

## **CETL-MSOR Conference 2015**

### **Alun Owen and Mark Johnston: Experiences from setting up a new university mathematics programme from scratch.**

A recent (2014) report by the Further Mathematics Support Programme (FMSP) states that Mathematics is now officially the most popular A level with 88,816 entries in 2014 which represents a 75% increase since 2003. A level Further Mathematics numbers have also increased by 164% over this same period. Not surprisingly, applications to mathematics degree courses (G1) nationally and the actual numbers studying the subject have also grown significantly. The University of Worcester is one of the fastest growing universities in the UK having seen a two-fold increase in student numbers since 2006. Given the fundamental importance of mathematics in any university's course offer and the increase in A level mathematics entries, a natural step in the University of Worcester's development was the introduction of undergraduate mathematics courses. During 2014/2015 a newly formed mathematics subject group at the University have been designing new mathematics degree courses that begin with the launch of Joint Honours Mathematics in September 2015 and Single Honours Mathematics in 2016.

In this talk we describe the process and approach the Mathematics subject group have taken to create these courses, the aims and ethos of the courses, the issues we encountered, and also what we found from talking to employers regarding the importance they place on skills development as opposed to over-filling the curriculum with mathematics content.

In this talk, we will address some of the following issues:

- Why we started with Joint Honours and not Single Honours;
- How we collaborated with subject specialists from other "partner" subjects so that the Joint Honours courses have some degree of "integration";
- How we chose which "partner" subjects to focus on;
- How we managed to offer a course that allows the practical application of either mathematics or statistics to be the focus;
- How we approached the design of the courses to include transferable and practical skills through regular student presentations, posters, group work, peer learning and use of appropriate computer software embedded in all modules;
- Our plans for a final year "Poster Day";
- How we balanced skills development with also providing a credible level of core theoretical content within the time constraints imposed by Joint Honours;
- How we designed the Joint Honours courses with a view to adding to this to create a credible Single Honours course;
- How we managed tensions between the demands of teaching and assessment in mathematics, and the systems in place at a university that had no previous experience of this type of subject;
- Practical aspects to take into account when planning the course such as recruitment, timetabling, library stock, software, mathematics contacts within

the university, consultation with employers and existing students, and the need for an extremely supportive Head of School/Faculty/Institute;

- How we promoted the course through open days, but more importantly through schools and colleges, “Discover Days” at the University and other groups such as the Central Maths Hub;
- The wider role that a mathematics subject group plays in the life of a university and how we envisage our role developing in this respect..