Role Description for Demonstrators for ENGR10004 / ENGR10003

Engineering Systems Design 1 (ENGR10004) is a semester 1, first year engineering subject that introduces students to the world of engineering through completion of a semester-long group design project supported by interactive workshops and lectures. This subject centres on the engineering method, the approach to problem solving and engineering design that makes engineers unique. Students will be working on a semester long project that investigates alternative energy generation (wind power) and fluid mechanics. They will also be involved in giving a presentation and team work.

Engineering Systems Design 2 (ENGR10003) is a semester 2 subject that builds directly on Engineering Systems Design 1 but further developing understanding of the engineering method. Engineering Systems Design 2 focuses on inter-relationships in engineering system drawing on examples from lightweight structures and digital electronic circuits. Students work in groups to complete weekly tasks involving design of simple combinational logic circuits, lightweight structures and Matlab programming.

Each week there are 3 hours of lectures and one 3 hour workshop. Workshops have up to 60 students, with 2 demonstrators, one of which is designated as the lead demonstrator. The workshop is typically split into segments where at some stages demonstrators will conduct interactive teaching sessions and others where students will work through the design challenges under the guidance of the demonstrators.

Responsibilities

Demonstrators are required to prepare for and run these workshops and mark any associated assignments. Lead demonstrators are also required to complete extra administration such as recording attendance and group allocations for their workshops. Demonstrators are expected to have a good understanding of all of the material covered and be able to demonstrate how to solve all questions presented. Marking must also be conducted in a timely manner, typically being completed within one week of submission so that students receive rapid feedback on their work.

Payment hours for the workshop classes are allocated as follows:

- 3 hours demonstrating per class;
- 1-1.5 hours of preparation per week;
- Marking hours depending on assessments
- 0.5 hours admin for each lead class.

Repeat workshops include the demonstrating time but do not include further preparation time. Lead demonstrators get an extra half hour of admin time per class to compensate for additional duties.

There will also be preparation meetings held during the semester at the discretion of the lecturer/coordinator. These will be paid in addition to the normal hours listed above.

*Demonstrators running ESD1 in semester 1 may be expected to continue as demonstrator for ESD2 in semester 2.*

New demonstrators are required to attend a training session at the start or just before the start of semester.

Workshop Times

Provisional workshop times can be found at: