



17.4.2. Courses and degrees the SDGs across the university

Alexandria University integrates sustainability, SDG-aligned learning, and environmental education across undergraduate and postgraduate programs, offering multidisciplinary courses and training in climate change, water resources, energy, biodiversity, pollution, agriculture, and sustainable development. Through specialized curricula, research projects, and professional training, students gain applied skills in climate adaptation, mitigation, renewable energy, ecosystems management, urban sustainability, green economy, GIS/remote sensing, and sustainable resource management. The University's initiatives, including Erasmus+ collaborations, renewable energy centers, water desalination technology, and "Go Green" campaigns, equip graduates to tackle real-world environmental challenges while supporting national and global SDGs.

Education in AU is in the form of educational programs, research projects and training courses.




I. Educational Programs

Program start date: year 2019

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	<p>Smart Environmental Management of Climate Change Master Program (Alexandria University, Egypt)</p>
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Sustainable Management of Fisheries and Aquaculture Science Master Program (Alexandria University, Egypt)

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M.Sc. in:
Natural Resources Sustainability for Land Development (NRSLED)
Under the framework of SuReMap project
(Sustainable Resource Management Programme to solve Deserted Challenges)


SuReMap Project:
 Aims to establish interdisciplinary programs that train students to address water, energy & food-related challenges in "Egypt's 2030 strategy".

NRSLED is an outcome of the SureMap Erasmus+ project that includes a consortium of 8 Egyptian and European universities. The program is cooperatively designed by the consortium, therefore, it has the advantage of the international and interdisciplinary perspective, European framework of recognition, and benefits from a wide network of participating professors from the following universities: RWTH Aachen, Heliopolis University, Alexandria University, CITY College – Sheffield University, The American University in Cairo, University of Palermo, Aswan University, and Technical University of Madrid.

Program Vision:
 NRSLED program aims to prepare students with the knowledge and experience for the management and sustainable development of drylands' natural resources in the local, regional, and international related sectors.



Program Mission:
 The Faculty of Science through NRSLED program seeks to qualify the graduates to be competitive at local, regional, and international levels, by creating an appropriate educational environment and fostering ethically, scientifically, and professionally sound approaches that enable graduates to serve the community and the institutions closely related to sustainable development plans.



Natural Resources Sustainability for Land Development Master Program (Alexandria University, Egypt)

1- Sustainable Management of Fisheries and Aquaculture Science, in collaboration with University of Aveiro, Portugal.

2 year Postgraduate Master program (4 semesters).

(Erasmus+ Project, European Union): The participating countries and Universities: Portugal (University of Aveiro), Italy, Croatia, Slovenia, Egypt (Alexandria University, Aswan University, Matrouh University, Arab Academy for Science and Technology and Maritime Transport).

Program start date: year 2021

Link: <http://fishaqu.eu>

2- Natural Resources Sustainability for Land Development in collaboration with Aachen University, Germany

2 year Postgraduate **Master program** (4 semesters).

Erasmus+ Project, European Union: The participating countries and Universities: Germany (RWTH Aachen), Egypt (Alexandria University, Heliopolis University, the American University in Cairo, Aswan University), Cyprus (CITY College – Sheffield University), Italy (University of Palermo), Spain (Technical University of Madrid).

Program start date: year 2022

II. Research Projects

Number of innovative program(s) in energy and climate change & Impactful university program(s) on climate change

3-The Faculty of Agriculture has 2 renewable energy centers and one center at the main building of the University.

4-Solar Energy Center at the Faculty of Agriculture (Alexandria University):

5-The Faculty of Science:

Research Project: Development and implementation of decentralised solar-energy-related innovative technologies for public buildings, in the Mediterranean Basin

6-The Faculty of Science: (Previously presented)

Research Project: Production of Bio-Diesel from Algae in Selected Mediterranean Countries: Med-Algae Project

7-Smart Environmental Management of Climate Change in collaboration with Catania University, Italy
2 year Postgraduate Master program (4 semesters).

AdapTm-Erasmus project: The participating countries and Universities: Italy, Greece, Lithuania, Slovenia, Egypt (Alexandria University, Suez Canal University, South Valley University, Arab Academy for Science and Technology and Maritime Transport).

8- The Faculty of Engineering - Alexandria University

the implantation of the new Solar Station is completed. The implementation of the solar photovoltaic panels was performed in December 2022 with a capacity of **220** kilowatts on the 2000 m² roof top of the building of the Mechanical Engineering Department at the Faculty of Engineering.

Alexandria University have generalized this initiative in some of the faculties of Alexandria University in gradual stages.



III. Training courses

Holding a group of professional courses in cooperation with the Don Bosco Institute in Alexandria, which are:

Paper recycling course in cooperation with the College of Fine Arts.

Training course on the mannequin in cooperation with the Faculty of Specific Education.

Air conditioning and refrigeration course in cooperation with the College of Engineering.

Electrical installation course in cooperation with the College of Engineering.

Faculty of Education Launches “Go Green” Initiative, part of Freshmen Activities to raise awareness of the importance of afforestation, waste recycling, and rationalization of food and energy consumption, to change the wrong behaviour, spread environmental awareness, and urge students to participate in preserving the environment, explaining that the students presented practical activities for some courses under the title "Go Green", where each student actively participated in planting trees in the faculty courtyard. The students actively took part in this initiative out of a sense of responsibility towards themselves, their faculty, their university, and the environment around them.



Alexandria University Service Centers

6. Center for studies, technology and manufacturing of seawater desalination equipment

Objectives:

- Qualifying the necessary scientific and technical personnel in the areas of technological specializations that serve water desalination and preparing scientific and applied studies in this field.
- Organizing training programs for workers in the fields of water desalination.
- Achieving integration between scientific and technical competencies in universities, research centers and ministries at the national level in the field of water desalination manufacturing technology and providing studies and technical consultations in this field.
- Achieving cooperation at the regional and international levels with universities, research centers and bodies working in the field of water desalination.
- Organizing scientific and applied courses to grant technical diplomas in the fields of technology, manufacturing, maintenance and management of water desalination plants.
- Organizing conferences and holding seminars, meetings and courses necessary to implement the previous objectives.

7. Pharmaceutical and General Services Center – Faculty of Pharmacy

Objectives:

- Providing all pharmaceutical services to various productive sectors in the field of pharmacy and industries and holding conferences and scientific seminars to serve the pharmacists sector.
- Conducting pharmaceutical studies and research aimed at solving community problems, whether related to production activity or providing services.
- Strengthening scientific and cultural ties with other universities and scientific bodies at the Arab and international levels.
- Assisting the university in improving the college's general educational service.
- Conducting training courses in various pharmaceutical fields, providing expertise and advice

to the pharmaceutical production sectors, and contributing to linking the university with society and industry.

- Holding training courses for graduates of colleges of pharmacy to raise the level of performance in community service.
- Implementing university projects and carrying out maintenance and repairs needed by the college.
- Conducting sample analysis for some pharmaceutical companies and providing research results to serve the pharmaceutical industry. Serving researchers and graduate students in preparing their research