ABOUT THE PROGRAM

“Bio-Nano Material Science and Engineering” is a rational fusion of the disciplines of Nanotechnology and Bioengineering, which is truly interdisciplinary in nature. It is an emerging field in science and technology developing innovative materials, devices and processes, and creating wide range of opportunities encompassing physics, chemistry, biology, applied sciences, various engineering fields and biomedical technology. The program has a curriculum that is developed in collaboration with top researchers, industry experts and innovative educators that work in this field. The program is designed to address the needs of industry that require continuous development of their workforce and highly skilled leadership to direct and innovate research and development.

We are housed in the Department of Industrial Systems Engineering, School of Engineering and Technology (SET) and any student enrolled in this program will get a Master of Science (M. Sc.), Master of Engineering (M. Eng.) or Doctoral degrees from the School of Engineering and Technology in the Bio-Nano Material Science and Engineering field of study. Depending on backgrounds, students can choose one of the two Areas of Specialization:

▶ Nanoengineering
▶ Bio-Nanoengineering

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RESEARCH FOCUS AREAS

The Bio-Nano Material Science and Engineering program is designed to find technological solutions from the materials science and engineering perspective to address complex problems with a unique approach of unified understanding of the physical world from the nanoscale to the planetary scale. We do multidisciplinary research, inspired by nature and employing nanotechnology as a tool for innovation. Some of our current research topics are:

- Biosensors
- Plasmonic materials and opto-electronic devices
- Bio-inspired superhydrophilic/superhydrophobic surfaces
- Energy harvesting
- Antibiofouling
- Photocatalysis for air/water purification
- Biomimicry
- SERS design for biomedical applications
- Bio-markers
WHO CAN APPLY

The program is open to all Science & Engineering students who are currently studying or working or doing research in any of the following fields:

Science – any fields of physics, chemistry, biology or biochemistry, applied science, materials science, engineering sciences

Engineering – electrical, electronics, computer, telecommunication, chemical, mechanical, industrial, instrumentation, materials engineering, biomedical & other related fields

Professionals with experiences as teachers, lecturers, researchers from the above fields, data scientists, technology analysts etc.

WHAT WE OFFER

The program will enhance a student’s educational experience and career by offering:

A multidisciplinary learning environment

Integrated classroom-lab experience

Application-based curricula and research

Vision towards improving society through sustainable development

An international environment

Experienced faculty and staff

Access to opportunities in the job market

CONTACT US

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