

MODULE DESCRIPTOR

Module Title

Diagnostic Blood Sciences

| Reference | AS4501 | Version | 2 |
|-----------|---------------|-------------|---------|
| Created | April 2020 | SCQF Level | SCQF 10 |
| Approved | February 2018 | SCQF Points | 30 |
| Amended | October 2021 | 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 or 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.

| | Module Ref: | AS4501 | l v2 |
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| 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 boo | dy | | |

ASSESSMENT PLAN

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

| Component 1 | | | | | |
|--------------|---------------------------------------|------------|-----|--------------------|---------|
| Туре: | Examination | Weighting: | 70% | Outcomes Assessed: | 2, 3, 4 |
| Description: | Closed book examination. | | | | |
| Component 2 | | | | | |
| Туре: | 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) weighted as major and the second, Component 2 (EX2), weighted as minor. A minimum of Module Grade D is required to pass the module, with compensation of grade E in Component 1 or Component 2 permitted. Non-submission of either component will result in an NS grade.

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|--------------|--------------------------|-----------------|-----------------------|--|
| | IVIIIIIIIIIIIIIIIIIIIIII | Requirements to | achieve would Glade. | |

| Α | AA, AB |
|----|--|
| В | AC, AD, AE, BA, BB, BC, CA |
| С | BD, BE, CB, CC, CD, DA, DB |
| D | CE, DC, DD, DE, EA, EB, EC |
| E | AF, BF, CF, DF, ED, EE, EF, FA, FB, FC, FD |
| F | FE, FF |
| NS | 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. |

Module Ref: AS4501 v2

INDICATIVE BIBLIOGRAPHY

- 1 MOORE, G., KNIGHT, G. and BLANN, A., 2016. *Haematology*. 2nd Ed. Oxford University Press.
- 2 KNIGHT, R., 2012. Transfusion and Transplantation Science. Oxford University Press.
- 3 HALL, A. and YATES, C., 2010. *Immunology*. Oxford University Press.
- 4 OVERFIELD, J., DAWSON, M. and HAMER, D., 2008. Transfusion Science. 2nd Ed. Scion Publishing Ltd.
- 5 PALLISTER, C. and WATSON, M., 2010. *Haematology*. 2nd Ed. Scion Publishing Ltd.
- 6 AHMED, N. Clinical Biochemistry. Current Edition. Oxford University Press.