

## MODULE SPECIFICATION

Please contact your College Learning and Teaching Team for guidance completing this form:  
 Colleges of Arts & Social Sciences and of Business & Law – [cass-tandlteam@salford.ac.uk](mailto:cass-tandlteam@salford.ac.uk)  
 College of Health and Social Care – [chsc-teaching@salford.ac.uk](mailto:chsc-teaching@salford.ac.uk)  
 College of Science and Technology – [cst-tl@salford.ac.uk](mailto:cst-tl@salford.ac.uk)

This form is available to download from [http://www.governance.salford.ac.uk/page/aqa\\_forms](http://www.governance.salford.ac.uk/page/aqa_forms)).

Date of completion of this version of Module Specification: 12/01/2016				
Date of approval by the USP: 26/01/2016				
1. Module Title: (Full title and short title no more than 30 characters) Physics Laboratory			2.CRN: 33099 (S4)	
3.University module code: F300 20036		4.HESA/JACS subject area code <sup>1</sup> : F300		
5.Level: Level 5	6.Credit Value: 20	7.ECTS Value <sup>ii</sup> : 10	8.Length of module in semesters: 2	9.Month(s) in which to be offered <sup>iii</sup> : September
10.Module Status <sup>iv</sup> Existing	11.Title of Module being replaced ( <i>if any</i> ):		12.With effect from <sup>v</sup> (academic year): September 2016	
13.Originating School: School of Computing, Science & Engineering		14.Module Leader(s) Dr John Proctor		
15.Programme(s) in which to be offered <sup>vi</sup> :  BSc (Hons) Physics BSc (Hons) Physics with Professional Experience BSc (Hons) Physics with Acoustics BSc (Hons) Physics with Acoustics with Professional Experience BSc (Hons) Pure & Applied Physics BSc (Hons) Pure & Applied Physics with Professional Experience MPhys (Hons) Physics MPhys (Hons) Physics with Professional Experience MPhys (Hons) Physics with Acoustics MPhys (Hons) Physics with Acoustics with Professional Experience MPhys (Hons) Physics with Studies in North America				
16.Pre-requisites ( <i>between levels</i> ):		None	17.Co-requisites ( <i>within a level</i> ): None	
18.Indicative learning hours (breakdown of hours required) <sup>vii</sup> 200				
Lecture	3	Fieldwork		
Seminar		External visits		
Tutorial		Work based learning		
Project supervision	44	Guided independent study		105
Demonstration Practical classes and workshops	48	Placement		
Supervised time in studio/workshop		Year abroad		
Other – please specify <sup>viii</sup>				
19.Percentage of module taught by School(s) other than originating School: 0%				

20. Aims of Module<sup>ix</sup>: (maximum of 5)

To build on the Level 4 Laboratory with the intention of providing breadth and depth in:

- development of good experimental technique
- development of good knowledge acquisition and analytical technique
- development of physical principles associated with electrons and physics
- development of team-work skills within the context of project-based experiments
- development of good report writing skills

21. Intended Learning Outcomes<sup>x</sup>

Knowledge and Understanding (maximum of 5)<sup>xi</sup>

On successful completion the student will be able to:

1. demonstrate good experimental technique and planning
2. understand the factors affecting team-based project experiments
3. critically assess experimental data
4. demonstrate good report writing skills.

Transferable/Key Skills and other attributes (maximum of 5)

On completion the student will have had the opportunity to:

5. demonstrate communication through written material and oral presentations
6. demonstrate problem solving skills
7. demonstrate key analytical and numerical skills

22. Module mark calculation: Method A

23. Assessment components (in chronological order of submission/examination date)

Denote final assessment component in box marked **final assessment component (99)**

Type of assessment	Identify which ILO is met by number <sup>xii</sup>	Weighting %	Duration	Word count	Component pass required <sup>xiii</sup>	E Submission	Assessment organised by
Portfolio 1 (Practical Laboratory Skills and Report)	1,3,4	50			No	Yes	School
					Choose an item.	Choose an item.	Choose an item.
<b>Final assessment component (99)</b> Portfolio 2 (Group Project, Report and Presentation)	1,2,3,4	50			No	No	School
24. Is ethical approval for the module required?	No		25. Is ethical approval for an assessment component required? <sup>xiv</sup>		No		

26. Learning, teaching and assessment strategies:

Semester 1

Students attend Laboratory classes every week and are expected to carry out experiments, record data and carry out analysis on the data. A log-book is submitted from each experiment for assessment, in addition to a formal report, in the form of a scientific journal publication for one of the experiments.

Verbal feedback is offered in the laboratory sessions, with written feedback being provided in the log-book for each experiment and for draft versions of the report.

Semester 2

Students work as a group on an open-ended, practically-based project for the whole semester, groups report on a

weekly basis to the academic in charge to review the project and update tasks for the coming week. The group makes a formal presentation of the project including a demonstration at the end of the semester.

Verbal feedback is offered during the set laboratory sessions to enable students both to gauge their progress and to revise project planning, where necessary. Written feedback is provided for draft versions of the report. Verbal feedback is given for the final project presentation and posters, which are presented at a mock conference at the end of year.

27. Syllabus outline:

### Laboratory (S1)

Students will have one long laboratory class each week in the undergraduate laboratories, learning more advanced experimental procedure and data analysis.

### Group Project (S2)

Students will work in groups on a physics based design, build and demonstrate exercise. Assessment will be done throughout the semester based on observation of the group in action.

28. Indicative texts and/or other learning materials/resources<sup>xv</sup>:

After initial approval, up to date reading lists can be accessed at <https://salford.rl.talis.com/index.html>

**Note:** This replaces the LaSU reading lists from September 2015 onwards.

For Office Use only:

Teaching and Learning Team Comments:	
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- i See UoS guidance notes on selecting JACS codes ([http://www.planning.salford.ac.uk/jacs\\_codes/](http://www.planning.salford.ac.uk/jacs_codes/)) see HESA JACS Codes webpage <http://www.hesa.ac.uk/index.php/content/view/full/356/233/>
- ii The ECTS value is half of the module credit value
- iii Please indicate the month (s) in which delivery of the module will commence.
- iv Amendments to the title or credit value constitute a new module.
- v If the delivery month of the module is to be available for different intakes of a programme, please indicate this here. E.g. Module effective from Sept 2014 – to state the module is to be available for Sept 2014 intake & Feb 2014 intake.
- vi The module will only be attached to programmes specified in this section. Any approved module can be available as a stand-alone module.
- vii These categories are used for the Key Information Set which currently applies only to full time undergraduate students only but please include for all students – for more information including definitions see [http://www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/contact\\_hours.pdf](http://www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/contact_hours.pdf) and [http://www.hesa.ac.uk/component/option,com\\_studrec/task,show\\_file/Itemid,233/mnl,13061/href,Calculations\\_methods.html/#LearningandTeaching](http://www.hesa.ac.uk/component/option,com_studrec/task,show_file/Itemid,233/mnl,13061/href,Calculations_methods.html/#LearningandTeaching)
- viii The 'other' category should not be used for learning undertaken by full undergraduate students as 'other' is not used in KIS categories
- ix The aims should express the purpose of the module.
- x The intended learning outcomes should detail the knowledge, understanding and skills that students will be able to demonstrate on successful completion.
- xi In some circumstances it may be necessary to have more than 5 intended learning outcomes. You will be asked to provide your rationale for this in discussion at the USP.
- xii For example, if the assessment is an essay and the essay meets ILOs number 1-4 and 6-7, state 1-4,6-7
- xiii If Method B is used for module mark calculation, indicate Yes to specify the assessment component(s) to be passed in order to pass the module
- xiv Please specify component(s) for which ethical approval is required.
- xv The "Indicative texts and/or learning materials/resources" box should include a maximum of five items for new modules. These should be formatted using the University's agreed referencing style for the subject area (usually APA Harvard System 6<sup>th</sup>). See [http://www.salford.ac.uk/library/infolit/tool#referencing\\_tab](http://www.salford.ac.uk/library/infolit/tool#referencing_tab) for more information. The texts should normally be recent texts (i.e. within the last six years) unless they are a particularly "classic" text. For existing modules, the "Indicative texts and/or learning materials/resources" box should include a link for USP reviewers and readers to the comprehensive reading list at <http://lasu.salford.ac.uk>