## New Energy Science and Engineering

**Duration of Study: 4 years (Bachelor's degree)** 

Contact Information (academic consultation):

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## **Core Curriculum**

- 1. Engineering Thermodynamics
- 2. Heat Transfer
- 3. Engineering Fluid
- 4. Mechanics
- 5. Principles and Technologies of Solar Energy Utilization
  6. Principles and Technologies of Wind Power Generation
  7. Utilization Principles and Technologies of Biomass Energy



The major of New Energy Science and Engineering (NESE) aims to develop and utilize traditional, renewable energy in a modern way, facilitated by the development of new technologies and new materials. Engineers specializing in NESE are capable of developing alternative energy technologies and new energy systems, making improvements on energy efficiency, and applying new energy science and engineering with an economic sense to create a more sustainable future for our planet.

NESE in KUST is an interdisciplinary major that cultivates students toward a promising career in new energy related industries, including but not limited to solar, wind and biomass energy, energy sustainability, energy efficiency, regulatory and government policy analysis, etc. NESE is currently equipped with an advanced and complete teaching laboratory covering new energy like solar, wind, biomass, etc. More than 30 faculty members (over 70% are full or associate professors) are dedicating to the talent training and development of a scientific and rational training program, to help students understand basic theories and acquire professional skills in the fields of solar/wind/biomass energy, functional materials, etc. All the staff has been dedicating to the talent training and developed a scientific and rational training program to enable students to acquire basic theories and professional skills in the fields of solar energy, wind energy, biomass energy, new energy materials, etc. All the efforts help student become

an interdisciplinary composite senior talent with comprehensive capacity, innovative spirit and practical ability. These capabilities and qualities allow them to be engaged in new energy development and utilization, engineering design, operation optimization, production management and scientific research.

