MODULE SPECIFICATION

Part 1: Information			
Module Title	Practical Skills for Biomedical Science		
Module Code	USSJYS-15-M	Level	Level 7
For implementation from	2021-22		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Health & Applied Sciences	Field	Applied Sciences
Department	HAS Dept of Applied Sciences		
Module Type:	Standard		

Pre-requisites	None
Excluded Combinations	None
Co-requisites	None
Module Entry Requirements	None
PSRB Requirements	None

Part 2: Description

Educational Aims: See Learning Outcomes

Outline Syllabus:
Practical skills that will be covered include but are not limited to:

Pipetting – accuracy and precision, especially with small volumes

Making solutions – with underlying principles of molarity, pH, buffering

Preparations of serial dilutions

Aseptic technique

Basic tissue culture skills

Basic microtomy and histological slide preparation

Staining techniques in microbiology, haematology and cellular pathology

PCR and related techniques

Safe operation of a range of basic laboratory equipment – including awareness of health and safety related to the equipment

Clearing away and disposal processes for research laboratories

Application of mathematics and statistics as appropriate to the practical task

Working to own limits of practice and competency assessment

Practicals will be designed to include several techniques in each session to prepare students for their project module that follows. Laboratory etiquette and good practice will be emphasised throughout sessions.

Teaching and Learning Methods: 12 x 3 hours of practicals (36 hours)

This module is a practical module, and all teaching activity will be laboratory based, with supporting material given orally during practicals, and supporting documents and videos being provided on the VLE that supports the module.

As students on this module will have a range of abilities dependent on their undergraduate experience (and work experience where relevant) practicals are designed to enable students to work at their own pace, but to ensure that by the end of the module all students have reached a level of competency in the range of practical skills covered.

Students will also be involved in the assessment of their own and each other's competency in a basic laboratory technique.

Part 3: Assessment

This is first semester laboratory-based module. All of the independent study hours (114 hours) for this module are associated with the preparation for the assessments; there is no unseen exam or assessment that would require reading around topics. These assessments are also all designed to underpin and develop skills needed for assessments later in the programme.

As this is a core module the assessments are taken by all students on the programme. The poster presentation is a core skill for early career scientists. The DOPS (direct observation of practical skills) assessment is a training and education associated skill that early career biomedical scientists in the NHS need to be practiced in. The practical report provides the students with the opportunity to practice the skill set required for the final project report and receive feedback on those skills before writing the final project report.

First Sit Components	**Final Assessment**	**Element weighting**	**Description**
Poster - Component A	✓	60 %	Poster presentation of practical experiment (20 minutes including defence) and associated report of direct observation of practical skills (DOPS) (1000 words) Poster defence 70% of mark, DOPS 30% of mark
Report - Component B		40 %	Written report of practical experiment (1500 words)
Resit Components	**Final Assessment**	**Element weighting**	**Description**
Poster - Component A	✓	60 %	Poster presentation of practical experiment (20 minutes including defence) and associated report of

			direct observation of practical skills (DOPS) (1000 words) Poster defence 70% of mark, DOPS 30% of mark
Report - Component B		40 %	Written report of practical experiment (1500 words)

Part 4: Teaching and Learning Methods

Learning Outcomes

On successful completion of this module students will achieve the following learning outcomes:

Module Learning Outcomes	Reference
Produce a written practical report to the standard expected of a masters level student	MO1
Demonstrate the appropriate application of statistical analysis to a data set generated in the laboratory setting	MO2
Present a poster of their practical report to the norms of a scientific conference poster presentation	MO3
Understand their need to demonstrate competency of practical skills, and have assessed their own and others	MO4

Contact Hours

Independent Study Hours:	
Independent study/self-guided study	114
Total Independent Study Hours:	114
Scheduled Learning and Teaching Hours:	
Face-to-face learning	36
Total Scheduled Learning and Teaching Hours:	36
Hours to be allocated	150
Allocated Hours	150

Reading List

The reading list for this module can be accessed via the following link:

https://uwe.rl.talis.com/modules/ussjys-15-m.html

Part 5: Contributes Towards

This module contributes towards the following programmes of study:

Biomedical Science [Sep][FT][Frenchay][1yr] MSc 2020-21

Biomedical Science (Medical Microbiology) [Sep][FT][Frenchay][1yr] MSc 2020-21

Biomedical Science (Medical Genetics) [Sep][FT][Frenchay][1yr] MSc 2020-21

Biomedical Science (Immunology) [Sep][FT][Frenchay][1yr] MSc 2020-21

Biomedical Science (Haematology) [Sep][FT][Frenchay][1yr] MSc 2020-21

Biomedical Science (Clinical Biochemistry) [Sep][FT][Frenchay][1yr] MSc 2020-21

Biomedical Science (Cellular Pathology) [Sep][FT][Frenchay][1yr] MSc 2020-21