

Nottingham Trent University Programme Specification

Basic Programme Information	
1	Awarding Institution: Nottingham Trent University
2	School/Campus: School of Science and Technology
3	Final Award, Programme Title, and Modes of Study MSc Biomedical Science by Flexible Learning/MSc Biomedical Science (Medical Microbiology/Clinical Chemistry/Haematology & Transfusion Science/Cellular Pathology) by Flexible Learning
	Part-time
4	Normal Duration: 2-3 years PT
5	UCAS code:

6	Overview and general educational aims of the programme In summary the specific aims are: <ul style="list-style-type: none">• to provide a programme that offers you some choice, flexibility and specialisation, in various modes of study, within major biomedical science disciplines (Clinical Chemistry, Haematology & Transfusion Science, Cellular Pathology, or Medical Microbiology) at Masters level, with relevance to the interests of students, their potential employment, and the needs of professional employers.• to enhance your ability to manage your own intellectual development, building on your own prior knowledge and experience throughout the course.
7	Programme outcomes Programme outcomes describe what you should know and be able to do by the end of your programme if you take advantage of the opportunities for learning that we provide. Knowledge and understanding. By the end of the programme you should be able to: PLO1 ..demonstrate a comprehensive knowledge and understanding of the biological basis of disease, of the appropriate underlying biological disciplines and of specialised aspects of disease investigation and treatment; PLO2 ..demonstrate an understanding of the advantages, limitations and applications of a range of fundamental and specialised biomedical techniques; PLO3 ..identify and resolve complex scientific and technical problems associated with the application of biomedical sciences; PLO4 ..design, execute, and prepare critical written reports on a substantial research investigation.
	Skills, qualities and attributes. By the end of the programme you should be able to: PLO5 ..deal with complex scientific issues with confidence, independence and originality; PLO6 ..continue to advance their knowledge and understanding, and develop new skills in the application of biomedical sciences; PLO7 ..understand, predict and adapt to future developments in the biomedical sciences and their practical application;

PLO8 ...communicate ideas and concepts clearly and articulately, exhibiting a range of interpersonal skills and competencies, including the ability to work constructively both independently and co-operatively, which will commend them to employers.

8 Teaching and Learning Methods

The teaching and learning strategies will take account of your maturity and independence as a postgraduate student. The methods used are highly student-centred, involving both directed and independent learning.

The teaching strategies of each module aim to impart the essential knowledge and skills in the area concerned with high standards of teaching from experienced and well-qualified full-time and part-time staff, and guest lecturers. Interdisciplinary approaches are taken to the design and delivery of course content, which is regularly updated to take account of developments in subject research and academic scholarship.

Delivery of the programme is by the use of web based resources. These provide information on the overall course structure with general information about the programme and information related to being a student of Nottingham Trent University.

Each module is divided into a number of topics, each of which is equivalent to a group of lectures on a related subject. Each topic contains a number of activities, each of these is equivalent to a lecture. Activities will contain "actions" which you will be required to carry out, these will vary but may include a carrying out a literature search or watching a video, etc. You will have email and telephone access to a tutor at the University at designated times during the course. There will also be discussion boards available at both course and module level, so that you can contact the tutors and also fellow students. Each stage of the delivery of a module will be supported by directed reading. You will also be required to undertake short written assignments for which tutors will give you feedback on your knowledge and understanding of the subject. Overall assessment of modules will be by written assignment. All written work will be submitted by email or on computer disc by post.

The Research Project is a major focus of the practical work, although inherent within the Specialist Subject modules are tasks and analyses of techniques and data for achievement of competencies required for the Specialist Portfolio. Both the Research Project and completion of the Specialist Diploma Portfolio will be carried out in your workplace, with the help of support provided on-line, by your workplace supervisor and by tutors from the University.

Flexible learning material in each module will consist of web based material, for example lectures, devised by the teaching staff in the particular area. This will be accompanied by references for directed reading from primary literature as well as advanced text books, and actions to help you to acquire knowledge and develop throughout the module. You will be expected on occasion to contribute other material for informal assessment such as journal reviews, posters, structured essays and case studies. Specialist tutors will assess this work and provide feedback throughout to ensure that you are working consistently and have understood the topic under study. This feedback will be by e-mail and the use of discussion boards.

In addition you will be expected to undertake studies without direct tuition or direction from the teaching programme and this is recognised in the form of independent learning time. In this time you are expected to be pursuing goals away from the formal work of the course such as revision of class material, independent reading in

the field of Biomedical Science, organisation and management of your learning time, and completion of assessed work. You are also be encouraged to attend local specialist discussion groups and local, regional and national symposia where possible and appropriate.

9 Assessment Methods

Assessment methods will depend on the combination of modules chosen, but include coursework elements - essays, research project thesis, dissertation, poster presentation, cases studies, and written examination.

1 Programme structure and curriculum

0 The MSc Biomedical Science by Flexible Learning has been designed to allow you to study at your own pace, to fit around your work / life balance. Also it allows you to choose options that are of particular interest to you.

It is proposed that if you work in/have access to well equipped laboratories and the agreement of a senior member of staff to act as day-to-day supervisor you will complete *Research Project*, whilst if you do not have access to a suitable lab facility you will complete *SARP*. The content of *SARP* is such that it enables you to study an aspect of choice related to your work or other interests in a structured way for production of a critical dissertation. The programme team have devised a structured series of workshops and interactive seminars through which students can gain experience through independent work, and via interactions with their peers and tutors. This is enabled through the use of NOW and Live Meeting Room. On admission you will be interviewed using a proforma/checklist to determine the equipment, facilities, material, specimens, consumables and level of supervision available in your place of work. You will then be guided to the appropriate module. You will also discuss with the programme leader your module choices and study plan. The inherent flexibility in the programme means that if your circumstances change part way through then this study plan can be rescheduled.

Module maps of MSc Biomedical Science by flexible learning programmes

A - MSc Biomedical Science by Flexible Learning

B - MSc Biomedical Science (Medical Microbiology) by Flexible Learning

C - MSc Biomedical Science (Cellular Pathology) by Flexible Learning

D - MSc Biomedical Science (Clinical Chemistry) by Flexible Learning

E - MSc Biomedical Science (Haematology and Transfusion Science) by Flexible Learning

Module title	A	B	C	D	E
Research Project 60 cp	O*	C	C	C	C
Scientific Analysis, Review and Presentation 30 cp	O*				
Research Methods and IT 15 cp	C	C	C	C	C
Cancer and Heart Disease 30 cp	O	O	O	O	O
Pharmacology 30 cp	O	O	O	O	O
Molecular Biology and DNA Technology 15 cp	O	O	O	O	O
Cell Culture and Antibody Technology 15 cp	O	O	O	O	O
Special Topics in Molecular Biology 15 cp	O	O	O	O	O
Cellular Pathology with			C		

Professional Studies) 45 cp					
Clinical Chemistry with Professional Studies 45 cp				C	
Haematology and Transfusion with Professional Studies 45 cp					C
Medical Microbiology with Professional Studies 45 cp		C			
Cellular Pathology 30 cp	O	O		O	O
Clinical Chemistry 30 cp	O	O	O		O
Haematology and Transfusion 30 cp	O	O	O	O	
Medical Microbiology 30 cp	O		O	O	O
Cytology 30 cp	O	O	O	O	O

* You must study one of these modules

The specialist discipline modules *with Professions Studies* last the duration of the programme, usually two years. Students are allowed to join the programme at any point in the cycle allowing greater flexibility. This means that you can plan and develop your career in a time frame that suits you. Under these circumstances the order in which modules are studied may vary from that above, but the *Project* will always be in year 2 and following the *Research Methods and IT* module.

The other taught modules run in a cycle over a two year period. These modules deal with the underlying technologies and theories relevant to an understanding of the biological basis of disease and its analysis. The purposes of the Specialist Studies modules are to:

- provide a sound scientific base for a specialised diagnostic laboratory discipline;
- enable you to understand the concepts involved in the diagnosis of disease states and how these are used in the elaboration of diagnostic systems in the chosen specialist discipline;
- allow an appreciation of the research potential and current developments in the chosen specialist discipline.

These modules will be technological but will not simply teach techniques; they will enable you to understand and appreciate the concepts behind them.

The *Research Project* consists of a 600 h project undertaken in your chosen specialist discipline, or in an approved area of interest within biomedical sciences. It will be carried out in the second year of the course, and will be performed in the laboratory of your employer, or in some similar approved laboratory.

Concurrent study of the main taught modules should encourage you to develop a deep understanding of your chosen specialist discipline to enable you to be competent in employment, and to allow for a deeper analysis of selected areas within the specialist subject module, and at the same time have a breadth of knowledge in related areas and so appreciate the wider implications of disease states. The Research Project will then lead into an in-depth study and enquiry in a specific area of your specialist discipline and so develop your research potential.

1 Admission to the programme

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For admission to this programme you will possess one of the following:

- an Honours degree in a biological subject from a United Kingdom or equivalent University, the minimum degree category for entry to the course will normally be at least a 2ii, or its equivalent, consistent with the 50% pass mark required to complete the course successfully;
- a professional qualification of equivalent status;
- such other qualification and experience as the Admissions Panel shall deem equivalent in subject content and level of attainment.

Additionally, overseas students will be expected to have a level of English language capability demonstrated by attainment of IELTS to grade 6.5, or equivalent.

- All recruitment and admission procedures will be conducted in accordance with the University's policy on equal opportunities. You will have to complete an application form and provide two references

12 Support for Learning

The University provides extensive on-line support for students covering a very wide range of topics. The Student Support Services have an extensive web site with detailed information available of all aspects of student life at the University, and the University Student Handbook is also available online. Links to these will be present on the programme web-pages. The University has developed an extensive Virtual Learning Portal (VLP) which is the platform for delivery of the E-learning materials. You will be provided with a unique and secure email account, and also free access to the internet resources provided through LLR (Library and Learning Resources). The LLR, and the Communications and IT Services, both provide extensive online support.

The Programme Leader acts as a personal focus for the programme, providing information on academic matters e.g. timetabling of module delivery, assessment, etc, and oversees the programme details and handbook section of the E-learning materials.

You will receive a welcome pack containing general information on the programme operation and the help and resources available to you. Specific information and guidance on the course content, teaching, learning, and assessment methods will be provided on line in a programme guide. Information and links to the NTU website where advice and guidance is available on a number of topics on such topics as regulations for student conduct, health & safety, and the University's policy on Equal Opportunities.

The ability to communicate online is a key skill on this flexible learning programme. In addition to Email communication the use of a discussion board tool is the main method used by staff to interact with you. It is accepted that as a distance learning student you might feel quite lonely during your studies, so we have developed discussion boards to allow you to discuss issues with your fellow students and the tutors.

You will be contacted at the beginning of the programme by the programme leader to introduce you to the discussion board for the programme. This will be an opportunity to discuss the content of the programme and your expectations and experience. Obviously any personal information is only shared by confidential Email communication. In addition each module has its own discussion board which will be administered by the module leader.

We view student support as a high priority from both an academic and personal welfare perspective. Academic staff and specialist subject Module Leaders will be used as e-tutors in academic support roles. You will have remote access to one or more of these e-tutors every week during the programme, and they will also provide advice on the choice of topic for the Research Project, and access to other support services in the University.

Additionally, it is an expectation that you will identify a work-based supervisor who will oversee your studies and provide day-to-day support in collaboration with the Course Leader. We will require written confirmation of this arrangement, and the Course Leader will supply appropriate forms for completion at the start of the programme to ensure you have sufficient and appropriate local support in place.

You will receive considerable support throughout this programme from administrative staff, the academics and consultants on the teaching team and the Programme Leader. You will have a SARP supervisor or Project Supervisor who will give guidance on all aspects of the SARP project and research project respectively. The University also has many support mechanisms to deal with non-academic problems.

13 Graduate destinations/employability

There is a wide range of career opportunities within Biomedical Science. You will work with leading academics and practitioners on your programme so will have gained important academic and professional skills necessary to help you obtain employment in this field. At the end of the programme, you will also have developed many transferable skills that will make you more attractive to potential employers possibly in a range of related areas of molecular bioscience. The Research Project, and the SARP, and Research Methods and IT modules will provide the skills needed to follow a career in research and development.

The University's Careers Service has an enviable reputation for helping our graduates find employment and offers individual consultations.

If you are already in employment and seeking to further your career within an organisation, this programme will provide the skills needed to bring added value to your employer.

Completion of an accredited Masters degree in Biomedical Science is proven to be useful in career progression within the UK NHS. This course also enables completion of the IBMS Specialist Diploma Portfolio for those working in the UK.

14 Programme standards and quality

The Management Team takes day-to-day responsibility for managing the programme, under the overall direction of the Programme Committee. You will be represented on this committee by a student representative(s), elected by the students. Student feedback is collected on each module and discussed in an annual Module Leader's Report. These reports are discussed at the Programmes Committee. Other methods for ensuring the standards and quality of the course include:

- The External Examiner report on the standards and quality of the programme, submitted annually.
- When the course was designed, the QAA descriptors for a qualification at Masters (M) level: Masters degree, informed the learning outcomes of this programme.
- The University was the subject of a successful institutional audit by the

Quality Assurance Agency in May 2004.
An important measure of quality is the feedback on student work. The Programme Team will ensure that you receive comprehensive feedback on all your assignments

15 Assessment regulations

This programme is subject to the University's Common Assessment Regulations (located in its [Academic Standards and Quality Handbook](#)). The pass mark is 50%, but marks of 60-69% overall will be awarded the MSc with commendation, and a marks aggregate of 70% or above will be awarded MSc with Distinction

16 Additional Information

Collaborative partner(s):	Nonr
Programme referenced to national QAA Benchmark Statements:	N/A
Programme recognised by:	IBMS
Date implemented:	October 2010
Any additional information:	