

DEPARTMENT OF COMPUTER SCIENCE AND TECHNOLOGY
COURSEWORK ASSESSMENT DESCRIPTION 2021/22

MODULE DETAILS:

Module Number:	600088	Trimester:	1
Module Title:	Virtual Environments		
Lecturer:	Dr Xinhui Ma		

COURSEWORK DETAILS:

Assessment Number:	2	of	2
Title of Assessment:	Simple Virtual Environment – Experimental Study Implementation		
Format:	Report	Demo	Presentation
Method of Working:	Group		
Workload Guidance:	Typically, you should expect to spend between	40	and 80 hours on this assessment
Length of Submission:	This assessment should be no more than: (over length submissions will be penalised as per University policy)		
	2000 words (excluding diagrams, appendices, references, code)		

PUBLICATION:

Date of issue:	25/10/2021, Monday
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SUBMISSION:

ONE copy of this assessment should be handed in via:	Canvas	If Other (state method)	
Time and date for submission:	Time	2pm	Date 03/12/2021, Friday
If multiple hand-ins please provide details:	See schedule in the assignment description below		
Will submission be scanned via TurnitinUK?	No	If submission is to be scanned by Turnitin, these should be one of the allowed types e.g. Word, RT, PDF, PPT, XLS etc. Specify any particular requirements in the submission details Students MUST NOT submit ZIP or other archive formats unless specified. Students are reminded they can ONLY submit ONE file and must ensure they upload the correct file. Normally only the LAST submission will be considered (and if late incur a late penalty).	

The assessment must be submitted **no later** than the time and date shown above, unless an extension has been authorised on a *Coursework Extension Form*: see the Canvas site:
Help&Support > Student Forms

MARKING:

Marking will be by:	Group
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ASSESSMENT:

The assessment is marked out of:	100	and is worth	60	% of the module marks
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N.B If multiple hand-ins please indicate the marks and % apportioned to each stage above (i.e. Stage 1 – 50, Stage 2 – 50). It is these marks that will be presented to the exam board.

ASSESSMENT STRATEGY AND LEARNING OUTCOMES:

The overall assessment strategy is designed to evaluate the student's achievement of the module learning outcomes, and is subdivided as follows:

LO	Learning Outcome	Method of Assessment {e.g. report, demo}
3	<i>Implement a virtual environment using technologies applicable to the problem domain.</i>	Demo
4	<i>Use a virtual environment to conduct a user test, analyse and report on [the] results.</i>	Report/Demo

Assessment Criteria	Contributes to Learning Outcome	Mark
See table below	4	20
	3	80

FEEDBACK

Feedback will be given via:	Marksheet	Feedback will be given via:	Verbal (via experimental design meeting)
Exemption (staff to explain why)			
Feedback will be provided no later than 4 'teaching weeks' after the submission date.			

This assessment is set in the context of the learning outcomes for the module and does not by itself constitute a definitive specification of the assessment. If you are in any doubt as to the relationship between what you have been asked to do and the module content you should take this matter up with the member of staff who set the assessment as soon as possible.

You are advised to read the **NOTES** regarding late penalties, over-length assignments, unfair means and quality assurance in your student handbook, which is available on Canvas.

In particular, please be aware that:

- Up to and including 24 hours after the deadline, a penalty of 10%
- More than 24 hours and up to and including 7 days after the deadline; either a penalty of 10% or the mark awarded is reduced to the pass mark, **whichever results in the lower mark**
- More than 7 days after the deadline, a mark of zero is awarded.

- The overlength penalty applies to your written report (which includes bullet points, and lists of text. It does not include contents page, graphs, data tables and appendices). 10-20% over the word count incurs a penalty of 10%. Your mark will be awarded zero if you exceed the word count by more than 20%.

Please be reminded that you are responsible for reading the University Code of Practice on Academic Misconduct through the Assessment section of the Quality Handbook (via the SharePoint site). This governs all forms of illegitimate academic conduct which may be described as cheating, including plagiarism. The term 'academic misconduct' is used in the regulations to indicate that a very wide range of behavior is punishable.

In case of any subsequent dispute, query, or appeal regarding your coursework, you are reminded that it is your responsibility to produce the assignment in question.

Description of assessment task.

The assignment is to implement a pilot study designed in Assignment 1.

The deliverables of the assignment and the mechanism for submitting these are outlined below.

0 Covid-19 Restrictions.

Using a VR/AR headset and maintaining safe precautions against the spread of the Covid 19 virus presents a risk to a user and a challenge if cleaning is required. The majority of your development should be done using a monitor and mouse. VR headsets will be available to test your application in the laboratories, and limited loan sets are available. These should be cleaned before and after sharing. If you are unable to test on a VR headset due to not being near the campus or not having access to a headset you should develop your application for a phone based cardboard system, however this should be avoided if possible due to the limitations this imposes on the implementation.

1 Design of the experiment and plan of implementation.

This should be in the form of a single page implementation plan that will outline the software to be developed, the hardware to be used, the number of subjects to be tested and the statistical analysis to be applied. This will be evaluated, marked and feedback given during the laboratory session in teaching week 8.

Marks available 20/100

2 Implementation of the test environment.

You will need to develop a test environment for your study. This will probably involve developing some software however could use software and hardware that is already available. A brief description of the experimental environment must be given in the form of a single page technical description and a demonstration of the product. This must be delivered and demonstrated during the laboratory session in teaching week 9.

Marks available 30/100

3 Collecting test data.

A sample set of data should be taken using the test environment you have developed a description of the data should be given in the final presentation.

Marks available 10/100

4 Data Analysis

The data collected should be presented in an appropriate form and a simple analysis performed. You should describe the data you have collected, state the variables and if possible perform a t-test on the data to assess its significant. You should present a summary of your results, this should be written up as a brief report of around two pages, and your results must also be presented to the group.

The results summary must be submitted, along with your single page experimental plan and design environment report on or before the final deadline day.

The final presentation will be during the laboratory sessions in the week 11 and 12.

Marks available for data report 20/100
Marks available for final presentation 20/100

The following grid will be used when marking.

Implementation	Excellent Implementation	Good/Average	Below average/ Poor
Design of the experiment and plan of implementation.	A thoroughly designed and planned experiment that is achievable and has the potential to deliver significant results 20-12	A well designed experiment that may have minor shortcomings in the delivery and planning 12-7	A study that has very little chance of success due to unrealistic implementation plan or poorly understood experimental design, 6-0
Implementation of the test environment.	A thorough description of the experimental environment and evidence that this has been developed and can meet the objectives of the experimental design. 30-20	A good description of the testing methods and procedure but may be missing part of the implementation or have vague or incomplete configuration. 20-10	Testing methods and procedure are poorly developed and not in a form ready to carry out the experimental part of the assessment. 10-0
Collecting test data.	A full set of data collected, 10-7	A partial set of data that should be complete but may be lacking numbers 6-4	An incomplete data set. 4-0
Data Analysis report	The data tests have been performed. What control data or comparison data is outlined and the statistical tests performed are justified. 20-12	The data collected is described and justified but information on the control group and/or the statistical test is not justified or described. 12-7	The data collected has been described but not justified and there are inaccuracies or discrepancies in the statistical analysis proposed. 7-0
Final presentation	Well-presented experimental design with results shown graphically in an appropriate form. Data analysis presented and justified with a suitable conclusion and summary. 20-12	Results and experimental data presented with some deficiencies in the data analysis or conclusion. 12-7	Presentation covers the basic areas but contains errors or inaccurate analysis. No conclusions and incorrect or missing data presentation. 7-0
