy Studies (IES) and UND's Energy & Environmental Research Center (EERC) provide multiple energy education opportunities. UND's program provides a balance of course work and research structured to respond to energy challenges facing our planet. We purposefully couple social, political, economic, environmental, and regulatory training with our hands-on research, spanning the continuum from fundamental to applied research to technology demonstration. The fundamental research is designed to answer basic scientific questions provide information, which in turn allows technical barriers to be overcome through research, development, and demonstration efforts. Business development efforts lead to the next generation of licensed energy technologies. UND's energy education vision is realized through the integration of industry and government partners with the research and development partners and collaborators whose aim is to improve the global quality of life.



WHY UND

Proven ABET recognized distance delivery methods

Industry adjuncts provide access to content experts

Flexibility to meet student's and employer's needs

State-of-the-art experimental and modeling facilities

Cost competitive tuition rates with multiple degree options

Workshops and short courses for industry and professional development

ENERGY EDUCATION DEGREE PROGRAMS

- M.S./ M.E. Energy Systems Engineering
- Ph.D. Energy Engineering
- M.S./ M.E. Environmental Engineering
- Ph.D. Environmental Engineering
- Certificates
- CEU, PDU, Short Courses
- Tailored Courses and Workshops

PROGRAMS TAILORED TO WORKING POPULATION

- Non-residency requirement allows student to work on degree without leaving current job
- Flexible research topics allow student to choose projects of interest to company
- Industry representatives can serve on student's research committee
- Thesis and non-thesis options match student's interests and needs
- Distance delivery and executive-style programs as options
- Time to degree adjusted to match pace & requirements of student

INTEGRATION AND OPTIMIZATION OF ENERGY SYSTEMS BASED UPON TECHNICAL, ECONOMIC, POLITICAL AND REGULATORY ISSUES

Technical content provides background for integration of multiple energy systems:

- Foundations of System Engineering
- Conventional and Advanced Power Generation Systems
- Alternative/Renewable Energy Systems
- Transmission, Distribution, and Energy Storage Systems
- Pollution Control Systems
- Energy Integration Capstone
- In-depth topic based courses available

Non-technical content provides tools for quantitative management and policy decisions:

- Energy and Public Policy Analysis
- Engineering Project Management
- Forecasting Energy Supply and Demand
- Strategic Market Planning, Business and Economic Forecasting, and Risk Analysis
- Economic and Accounting Information for Decision and Control
- Leadership and Communication
- System Design and Management Tools

INSTITUTE FOR ENERGY STUDIES

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