University of the West of England
BRISTOL

ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data						
Module Title	Diagnostic and professional practice in Healthcare Science					
Module Code	USSKMB-30-2		Level	2	Version	1
UWE Credit Rating	30	ECTS Credit Rating	15	WBL module?	No	
Owning Faculty	Health and Applied Sciences		Field	Applied Sciences		
Department	Applied Sciences		Module Type	Professional Practice		
Contributes towards	BSc Healthcare Science (Physiological Science)					
Pre-requisites	None		Co- requisites	*None*		
Excluded Combinations	None		Module Entry requirements	*None*		
First CAP Approval Date	July 2016		Valid from	September 2016		
Revision CAP Approval Date			Revised with effect from			

Review Date	September 2022

Part 2: Learning and Teaching	
Learning Outcomes	On successful completion of this module students will be able to demonstrate standards of behaviour and practice that must be achieved and maintained as a Healthcare Science Practitioner in the following domains: Knowledge and understanding • Demonstrate knowledge, understanding and confidence in application of the core skills, including communication skills, management and quality assurance [A1] • Apply scientific and clinical principles from academic modules to practice [A1] • Identify the interaction of Healthcare Science professions, including cross-division and cross specialism, and how this assists with patient involvement and care [A1,B1] • Outline the policy context (political, social, professional) that advocates interprofessional / inter-agency collaboration [B1] • Discuss the legal and ethical boundaries of the healthcare science profession [A1] • Analyse the challenges experienced as a professional and the skills required in facilitating a collaborative approach to improving the service and experience for patients and public (service users and carers) [A1,B1] • Demonstrate an understanding of the basic instrumentation and medical physics used within diagnostic services [B2] • Evaluate the risks and benefits related to equipment and techniques (B2)

	• Demonstrate safe and precise technical skills (A1) • Use appropriate terminology (A,B) • Develop and demonstrate problem-solving and analytical skills (A,B) Associated Personal Qualities and Behaviours (Professionalism) • Respect and uphold the rights, dignity and privacy of patients and establish patient centred rapport with a consistent focus on the professional duty of care [A1] • Reflect and review own practice to continuously improve personal performance. [A1, B2] • Consistently operate within sphere of personal competence and level of authority while managing personal workload and objectives to achieve quality of care [A1] • Actively seek accurate and validated information from all available sources to assist with judgements and decision making [A1] • Contribute to and co-operate with multi-disciplinary teams [B1] Intellectual skills • Discuss the value of service user and carer involvement / participation within the provision of services [B1] • Discuss alternative philosophies / value systems / beliefs that underpin different occupational / professional roles [B1] • Discuss the distinct contribution of different service providers / agencies (state, private, informal, voluntary) to collaborative working [B1] Subject, Professional and Practice skills • Perform competently a range of core specialised methods and techniques as appropriate to the Division and Specialist Route and comply with required quality standards [A1] • Apply ethical principles to personal conduct and interprofessional / inter-agency practice [B1] Transferable skills • Reflect upon own professional development and interprofessional collaboration [B1] • Reflect on own learning experiences [A1, B1] • Explore a variety of strategies, which enable the individual to communicate effectively concerning patients and their carers [A1]
Syllabus Outline	This Professional Practice module develops competency based assessment in accordance with PTP requirements for Healthcare Science practice in Cardiac physiology and Respiratory & Sleep physiology. This module also develops understanding of the importance of partners in service delivery and their roles, enabling students to work effectively with colleagues and other professionals including inter-agency and multidisciplinary teams. The learner will be able to describe and where appropriate apply key concepts and practice in how to engage and support patients and carers in their healthcare and the importance of doing so. The policy and external requirements relating to collaborative and inter-professional working will be explored in relation to working context. Specifically: Interprofessional Context of Care The purpose of interprofessional / inter-agency collaboration Professional identity and socialisation, issues of power and responsibility

	The evidence base for interprofessional education. Issues relating to equal opportunities / anti-oppressive practice. Service user and carer's perspectives on service provision. Ethico-legal context of collaborative care. Management and Teamwork. Consideration of location, organisation and dynamics of teams. Partnership / inter-agency involvement for effective team work Communication processes within groups – barriers and facilitators. Inter-agency networking – identifying core skills Reflection on and within interprofessional practice Reflection on and within interprofessional education This module will also the explore biomedical physics, underpinning a range of diagnostic tests, including: • Imaging techniques including ultrasound, x-ray, computerised tomography, magnetic resonance imaging, isotopes • Volume and flow measuring devices used to measure dynamic lung volumes and flows, and static lung volumes, Respiratory Gas Analysis (including He and N), Whole body plethysmography, Airflow, respiratory effort, body position, sound during slee, EEG, EOG • Electrocardiography, echocardiography, impedance cardiography Blood pressure measurement (oscillometric, ausculatory); noninvasive vs invasive, Pulse oximetry, Pulse velocity/volume Angiography, Electrode characteristics • Fluid flow through tubes: Poiseuille's law, laminar and turbulent flow, blood flow, Doppler effects • Equipment functions, characteristics and safety Signal/noise, filters, spectral analysis, Electrical isolation, optical isolation Analogue/digital conversion; data storage, Amplification
Contact Hours	**Component A** As a Professional Practice module, the training for and assessment of professional competencies is undertaken outside the University in a professional setting, combining practice with related study. Assessment of competence in professional practice must involve an appropriately qualified practitioner. **Component B** Students are required to attend lectures, tutorials, workshops and conference days, as well as work in groups throughout the module (72 hours).
Teaching and Learning Methods	• The module will be delivered through lectures, tutorials, conference days, external visits and clinical workshops. • Scheduled contact time is structured around a series of lectures, clinical workshops, tutorials and conference days that introduce the key concepts of the topic under discussion. • Independent learning includes hours engaged with essential reading, assignment preparation and completion etc. • Placement learning: will include a practice placement.

Key Information Sets Information	Key Information Sets (KIS) are produced at programme level for all programmes that this module contributes to, which is a requirement set by HESA/HEFCE. KIS are comparable sets of standardised information about undergraduate courses allowing prospective students to compare and contrast between programmes they are interested in applying for. **Key Information Set - Module data** *Number of credits for this module*: 30 Hours to be allocated: 300 Scheduled learning and teaching study hours: 72 Independent study hours: 40 Placement study hours: 188 Allocated Hours: 300 The table below indicates as a percentage the total assessment of the module which constitutes a - **Written Exam**: written exam, open book written exam, In-class test **Coursework**: Written assignment or essay, report, dissertation, portfolio, project **Practice based portfolio:** Portfolio assessment of clinical competencies Please note that this is the total of various types of assessment and will not necessarily reflect the component and module weightings in the Assessment section of this module description: Total assessment of the module: Practice based portfolio: P/F Coursework assessment percentage: 50% Exam assessment percentage: 50% 100%
Reading Strategy	All students will be encouraged to make full use of the print and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue. Many resources can be accessed remotely. Students will be presented with opportunities within the curriculum to develop their information retrieval and evaluation skills in order to identify such resources effectively. Any essential reading will be indicated clearly, along with the method for accessing it, e.g. students may be expected to purchase a set text, be given or sold a print study pack or be referred to texts that are available electronically, etc. This guidance will be available either in the module handbook, via the module information on Blackboard or through any other vehicle deemed appropriate by the module/programme leaders. If further reading is expected, this will be indicated clearly. If specific texts are listed, a clear indication will be given regarding how to access them and, if appropriate, students will be given guidance on how to identify relevant sources for themselves, e.g. through use of bibliographical databases. A detailed reading list will be made available through relevant channels, e.g. module handbooks, Blackboard, etc.

Indicative Reading List	*The following list is offered to provide validation panels/accrediting bodies with an indication of the type and level of information students may be expected to consult. As such, its currency may wane during the life span of the module specification. Current advice on additional reading will be available via the module guide or Blackboard pages.* Pollard, KC., Thomas, J. and Miers, M., eds. (2010) Understanding Interprofessional Working in Health and Social Care: Theory and Practice. London: Palgrave Macmillan. Barrett G., Sellman D., and Thomas J. (2nd Ed) (2005) *Interprofessional Working in Health and Social Care: professional perspectives.* Basingstoke: Palgrave Publishing Meads, G. (2005) *The case for interprofessional collaboration in health and social care*. Oxford: Blackwell. Webster, J.G. *The Physiological Measurement Handbook*. Boca Raton: CRC Press. Davidovits, P. *Physics in Biology and Medicine*. Oxford: Academic Press

Part 3: Assessment	
Assessment Strategy	Component A The professional competencies will be assessed in accordance with the requirements for and Apprenticeship Technical Certificate and will include evidence collected from: Direct Observation of Practical Skills (DOPS); the observation and evaluation of a procedural/technical or practical skill performed by a student in a live environment. Case Based Discussions (CBDs) which are designed to provide structured teaching and feedback in a particular area of clinical or technical practice by evaluating decision making and the interpretation and application of evidence. They also enable the discussion of the context, professional, ethical and governance framework of practice, and in all instances, they allow students to discuss why they acted as they did. CBDs are used throughout training and should encourage a reflective approach to learning. Mini Clinical Examinations (mini-Cex) where relevant. These are a short snapshot of practitioner/patient interaction. They are designed to assess the clinical skills, attitudes and behaviours of students essential to providing high quality care. Professional competencies will be evidenced in a practice based portfolio. Component B Knowledge of instrumentation and diagnostic techniques will be assessed in a written exam format. The Inter-professional enquiry based learning will be assessed through an integrated assignment, to include reflection following their experiences of working within a team, and a skills audit and action plan for their future interprofressional practice based on their personal learning. All work is marked in line with the Department's Generic Assessment Criteria and conforms to university policies for the setting, collection, marking and return of student work

Identify final assessment component and element	Component A	
% weighting between components A and B (Standard modules only)	**A:** **P/F**	**B**: **100%**

First Sit	
Component A (controlled conditions) **Description of each element**	**Element weighting** **(as % of component)**
1. Practice based portfolio	P/F
Component B **Description of each element**	**Element weighting** **(as % of component)**
1. Exam (1.5 hours)	50%
2.Integrated portfolio assignment	50%

Resit (further attendance at taught classes is not required)	
Component A (controlled conditions) **Description of each element**	**Element weighting** **(as % of component)**
1. Practice based portfolio	P/F
Component B **Description of each element**	**Element weighting** **(as % of component)**
1. Exam (1.5 hours)	50%
2.Integrated portfolio assignment	50%

If a student is permitted a retake of the module under the University Regulations and Procedures, the assessment will be that indicated by the Module Description at the time that retake commences.