

## MODULE DESCRIPTOR

### Module Title

Diagnostic Blood Sciences

Reference	PL4501	Version	2
Created	September 2023	SCQF Level	SCQF 10
Approved	June 2023	SCQF Points	30
Amended	September 2023	ECTS Points	15

### Aims of Module

To provide students with the ability to apply principles of haematology, transfusion science and clinical biochemistry to the diagnosis, treatment and monitoring of disease, including evaluation and interpretation of clinical data.

### Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Critically evaluate results from the analysis of blood.
- 2 Discuss the principles of biochemical investigations used in the diagnosis, treatment, and management of biochemical disorders.
- 3 Discuss the principles and uses of therapeutic drug monitoring and how substances of abuse can be investigated.
- 4 Discuss the principles of investigations used in the diagnosis, treatment and management of haematological disorders and complications of pregnancy, transfusion and transplantation.

### Indicative Module Content

Haematological diseases: anaemias, haematological malignancies, haemorrhagic and thrombotic diseases. Transfusion science: Transfusion reactions, haemolytic disease of the foetus and new born. Clinical Biochemistry: Inborn errors of metabolism and hereditary disease, genetic and biochemical basis of inherited disease, clinical consequences of common inherited diseases, management of inherited disease, mass screening and laboratory investigations. Therapeutic drug monitoring (TDM) and toxicology. Diagnosis of selected endocrine disorders; Liver disease; Malabsorption syndromes; Prenatal diagnosis of birth defects, hormonal monitoring of foetal and maternal health, postnatal screening tests.

### Module Delivery

This is a lecture based course supplemented with tutorials and practical laboratory sessions, elearning and case studies involving interpretation of clinical laboratory data.

Indicative Student Workload	Full Time	Part Time
Contact Hours	48	N/A
Non-Contact Hours	252	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	300	N/A
Actual Placement hours for professional, statutory or regulatory body		

## ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

### Component 1

Type:	Examination	Weighting:	70%	Outcomes Assessed:	2, 3, 4
Description:	Closed book examination.				

### Component 2

Type:	Practical Exam	Weighting:	30%	Outcomes Assessed:	1
Description:	Unseen, 'spotter's test' examination.				

## MODULE PERFORMANCE DESCRIPTOR

### Explanatory Text

The first grade represents Component 1 (EX1) and is weighted as major. A minimum of grade D is required to pass this component of assessment. The second grade, Component 2 (PE1), is weighted as minor. A minimum of grade D is required to pass this component of assessment. A minimum of Module Grade D is required to pass the module. Non-submission of either component will result in an NS grade.

Module Grade	Minimum Requirements to achieve Module Grade:
<b>A</b>	AA, AB
<b>B</b>	AC, AD, BA, BB, BC, CA
<b>C</b>	BD, CB, CC, CD, DA, DB
<b>D</b>	DC, DD
<b>E</b>	AE, AF, BE, BF, CE, CF, DE, DF, EA, EB, EC, ED, EE, EF, FA, FB, FC, FD
<b>F</b>	FE, FF
<b>NS</b>	Non-submission of work by published deadline or non-attendance for examination

## Module Requirements

Prerequisites for Module	Successful completion of Stage 3 of the course, or equivalent.
Corequisites for module	None.
Precluded Modules	None.

**ADDITIONAL NOTES**

In accordance with the BSc (Hons) Biomedical Science/BSc (Hons) Applied Biomedical Science Course Specification and IBMS Criteria and Requirements for Degree Accreditation Criteria 4.2 (v), students must achieve a pass mark in all assessment components for modules that cover the clinical laboratory sciences subject areas.

**INDICATIVE BIBLIOGRAPHY**

- 1 MOORE, G., KNIGHT, G. and BLANN, A., 3rd Edition, 2021. *Haematology*. 2nd Ed. Oxford University Press.
- 2 KNIGHT, R. *Transfusion and Transplantation Science*. 2nd Edition, 2018: Oxford University Press.
- 3 HALL, A. and YATES, C. *Immunology*. 2nd Edition, 2016: Oxford University Press.
- 4 OVERFIELD, J., DAWSON, M. and HAMER. *Transfusion Science*. 2nd Edition, 2008: Scion Publishing Ltd.
- 5 AHMED, N. *Clinical Biochemistry*. 2nd Edition, 2016: Oxford University Press.
- 6 HOFFBRAND, v. *Hoffbrand's Essential Haematology*. 8th Edition, 2019: Wiley.