



Visiting Professor Program Academic Year 2023/2024

TEACHING COMMITMENT: 12 hours

COURSE TITLE

Sustainable Polymers and Composites

TEACHING PERIOD

1st term

SCIENTIFIC AREA

Chemistry

LANGUAGE USED TO TEACH

English

COURSE SUMMARY

Sustainable polymers/composites in healthcare management.

Tentative Outline:

- Polymers in disease prevention, diagnosis, and treatment
- History & introduction
- Polymers/composites in disease prevention
- textiles,
- food packaging,
- personal cares
- Polymers/composites in early diagnosis of diseases
- biosensors for biomarkers sensing,
- imaging,
- wearable sensors

- Polymers/composites in disease treatment
- polymeric drugs; polymer conjugates
- polymeric drug/gene delivery systems
- smart drug delivery systems; pH-, temperature-, light,...-responsive polymers
- effect of size on the efficacy
- surface engineering
- Polymeric theranostics

LEARNING OBJECTIVES

To give to the students relevant information of the use of polymers and polymer composites in different fields of applications

TUTORSHIP ACTIVITIES

N/A

LAB ACTIVITIES

N/A

OTHER ACTIVITIES BESIDES THE COURSE

N/A

VISITING PROFESSOR PROFILE

Multidisciplinary expertise in material science, with particular referring to polymers and polymer composites in disease prevention, diagnosis, and treatment. International recognized experience in the fields of Nanobiosensor, Nanobiomaterials, Advanced Nanobiotechnology, Nanofood and Advanced Drug Delivery Systems.

FURTHER INFORMATION

Lessons and seminars could be held in co-presence with UNITO Professors.

CONTACT REFERENT

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