MSc Project guidelines

Aims:
The Project provides and opportunity for students to demonstrate their capacity for advanced independent learning and serves to develop students' critical skills and capabilities. The overarching aim is to develop the candidate's ability to make an innovative contribution to applied research within the discipline of Biomedical Science and to assess the candidate's ability to work independently in the pursuit of the analysis of a novel problem. In general, the project comprises a practical investigation of an appropriate subject. Focusing the project on the solution of an applied problem facilitates the identification of a suitable topic and the necessary data / analysis that is needed for successful completion.

Learning Outcomes:
On completion of this course, students will be able to:
- demonstrate originality in the application of knowledge and practical skills to the solution of a specific problem / problems;
- critically evaluate current research and advanced scholarship in the discipline;
- critically select, review and discuss scientific publications and documents relevant to the identified problem(s);
- understand and apply the principles of experimental design / procedures;
- manage and interpret a range of clinical or other relevant data;

Skills Learning Outcomes:
On completion of this course, students will be able to:
- demonstrate time management skills by working to deadlines;
- use library and web-based / electronic / IT resources effectively;
- develop independent learning skills, showing initiative and personal responsibility;
- critically evaluate, interpret and present data, including numerical data where appropriate;
- develop effective communication skills (including report writing and presentation) and to communicate conclusions clearly to specialist and non-specialist audiences;
- demonstrate self-direction and originality in tackling and solving problems and act autonomously in planning and implanting tasks at a professional level;
- deal with complex issues systematically and creatively

Indicative content:
Students are required to devise the initial concept for their project, and to produce a 'protocol' that summarizes the background and intended methodology. This is perceived as an element of self-development and the exercise of initiative and personal responsibility. If necessary and appropriate, however, suitable project areas may also be proposed by employers or by members of the supervisory team. There must be sufficient scope within the project for the student to demonstrate critical thought, creativity and independent work. In particular, the project topic should be chosen to enable students to demonstrate the following:

- the investigation, and if appropriate, the solution, of a real problem in 'biomedical science'
- a critical evaluation and appraisal of relevant published literature;
- the planning and design of a practical research project;
- a creative response to a novel 'problem';
- competence in the execution of the procedures;
- the ability to analyse and interpret results and draw reasoned, evidence-based conclusions.

It is expected that the project would be normally be carried out in the student's workplace, though in appropriate cases it may be carried out in the University's laboratories. If carried out in the workplace, employers / managers are expected to provide their employee with appropriate support mechanisms, so that the project may be effectively managed within the workplace environment. Appropriate interaction between workplace-based supervisors and university-based supervisors will occur, so that the project can be properly managed. In cases where it is necessary for assurance for confidentiality of the results to be given, sufficient information must be made available in order for the University's assessment and

examining procedures to occur. Where the project is carried out in the University's laboratories, the appointed supervisor(s) will be responsible for provision of relevant support and advice.

Learning and Teaching Activities:
Students will be assigned a University advisor / supervisor who will provide appropriate support and guidance during the conduct of the project. This supervisor will liaise with any workplace-based manager / supervisor, so that students are properly supported.

In addition to support and guidance provided directly by supervisors, students will be supplied with general written guidelines with regard to the expected structure of the project, but this may be modified if the subject matter so dictates. Guidance in terms of evaluation of research projects / publications, research methodology and statistical analysis will also be provided where necessary.

Assessment Details

Methods of Assessment	Grading mode	Weighting %	Minimum Pass Mark	Words Length	Outline Details
Thesis		100	50%	7,500	Assessment is based on the written report submitted.

Indicative Texts:

ISBN No	Author	Date	Title	Publisher
0727915789	Greenhalgh T	2000	How to Read a Paper: The Basics of Evidence Based Medicine	BMJ Books
0566084902	Howard K, Sharp JA, Peters, J	2002	The Management of a Student Research Project	Gower Publishing Ltd
0471987212	Campbell MJ & Machin D	1999	Medical Statistics: a common-sense approach. 3rd Edition	Wiley
0131888552	Alley M	1996	The Craft of Scientific Writing 3rd Edn	Springer
072791099x	Kinloch I	1996	The Pocket Guide to Critical Appraisal	BMJ Books

Normally, it is expected that journals will form the primary literature sources. These will be appropriate for the subject matter of the project.