ENERGY AND WATER SUSTAINABILITY

Contact Information

Energy and Water Sustainability
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The interdisciplinary program in Energy and Water Sustainability is offered by the Department of Civil and Environmental Engineering (https://ga.rice.edu/programs-study/departments-programs/engineering/civil-environmental-engineering/) in collaboration with several other Rice University departments.

Sustainable development is a societal goal that challenges traditional ways of thinking and requires alternative approaches and solutions to balance environmental, economic, and social interests. Carbon management strategies and renewable resources will be key elements of energy policy for the coming decades. Similarly, the long-term viability of existing water use and human settlement patterns must be reconsidered given the effect of climate change in freshwater availability, as well as increasing competing demands for this limited resource. More generally, the dedication of materials, energy, and ecological resources will become more important in economic decision-making, while more and more members of society will demand equity in decision-making processes.

Students studying Energy and Water Sustainability will gain knowledge of both the science and policy issues associated with the evaluation of sustainable energy and water strategies that will form a cornerstone of 21st century social systems. Students completing this program will be better prepared for a global society that is attempting to understand and address the challenge of meeting basic human needs today and in the future while maintaining a functional natural system and social order.

Minor

- Minor in Energy and Water Sustainability (https://ga.rice.edu/programs-study/departments-programs/engineering/energy-water-sustainability/energy-water-sustainability-minor/)

Energy and Water Sustainability does not currently offer an academic program at the graduate level.

Department Chair, Civil and Environmental Engineering

Jamie Ellen Padgett

Program Director

Jorge Loyo Rosales, *Civil and Environmental Engineering*

Undergraduate Advisors

Pedro J.J. Alvarez, *Civil and Environmental Engineering*
Jorge Loyo Rosales, *Civil and Environmental Engineering*

Steering Committee

Philip B. Bedient, *Civil and Environmental Engineering*
James B. Blackburn, *Civil and Environmental Engineering*
Walter G. Chapman, *Chemical and Biomolecular Engineering*
Daniel S. Cohan, *Civil and Environmental Engineering*
Kenneth R. Cox, *Chemical and Biomolecular Engineering*
Leonardo A. Dueñas-Osorio, *Civil and Environmental Engineering*
Peter Reginald Hartley, *Economics*
George J. Hirasaki, *Chemical and Biomolecular Engineering*
Qilin Li, *Civil and Environmental Engineering*
Caroline A. Masiello, *Earth, Environmental, and Planetary Sciences*
Ka-Yiu San, *Bioengineering*
Edmund Segner, III, *Civil and Environmental Engineering*
William W. Symes, *Computational and Applied Mathematics*
Mason B. Tomson, *Civil and Environmental Engineering*
Rick K. Wilson, *Political Science*
Kyriacos Zygourakis, *Chemical and Biomolecular Engineering*

For Rice University degree-granting programs:
To view the list of official course offerings, please see Rice's Course Catalog (https://courses.rice.edu/admweb/!SWKSCAT.cat?p_action=cata).
To view the most recent semester's course schedule, please see Rice's Course Schedule (https://courses.rice.edu/admweb/!SWKSCAT.cat).

Description and Code Legend

Note: *Internally, the university uses the following descriptions, codes, and abbreviations for this academic program. The following is a quick reference:*

Course Catalog/Schedule

- Course offerings/subject codes: Courses from various subjects may apply towards this program

Home School Description and Code

- Engineering and Computing: EN

Home Department (or Program) Description and Code

- Energy and Water Sustainability: EWSU

Undergraduate Minor Description and Code

- Minor in Energy and Water Sustainability: EWSU

CIP Code and Description [1]

- **EWSU** Minor: CIP Code/Title: *30.3301 - Sustainability Studies*

[1] Classification of Instructional Programs (CIP) 2020 Codes and Descriptions from the National Center for Education Statistics: https://nces.ed.gov/ipeds/cipcode/.