



## Course Presentation

Sustainable Development	
Engineering School of Gafsa	Electromechanical & Energy Engineering and Environmental Technology
FOCAL AREA	Industry 4.0 & New and Renewable Energies
Level	1 <sup>st</sup> year
Semester	S1
Semester hourly volume	Integrated course: (21,5h=15h lecture + 7,5h tutorials)
Teacher	Mr Maher RADDAOUI

### Objectives

The aim of the module is to study all innovative tools and the new technologies mainly the digital world to have a global call to act to eradicate poverty, protect the planet and ensure that all human beings live in peace and prosperity.

The main objectives of this module are:

- Teach students the practices and different strategies to eradicate poverty in all its forms and everywhere in the world.
- Prepare students, future decision-makers to look for all the possible tools to end hunger, ensure food security, improve nutrition and promote sustainable agriculture to enable everyone to live in good health.

- Teach students all the new technologies to ensure quality education and learning for all to promote continued economic growth to provide decent work for citizens.
- Learn all the techniques to properly manage urban spaces and to establish a discipline of cleanliness of cities, and to rehabilitate slums and design a policy of access to affordable housing.
- Take advantage of technological progress to ensure access to clean and affordable energy for all and to efficiently manage energy and water consumption and to encourage the recycling of industrial and household waste.
- Teach students all modern techniques to take the necessary measures to combat the repercussions of climate change and natural disasters.

## **INTENDED LEARNING OUTCOMES**

To develop the capacity of students, future engineers to integrate new technologies and the spirit of innovation to meet the various objectives of sustainable development

Discover and understand the principles and challenges of sustainable development and acquire the theoretical bases and appropriate the concepts and tools of a sustainable development approach.

## **PREREQUISITES/ASSUMED KNOWLEDGE**

- The environmental difficulties of Tunisia
- The failure of the health sector in Tunisia
- The failure of the education system in Tunisia

## Outline of the lecture (15h)

Chapiter 1 (2h): General informations on sustainable development

Chapiter 2 (2h): Sustainable development measurement techniques

Chapiter 3 (2h): The quality of life approach

Chapiter 4 (3h): Management and economics of the environment and natural resources

Chapiter 5 (3h): Professional Skills Support and digital tools for sustainable development

Chapiter 6 (3h): Innovative Components for sustainable development

## References

- Rapport National Volontaire Sur la Mise en Œuvre des ODD en Tunisie (2020).
- Entreprises et développement durable, Edition E-Book (2008), Medef
- Environnement et Développement durable, De Boeck Supérieur s.a., (2015) 1re édition  
Fond Jean Pâques, 4 – B-1348 Louvain-la-Neuve, Olivier Godard
- Le développement durable, Enginering books/livres d'ingénieur 23 juillet 2019,  
Farid Baddache ·