

Module code: MOD003454	Version: 6 Date Amended: 07/Apr/2025
-------------------------------	--

1. Module Title
Contemporary Medical Diagnostics

2a. Module Leader
Grisha Pirianov

2b. School
School of Life Sciences

2c. Faculty
Faculty of Science and Engineering

3a. Level
7

3b. Module Type
Standard (fine graded)

4a. Credits
30

4b. Study Hours
300

5. Restrictions			
Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:	MSc Applied Bioscience		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

Within this module you will be introduced to the rapidly evolving field of medical diagnostics and aims to cover a wide range of current issues and techniques within this field. You will learn through a combination of lectures and participate in critical discussions in a seminar format. You will focus on current diagnostic and research topics, with a particular emphasis on the potential impacts of applied bioscience within the community (with a specific focus on healthcare). The topics covered will evolve to reflect current issues such as antimicrobial developments, drug delivery technologies, modern diagnostic practices and methodologies, and translational medicine. You will develop a strong knowledge base of topics through peer-reviewed literature, which will enable you to contribute to class discussions and develop your critical appraisal skills. There is flexibility in the topic selection which will allow you to focus on areas that align within your specific areas of interest.

6b. Outline Content

An introduction to the theoretical background to a wide range of applications of medical diagnostic technologies

- links between applied bioscience research and diagnostics in healthcare settings
- critical analysis of the limitations of techniques and the results gained
- scientific principles underpinning a wide range of applications in medical diagnostics eg stem cell therapy, DNA sequencing, molecular cell biology
- current research areas will be considered in student-led seminars and online discussion threads on the VLE

6c. Key Texts/Literature

The reading list to support this module is available at: <https://readinglists.aru.ac.uk/>

6d. Specialist Learning Resources

Students will have access to the Anglia Ruskin library (including access to the digital library) and computer facilities.

7. Learning Outcomes (threshold standards)		
No.	Type	On successful completion of this module the student will be expected to be able to:
1	Knowledge and Understanding	Demonstrate a thorough and critical understanding of a wide range of issues within the field of modern medical diagnostics
2	Knowledge and Understanding	Be able to critically research and appraise a range of negotiated topics from specialist journal articles.
3	Knowledge and Understanding	Be able to contribute to peer-led discussions, both orally and electronically.
4	Intellectual, practical, affective and transferrable skills	Be able to research and orally present a critical review of a current research topic.
5	Intellectual, practical, affective and transferrable skills	Demonstrate a thorough understanding of the scientific principles of a range of techniques employed, including their limitations.
6	Intellectual, practical, affective and transferrable skills	Employ a comprehensive understanding of key issues within modern medical diagnostics in the compilation of learning activities presented as a portfolio of evidence.

8a. Module Occurrence to which this MDF Refers				
Year	Occurrence	Period	Location	Mode of Delivery
2026/7	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	Hours	Learning Outcomes	Details of Duration, frequency and other comments
Lectures	24	1-6	12 x 2 hr lectures/active learning
Other teacher managed learning	12	1-6	12 x 1 hr seminars
Student managed learning	264	1-6	Background reading, online activities, preparation for lectures and practicals, and completion of assessments
TOTAL:	300		

9. Assessment for the above Module Occurrence					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Practical	1-5	20 (%)	Fine Grade	40 (%)
Oral presentation : 20 minutes plus 10 minute group Q & A session (equivalent to 1000 words)					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
011	Coursework	1-6	80 (%)	Fine Grade	40 (%)
Portfolio of evidence: 3000 words (compilation of flexible self-negotiated activities)					

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).

In addition, students are required to:

- (a) achieve the qualifying mark for each element of fine graded assessment as specified above
- (b) pass any pass/fail elements

[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]