

## Liverpool John Moores University

Title: Advanced Paediatric Ventilation  
Status: Definitive  
Code: **6001NPAPP** (118219)  
Version Start Date: 01-08-2021

Owning School/Faculty: Nursing and Allied Health  
Teaching School/Faculty: Nursing and Allied Health

Team	Leader
Cheryl Clarke	Y

**Academic Level:** FHEQ6  
**Credit Value:** 15  
**Total Delivered Hours:** 48.5  
**Total Learning Hours:** 150  
**Private Study:** 101.5

### Delivery Options

Course typically offered: Summer

Component	Contact Hours
Lecture	24
Practical	6
Seminar	12
Tutorial	6

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	ass1		35	
Exam	ass2		15	.5
Practice	ass3	Pass/fail	50	

### Aims

*To develop breadth of knowledge and understanding of the principles of advanced ventilation including the clinical assessment and management of neonates, infants, children and young people with ventilatory requirements.*

## Learning Outcomes

After completing the module the student should be able to:

- 1        1        Discuss complex respiratory pathological processes among neonates, infants, children and young people.
- 2        2        Discuss and debate the professional, ethical and legal contexts of advanced paediatric ventilatory practice within the multi-disciplinary critical care environment.
- 3        3        Discuss and illustrate the pathological processes, clinical assessment and best evidence in order to demonstrate clinical reasoning in the management of paediatric ventilation.
- 4        4        Analyse the paediatric ventilatory evidence base with regard to management strategies and decision-making in the clinical setting.

## Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

3000 word case study	2	4		
oral exam	1	3		
Clinical practice assessment	1	2	3	4

## Outline Syllabus

*Principles of respiratory physiology and mechanical ventilation*

*Time constants, oxygenation, CO<sub>2</sub> removal*

*Principles of assisted respiratory support in neonates, infants, children and young people including:*

*Conventional ventilation*

*High frequency oscillation*

*Non-invasive ventilatory support/chronic respiratory support*

*Protective ventilation strategies: barotraumas, volutrauma*

*Pharmacology and pharmacokinetics: nitric oxide, surfactant, sildenafil, oxygen and inhalation anaesthetics*

*Applied pathophysiology and ventilatory strategies for the complex patient (e.g. IRV, CDH, PPHN, and resistance/compliance problems)*

*Respiratory physiotherapy*

*Collaborative practice in paediatric ventilation*

*Professional, legal and ethical issues in paediatric ventilation*

*Management issues in paediatric ventilatory support including:*

## Learning Activities

Interactive lectures, seminars, tutorials; on-line discussion boards; problem-based learning exercises; evidence-based practice presentations; self-directed and reflective learning; video streaming; reflective practice; clinical supervision and case

presentations.

## **Notes**

The clinical experience for this module consists of 90 hours of precepted practice (pass/fail) with a relevant, registered health care professional in an appropriate clinical setting. The assessment of practice will be the responsibility of the clinical preceptor; unless competence is demonstrated in practice, credit will not be released.