**SP3277 Nanotechnology: from Research Bench to Industrial Applications**

This module is directed at senior undergraduates from Special Programme in Science, Nanoscience minor, Physics major, and Chemistry major. The objective of this course is to provide significant international exposure for students in the areas of science, technology, manufacturing and commerce with an emphasis on nanotechnology. It is also aimed at enhancing the understanding of cultural, business and governmental interactions and linkages with Japan. The module culminates in a 1-week study tour to Japan, where students will be visiting various labs and sites mentioned below, with the company of senior undergraduates from La Trobe University (Melbourne). Students will undertake a variety of learning activities done in collaboration with La Trobe students before, during and after the visit.

**Structure of the programme**

The NUS component of the module will take place in December 2018. During this period, the students will be:

- Attending seminars by nanoscience/nanotechnology researchers and industrial experts in preparation for the visit to Nanotech 2019
- Video-conferencing with La Trobe students whom will be participating in the study tour
- Working on nano-science related mini project in groups
- Visiting local research labs (e.g. IMRE) and/or relevant industries
- Attending talk/workshop on Japan-Singapore bilateral relation and Japanese social and business etiquette

The onsite component of the module will take place in Tokyo, Japan from 26 Jan to 2 Feb 2019 (AY18/19 Semester 2, Week 3). All students selected for the programme will be granted Leave of Absence (LOA) accordingly.

The study tour includes:

- Visit to University of Tokyo’s (Todai) Physics & Material Science facilities, including a tour of the JEOL joint research center in electron microscopy
- Visit to Tsukuba. Tsukuba is the "Science Park" of Japan. You will be visiting Japan’s national research laboratories, such as National Institute of Advanced Industrial Science and technology (AIST) and National Institute of Material Science (NIMS)
- Nanotech 2019 Exhibition and Conference at Tokyo Big Sight

**Eligibility Criteria**

- Students admitted from AY17/18 and before, from Special Programme in Science, Physics, or Chemistry; or from other major with a Nanoscience minor
• Students should have a clean disciplinary record
• Students who are not going for SEP in AY18/19 Semester 2

Other Information

Up to 15 students will be selected for this programme.

Credits to be earned from this programme/module is as follows:

• This is a graded, 4 MCs NUS module
• This module may be used to fulfil either the faculty requirement (Multidisciplinary or Interdisciplinary Science) or as an unrestrictive elective
• Students will receive the grade in June, together with the rest of Semester 2 results
• Students taking Nanoscience minor can use SP3277 to fulfil their Level 3000 requirement of the minor

Programme Application Procedure and Deadline

Application for 2019 is now closed.