



PROJECT PROPOSAL FORM

Making the Most of Masters aims to improve collaboration between employers and universities by providing opportunities for masters students to undertake work based projects as an alternative to a traditional university dissertation. Projects should address a real need within the host organisation and be beneficial to both host and student.

The Marine Alliance for Science and Technology for Scotland (MASTS), pools the majority of Scotland's marine research capacity. MASTS members provide Masters courses in a range of marine related disciplines and many of their students are keen to undertake applied projects outside of academia.

Notes on Topic Selection

A relevant academic will work with your organisation to refine your proposed topic and ensure it meets both your needs and the academic requirements of the student. Projects should typically be achievable within a 12–16 week timeframe (including writing the final report).

Your proposed project could be:

- A specific project title or topic for the student to deliver;
- A general idea of a business need which requires further development;
- A core research theme to be developed by the student into a bespoke project;
- An intended outcome for the organisation.

The level of detail you provide will determine the extent to which further discussion may be required with the relevant programme director to ensure suitability.

Covid implications – the ongoing situation around Covid may suit desk-based/data studies that will easily facilitate remote working and remote supervision. If restrictions allow, in person projects are always welcomed.

What's Next?

Please send your completed form to the MASTS Programme Coordinator & Deputy Dean of Grad School, Dr Emma Defew (masts@st-andrews.ac.uk) before **16:00 on Friday 29th October 2021**.

Following submission of the form, it will be channeled to the leaders of the various Masters programmes that operate within the MASTS community and a representative from the most relevant programme or department will get in touch to discuss the project scope, delivery and the selection of an appropriate student. If more than one student expresses an interest in your project, discussions will take place to ensure the most suitable student is matched with your project. The projects themselves usually won't start until May or June.



Making the Most of Masters

MASTS - Making the Most of Masters – Project Proposal Form

Name and address of Organisation: NatureScot, Great Glen House, Leachkin Road, Inverness, IV3 8NW
Name of the key contact in Organisation: Chris Eastham
Contact e-mail and phone number: MARINECOASTALVOLUNTEER@nature.scot / 07425 929403
Title of proposed project: Automated classification of maerl imagery using deep learning
Project outline and intended outcomes: The aim of the project is to analyse the outputs of an automated classification of underwater imagery of maerl beds, so that the outputs can be used to assess the condition of maerl bed habitats in Scotland, and to assess the effectiveness of management measures in Marine Protected Areas. The project will involve conducting an accuracy assessment of the classification, analysis of the geometric characteristics of maerl pieces and percentage cover, and manual cleaning of automated outputs. This is a novel approach to be involved in, with direct application in marine nature conservation.
Any additional comments e.g. details of specific disciplines required, methods to be used, travel involved, where the work would take place (i.e. at the host site or at the University), whether you foresee any Intellectual Property or confidentiality issues (and if so, what form might these take?): Knowledge of automated image analysis. This project is desk based and will involve working closely with NatureScot staff.