

MSC IN FRESHWATER QUALITY MONITORING AND ASSESSMENT

Programme Learning Outcomes

Programme Learning Outcomes for MSc (Freshwater Quality Monitoring and Assessment) (NFQ Level 9, Major Award)

On successful completion of this programme, students should be able to:

- Describe the steps involved in designing a monitoring programme and the different factors that must be considered in each step of the design.
- Recommend appropriate monitoring approaches and select appropriate monitoring stations for specific monitoring objectives;
- Select suitable methods for use in the field and laboratory and prepare the appropriate operating procedures;
- Explain how hydrological, ecological and chemical features of rivers, lakes, reservoirs and groundwaters might influence water quality and the interpretation of water quality monitoring data;
- Produce a quality assurance plan for a monitoring programme;
- Analyse monitoring data using a range of graphical, statistical and GIS-based approaches;
- Write a water quality assessment report suitable for technical and non-technical audiences.
- Plan, research, execute and oversee a substantial research project, critically analyse and interpret the data and effectively disseminate the results.