

PROPOSAL FOR MUN STREAM MENG

BACKGROUND

Developing a brand new graduate program is risky. It generally needs new resources. Developing options within a program can also be risky. Options generally have their own distinct resource requirements. However, developing streams within an existing program has minimal risk. The requirements for each stream are basically the same. Students in each stream take the same number of courses but each stream has its own pool of courses. Each stream has a different focus.

DESIGN VS RESEARCH

Design is basically an attempt to create something. Research is basically an attempt to understand something. Each is a mix of applied science and mathematics. However, design is also an art. Most engineering projects contain elements of both design and research but there is always a focus on one of them.

STREAM MENG: THESIS

At most Universities, the focus at the graduate level is research. However, a significant number of faculty members do design work. It makes sense to have a thesis based MEng with Design and Research streams to accommodate both types of projects. A thesis based MEng with a design stream would recognize design and those who do it at the graduate level. It would implicitly imply that design is at least an equal of research.

STREAM MENG: COURSES

At most Universities, there is a course based Masters in Engineering Management. It generally has a 2 semester project course where each student has to develop a management plan for an engineering project. This Masters could be modified into a course based MEng with Management and Design streams. Like the management stream, the design stream would have a 2 semester project course where each student has to design something from a specific discipline. It would be a more elaborate version of the undergraduate capstone design project.

DEMAND

Several surveys of students and industry were recently conducted to gage interest in MEng programs with streams. The interest was very positive for both thesis based and course based programs. However, there was a stronger interest in course based programs. They are more structured and thus less risky, and they can be done part time. A thesis based MEng is difficult to do part time. So the thesis based MEng with streams would be mainly for full time students.

BENEFITS

MEng programs with streams are likely to attract more of our own BEng graduates and engineers from industry. Also, the design stream might produce patentable concepts so it might lead to new industries locally. Employers may be looking for MEng graduates with a design background so a design stream would enhance prospects for employment. It would also attract new funding. No other University seems to have an MEng program with streams so such a program would be unique and it would add to the reputation of MUN Engineering.