The interdisciplinary program in Energy and Water Sustainability is offered by the Civil and Environmental Engineering Department 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 (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.

**Director**

James B. Blackburn, *Civil and Environmental Engineering*

**Undergraduate Advisors**

Pedro J.J. Alvarez, *Civil and Environmental Engineering*

James B. Blackburn, *Civil and Environmental Engineering*

**Steering Committee**

Philip B. Bedient, *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. Duenas-Osorio, *Civil and Environmental Engineering*

Peter Hartley, *Economics*

George J. Hirasaki, *Chemical and Biomolecular Engineering*

Qilin Li, *Civil and Environmental Engineering*

Caroline Masiello, *Earth, Environmental, and Planetary Sciences*

Ka-Yiu San, *Bioengineering*

Edmund P. Segner III, *Civil and Environmental Engineering*

Robert M. Stein, *Political Science*

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/ISWKSCAT.cat?p_action=cata)

To view the most recent semester’s course schedule, please see Rice’s Course Schedule (https://courses.rice.edu/admweb/ISWKSCAT.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

**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: 40.0605 - Hydrology and Water Resources Science

1 Classification of Instructional Programs (CIP) 2010 Codes and Descriptions from the National Center for Education Statistics: https://nces.ed.gov/ipeds/cipcode/