Accreditation plays a crucial role both in the EU internal market as well as in trade with third countries, e.g. in the context of the EU Neighbourhood Policy. This is exactly the reason why the JRC has fostered education in this area and has been instrumental in creating a consortium of universities which offer an international master programme in Measurement Science in Chemistry, which received a Euromaster quality label. This consortium runs a summer school, which is truly unique in the world. It teaches students in Analytical Sciences what it means to work in an accredited laboratory.

This year’s seventh Measurement Science in Chemistry (MSC) Euromaster summer school took place at the Ecole Supérieure des Industries du Textile et de l’Habillement (ESITH), Casablanca, Morocco from 28th July to the 8th Aug. 40 students from 12 different countries (Belgium, Estonia, Finland, France, Malawi, Morocco, Poland, Portugal, Slovenia, Sri Lanka, Ukraine and Tunisia) had the opportunity to participate.

Topics related to quality assurance, such as traceability in chemical measurements, validation of measurement procedures in chemistry, evaluation of measurement uncertainty, statistics and statistical basis of calibration, ISO/IEC 17025 standard quality system and laboratory assessment
were given. The teaching methods range from lectures to case studies to project work as a team. However this year even more opportunities for flipped classroom learning were provided, specifically in the "accredited syrup laboratory" serious game, a new "article review" exercise, in the auditing workshop and a practice audit of a functioning accredited laboratory. Serious effort is spent ensuring that the students see the link between understanding a customer's requirements, the ensuing measurement procedure validation, providing measurement results with estimated uncertainties and proving their proficiency as a laboratory. This is done for e.g. in the "accredited syrup laboratory" serious game by student "companies" being formed (composed of people from different countries) who are asked to perform an analysis for a customer using an on-site analytical laboratory. The "company" who wins the contract for the measurements not only has to meet all of the customer requirements but also has to provide a report (comprising of the measurement procedure they used, the validation sub-report and the measurement results) as well as a convincing presentation of all of these aspects to the "customer".

Students learning is evaluated at the end of the summer school by means of an exam but follow up assignments are also provided. After successfully completing the assignments and tests, 12 ECTS can be awarded.

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