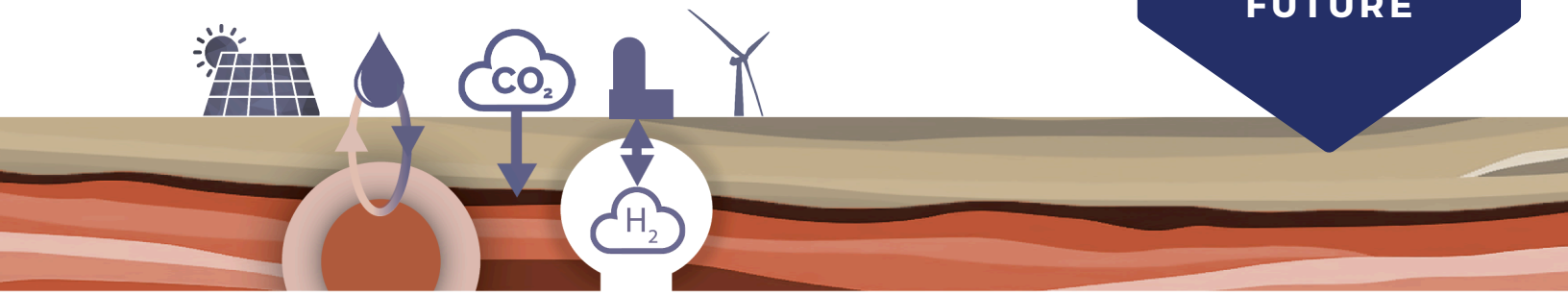
RICE UNIVERSITY

Master of Energy Transition and Sustainability

School of Engineering / School of Natural Sciences

EMPOWERING LEADERS FOR A SUSTAINABLE FUTURE



MASTER OF ENERGY TRANSITION AND SUSTAINABILITY

The Global Energy Sector is changing rapidly.

Future energy professionals need a comprehensive understanding of new energy sources and technologies, skills to implement sustainable energy practices, and knowledge of the energy value chain.

This integrative professional masters program, comprising 31 credit hours, provides training in foundational and applied skills to tackle real-world challenges in the rapidly evolving energy sector. With the flexibility to customize their learning journey, students choose five elective courses within one of two specializations. Covering critical aspects of the energy transition and sustainability, the METS curriculum equips students with expertise in unconventional and renewable energy resources, advanced materials and technologies, subsurface geological systems for energy production and storage, as well as essential topics such as energy economics, policy development, sustainability principles, and environmental considerations.

PROGRAM HIGHLIGHTS

- Two semester industry-oriented master's program
- Cutting-edge curriculum led by expert faculty
- Capstone team project addressing real-world challenges in the energy sector.
- One-on-one job placement consulting team
- Weekly seminars given by industry experts
- Full-time and part-time enrollment options
- Located in Houston, Texas, renowned globally as the "Energy Capital of the World"

SPECIALIZATIONS

- Geosciences
- Engineering

COURSES INCLUDE

- Energy Conversion and Applications
- Geosciences for the Energy Transition
- Energy and the Environment
- Sustainability Development and Reporting
- Economics and Policies of Energy Transition

APPLICATION DEADLINES

FEBRUARY 15 (FALL) • OCTOBER 15 (SPRING)

mets.rice.edu

DEGREE REQUIREMENTS

Core Requirements (Credit Hours)

COURSE(S)	DESCRIPTION	HOURS
BIOS 580	SUSTAINABLE DEVELOPMENT AND REPORTING	3
CHBE 552	TRANSITIONING TO LOW CARBON ENERGIES: ENGINEERING FUNDAMENTALS	3
CHBE 680 / EEPS 680	ENERGY TRANSITION SEMINAR	1
CHBE 549 / EEPS 549	ECONOMICS AND POLICIES OF ENERGY TRANSITION	3
EEPS 582	GEOSCIENCES FOR THE ENERGY TRANSITION	3

Area of Specialization (Credit Hours)

DESCRIPTION	HOURS
Select 1 of the following Areas of Specialization • Geosciences • Engineering	15

Capstone Requirement (Credit Hours)

COURSE(S)	DESCRIPTION	HOURS
CEVE 507	ENERGY AND THE ENVIRONMENT	3

Total Credit Hours (31)

Selected Courses for the Geosciences Area of Specialization

Students must complete a minimum of 5 courses (minimum of 15 credit hours) to satisfy the requirements for the METS degree program's Geosciences area of specialization.

COURSE(S)	DESCRIPTION
EEPS 579	APPLIED SUBSURFACE SYSTEMS: ANALYTICAL METHODS FOR ENERGY AND SUSTAINABILITY
EEPS 585	COMPUTATIONAL AND DATA SCIENCE IN THE ENERGY INDUSTRY
EEPS 586	DATA SCIENCE METHODS AND DATA MANAGEMENT
EEPS 593	INTRODUCTION TO GEOTHERMAL ENERGY SYSTEMS
EEPS 637	EARTH'S NATURAL RESOURCES FOR THE ENERGY TRANSITION
EEPS 648	EXPLORATION GEOPHYSICS
EEPS 638	NATURE-BASED CARBON SEQUESTRATION

Selected Courses for the Engineering Area of Specialization

Students must complete a minimum of 5 courses (minimum of 15 credit hours) to satisfy the requirements for the METS degree program's Engineering area of specialization.

COURSE(S)	DESCRIPTION
CHBE 506	DECISION TOOLS FOR CHEMICAL ENGINEERS
CHBE 510	FUNDAMENTALS AND APPLICATIONS IN ELECTROCHEMICAL ENERGY CONVERSION
CHBE 515	SEPARATION TECHNOLOGIES FOR CHEMICAL AND BIOMOLECULAR PROCESSES
CHBE 521	ANALYSIS OF ENERGY SYSTEMS
CHBE 517	MATERIALS IN ENERGY AND SUSTAINABILITY
CHBE 568	INDUSTRIAL CHEMICAL PROCESSES
EEPS 585	COMPUTATIONAL AND DATA SCIENCE IN THE ENERGY INDUSTRY