

Jordan University of Science and Technology



Jordan University of Science and Technology (JUST) offers a robust portfolio of academic courses and degree programs specifically dedicated to climate science and environmental sustainability. All of these courses are fully integrated into our academic curriculum and are linked to officially recognized academic credits. At the forefront of this commitment is a suite of specialized, credit-bearing Master's programs designed to address urgent regional and global environmental challenges. Through interdisciplinary frameworks, JUST equips students to tackle resource scarcity and climate resilience via programs such as the Master of Water, Energy and Food Nexus, the Master in Water Diplomacy, and the Soil, Water and Environment program, which emphasize sustainable policy, land reclamation, and transboundary resource management. Furthermore, the university drives the transition toward clean energy and sustainable innovation through advanced technical degrees, including Green Hydrogen Technology, Nanotechnology and Materials Science, and Intelligent Electrical Systems. Together, these programs provide graduates with the critical data-driven, technological, and policy-making skills required to pioneer sustainable, climate-resilient solutions for the future.

Water, Energy and Food Nexus

The Master of Water, Energy and Food Nexus (WEF) is a modern program to develop interconnected water, energy, and food strategies by enabling students to develop and implement comprehensive water, energy, and food integration strategies. The program aims to transform its graduates into experts capable of addressing the interrelated challenges of water, energy and food by equipping students with the skills to manage the human and cultural aspects of the water,

energy and food transition and to develop and adopt policies and decision-making in this context. For more information, please visit the [WEF program webpage](#).

Water Diplomacy

The Master in Water Diplomacy program focuses on providing adequate knowledge and negotiation skills to relevant stakeholders, politicians and decision-makers in the field of water negotiation in Jordan and the MENA region, enabling them to develop a viable approach to the management of transboundary water resources in an effective and peaceful manner. Conflicts and inadequate local water management are killing Middle Eastern countries in a way that threatens their stability and development. On the other hand, transboundary water basins in the MENA region can establish a network of social, economic and hydrological links between countries. From this standpoint, the role of water diplomacy comes in generating a rational, sustainable and peaceful solution to water management that facilitates cooperation between neighboring countries on water management. The Master in Water Diplomacy program will focus on providing adequate knowledge and negotiation skills to relevant stakeholders, politicians and decision-makers in the field of water negotiation in Jordan and the MENA region, enabling them to develop a viable approach to the management of transboundary water resources in an effective and peaceful manner. For more information please visit the [program webpage](#).

Soil, Water and Environment

The Department of Natural Resources and Environment offers a master's program in soil, water and environment. This program includes specialized areas in chemistry, physics and soil fertility, water quality, land reclamation, and provides opportunities for graduates in environmental consulting and government work, and can also pave the way for a doctoral degree. Please visit the [program webpage](#) for more information.

Nanotechnology and Materials Science

Nanotechnology and Materials Science is a unique academic field that integrates multiple disciplines such as physics, chemistry, biology, and engineering to study and manipulate materials at the nanoscale. The program focuses on equipping students with both theoretical knowledge and practical skills to address challenges in water, energy, health, and the environment. It also promotes scientific research, innovation, and strong collaboration with industry to develop advanced, real-world solutions.

Green Hydrogen Technology

The Master in Green Hydrogen Technologies is an interdisciplinary program focused on clean energy innovation. It covers hydrogen production, storage, and policy within the context of global sustainability goals. Graduates are equipped to lead in renewable energy development and climate-resilient solutions.

Intelligent Electrical Systems

The Intelligent Electrical Systems program at Jordan University of Science and Technology offers a unique educational experience that combines electrical engineering with smart technologies such as artificial intelligence, the Internet of Things, and smart energy systems. The program focuses on hands-on learning, real-world projects, and industrial training. Graduates are prepared to design innovative smart solutions to real-world problems — solutions that are sustainable and data-driven.