

**Department of Engineering
Operational Plan 2008**

This annual operational plan has been developed in consultation with departmental staff. It supports the CECS Strategic Plan 2006-2010

The Department of Engineering carries out undergraduate teaching, graduate education and research in advanced manufacturing, materials, robotics, semiconductors, solar energy, sustainable energy systems and telecommunications

Head of Department: Professor Andres Cuevas
Academic & Adjunct Staff: 23
General Staff: 18

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Aim

The aim of this plan is to provide a focus for activities undertaken by the Department to ensure high quality outcomes, improve our teaching and research activities, make our processes more effective and provide a road map for change.

Undergraduate Programs

- Aim towards a BE student load of 300 EFTSL and BE new enrolments of 150-200 students
- BE (R&D) new enrolment of 10-15 students
- Consolidate the R&D degree program. Seek accreditation.
- Adapt DoE teaching resources to increasing student numbers
- Apply for funds to upgrade teaching laboratories, both in space and equipment. In particular, upgrade the thermo-fluids lab.
- Review the Engineering Systems core of the BE program for delivery in 2009.
- Reorganise the first and second year courses in Electrical and Mechanical engineering.
- Continue the review the BE Engineering Majors.
- Consolidate the academic benefits of high profile student projects, as part of ENGN4221
- Continue working towards the accreditation of the BE programs in Singapore
- Explore the possible development of an industry sandwich program
- Seek new industry funded scholarships

Postgraduate Coursework Programs

- Maintain target EFTSL 30-40 ME (including ME(hons)).
- Work towards a College-wide consolidation of PG coursework programs.
- Undertake review of ME and ME(hons) program for delivery in 2009. Consider possible replacement for the TIMS course in the compulsory core.
- Explore opportunities for new Master programs tailored to the local industry.

Postgraduate research students

- Target 30-40 EFTSL total enrolment (including solar energy research students)
- Provide 5 partial scholarships to leverage other funds.
- Provide adequate office and computing facilities for postgraduate students
- Provide co-funding for conference travel and field work.

Research

- Work towards a College wide integration of research activities.
- Maintain inter-college research collaboration, particularly with RSPHYSSE and SMS.
- Target 8 ARC Discovery/Linkage Grant applications
- Produce the bi-annual DoE Research Report.
- Redistribute some IGS and RIBG income to support research activities in the Department.
- Plan and seek funding for the construction of an extension over back compound of the Engineering building.