

# MAKE AN IMPACT IN

**ENVIRONMENTAL ENGINEERING,  
SUSTAINABILITY, RENEWABLE  
ENERGY, AND PUBLIC POLICY**

## WHAT IS ENERGY SYSTEMS ENGINEERING?

Energy Systems Engineering applies a more comprehensive or holistic approach in the solution of energy challenges. At the University of Wyoming the ESE degree program considers both technical engineering issues as well as other practical aspects of energy utilization and implementation not typically covered in engineering education.



UNIVERSITY  
OF WYOMING

## MORE INFORMATION:

[UWYO.EDU/MECHANICAL](http://UWYO.EDU/MECHANICAL)

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COLLEGE OF  
**ENGINEERING &  
APPLIED SCIENCE**

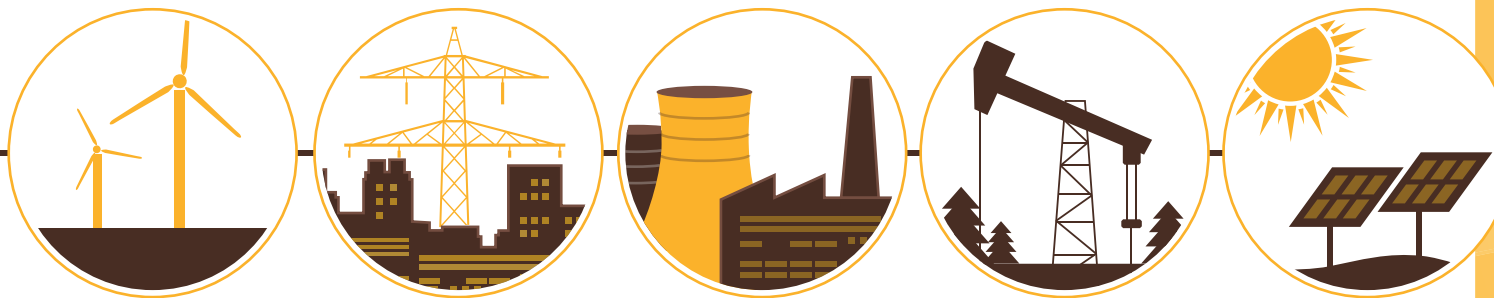
UNIVERSITY OF WYOMING

# MAJOR IN ENERGY SYSTEMS ENGINEERING



# THE ENERGY SYSTEMS ENGINEERING (ESE) PROGRAM IS DESIGNED TO TRAIN ENGINEERS TO ADDRESS ONE OF THIS COUNTRY'S FOREMOST CHALLENGES:

**TO ACHIEVE ENERGY INDEPENDENCE AND YET MEET THE GROWING DEMAND FOR ENERGY, WHILE AT THE SAME TIME ADDRESSING CRITICAL ENVIRONMENTAL CONCERNS.**



## WHAT STUDENTS ARE SAYING

“ I have found the interdisciplinary curriculum of the program to be incredibly valuable for my personal growth as a student, narrowing the focus of my career path, preparing me for success as a graduate student and providing me with a unique background and skillset that has afforded me many life-changing opportunities.”

— Emily Beagle, 2012 ESE and ME graduate

“ ...it was extremely beneficial because it addressed all forms of power generation, not just from renewables.”

— Alexandra Howell, 2017 ESE Graduate

“ Overall, this major has been amazing. My favorite part was learning about sustainability and how to apply this concept to projects. I highly doubt that there is a major anywhere else in United State, that provides such as vast array of knowledge for the price of a single major.”

— Taylor Wollert, 2016 ESE Graduate

“ We (at Sustainably Built) are raising the bar with energy efficiency, conservation and sustainable design in new and existing homes. The education I received at UW gave me a huge advantage above others and gave me the experience I needed to get to where I am today.”

— Chris Cronick, 2012 ESE graduate

## WHERE SOME OF OUR GRADUATES ARE EMPLOYED

- > Halliburton
- > The Alliance for Green Heat
- > Sustainably Built
- > Kinder Morgan
- > KB Energy
- > Stanley Consultants
- > Baker-Hughes
- > Kiewit Mining
- > Schlumberger
- > Encana
- > Agrotech
- > The Biomass Thermal Energy Council

## WHY SHOULD I STUDY ENERGY SYSTEMS ENGINEERING?

- > Energy Systems Engineering is a unique and relatively new engineering program designed by UW's Mechanical Engineering faculty. It is the first of its kind in the nation. Launched in 2009, ESE was designed to provide a more comprehensive “systems engineering” approach to the development and implementation of energy-conversion systems.
- > The ESE degree has many course work requirements in common with the Mechanical Engineering degree, particularly in the thermal, fluids, and energy conversion sciences. However, the ESE program emphasizes energy conversion aspects of Mechanical Engineering and requires course work from UW's School of Environment and Natural Resources (SENR), course work in environmental law, and two electives picked from a list of classes that focus attention on energy and the environment.
- > The program allows students to choose four energy-based technical electives from 11 offerings. These electives include three courses in energy conversion, two in renewable energy (solar and wind engineering), two in environmental engineering, and two in petroleum engineering.
- > Our engineering classes are taught by full-time faculty with Ph.D. degrees, not graduate students.
- > The University of Wyoming is surrounded by excellent outdoor recreation opportunities including hiking, skiing, fishing, climbing, biking and kayaking.
- > Three residence hall floors with computing laboratories house approximately 150 students and are designated for engineering students only.
- > With more than 250 recognized students organizations, UW offers a wide range of opportunities to fit your interests and needs.

