Aquaculture & Sports Fisheries

Module

Specialist Project

Study

EQF

Level

5

Contact:

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Specialist Project Study

EQF level: 5

Credit value: 50

• Aim

This unit aims to develop learners' skills of independent enquiry and critical analysis through undertaking a sustained research investigation of direct relevance to their higher education programme and professional development.

• Unit abstract

In this unit learners will conduct an in-depth investigation into an aspect of their programme of study. This research may be developed from elements of the programme linked to the learner's individual interests or to areas where they may wish to seek future employment.

Completion of this unit will enhance learners' understanding of the techniques used in the formulation of research projects, typical research methodologies and formats of presentation.

Whether the methodology is experimental, observational and/or involves the collection of data from other sources, it will enable the production of significant primary data and encourage learners to be innovative.

This unit will also develop transferable skills in areas such as planning, data collation and handling, data analysis, working safely and communication skills in aspects such as report writing and data presentation.

• Learning outcomes

On successful completion of this unit a learner will:

1 Understand how to formulate a research specification

2 Undertake a research project

3 Evaluate research outcomes

4 Present a research project to relevant stakeholder/s

Unit content

1 Understand how to formulate a research specification

Formulate research specifications: rationale for project selection; aims and objectives; research questions and formulation of hypotheses; limitations

Factors affecting selection: methodology for data collection and analysis; literature review; critique of references from primary sources eg pilot studies, questionnaires, interviews; secondary sources eg books, journals, internet; scope and limitations; implications eg equipment and resources, health and safety considerations in practical work – potential hazards, assessment of risk, procedures for minimisation of risk

Critical review: access to key secondary texts, websites and other information sources

Project specification: suitability; skills and knowledge to be gained; aims and objectives; terms of reference; duration; ethical issues; type of research eg qualitative, quantitative, systematic, original; methodology; resources; statistical analyses; validity; reliability; control of variables; sources of error

Research plan: rationale for research questions or hypotheses; milestones; task dates; review

dates; monitoring/reviewing process; strategy

2 Undertake a research project

Implement: according to research design and method; health and safety equipment and procedures; test research hypotheses; consider test validity; reliability

Data collection: selection of appropriate tools for data collection; types eg qualitative, quantitative; systematic recording; methodological problems eg bias, variables and control of variables; required repetitions, if appropriate, to establish reproducibility; reliability and validity; correct use of appropriate units

Data analysis and interpretation: qualitative and quantitative data analysis – interpreting transcripts; coding techniques; specialist software; statistical tables; comparison of variable; trends; forecasting

3 Evaluate research outcomes

Results: establish validity; use of correct statistical techniques; sources of error identified

Evaluation of outcomes: overview of the successes and failings of the research project's processes and findings eg planning, aims and objectives, evidence and findings, validity, reliability, benefits, difficulties, conclusion(s)*Implications for future research*: significance of research investigation; application of research results;

implications; limitations of the investigation; improvements; recommendations and suggested areas for future research

4 **Present a research project**

Format: professional delivery format appropriate to the audience; use of appropriate media

Written structure: report conforms to appropriate academic format eg includes an abstract introduction, literature review, methodology, results, discussion, conclusion; references in appropriate format

Learning outcomes and assessment criteria

Learning outcomes On successful completion of this unit a learner will:	Assessment criteria The learner can:
LO1 Understand how to formulate a research specification	1.1 formulate and record possible research project outline specifications 1.2 identify the factors that contribute to the process of research project selection 1.3 undertake a critical review of key references 1.4 produce a research project specification 1.5 provide an appropriate plan and procedures for the agreed research specification
LO2 Undertake a research project	2.1 match resources efficiently to the research question or hypothesis 2.2 undertake the proposed research investigation in accordance with the agreed specification/procedures. 2.3 record and collate relevant data where appropriate
LO3 Evaluate research outcomes	3.1 use appropriate research evaluation techniques 3.2 interpret and analyse the results in terms of the original research specification 3.3 make recommendations and justify areas for further consideration
LO4 Present a research project	4.1 use an agreed format and appropriate media to present the outcomes of the research to an audience

Guidance

Links

This unit offers links with several other units from the programme area depending on the research project carried out and the learner's individual interests.

Essential requirements

Access to library resources appropriate to independent academic research at this level is essential. Learners will also need access to the internet and IT facilities, complete with statistical and presentational software packages. Learners must agree the use of resources with their supervisors to ensure that appropriate apparatus/equipment, training, health and safety considerations and permissions are all in place before beginning any practical activities.

Employer engagement and vocational contexts

Depending on the individual learner's interests and choice of research project, it may be possible for them to undertake research in conjunction with a business, organisation and/or work experience provider. This could enhance the learning experience by increasing the relevance of the research and improving a learner's employability skills.

Study abroad

The European Community has a program that enables students to study abroad. The program is called **Erasmus +**. The program starts in 2014. All participating partners in the different countries have to apply for student mobility in their own country. Information is given on the websites of the National Agencies