



Relaunching the UCL–PLA Hydrographic Surveying MSc Programme

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September sees the re-launch of the Master's programme in Hydrographic Surveying offered jointly by University College London (UCL) and the Port of London Authority (PLA). It also marks 20 years since the original programme was first launched. So this seems a good moment to mark the anniversary and reflect on how the programme has changed and what we've had to do to ensure continued Category A accreditation by the IHO and its partner organisations.

First things first. The overall impetus for the programme is the same as ever. UCL is one of the world's leading universities, with an outstanding research and teaching record in geomatics; the Hydrographic Service of the PLA is one of the most innovative of such organisations in the world, with a fleet of advanced survey vessels and practising professional staff. Combine the teaching, research, professional and practical elements of the two organisations and you have a unique basis for delivering a hydrographic programme.

Originally, we offered a standalone one-year MSc in Hydrographic Surveying, which sat alongside other courses in geomatics in the same department and shared some lectures on fundamental subjects. From September 2019 we shall be offering a specialist route through a new general programme, so students will enrol for the MSc in Geospatial Sciences (Hydrographic Surveying). Why the change?

Partly a tidying-up exercise, but more importantly we're increasingly aware of what binds all the different strands of our profession – handling big data, processing point clouds, the mathematics and programming aspects of combining different data acquisition systems and software platforms. We have built the new programme around a solid central core of geospatial science and geospatial programming. We emphasise this as a feature of the programme, alongside the continuing importance of areas such as error theory, geodesy and coordinate reference systems, satellite positioning and navigation and, of course, the professional and practical input from the Port of London.

As well as our own internal reasons for re-organisation of the course, we have had to respond to the changing – and more stringent – requirements from the joint board of the International Hydrographic Organization (IHO), the FIG and the ICA in considering applications for Category A status.

One of the most significant aspects is the requirement for the final complex multidisciplinary field project that comes at the end of the taught part of the course. In the original version of the course this centred on a week's part-residential field course at the end of the second term, plus several individual days aboard survey vessels. In the new version of the programme, the individual boat days have been kept in support of the taught material, but they no longer form part of the final project. The latter now consists of several days of pre-planning before Easter, followed by a solid three-week block in May. This includes two weeks of residential field course followed by a week of post-processing and reporting work back at base. Some clever footwork has gone into shifting the exam timetable around, but this represents a very substantial increase in the amount of time spent on practical surveying work, and offers students a chance to get stuck into a complex project with many different aspects.

Alongside this, we have also increased the amount of time spent on basic seamanship. Students will follow an additional mini-module to the standard Master's programme on an *Introduction to Nautical Science*. The plan is for this to include personal survival certification as well as seamanship, and so prepare the students for collaboration with industry on individual projects and eventually for employment.

The FIG/IHO/ICA Category A accreditation of the new course was confirmed in November. It will therefore be offered from September this year. There have been quite a few tweaks and changes to get here, but hopefully we now have a programme that is fit for the next 20 years. If you're interested in collaborating with us, studying with us, or employing our graduates then please do get in touch.

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