2019 - 2020 Certificate Map
Energy and Sustainability

School/College: School of Sustainability
Location: Downtown Phoenix campus, Polytechnic campus, Tempe campus

Program Requirements

The certificate in Energy and Sustainability consists of 15 credit hours, at least 12 of which must be upper-division.

A GPA of 2.50 is required for all courses completed in the certificate.

Required Core Courses -- 9 credit hours

SOS 171 / GCU 171: The Thread of Energy (SB & G) (3)
SOS 314: Basic Energy Science (3)
SOS 315: Energy Policy (3)

Energy Elective Courses -- 6 credit hours

ALT 412: Village Energy Systems (3)
CHM 394: Chemistry, Energy, and Society (3)
EGR 371: Best Practices for Humanitarian Engineering (3)
EGR 476: Microgrid Design and Operation (3)
ERM 494: Algae in Water/Energy/Food Nexus (3)
ERM 494: Energy Economics (3)
FIS 494: Climate Change, Energy, and Social Justice (3)
GCU 364: Energy in the Global Arena (SB & G) (3)
GCU 442: Geographical Analysis of Transportation (SB) (3)
GLG 304: Minerals, Energy, and Society (3)
GPH 405: Energy and Environment (3)
HST 306: Energy History ((HU or SB) & H) (3)
JUS 332: Politics of Energy Policy and Justice (3)
JUS 444: Environment and Justice (L & C) (3)
PHY 498: The Science of Sustainable Energy (3)
POS 394: Global Environmental Politics (3)
PUP 430: Transportation Planning and the Environment (3)
SOS 309: History and Philosophy of Sustainability (3)
SOS 323: Sustainable Urban Dynamics (3)
SOS 394: Introduction to Solar Energy for Non-Engineers (3)
SOS 394: Sustainability in Organizations and Public Policy (3)
SOS 435: U.S. Energy: Pathways to Sustainability (3)
SOS 494: Creating Living Buildings (3)
SOS 494: GHG Emissions Inventory (3)
SOS 494: Renewable Energy (3)
SOS 494: Should I Eat Fish? Ecology, Economics, & Policy (3)
STS 317: Science, Technology, and Global Engagement (SB & G) (3)
STS 329: Technology in Developing Countries (SB & G) (3)
STS 332: Global Issues in Science and Technology (SB) (3)
TEM 450: Design for the Developing World (3)

HST 306 and any 394, 494 or 498 courses must be taken with the specific course title/topic indicated above.

Energy elective courses are not limited to courses from this list only. Other courses on energy may be offered (special topics, etc.). Students may request to have those approved as an elective for this certificate by submitting a School of Sustainability standards petition: https://students.asu.edu/College_Standards_Petitions. Completed petitions may be submitted directly to sosadvising@asu.edu.

Students must earn a grade of "C" or better in all courses.

Some energy elective courses have prerequisites. Any and all prerequisites must be met in order to select and enroll in those courses.

Some energy elective courses are more technical in nature, which may require additional math and science knowledge or prerequisites.

Depending on a student's undergraduate program of study, prerequisite courses may be needed in order to complete the requirements of this certificate.