Part-time Lecturer Position


This is an introductory course on solid state physics for the second year undergraduate students. The objective is to provide a theoretical framework for understanding the electrical, dielectric and magnetic properties of various materials. This course exposes the students to theories relevant to the engineering principles of various materials and devices. The materials design of an electronic or magnetic device is based on the understanding of these basic concepts.

Course content would include:

Classical theory of metal; Introduction to quantum mechanics; Modern theory of metals; Semiconductors and semiconductor devices; Dielectric materials; Magnetism and magnetic materials.

Learning outcome:

On completion of this course, the student will be able to:

- Understand the physics underlying the electronic and magnetic behavior of materials.
- Can apply the theories to estimate materials properties.
- Understand the operation mechanism of basic components of electronic devices, such as transistors and diodes.
- Appreciate the powerfulness of modern solid state physics.

Criteria

Bachelor’s degree with minimum 2 years of working/teaching experience in this field. A suitable Masters or PhD in any engineering field will be required. It will be an advantage if the applicant had prior undergraduate teaching experience in electronics and magnetism.

Due to the part time nature of this job, Singaporeans and Singapore Permanent Residents are preferred as candidates will not be able to get a work pass. Foreigners on dependent pass may apply.

To apply

Interested applicants should e-mail their application to fareez.rajaie@ntu.edu.sg by 29 March 2019. Application package should include a detailed CV listing their teaching and industry experience, as well as, student feedback on teaching from previous institutions, where possible.