



CORPORATE AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data					
Module Title	Advanced Respiratory and Sleep Physiology				
Module Code	USSJYB-30-3	Level	3	Version	1.1
Owning Faculty	Health and Applied Sciences	Field	Applied Sciences		
Department	Applied Sciences				
Contributes towards	BSc(Hons) Healthcare Science (Physiological Sciences) Respiratory & Sleep Physiology				
UWE Credit Rating	30	ECTS Credit Rating	15	Module Type	Standard,
Pre-requisites	Respiratory and Sleep Physiology A and B (Level 2) [USSKAY-30-2 and USSKBA-30-2]	Co- requisites	USSJYC-30-3 Applied Respiratory and Sleep Physiology		
Excluded Combinations		Module Entry requirements			
Valid From	September 2012	Valid to	September 2018		

CAP Approval Date	V1 May 2012 V1.1 July 2016
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Part 2: Learning and Teaching	
Learning Outcomes	<p>On successful completion of this module the student will: (relevant assessment component is listed in brackets after each LO)</p> <ol style="list-style-type: none"> 1. Explain in detail the underpinning basic and clinical science with respect to sleep Studies including the neurological aspects of sleep and sleep disturbed breathing (A + B1&2) 2. Evaluate the mode of action and application of key pharmacological and non-pharmacological treatments for disorders assessed in the key areas. (A + B1&2) 3. Discuss in detail the differences between children and adults with respect to investigations in the key areas. (A + B1&2) 4. Discuss the value of clinical audit in optimising services. (B1) 5. Detail the importance of patient-centred care and recognise the needs of people with disabilities within this care pathway. (B1&2) 6. Use a wide range of contemporary literature and guidelines to discuss and evaluate clinical practice in a range of relevant settings (B1&2). 7. Effectively communicate clinical and scientific concepts (B1&2). <p>Students are expected to integrate knowledge from this module with that of USSJYC-30-3 to develop an comprehensive understanding of the subject.</p> <p>In addition, the educational experience may explore, develop, and practise but not formally discretely assess the following Professional aspects, as set out within the Modernising Scientific Careers Curriculum:</p>

1. Respect and uphold the rights, dignity and privacy of patients.
2. Establish patient-centred rapport.
3. Appreciate the empathy and sensitivity needed when dealing with the patient experience of long-term conditions and terminal illness.
4. Actively seek accurate and validated information from all available sources with respect to respiratory and sleep investigations.
5. Select and apply appropriate analysis or assessment techniques and tools.
6. Critically discuss the problems associated with the care of patients undergoing respiratory investigations or treatments.

Syllabus Outline

Indicative Content

A. Patient Centred Care

- Communication skills
- Consent
- Confidentiality
- Disability including learning disabilities
- Care pathways for patients with respiratory disease
- Problems associated with care

B. Sleep Studies

- Sleep physiology including neurological aspects of sleep
- Sleep pathophysiology – International Classification of Sleep Disorders
- Physiological changes between wake and sleep
- Sleep-Breathing Disorders
- Overnight oximetry and transcutaneous PCO₂ measurements
- Limited (Semi) and full polysomnography
 - Channels
 - Equipment characteristics
 - Used of EEG, EOG, EMG and ECG
- Actigraphy
- AASM Guidelines and normal values
- Adults vs Paediatrics

C. Subjective Assessment of Sleepiness and Fatigue

- Epworth Sleepiness Score
- Fatigue Score
- Stop-Bang Questionnaire
- Driver and Vehicle Licensing Agency (DVLA) regulations

D. Treatment of Sleep-Breathing Disorders

- Continuous Positive Airway Pressure
 - Machines - Function/types/modalities
 - Cleaning & filter changing
 - Mask/interface types
 - Contraindications
 - Side effects/troubleshooting
 - Patient education
 - Monitoring
- Indications for other treatments
 - Mandibular Advancement Device
 - Non-Invasive Ventilation

Additionally, it is expected that students will integrate knowledge from both Level 3 Respiratory Physiology models in order to fully understand the scientific basis and diagnosis of respiratory and sleep conditions.

Contact Hours/Scheduled Hours	<ul style="list-style-type: none"> The student will have a minimum of 6 hours per week contact time over the course of semester 1. The module will be delivered by specialist practitioners within the work-place setting and will comprise lectures, seminars, tutorials, practicals, and observation as appropriate to the module content at the time. The teaching will take place within the University Hospitals Bristol Respiratory and Sleep departments and University Hospitals Bristol Education Centre.
Teaching and Learning Methods	<p>Students are expected to spend 72 hours on scheduled learning and 228 hours on independent learning.</p> <p>Independent learning will take the following forms with an approximate indication of time required for each:</p> <ul style="list-style-type: none"> Essential reading to support acquisition of knowledge relating to lectures and practical exercises – 96 hours Researching case studies, including accessing VLE scenarios such as ‘Virtual Patient’ – 30 hours Observational learning and discussions within the BRI or ‘home’ placement setting – 20 hours Preparation and submission of assessment – 10 hours Revision and preparation for exam – 72 hours <p>Scheduled learning includes lectures, seminars, tutorials, demonstration, practical classes and workshops; work based learning.</p> <p>Independent learning includes hours engaged with essential reading, case study preparation, assignment preparation and completion etc.</p>

Reading Strategy	<p>Students will be expected to purchase any core text recommended, access to the core text will also be provided for reference via the library, but is not expected to negate the need for the student to provide their own copy. Students will be expected to access all other essential reading either via handouts provided or online through the library, Blackboard, or other recommended source (typically free access e-journal). Wherever possible, where free online access is not available digitalised copies of book chapters or articles will be provided.</p> <p>All students are encouraged to read widely using the library catalogue, a variety of bibliographic and full text databases and Internet resources. Many resources can be accessed remotely. Guidance to some key authors and journal titles available through the Library will be given in the Module Guide and updated annually. Assignment reference lists are expected to reflect the range of reading carried out.</p> <p>Students are expected to be able to identify and retrieve appropriate reading. This module offers an opportunity to further develop information skills introduced at Level 1. Students will be given the opportunity to attend the GDP sessions on selection of appropriate databases and search skills. Additional support is available through the Library Services web pages, including interactive tutorials on finding books and journals, evaluating information and referencing. Sign up workshops are also offered by the Library.</p>
Indicative Reading List	<p><i>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. However, as indicated above, CURRENT advice on readings will be available via other more frequently updated mechanisms.</i></p> <p>Cotes JE, Chinn DJ, Miller MR (2006) Lung Function, 6th Ed. Blackwell Publishing</p> <p>Gibson GJ (2009). Clinical Tests of Respiratory Function, 3rd Ed. Hodder Arnold</p>

Hughes M (2010) Physiology & Practice of Pulmonary Function. Association of Respiratory Technology & Physiology

Lumb AB (2010). Nunn's Applied Respiratory Physiology, 7th Ed. Churchill Livingstone

Maskell N, Millar A (2009). Oxford Desk Reference: Respiratory Medicine. OUP

Ruppel GL (2003) Manual of Pulmonary Function Testing. 8th Ed, Mosby

The ARTP Practical Handbook of Respiratory Function Testing - Part 1. (2003)
Second edition. Association of Respiratory Technology & Physiology

The ARTP Practical Handbook of Respiratory Function Testing - Part 2. (2005)
Second edition. Association of Respiratory Technology & Physiology

West J.B. (2012) Respiratory Physiology The Essentials. Ninth Edition. Lippincott Williams & Wilkins

Journals

Respiration Physiology

Thorax

Chest

European Respiratory Journal

Therapeutic Advances in Respiratory Disease

Respiratory Medicine

Part 3: Assessment

Assessment Strategy	<p>The assessments within this module have been designed to show that the student has developed the required knowledge and clinical interpretation skills required to practice as a respiratory and sleep physiologist. There will be two components to the assessment of this module</p> <p>Component A: Will comprise a written examination under controlled conditions. This examination will assess a broad knowledge base, and focus on data analysis & interpretation of clinical scenarios and case based material, in order to assess the understanding and application of specialist clinical knowledge</p> <p>Component B: Will comprise an integrated assignment, including a written report and an oral presentation with questions. This will test communication skills and the ability to use and evaluate/synthesise multiple literature and data sources.</p>		
Identify final assessment component and element	Component A, element 1		
% weighting between components A and B (Standard modules only)	A: 50	B: 50	
First Sit			
Component A (controlled conditions) Description of each element	Element weighting <i>(as % of component)</i>		
1. Exam (3 hours)	100		
Component B Description of each element	Element weighting <i>(as % of component)</i>		
1. integrated Assignment (2000 words or equivalent)	70		
2. Oral Presentation (30 minutes including questions)	30		
Resit (further attendance at taught classes is not required)			
Component A (controlled conditions) Description of each element	Element weighting <i>(as % of component)</i>		
1. Exam (3 hours)	100		
Component B Description of each element	Element weighting <i>(as % of component)</i>		
1. Assignment (3000 words)	100		
<p>If a student is permitted an EXCEPTIONAL RETAKE of the module the assessment will be that indicated by the Module Description at the time that retake commences.</p>			