



PRIFYSGOL CYMRU

Y Drindod Dewi Sant

UNIVERSITY OF WALES

Trinity Saint David

SWANSEA - ABERTAWE

UNIVERSITY OF WALES: TRINITY SAINT DAVID
PRIFYSGOL CYMRU: Y DRINDOD DEWI SANT

School of Applied Computing

Major Project CSAC6000

MODULE CODE: CSAC6000

TITLE: Major Project

LEVEL: 6

CREDITS: 40

AIM(S)

- To provide an opportunity for the student to develop and demonstrate their ability to manage a significant project of their own choice, related to the major themes of their chosen course.

LEARNING OUTCOMES

Upon the successful completion of this module, the student should be able to demonstrate the ability to:

1. Evaluate critically the literature pertaining to a problem.
2. Select and apply relevant research and/or development methods and techniques from the evidence gathered in order to solve the problem.
3. Produce a deliverable applicable to the project type.
4. Generate and justify appropriate results and conclusions, demonstrating awareness of the limitations of the research and the impact on sustainability.
5. Produce an organised and structured document that adheres to academic convention.
6. Present the findings of the study to a specialist audience.
7. Demonstrate transferable skills to show organised work as an individual with minimum guidance.

INDICATIVE CONTENT

- Overview of research and development methodologies suitable for student projects.
- Overview of common statistical techniques
- Visualisation of different data types
- Ethical issues
- Sustainability issues
- Establishing and justifying metrics, analysis of test results e.g. including software benchmarking,
- Contingency planning
- Development of documentation for academic projects
- Presentation of work produced to an academic audience
- Subject-specific content as required

LEARNING AND TEACHING STRATEGY

Students will commence their Level 6 studies with a project proposal already formulated. For continuing students, this proposal will normally be generated as an outcome of the level 5 module Research. Direct entrants to level 6 will receive guidance and support prior to the start of the academic year.

All proposals will be reviewed by the Project Co-ordinator. The project selected must be appropriate to the themes of the student's programme of study, and meet ethical and sustainability guidelines.

Based upon the proposal, each student will be allocated an individual supervisor. A nominal assessment type will be agreed at the start of the project:

- Survey-based
- Review-based
- Experimental-based
- Development-based

It is expected that BIT students would undertake Survey- and Review-based projects, CNETs students would undertake Experimental-based projects, Mobile, Games, SE etc would undertake Development-based projects, while Engineering students would undertake Experimental- or Development-based project. However, it is not impossible that a student from a more technical stream could conduct a Review-based project, or a BIT student could conduct a Development-based project. Situations such as these will be carefully considered by staff to ensure that the project selected is appropriate to the themes and outcomes of the student's programme and the students advised accordingly.

NB: In the case of Computing Portfolio students, in order to achieve BCS accreditation, the projects selected must be appropriate to the themes of the programme. SE and Games students must conduct an Experiment- or Development-based project in order to fulfil the BCS conditions for partial CEng credit.

Should the focus of a student's project significantly change as the module progresses, it may be possible to change the assessment type on the advice of the supervisor and the Project Co-ordinator.

The student will be required to work on their own initiative in the production of the project and all associated documentation. The supervisor will provide support and guidance to the student. Additionally, a project handbook will be issued.

A series of lectures will be provided during the first semester to cover the material defined within the indicative content and other relevant topics, and to provide general support to students in preparing for assessment milestones. Direct-entry students will also be expected to attend a condensed version of the Research Methods module prior to beginning this module.

The student's supervisor and one other member of the academic staff with knowledge of the project's topic area will assess the work. See below for assessment.

The proposed arrangements for marking projects are:

- The supervisor will act as the first marker for all projects for which they have supervisory responsibility.
- A different member of the academic staff of the university will second-mark projects.

- The two markers will mark the projects independently and then agree a consensus mark. If the two markers cannot agree, or the two marks are not within 10 points of each other, a third marker will be assigned. All markers will need to agree a final mark.
- All projects to be made available to External Examiner(s).
- All third-marked projects will be seen by the External Examiner(s).
- The student will be required to undertake an interim *viva voce* at approximately a halfway point through the module and a final *viva voce* at the end of the module. Present at a *viva voce* will be the student's supervisor plus at least one other member of Academic Staff. The *viva voce* consists of a fifteen minute presentation by the student about their project, followed by a question and answer session where the student will have the opportunity to demonstrate their knowledge of the work undertaken, and to identify issues that may have been omitted from the final submitted document. Non-attendance at a *viva voce* will normally result in failure of the module.

The allocation of teaching to deliver the module is:

Activity type	Hours	Percentage
Scheduled learning	25	6%
Independent learning	375	94%
Placement learning		
TOTAL	400	100%

Note: Each student is allocated 20 minutes for an individual supervision per week. Based on a 30 week year, each student receives 10 hours individual tuition. This should be factored into the resources required for delivering this module.

ASSESSMENT

Description of each assessment component and its weighting, together with an example for new forms of assessment:

Assessment Component 1 – Practical - 15% - Interim Viva

Individual presentation. This milestone enables the student's progress to be checked and evaluated to ensure that they are on-course to complete their project. Feedback can be provided and adjustments can be made to the project at this stage.

	Survey	Review	Experiment	Development
Knowledge and Understanding of Subject				
Response to Questioning	20	20	20	20
Research-informed Literature				
Literature Review (level of progress, suitable synthesis of background material completed)	40	40	40	40
Analysis				
Discussion of Findings	20	20	10	10
Practical Application and Deployment				
Code examples/prototypes/demo	-	-	10	10
Skills for Professional Practice				
Project Plan	10	10	10	10
Quality of Presentation	10	10	10	10
TOTAL	100	100	100	100

Assessment Component 2 – Coursework - 55% - Final Report

Software development portfolio. The type of project undertaken by the student depends on the programme being studied and on agreement with the project supervisor. Four types of project are defined, Survey, Review, Experiment and Development. Different assessment weightings have been allocated to these projects according to the nature of the deliverable expected. Therefore, Experiment and Development projects where the deliverable is typically an implementation, design, simulation, etc., have assessment that has been weighted more towards this emphasis. Whereas, Survey and Review projects have assessment weighted more towards literature research and written analysis of results.

	Survey	Review	Experiment	Development
Research-informed Literature				
Introduction	5	5	5	5
Literature Review	20	35	20	15
Knowledge and Understanding of Subject				
Methodology	5	5	5	5
Survey Design	15	-	-	-
Requirements/Design	-	-	-	5
Analysis				
Results & Discussions	25	25	25	25
Conclusions and Recommendations	10	10	10	10
Practical Application and Deployment				
Development	-	-	-	15
Experimental Design	-	-	15	-
Skills for Professional Practice				
Reflection	10	10	10	10
Quality of Report	10	10	10	10
TOTAL	100	100	100	100

Assessment Component 3 – Practical - 20% - Final Viva/Demo

Individual presentation. During this final stage the student is required to demonstrate their project to both markers. This enables authentication of the work to ensure it's that of the student by providing an opportunity for close questioning of the deliverable. In addition, the markers will verify that the deliverable performs as indicated in the final report to allow marks to be adjusted accordingly. The presentation requires the student to defend their work in a formal setting before both markers. For students completing a survey or review, an extended viva is used to allow the student to provide a more in-depth justification for research approach, analysis and findings.

	Survey	Review	Experiment	Development
Knowledge and Understanding of Subject				
Response to Questioning	30	30	30	30
Analysis				
Discussion of Findings	50	50	25	25
Practical Application and Deployment				
Demo	-	-	25	25
Skills for Professional Practice				
Presentation Style	10	10	10	10
Supporting Materials	10	10	10	10
TOTAL	100	100	100	100

Assessment Component 4 – Coursework – 10% - Exhibition board

Individual presentation. The exhibition affords students the opportunity to develop their personal self promotion skills and encourage an entrepreneurial attitude towards their work. This will also be used to encourage students to publish their findings, and to promote their work to potential employers.

	Common to all project types
Knowledge and Understanding of Subject	
Clarity of Technical Description	50
Skills for Professional Practice	
Quality of Visual Display	50
TOTAL	100

Assessment Summary

Activity type	Percentage
Written	
Coursework	65%
Practical	35%
TOTAL	100%

BIBLIOGRAPHY

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Journals

Appropriate journals from the core subject areas.

Websites

Appropriate websites from the core subject areas.