

## Module Information

2022.01, Approved

### Summary Information

Module Code	5112BMBMOL
Formal Module Title	Haematology and Transfusion Science
Owning School	Pharmacy & Biomolecular Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

### Teaching Responsibility

LJMU Schools involved in Delivery
Pharmacy & Biomolecular Sciences

### Learning Methods

Learning Method Type	Hours
Lecture	32
Online	8
Practical	4
Workshop	6

### Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

### Aims and Outcomes

Aims	This module provides students with an opportunity to develop their understanding of the principles and practice of Haematology and Transfusion Science. It extends students knowledge and understanding of haematological disorders and malignancies, and introduces transfusion science and the potential undesirable effects of blood transfusion.
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**After completing the module the student should be able to:**

### Learning Outcomes

Code	Number	Description
MLO1	1	Explain the factors affecting production and development of red and white blood cells.
MLO2	2	Demonstrate understanding of haematological diseases including identifying pathological features and assessing characteristic changes in blood parameters.
MLO3	3	Present the factors involved in the maintenance of haemostasis.
MLO4	4	Explain the principles of blood component replacement therapy and the associated risks.

### Module Content

Outline Syllabus	This module will provide information on the physiology and function of red blood cells, white blood cells and platelets. Moving from haematopoiesis through to functional maturity each cellular component will be considered. An introduction to identification of mature blood cells in peripheral blood smears will be presented along with characteristic changes associated with disease. Haematological disorders will be covered including anaemias, haemoglobinopathies, haematological malignancies, coagulation defects and haemolytic disease of the newborn. The biochemistry of the major blood groups, their inheritance and laboratory identification will be presented. The concept of blood banking and the production, storage and use of blood components will be discussed alongside the risks of transfusion, including transfusion reactions and the transmission of disease.
Module Overview	
Additional Information	The learning activities will establish relevant knowledge and understanding of haematology and transfusion practice. The module will be assessed through clinical case studies, where students will investigate haematological diseases and present their findings as a poster presentation (5 minute presentation plus questions). The 2 hour written examination will be multiple choice questions and short answer questions. The practical elements in this module are based upon the work undertaken by Biomedical Scientists in the NHS. They will give the student the necessary skills and experience to meet the work place needs of the NHS. They have also been developed in consultation with HCPC registered Biomedical Scientists who have confirmed that these practicals are suitable and applicable to the NHS work place.

### Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Centralised Exam	Exam	50	2	MLO1, MLO2, MLO3, MLO4
Practice	Clinical Case Study	50	0	MLO2

### Module Contacts

