



UNIVERSITY OF  
**WOLVERHAMPTON**  
KNOWLEDGE ▪ INNOVATION ▪ ENTERPRISE

**School of Applied Sciences**

**Course Guide**

**for**

**B. Med.Sci (Hons) Medical Science**

**2012-2013**

## **SCHOOL OF APPLIED SCIENCES COURSE GUIDE**

### **B. Med.Sci (Hons) Medical Science**

#### **Welcome**

#### **Section 1: Course-specific information**

1. About this guide
2. Module Guides
3. Student Support
  - 3.1 Student Support Office
  - 3.2 Equality and Special Needs Advisor
  - 3.3 Contacting Academic Staff
4. About the course
5. Blended Learning
6. Graduate Attributes
7. Award Titles (final and interim)
8. Admission Requirements
9. Interim and Transfer Awards
10. Interim Awards
11. Course structures
  1. Timetables
    - 12.1 Level 4 timetable (full-time)
13. Course management
  - 13.1 Student/Staff Liaison and Student Representatives
  - 13.2 Student Induction
  - 13.3 Staff involved with the programme
14. Learning, teaching and assessment
  - 14.1 Health and safety
  - 14.2 Learning Resources

15. Employability
16. Academic Regulations
17. Additional information specific to your course: Prizes for achievement

## **Section 2: School-specific information**

18. School charter for students
19. Student support
20. Learning, teaching & assessment
21. Accreditation of prior learning (APL)
22. Appeals Procedure
23. Academic misconduct

## **Section 3: Module Descriptors**

24. Module Descriptions

4BM003 Study and Professional Skills  
4BM004 Human Structure and Function  
4BM005 Microbes and Immunity  
4BM011 Introduction to Biomedical Science  
4PY013 Molecular Basis of Life  
4PY009 Principles of Drug Action

5BM019 Pathophysiology  
5BM009 Integrated Physiology  
5BM033 Mechanisms of Disease  
5BM010 Anatomy & Biomechanics  
5PY010 Therapeutic Pharmacology  
5BM013 Physiology Practicals & Research Methods

5BM031 Biomedical Science Sandwich Placement

6BM017 Advanced Human Physiology  
6BM008 Haematology and Transfusion Science  
6BM009 Clinical Biochemistry and Clinical Immunology  
6BM010 Medical Microbiology  
6BM014 Honours Research Project

25. Assessment Criteria

## **Welcome**

On behalf of the Course Management Team I should like to extend to you a very warm welcome and we would like to take this opportunity to wish you every success in your studies at the University of Wolverhampton, and trust that your time at the University of Wolverhampton will prove to be enjoyable, stimulating and rewarding.

Medical Science is one of many courses run by the School of Applied Sciences which has established an excellent reputation for the quality of its courses, for an innovative approach to teaching and learning, and for the friendliness of its staff.

We believe it is important that you are encouraged to make your own contribution to the effective operation and development of your chosen course. We are therefore keen to hear your views and would welcome any suggestions that you may have about ways of improving any aspect of your course and / or the student experience here at the University. In practice, you will have the opportunity to do this through our student voice processes.

Remember that the outcome of your studies could affect the whole of your future career and therefore study should certainly be your priority. In resolving to work hard however, do not forget to have time for recreation and social activities. Do take full advantage of the University facilities at your disposal.

**Dr Ruth Shiner, Head of Department**  
**Dr Jan Martin, Placement Manager**  
**Dr Petula Nurse, Student Manager**  
**Dr Shantha Perera, Course Leader**

## Section 1: Course-specific information

### 1. About this guide

This **course guide** will help you plan your Medical Science course. It tells you which modules you must study and pass. The guide also offers you brief descriptions of each module, including general information about assessment tasks, and an overview of how the course can be used for future career choices.

You should read this course guide in conjunction with the **undergraduate student guide** <http://www.wlv.ac.uk/ugguide>

This booklet contains information about where to obtain information and advice about your studies at the University. It also explains how you will be taught and how your assessed work will be graded. It contains an academic calendar of key dates. It is important that you read this guide in conjunction with your own subject course guide.

A full version of the **academic regulations** is available on the University website, <http://www.wlv.ac.uk/polsregs>

It includes an explanation of how the credit system operates, and carefully defines the number of credits that must be studied and passed, at different levels, in order to qualify for the different awards offered by the University. Your tutor can also advise you about regulations. The regulations may change from time to time in accordance with University and national policy. The regulations that pertain to you will normally be those that were in effect when you commenced your studies on your award.

Together these documents should provide you with all the basic information that we think you will need for your period of study here.

You are encouraged to read this course guide through now. It will be a considerable advantage to you to be familiar from the outset with the various aspects of your studies that are described. It may be that the relevance of some of the sections will not be immediately obvious. Keep it accessible, so that you can refer to it as needed. The answers to many of the questions that you will want to ask are contained in it.

### 2. Module Guides

At the commencement of each module that you study, you will be told where to access a module guide which will normally give full details of the **teaching programme**, the staff team responsible for the module, guided reading, and the assessment schedule for the module. These guides are valuable sources of information that will help you to plan your studies and most are published on-line via **WOLF**.

### 3. Student Support

#### 3.1 Student Support Office

Obviously even in a document like this we have not covered every query and problem that you might have about the course. If you find that there is something you need to know, please do not hesitate to approach the School of Applied Sciences **Student Support Office**, in **MA104**. You can also consult the University's Student Support and Guidance Services as appropriate. We are pleased to hear your views and welcome suggestions for ways of improving the operation of the course.

The Student Support Office in MA104 is open 09:30 – 17:00hrs, Monday to Friday during term time.

If you have queries or need advice relating to your studies such as requiring an extension to the submission deadline for coursework, leave of absence, procedures for internal / external transfers or mitigation, please contact:

Student Support Assistant  
[SASStudentsupport@wlv.ac.uk](mailto:SASStudentsupport@wlv.ac.uk)  
Phone 01902 322129

#### 3.2 Equality & Special Needs Adviser

If you have a problem regarding equality of treatment, or a disability, or special needs related to your mobility, health or studies you must arrange to meet the School's Equality & Special Needs Adviser (Dr Nick Musgrove) as soon as possible to discuss your requirements. Discussions are confidential.

Dr Nick Musgrove  
Room MA123b  
01902 322191  
email [N.J.Musgrove@wlv.ac.uk](mailto:N.J.Musgrove@wlv.ac.uk)

#### 3.3 Contacting Academic Staff

For contacting academic staff, we operate an electronic booking system, '**SAMS**', you will be fully introduced to this during welcome week, and it can be accessed at the following address: <http://sams.wlv.ac.uk>

Please enter the contact details for your Personal Tutor for your future reference:	
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Please note that in order to develop and improve the course, it may be necessary on occasions to amend or revise the details given in this course guide.

## 4. About the course

### Distinctive Features of the Course

Gaining a degree in Medical sciences will enable you to apply for entry to a postgraduate medical degree course. At Wolverhampton we have many courses in biomedical sciences, pharmacy, physiology and pharmacology and students will be able to study modules in these courses & hence gain a broad based knowledge of medical sciences.

### Aims and Objectives

Our aim is to give you a sound knowledge of the structure and functioning of the human body and provide you with a solid grounding in the basic medical sciences enabling understanding of the causes and mechanisms of human disease

After completing this course you will be able to:

- Demonstrate a knowledge of the structure of the human body and an understanding of physiological processes that affect its function
- Show an appreciation of the molecular, biochemical and cellular mechanisms important in maintaining homeostasis
- Demonstrate an understanding of the causes and mechanisms of disease and appreciate the methods use in diagnosis and treatment
- Show an appreciation of the pharmacological principles of treatment using drugs and non-pharmacological therapies, their efficacy in the management and symptomatic relief of diseases, and their adverse reactions
- Demonstrate competency in physiological practical skills which can be used to assess the human body and be able to use such skills in research applications.

In order to benefit from your course, you will need to attend and participate in lectures, tutorials, practicals and workshops you will need to make use of the available technology-supported learning, you will need to spend time in guided and self-managed study, and you will need to make use of **feedback from assessments**. You will be required to apply the knowledge you have learned earlier in your course to solving problems, and to identifying relations between old and new knowledge; this will particularly be a feature of the final year honours project.

The course can be studied full time (3 years) Part-time (5 years) and as a Sandwich Degree programme (4 years). All Full-Time students study modules totalling 120 credits per year. Part-time students study fewer modules per year; these are selected by discussion with course leader.

## Sandwich Degree

Students study modules totalling 120-credits per year and spend a year on a hospital or industrial placement after their second year before returning to complete their studies at University. They finish their degree in four years. Students must register for and pass an additional sandwich placement module.

## National Reference Points

The national reference points for your course include:

- QAA Framework for Higher Education Qualifications (FHEQ): The framework for higher qualifications in England, Wales and Northern Ireland. Qualification descriptors for Intermediate (I) and Honours (H) levels. (October 2008)
- The Equality Act (2010)
- Special Education Needs Disability Act (2001)

## 5. Blended Learning

In 2008, the University adopted a Blended Learning Strategy which promotes the integration of technology supported learning across all modules. The University believe this will improve the employability and, digital literacy, of our students and the effectiveness and efficiency of our learning and teaching practice.

There are six blended learning entitlements and these have been incorporated in the Biomedical Science and Applied Biomedical Science courses.

1. have access where possible to an electronic copy of all lecturer-produced course documents e.g. module guides, assessment briefs, presentations, handouts, and reading lists
2. formative assessment opportunities on line with appropriate meaningful electronic assessment feedback
3. have opportunities to collaborate on line with others in their learning cohort
4. have the opportunity to participate in electronic Personal Development Planning (ePDP)
5. submit all appropriate assessments online
6. opportunities to engage in interactive learning during all face to face sessions

## 6. Graduate Attributes

There are three Graduate Attributes:-

1. Digital Literacy
2. Knowledgeable and Enterprising
3. Global Citizenship

which have been integrated into the Biomedical Science and Applied Biomedical Science courses.



## 7. Award Titles (final and interim)

<b>Title (final award title)</b>	BMed Sci (Hons) Medical Science	<b>Pathway Code</b>	BM026H01 UVU
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<b>Interim Titles</b>	BMed Sci Medical Science DipHE Medical Science CertHE Medical Science
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<b>Duration</b>	3 year Full-time - BMed Sci (Hons) Medical Science 4 year Sandwich - BMed Sci (Hons) Medical Science 5 year Part-time - BMed Sci (Hons) Medical Science
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## 8. Admission Requirements

- 280 UCAS points including a science subject at A-level or equivalent.
- GCSE English and Maths at grade C or above.

### 8.1 Language entry requirement for international students for BMed Sci (Hons) Medical Science

The University accepts an IELTS score of 6.0 for entry to its degree courses.

However, in order to graduate with a **BMed Sci (Hons) Medical Science** degree you **must** be able to meet the English language requirements and you **must** have achieved level 7 in the IELTS test.

Therefore if you entered the University of Wolverhampton with an IELTS score of below level 7, you will be required to complete **both** of the following:

- study an extra module. This module is EG3005 Advanced IELTS Preparation. This module focuses specifically on the skills that you will require for the IELTS test
- achieve level 7 or above in an IELTS test.

N.B. You will **not** be able to graduate with a BSc BMed Sci (Hons) Medical Science degree until you have achieved level 7 or above in an IELTS test.

International student language requirements and application guidance can be found at [www.wlv.ac.uk/international/apply](http://www.wlv.ac.uk/international/apply).

## **9. Interim and Transfer Awards**

UNDERGRADUATE TAUGHT REGULATIONS 20 CREDIT STRUCTURE 2010 onwards (<http://www.wlv.ac.uk/polsregs> ) specifies the Award Credit Requirements in SECTION H Single Honours Bachelors Degrees ([http://www.wlv.ac.uk/PDF/aca\\_acregs\\_201011\\_20crdt\\_h\\_singlhons.pdf](http://www.wlv.ac.uk/PDF/aca_acregs_201011_20crdt_h_singlhons.pdf))

## **10. Interim Awards**

Where it is appropriate for students to receive an interim award, it is important that the title of the interim award does not refer to a protected title. Therefore the titles of interim awards that are available from the BMed Sci(Hons) Medical Science (full-time) are as follows:-

BMed Sci Medical Science  
DipHE Medical Science  
CertHE Medical Science

## 11. Course Structures

### 11.1 BMed Sci (Hons) Medical Science (Full-Time) Course Structure

<b>Level 4</b>			
<b>Semester 1</b>		<b>Semester 2</b>	
<b>C</b>	4BM011 Introduction to Biomedical Science	20 credits	
<b>C</b>	4PY013 Molecular Basis of Life	20 credits	
<b>C</b>	4BM003 Study and Professional Skills	20 credits	<b>C</b> 4BM005 Microbes and Immunity
			20 credits
<b>C</b>	4BM004 Human Structure and Function	20 credits	<b>C</b> 4PY009 Principles of Drug Action
			20 credits
<b>Level 5</b>			
<b>Semester 1</b>		<b>Semester 2</b>	
<b>C</b>	5BM033 Mechanisms of Disease	20 credits	
<b>C</b>	5BM009 Integrated Physiology	20 credits	
<b>C</b>	5BM019 Pathophysiology	20 credits	<b>C</b> 5 PY010 Therapeutic Pharmacology
			20 credits
<b>C</b>	5BM010 Anatomy & Biomechanics	20 credits	<b>C</b> 5BM013 Physiology Practicals & Research Methods
			20 credits
<b>Level 6</b>			
<b>Semester 1</b>		<b>Semester 2</b>	
<b>C</b>	6BM014 Honours Research Project	40 credits	
<b>C</b>	6BM017 Advanced Human Physiology	20 credits	<b>C</b> 6BM010 Medical Microbiology
			20 credits
<b>C</b>	6BM008 Haematology & Transfusion Science	20 credits	<b>C</b> 6BM009 Clinical Biochemistry & Clinical Immunology
			20 credits

## 11.2 BMed Sci (Hons) Medical Science (Sandwich) Course Structure

<b>Level 4</b>			
<b>Semester 1</b>		<b>Semester 2</b>	
<b>C</b>	4BM011 Introduction to Biomedical Science	20 credits	
<b>C</b>	4PY013 Molecular Basis of Life	20 credits	
<b>C</b>	4BM003 Study and Professional Skills	20 credits	<b>C</b> 4BM005 Microbes and Immunity
			20 credits
<b>C</b>	4BM004 Human Structure and Function	20 credits	<b>C</b> 4PY009 Principles of Drug Action
			20 credits
<b>Level 5</b>			
<b>Semester 1</b>		<b>Semester 2</b>	
<b>C</b>	5BM033 Mechanisms of Disease	20 credits	
<b>C</b>	5BM009 Integrated Physiology	20 credits	
<b>C</b>	5BM019 Pathophysiology	20 credits	<b>C</b> 5 PY010 Therapeutic Pharmacology
			20 credits
<b>C</b>	5BM010 Anatomy & Biomechanics	20 credits	<b>C</b> 5BM013 Physiology Practicals & Research Methods
			20 credits
<b>Level 5 Yearlong Placement (Sandwich students only)</b>			
<b>Semester 1</b>		<b>Semester 2</b>	
<b>C</b>	5BM031 Biomedical Science Sandwich Placement	40 credits	
<b>Level 6</b>			
<b>Semester 1</b>		<b>Semester 2</b>	
<b>C</b>	6BM014 Honours Research Project	40 credits	
<b>C</b>	6BM017 Advanced Human Physiology	20 credits	<b>C</b> 6BM010 Medical Microbiology
			20 credits
<b>C</b>	6BM008 Haematology & Transfusion Science	20 credits	<b>C</b> 6BM009 Clinical Biochemistry & Clinical Immunology
			20 credits

### **11.3. BMed Sci (Hons) Medical Science( Part-Time) Course Structure**

The Course Structure for the BMed Sci (Hons) Medical - Science Part Time degree is the same as for the Full Time course but Part-Time students will select a fewer number of modules per year for the duration of their studies. Module choices will be decided by discussion with the Course Leader.

## 12. Timetables

### 12.1 Level 4 timetable (full-time)

#### Semester 1

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>am</b>		4BM003  Study and Professional Skills			4BM011 Introduction to Biomedical Science
<b>pm</b>	4BM004  Human Structure and Function	4PY013 Molecular Basis of Life			
<b>ev</b>					

#### Semester 2

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>am</b>	4PY009 Principles of Drug Action		4BM005 Microbes and Immunity practicals		4BM011 Introduction to Biomedical Science
<b>pm</b>	4BM005 Microbes and Immunity	4PY013 Molecular Basis of Life			
<b>ev</b>					

- you should expect to spend around 6 hours per week studying on your own for each module.

## 12.2. Level 5 timetable (full-time)

### Semester 1

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>am</b>	5BM033 Mechanisms of Disease	5BM033 Mechanisms of Disease Practicals	5BM009 Integrated Physiology		
<b>pm</b>		5BM019 Pathophysiology		5BM010 Anatomy and Biomechanics	
<b>ev</b>					

### Semester 2

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>am</b>	5BM033 Mechanisms of Disease		5BM009 Integrated Physiology		
<b>pm</b>	5PY010 Therapeutic Pharmacology		5BM013 Physiology Practicals and Research Methods		5 BM033 Mechanisms of Disease Practicals
<b>ev</b>					

- you should expect to spend around 6 hours per week studying on your own for each module.

## 13. Course Management

Course Leader	<b>Dr Ruth Shiner</b> (Head of Department) <b>Dr Shantha Perera</b> (Course Leader) <b>Dr Petula Nurse</b> (Student Manager)
Email	<a href="mailto:r.a.shiner@wlv.ac.uk">r.a.shiner@wlv.ac.uk</a> <a href="mailto:s.a.perera@wlv.ac.uk">s.a.perera@wlv.ac.uk</a> <a href="mailto:p.nurse@wlv.ac.uk">p.nurse@wlv.ac.uk</a>

### 13.1 Student/Staff Liaison and Student Representatives

The Course Team holds at least two meetings per year with student representatives. Elections of student representatives are organized early in the academic year and you should ensure that you know who your currently elected representative is. Student representatives raise issues for discussion at the Committee and other students should inform their representative about items they want included. The aim of these meetings is to identify both good practice and problems. We attempt to resolve the problems by deciding on what action to take and the outcomes are reported in the notes of the meeting, which are posted on notice boards and also on the course WOLF pages. We can only help you with your problems if we know they exist. Please use your representatives.

These committees are the main avenue for you to influence the operation and development of the courses and you are therefore encouraged to participate as much as possible, either directly as a student elected member, or indirectly via your elected member.

If you have an academic or personal problem let us know as soon as possible. Your personal tutor has an important role as they are familiar with the structure and regulations of the award and will advise you. If in doubt, do not hesitate to consult your tutor, the course leader or the Head of Department of Biomedical Science and Physiology.

### 13.2 Student Induction

All new and returning students need to attend a School induction programme, the majority of which take place during **Welcome Week**. You can access your programme via e:vision or from the University website.



### 13. 3 Staff involved with the Programme

Name	Title	e-mail
Dr Ruth Shiner	Head of Department, Principal Lecturer in Physiology	<a href="mailto:r.a.shiner@wlv.ac.uk">r.a.shiner@wlv.ac.uk</a>
Dr Paul Barrow	Senior Lecturer in Physiology	<a href="mailto:p.a.barrow@wlv.ac.uk">p.a.barrow@wlv.ac.uk</a>
Dr Gillian Condé	Senior Lecturer in Applied Human Physiology	<a href="mailto:g.l.conde@wlv.ac.uk">g.l.conde@wlv.ac.uk</a>
Professor John Darling	Professor of Biomedical Science and Dean of SAS	<a href="mailto:J.Darling@wlv.ac.uk">J.Darling@wlv.ac.uk</a>
Dr Simon Dunmore	Senior Lecturer in Clinical Biochemistry	<a href="mailto:S.Dunmore@wlv.ac.uk">S.Dunmore@wlv.ac.uk</a>
Dr Daron Fincham	Senior Lecturer Biochemistry / Forensics	<a href="mailto:d.fincham@wlv.ac.uk">d.fincham@wlv.ac.uk</a>
Dr Janine Fletcher	Senior Lecturer in Human and Clinical Physiology	<a href="mailto:j.x.fletcher@wlv.ac.uk">j.x.fletcher@wlv.ac.uk</a>
Dr Peter Griffiths	Senior Lecturer in Anatomy and Developmental Physiology	<a href="mailto:p.j.griffiths@wlv.ac.uk">p.j.griffiths@wlv.ac.uk</a>
Dr Ken Kenward	Senior Lecturer in Microbiology	<a href="mailto:m.a.kenward@wlv.ac.uk">m.a.kenward@wlv.ac.uk</a>
Dr Martin Khechara	Senior Lecturer in Microbiology	<a href="mailto:MPKhechara@wlv.ac.uk">MPKhechara@wlv.ac.uk</a>
Dr Jan Martin	Principal Lecturer in Oncology and Cellular Pathology	<a href="mailto:J.Martin@wlv.ac.uk">J.Martin@wlv.ac.uk</a>
Prof Paul Nelson	Professor in Immunology	<a href="mailto:P.N.Nelson@wlv.ac.uk">P.N.Nelson@wlv.ac.uk</a>
Dr Iain Nicholl	Senior Lecturer in Clinical Biochemistry and Genetics	<a href="mailto:I.Nicholl@wlv.ac.uk">I.Nicholl@wlv.ac.uk</a>
Dr Petula Nurse	Principal Lecturer in Biomedical Science	<a href="mailto:P.Nurse@wlv.ac.uk">P.Nurse@wlv.ac.uk</a>
Dr Elizabeth O’Gara	Senior Lecturer in Medical Microbiology	<a href="mailto:E.OGara@wlv.ac.uk">E.OGara@wlv.ac.uk</a>
Dr Shantha Perera	Senior Lecturer in Immunology and Medical Microbiology	<a href="mailto:S.A.Perera@wlv.ac.uk">S.A.Perera@wlv.ac.uk</a>
Mrs Sara Smith	Senior Lecturer in Cellular Pathology	<a href="mailto:s.smith2@wlv.ac.uk">s.smith2@wlv.ac.uk</a>
Dr James Vickers	Senior Lecturer in Haematology and Serology	<a href="mailto:J.Vickers@wlv.ac.uk">J.Vickers@wlv.ac.uk</a>
Donna Brown	Demonstrator in Biomedical Science	<a href="mailto:D.Brown@wlv.ac.uk">D.Brown@wlv.ac.uk</a>
Mr Tom Masters	Demonstrator in Physiology	<a href="mailto:tom.masters@wlv.ac.uk">tom.masters@wlv.ac.uk</a>

## **14. Learning, Teaching and Assessment**

### **14.1 Health & Safety**

During induction for year 1 semester 1 all students will have a Health and Safety Biomedical Science Master Class and School safety induction lecture.

Students will be expected to purchase the following items:

- Laboratory coat\*
- Indelible marker pen\*
- Safety goggles\*

\* Approximate cost of purchases ~£20

### **14.2 Learning resources available at the University of Wolverhampton**

The learning resources currently available to students in the Department of Biomedical Science and Physiology can be broadly broken down into two main categories consisting of online resources and offline resources. These combine to create a complete undergraduate blended learning environment that is available to all students enrolled on any programme of study in the Department.

The online resources available to students consist of web-based applications that provide essential information and support the student learning experience. The resources available include the main University of Wolverhampton website (<http://www.wlv.ac.uk>), online general and subject specific information, library catalogue searching and real-time assistance provided by the Learning Centre and library facility.

Resources also include web-based module specific learning and assessment material from the Wolverhampton Online Learning Framework (WOLF) and e- portfolio facilities through PebblePad, allowing online collaboration and electronic submission of work. There are approximately 2,000 computers across the University for Staff and Students to use in open access areas, school computer labs and Learning Centres. These facilities, along with wireless internet access provided by the 'Radiolan' network available in all university buildings including student accommodation, allow increasingly easy access to the various electronic resources as required. All of the online resources are also available to staff and students remotely from their home, place of work or indeed anywhere else there is an Internet connection.

The offline learning resources available to BMed Sci (Hons) Medical Science consist of the teaching facilities that comprise the infrastructure of University of Wolverhampton. These also include the equipment that provides for learning support within these spaces such as audio visual, information technology and laboratory equipment used in practical exercises and final year research projects. The offline learning resources available to students also include the University staff who administer the various degree pathways who can be contacted via email or appointments made using the SAMS system.

For help and advice finding information in BMed Sci (Hons) Medical Science contact the Harrison Learning Centre on the City Campus.

Some shelfmarks for BMed Sci (Hons) Medical Science books are:

Anatomy	611
Cell Biology	571.6
Haematology	616.15
Human Disease	616.07
Immunology	658.4038
Microbiology	579
Molecular genetics	572.8
Physiology	612
Transfusion	615.39

## **15. Employability and Your Personal Development Portfolio (PDP)**

### **15.1 What is 'employability'?**

'Employability' is concerned with the development of skills aimed at enhancing your employment prospects throughout your time here at the University of Wolverhampton. Developing specialist subject and academic knowledge is important for employers, but they also want to employ individuals who are able to:

- communicate effectively
- work in a team and have good interpersonal skills
- solve problems
- work on their own using their own initiative and are able to adapt to changing situations
- be self-confident

### **15.2 How will you develop your employment skills?**

At the School of Applied Sciences we aim to provide you with the opportunity to develop these through the modules you will be studying. The assessments you do for your modules are designed to help you develop subject-specific skills through the research you undertake for the assignments. In addition, they are designed to help you develop other key skills such as written communication. Where you have formal presentations, this will build your self-confidence in addition to helping you develop your skills of verbal communication. Working as part of a team will develop vital group-work skills. Attending your classes regularly will further ensure that you have the opportunity to develop other skills.

Throughout your time at the University, you will develop and be able to demonstrate a number of skills, some of which are listed below:

- Working as part of a group
- Demonstrating teamwork skills and leadership skills

- Effective communication
- Written (via reports etc.)
- Oral (through formal presentations)
- Problem-solving
- IT skills (which include use of basic packages for word processing, spreadsheets, use of email etc.)
- Time management
- Punctuality (attending classes on time, etc.)
- Handing in assignments by the deadline

You may also be working part-time. The experience you gain within a work environment is a very worthwhile one and also helps you to develop key skills. This is another good way of developing skills which are valued by employers.

### **15.3 Career opportunities and future study**

Gaining a degree in Medical Science will enable you to work in a wide variety of medical-related careers such as medical research, hospital and pharmaceutical laboratories and in other fields requiring knowledge of medical sciences. This degree will also enable you to apply for entry to a postgraduate medical degree course.

## **16. Academic Regulations**

This course adheres to the University's academic regulations for students undertaking an undergraduate degree. A full version of these regulations can be found on the University web site:

<http://www.wlv.ac.uk/polsregs>

These regulations govern your course and will be binding on you. It is therefore important that you read and become familiar with them.

## **17. Additional Information specific to your course: Prizes for Achievement**

### **Physiology Society Prize**

Awarded for the best physiology honours project report

### **The RIHS Prize**

Awarded for the best honours project report

## Section 2: School-Specific Information

### 18. School of Applied Sciences Student Charter

The University is a community of learning; each and every member, be they staff or students, have responsibilities to that community as well as to themselves. All students of the University have the right to study in an environment that promotes success. This means that no one should be distracted by the inconsiderate behaviour of others, for example by people who arrive late, or talk in lectures or the learning centre.

#### **In order to help you achieve your objectives with us, we will strive to provide:**

- effective impartial advice and guidance
- an effective introduction to the University, the School of Applied Sciences and your chosen course
- a welcoming environment with quiet places to study
- appropriate resources including books and computing resources
- qualified and professional tutors and staff
- stimulating and well planned learning opportunities
- well-defined and appropriate programmes of study
- opportunities to plan and review progress with tutors and student support workers
- access to learning support
- access to confidential counselling and careers advice

#### **We will aim to ensure that**

- timely and appropriate feedback will be provided on assessments
- you have a personal tutor
- you can book an appointment with your tutor using the on-line booking system
- you will have access to the information you need to progress on your course e.g. each module you study will be accompanied by a module guide, similarly your award / pathway will have a guide or handbook

#### **The University expects and needs you to:**

- make regular use of the electronic systems provided for your use e.g. e-Mail, e-Vision, WOLF and the student appointments system. If you do not make use of these resources you cannot perform well.
- attend regularly and punctually, this means for example, that you should not enter a teaching room after the session has started or miss appointments you have made to see staff.
- give in all your assessments on time (or they will not be marked)
- show courtesy and respect to staff and other students, this means for example, that cell phones should be turned off in all teaching sessions.
- ensure that you understand the requirements of your award / pathway

- ensure that you are aware of the requirements of each module you are studying and are aware which sessions to attend and what the assessment procedures are
- respect and abide by University Regulations, e.g. those governing Equal Opportunities Policy, ID Cards, quiet areas
- bring all the personal equipment that you require to classes / workshops
- show consideration to others by listening attentively and participating in class activities
- keep your tutor informed if you have personal problems that affect your work; if these problems make it necessary to seek extensions, to do so before the deadline
- identify for yourself what constitutes academic misconduct such as plagiarism and make every effort to avoid it.
- use the Student Support Office (Room MA104) to get quick answers to your queries without hunting for a lecturer
- seek approval for and confirm any change of programme within the deadlines
- inform the University when your address or other contact details change
- follow Health and Safety guidelines in laboratory and fieldwork settings
- behave appropriately as an ambassador for the University when working off campus

## 19. Student Support



We are keen to ensure that you have a fulfilling and productive time studying with us. Part of this experience in Higher Education involves taking a much greater responsibility for your studies than you may have done previously in your education. You will be expected to study independently, and to make sure that you are enrolled on the right modules and attend the appropriate classes. In order to facilitate this we operate a system of student support that you can turn to in the event of a problem or query.

Most information regarding your course of study can be accessed via the University electronic system, **e-vision**. You will be trained in using this system when you arrive. If however you have a query that cannot be resolved on-line, the School of Applied Sciences operates the **SAS Student Support Office**, which is staffed regularly throughout the week. You can drop in at this information point to ask questions about your course and modules. In the rare situation that your query can still not be answered satisfactorily, the staff at the student information point can book you an appointment with your **personal tutor** or course leader. All students are allocated a personal tutor from the academic staff; you will be introduced to your tutor when you arrive at the University. You are required to meet with your Personal Tutor on at least 3 occasions during the year, attendance at these tutorials will be logged.

Alternatively, there is a central University Registry Office, called **Here-2-Help**, where you can also obtain advice about your course. This is where you hand in your assessed work. It is situated in MD building next door to the Learning Centre.

Further information is available electronically, via the University web site, the Wolverhampton On-Line Learning Framework (**WOLF**), and an interactive student support system known as **Pebble-Pad**. The Learning Centre also has a range of sources of academic student support.

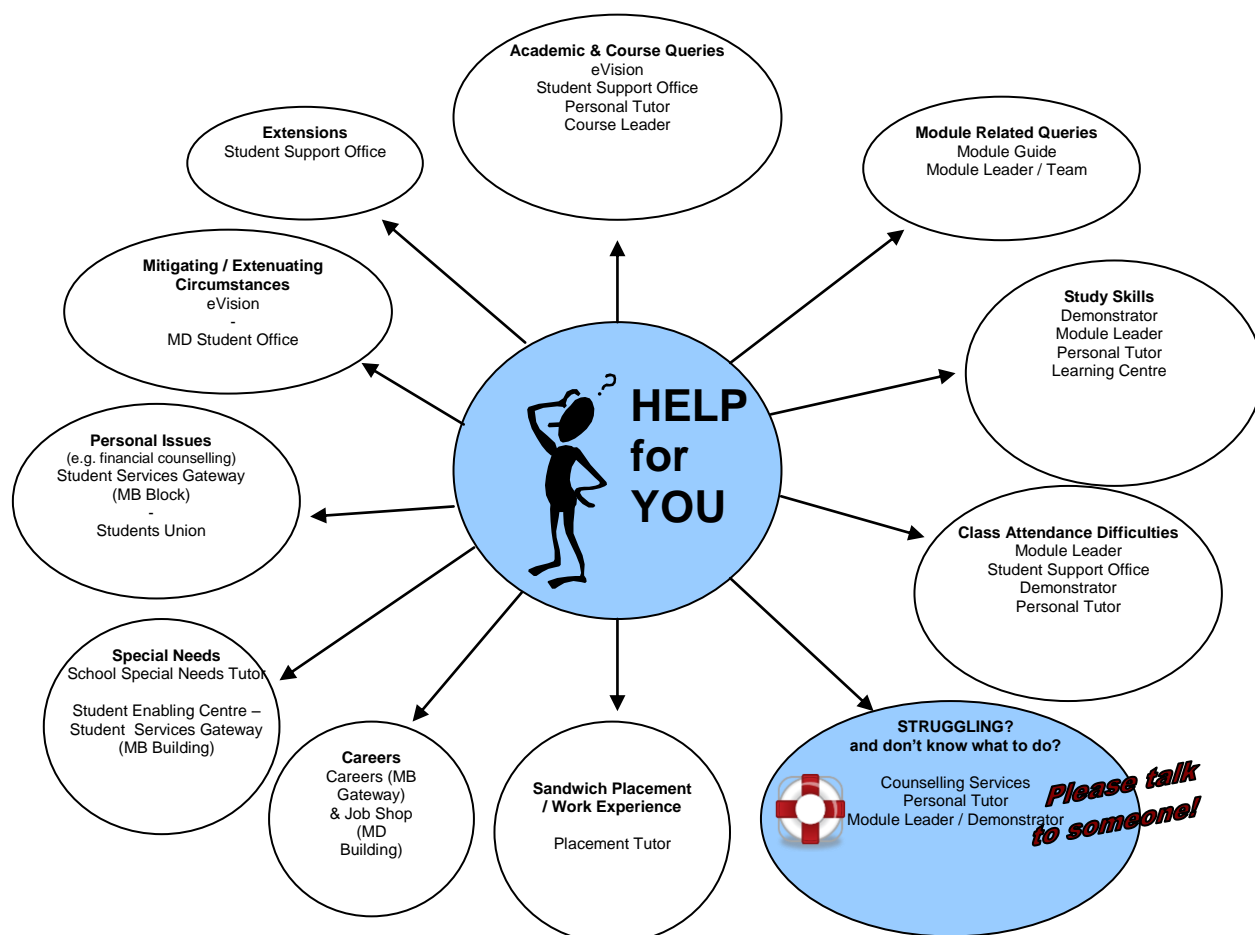
More detail regarding these support systems will be provided when you join the University, along with detail about the numerous types of learning and pastoral support provided by the central University departments.

Formal and informal meetings are held throughout the Course of the year to review the management of teaching and Courses. Formal meetings include course committees and **staff-student liaison meetings**. Students are invited to bring their views to these meetings. Student representatives are elected to represent your views. Student suggestions about how a module might be improved are welcomed.

## Where to get help with your course

### Student Support

Should you have any problems (personal or academic), the following diagram directs you to the appropriate department or staff member.



## **Attendance**

Except when you are undertaking independent study, or specifically identified “remote / distance learning” components, attendance at *all* taught sessions is required. Persistent non-attendance may result in your being called in for an interview. Funding agencies and / or loan companies may refuse to finance students who attend only sporadically.

Applied Biomedical Science students are required to attend placement (see placement handbook for more details)

Your paid work and other responsibilities outside the University must not detract from your ability to study effectively and should not interfere with your ability to attend any field visits and other meetings or classes.

## **Behaviour**

The School of Applied Sciences expects that every student and member of staff should behave in a way that reflects the aims of the University as an equal-opportunity organisation that respects the rights of all people. If you are unhappy with the way that you have been treated, report the incident immediately to your tutor, or the School’s Equal Opportunities Adviser (Dr Musgrove).

Staff and students are expected to treat each other respectfully and courteously. Any breach of good behavioural conduct will be viewed extremely seriously and formal action will be taken at the highest level against anyone breaking the rules of good conduct. A student causing disruption, significant offence to others, wilfully inflicting damage to property or hurt to a person is likely to be asked to leave the learning environment immediately. This could include University premises, a work placement, field visit or overseas exchange. If abroad, this could mean instant dismissal from the venue and it would be the student’s responsibility to make their way back to the UK, incurring any necessary charges.

Students are reminded of the need to behave appropriately at all times and to be a good ambassador for the University particularly whilst away from University premises.

## **20. Learning, Teaching and Assessment: What can you expect?**

### **Learning & Teaching Resources**

There is a wide range of resources available for your learning, including on-line materials for each module (on WOLF), web-based information and, importantly, the online resources provided by the Learning Centres. Module information will direct you to specific information sources, but there is an expectation, particularly from level 2, that you will research your own sources in order to enhance your achievement of the learning outcomes for the programme.



## Assessment

### Types of assessment

The tutor, as part of the introduction to the module, will outline the assessment tasks. A more detailed briefing for each assignment will be available via the WOLF topic that supports the module. There is a wide range of assessment (further details can be found in the Undergraduate Student Guide), including:

- written assignments
- laboratory reports
- reports
- time-constrained assignments
- examinations (open book or closed book)

### Marking of assessments

The marking and grading of your work, be it for example an assignment or an exam, is a comprehensive exercise involving first-marking by tutors, moderation by the tutors in the module team and the submission of assessments to independent external examiners who monitor and advise, thereby ensuring quality and standards.

The normal return period for feedback on your marked (summative) work is three weeks after the date of submission. You will receive a grade achieved and comments on whether and how you have achieved the learning outcomes.

The processing of grades is outlined in the *Undergraduate Student Guide*. Assessment grades follow the 'grade point scale' format outlined in the Guide; grades at levels 2 and 3 range from A16 to F0. Grades at level 1 range from A to F, with no subdivision. For the majority of modules the average achievement level will be in the C category which is 'average-good'; grades above this are 'above average-very good to outstanding', and grades below are from 'satisfactory' down to 'uncompensatable fail'. Thus, an 'upper' C grade (e.g. C10) is comfortably a 'good' grade within the A to F distribution.

- Module results will be recorded using a grading scheme:
- For modules at levels 3 and 4 results will be recorded using the following scheme:

Grade	Performance	Result
A	Outstanding performance	Pass
B	Above average – very good	Pass
C	Average - good	Pass
D	Satisfactory performance	Pass
#E	Pass by compensation	Pass
E	Compensatable fail	Defer
F	Uncompensatable fail	Defer (if first attempt) Fail (if following a second attempt)
ONS	Not submitted	Defer
OGA	Grade awaited	Held
OAM	Academic Misconduct	Held
OM	Valid Extenuating Circumstances. May submit assessment not previously submitted (or failed) as if for the first time	Defer

- For modules at Levels 5 and 6 results will be recorded using the following scheme:

<b>Grade</b>	<b>Performance</b>	<b>Result</b>
A16	Outstanding performance	Pass
A15	Outstanding performance	Pass
A14	Outstanding performance	Pass
B13	Above average – very good	Pass
B12	Above average – very good	Pass
B11	Above average – very good	Pass
C10	Average - good	Pass
C9	Average - good	Pass
C8	Average - good	Pass
D7	Satisfactory performance	Pass
D6	Satisfactory performance	Pass
D5	Satisfactory performance	Pass
#E4	Pass by compensation	Pass
E4	Compensatable fail  Uncompensatable fail	Defer (if first attempt)  Fail (if following a second attempt where the module cannot be compensated)
F3	Uncompensatable fail	Defer (if first attempt) Fail (if following a second attempt)
F2	Uncompensatable fail	Defer (if first attempt) Fail (if following a second attempt)
F1	Uncompensatable fail	Defer (if first attempt) Fail (if following a second attempt)
F0	Uncompensatable fail	Defer (if first attempt) Fail (if following a second attempt)
ONS	Not submitted	Defer
OGA	Grade awaited	Held
OAM	Academic Misconduct	Held
M4, M3, M2, M1, M0	Valid Extenuating Circumstances. May submit assessment not previously submitted (or failed) as if for the first time	Defer

### ***What should you avoid? What should you seek to achieve?***

- Remember that you are writing for another reader or readers. Do not assume that the reader will fill the gaps in your work.
- Use the introduction to establish what you are doing in your assignment.
- Use examples to support your analysis.
- Be objective and aim for reasoned argument. Phrases such as ‘in my opinion’ or ‘in my view’ are of little value because they are subjective. Do not use them. You should aim to support your points with evidence and reasoned analysis.
- Always acknowledge the use of someone else’s work, using the appropriate system of referencing. Also, it is a very serious offence to use someone else’s work, especially word-for-word or paraphrased contents of other’s work. Please see the section below on academic misconduct.
- Always keep copies of the sources or keep a note of each source as you use it, so that you can reference it in your bibliography at the end of your assignment.
- Plan your work in advance so as to meet the hand-in (submission) date. Writing up your research is often more time-consuming than you expect.

- Get help from tutors and mentors if you are unsure.
- Above all, do not 'suffer in silence'; the course leader, student advisor and tutors will be able to provide guidance, so please use them.

### ***Why are ethical considerations important when researching for assignments?***

Research is an essential and vital part of teaching and learning. Much is literature-based, using books, journals, periodicals and web-based material. However, some research may involve interaction with organisations and people. You should ensure that you do **NOT** conduct research that could be intrusive or sensitive or could cause psychological harm or suffering to others.

For all modules that bring you into contact with organisations and people you will be required to follow appropriate ethical approval procedures. These will be explained to you by relevant module leaders. Where individuals or organisations have agreed to provide information to you, you may be required to produce evidence that permission has been given for access or contact.

### **What feedback can you expect?**

#### ***What can you expect from your tutors whilst you are preparing your work?***

- Normally tutors will advise you, as a group, on the assessment at or near the start of the module.
- Thereafter, you may consult your tutors by having a quick chat after a teaching session or arranging an appointment through SAMS <http://sams.wlv.ac.uk>

#### ***What should you not expect from your tutors?***

- It is not the role of a tutor to read drafts of your work and correct them with a view to your obtaining a 'good mark'. An assignment should reflect your effort and input, and the role of the tutor is to guide and advise. It is then your responsibility to assess this advice and guidance and use it accordingly. Tutors provide this in good faith, but its use - or lack of it - by you is not an automatic route to a good or a poor grade. Other factors, particularly those pertaining to your skills and efforts, will play a vital role in your achievement.
- You will not normally receive written feedback on formal University exams. However, should you wish to discuss your performance, you can make an appointment with the relevant module leader.

### ***After completion of the assignment***

- The main feedback is through a copy (to you) of the assessment feedback sheet from tutors.
- In some modules, additional feedback may be available through distribution of an "outline answer", highlighting key points for guidance.

### **How you can comment on learning and teaching and assessment**

We greatly value your feedback; students' views are collectively influential in how we deliver L&T and are gathered through staff-student meetings and via questionnaires, particularly the Course Evaluation Questionnaire that you will be asked to complete

towards the end of the academic year. Such feedback is analysed for annual monitoring of modules, subjects and courses.

## 21. Accreditation of Prior Learning (APL)

Students may be admitted to the University with advanced standing where they have previously successfully completed relevant study at higher education level, in the UK or abroad.

Students may also be admitted with advanced standing on the basis of relevant prior learning which has occurred outside a formal course of study, which may include in-company training or relevant work experience.

Grades from previous study and / or APL are excluded from the final classification

There should be no need for you to repeat learning that you have already undertaken, provided that you have evidence of that learning and that it is at the appropriate academic level

If you consider that you have undertaken prior learning that could be credited towards your course, contact the Student Support Office in the first instance.

## 22. Appeals procedures

Student work submitted for assessment is normally subjected to a process of internal and external moderation by members of staff within the department and external examiners. If, despite this process, students feel their work has not been fairly marked they should note the University's appeals procedures, and contact the Student Union for advice.

## 23. ACADEMIC MISCONDUCT

This can be defined as any of the following: -

**Cheating** is defined as any attempt to gain unfair advantage in an assessment by dishonest means, and includes e.g. all breaches of examination room rules, impersonating another candidate, falsifying data, and obtaining an examination paper in advance of its authorised release.

**Plagiarism** is the act of taking someone else's work and passing it off as your own. This includes incorporating either unattributed direct quotation(s) or substantial paraphrasing from the work of another or others. It is important to cite all sources whose work has been drawn on and reference them fully in accordance with the referencing standard used in each academic school.

**Collusion** occurs when two or more people combine to produce a piece of work for assessment that is passed off as the work of one student alone. The work may be so

alike in content, wording and structure that the similarity goes beyond what might have been coincidence. For example, where one student has copied the work of another, or where a joint effort has taken place in producing what should have been an individual effort.

## **Penalties**

Where an offence is admitted, or a panel decides that cheating, plagiarism or collusion has occurred, a penalty will be imposed. The severity of the penalty will vary according to the nature of the offence and the level of study. Penalties will range from failure of the assignment under investigation to a restriction of the award a student may ultimately achieve, or a requirement to leave the University. Further information can be found on-line on the University web pages or from the Students' Union.

[http://www.wlv.ac.uk/Docs/aca\\_acad\\_misc.doc](http://www.wlv.ac.uk/Docs/aca_acad_misc.doc)

## **What to do if you have a complaint.**

If you are not happy with the standard of teaching or support you are receiving or have a complaint about the University, course or staff, the University of Wolverhampton has a specific student complaints procedure through which you may air your grievances. The relevant documentation and procedure for making complaints can be found on the University Web site on the following page under individual conduct <http://www.wlv.ac.uk/polsregs> . Please note that the procedure expects that you try to resolve the issue informally in the first instance. The Students Union may also be able to help you should you have a complaint.

## 24. Module Descriptions

***Every attempt has been made to ensure the accuracy of the module descriptions that follow, particularly with respect to the mode of assessment. The definitive statement of the assessment criteria for a module is that given in the current module guide***

4BM003 Study and Professional Skills  
4BM004 Human Structure and Function  
4BM005 Microbes and Immunity  
4BM011 Introduction to Biomedical Science  
4PY013 Molecular Basis of Life  
4PY009 Principles of Drug Action

5BM019 Pathophysiology  
5BM009 Integrated Physiology  
5BM033 Mechanisms of Disease  
5BM010 Anatomy & Biomechanics  
5PY010 Therapeutic Pharmacology  
5BM013 Physiology Practicals & Research Methods

5BM031 Biomedical Science Sandwich Placement

6BM017 Advanced Human Physiology  
6BM008 Haematology and Transfusion Science  
6BM009 Clinical Biochemistry and Clinical Immunology  
6BM010 Medical Microbiology  
6BM014 Honours Research Project

## 4BM003 Study and Professional Skills

<b>Credit value</b>	20
<b>Pre-requisites</b>	None
<b>Prohibited combinations</b>	None
<b>Module Leader</b>	Dr. James Vickers
<b>Module description</b>	<p>This module introduces, reinforces and expands the study and key skills necessary for the successful study of disciplines in Health Care Science. Computer packages for word processing, electronic mail, document production, spreadsheets, databases, data analysis, information retrieval and scientific writing skills will be introduced. This module will also provide an awareness of professional accreditation and registration of various Health Care Science Professional Disciplines. The role of the relevant professional body will be described</p>
<b>Assessment with weighting</b>	1. Portfolio 100%

## 4BM004 Human Structure and Function

<b>Credit value</b>	20
<b>Co-requisites</b>	None
<b>Prohibited combinations</b>	None
<b>Module Leader</b>	Dr. Ruth Shiner
<b>Module description</b>	This module aims to develop knowledge of the way that the human body is structured through the subject of anatomy and the way in which the systems of the body function through the subject of physiology. It also aims to achieve an understanding of how human structure changes throughout the life of the individual and how malfunction of the body systems can lead to disease.
<b>Assessment with weighting</b>	<ol style="list-style-type: none"><li>1. In class Test 50%</li><li>2. Examination 50%</li></ol>



## 4BM005 Microbes and Immunity

<b>Credit value</b>	20
<b>Pre-requisites</b>	None
<b>Prohibited combinations</b>	None
<b>Module Leader</b>	Dr. Martin Khechara
<b>Module description</b>	<p>This module aims to introduce you to the world of microorganisms. This includes the structure and function of organisms from each kingdom, their uses in the environment, laboratory or industry and gives you a broad introduction to the field microbiology in general. Additionally, it also aims to highlight the impact of microorganisms on the human host that can lead to disease and show you how these aetiological agents can be controlled through chemical means or public health measures. Finally, the module will provide you with an introduction to the immune system in relation to its function in the disease process.</p>
<b>Assessment with weighting</b>	<ol style="list-style-type: none"><li>1. Coursework 40%</li><li>2. Exam 60%</li></ol>

## 4BM011 Introduction to Biomedical Science

<b>Credit value</b>	20
<b>Pre-requisites</b>	None
<b>Prohibited combinations</b>	None
<b>Module Leader</b>	Dr. Jan Martin
<b>Module description</b>	<p>The overall aim of this module is that the student understands the organisation of biomedical science into scientific and clinical specialties and their interrelationships, the nature of work performed in these specialties and gains understanding of the basics of good laboratory practice as applied to pathology and laboratory medicine. One of the overall aims of the module is to provide students with a broad appreciation of the range of work undertaken within biomedical science. Students will begin the process of the development of the skills and attitudes relevant to the Biomedical Scientist, building on learning in the academic environment including practical sessions, clinical skills sessions, reflection on development etc.</p>
<b>Assessment with weighting</b>	<p>1. Coursework 50%</p> <p>2. Report 50%</p>

## 4PY013 Molecular Basis of Life

<b>Credit value</b>	20
<b>Pre-requisites</b>	None
<b>Prohibited combinations</b>	None
<b>Module Leader</b>	Dr. Daron Fincham
<b>Module description</b>	The module studies cell biology, biochemistry and genetics through investigation of cell structure and organelles, enzyme action and metabolism and gene structure, function and expression.
<b>Assessment with weighting</b>	1. Practical 40% 2. Exam 60%

## 4 PY009 Principles of Drug Action

<b>Credit value</b>	20
<b>Pre-requisites</b>	None
<b>Prohibited combinations</b>	None
<b>Module Leader</b>	Dr. Iain Coleman
<b>Module description</b>	This module provides students with a fundamental knowledge of drug action. This knowledge is required to underpin further study in pharmacological aspects of pharmacy, pharmaceutical science, and pharmacology.
<b>Assessment with weighting</b>	<ol style="list-style-type: none"><li>1. Coursework 0%</li><li>2. Exam 100%</li></ol>

## 5BM019 Pathophysiology

<b>Credit value</b>	20
<b>Pre-requisites</b>	4BM009 Introduction To Cardiovascular, Respiratory and Sleep Science  4BM004 Human Structure and Function
<b>Prohibited combinations</b>	None
<b>Module Leader</b>	Dr. Janine Fletcher
<b>Module description</b>	This module aims to develop your knowledge and understanding of the pathophysiology of common cardiovascular and respiratory conditions
<b>Assessment with weighting</b>	<ol style="list-style-type: none"><li>1. Coursework 50%</li><li>2. Exam 50%</li></ol>

## 5BM009 Integrated Physiology

<b>Credit value</b>	20
<b>Pre-requisites</b>	4BM004 Human Structure and Function
<b>Prohibited combinations</b>	None
<b>Module Leader</b>	Dr. Gillian Conde
<b>Module description</b>	The module aims to provide knowledge and comprehension of the basic principles underlying human physiology.
<b>Assessment with weighting</b>	<ol style="list-style-type: none"><li>1. Portfolio 40%</li><li>2. Examination 60%</li></ol>

## 5BM033 Mechanisms of Disease

<b>Credit value</b>	20
<b>Pre-requisites</b>	4BM011 Introduction to Biomedical Sciences 4PY013 Molecular Basis of Life 4BM003 Study & Professional Skills 4BM005 Microbes & Immunity
<b>Prohibited combinations</b>	
<b>Module Leader</b>	Dr Shantha Perera
<b>Module description</b>	This module will enable students to understand the underlying biological principles of human disease in the subject areas of cellular pathology, clinical biochemistry, medical microbiology, haematology, clinical immunology & clinical genetics. Additionally this module will enable the students to gain practical experience in some techniques commonly used in these subject areas
<b>Assessment with weighting</b>	1. Practical 40% 2. Exam 60%

## 5BM010 Anatomy & Biomechanics

<b>Credit value</b>	20
<b>Pre-requisites</b>	None
<b>Prohibited combinations</b>	None
<b>Module Leader</b>	Dr Peter Griffiths
<b>Module description</b>	The module aims to give an overview of the structure and biomechanics of the human body. The embryological origins of the main organ systems will also be considered.
<b>Assessment with weighting</b>	1. Practical 0% 2. Exam 100%



## 5PY010 Therapeutic Pharmacology

<b>Credit value</b>	40
<b>Pre-requisites</b>	4PY059 Principles of Drug Action
<b>Prohibited combinations</b>	None
<b>Module Leader</b>	Dr. Colin Brown
<b>Module description</b>	This module aims to provide students with knowledge and understanding of the principles of pharmacy and modes of intervention in current therapeutic practice. In addition, provide an introduction to the pharmacological basis of therapeutics by indicating the evidence for, and basis of the drugs used as a means of therapeutic intervention.
<b>Assessment with weighting</b>	1. In class test 0% 2 Exam 100%

## 5BM013 Physiology Practicals & Research Methods

<b>Credit value</b>	20
<b>Pre-requisites</b>	4BM004 Human Structure and Function
<b>Prohibited combinations</b>	None
<b>Module Leader</b>	Dr. Paul Barrow
<b>Module description</b>	<p>The module introduces students to the principles of research methods use in physiological experimentation; experimental design, ethical implications, health and safety considerations, data collection and presentation, statistic analyses and report writing. Then, within a physiology laboratory setting and in the context of performing experiments in key areas on human physiology, the module gives students experience of research methods and experimental techniques in physiology, introduces the concepts of experimental research design, ethical and health and safety implications, and analysis and assessment of research outcomes. Further, students gain knowledge, understanding and experience of scientific report writing, which supports achievement in study at higher levels. Supplementary information and documentation relating to the practical classes is available on WOLF</p>
<b>Assessment with weighting</b>	<p>1. Report        60%  2. Coursework 40%</p>

## 5BM031 Biomedical Science Sandwich Placement

<b>Credit value</b>	40						
<b>Pre-requisites</b>	Successful completion of Level 1 (120 credits) Sufficient credits to proceed at level 2 (90 credits)						
<b>Prohibited combinations</b>	None						
<b>Module Leader</b>	Dr. Jan Martin						
<b>Module description</b>	Develop the students' technical and personal skills within the work environment.						
<b>Assessment with weighting</b>	<table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">1.</td> <td style="width: 80%;">Placement</td> <td style="width: 10%;">50%</td> </tr> <tr> <td>3</td> <td>Report</td> <td>50%</td> </tr> </table>	1.	Placement	50%	3	Report	50%
1.	Placement	50%					
3	Report	50%					

## 6BM008 Haematology and Transfusion Science

<b>Credit value</b>	20				
<b>Pre-requisites</b>	5BM004 5BM006				
<b>Prohibited combinations</b>	None				
<b>Module Leader</b>	Dr James Vickers				
<b>Module description</b>	This module aims to develop an understanding of the biology of haematological systems and the pathophysiology of haematological disorders. The course is divided into four sections: haemostasis, anaemia, malignant haematology and transfusion science. The first three cover the normal physiology and biochemistry of the haemostatic system, the erythron, and the myeloid and lymphoid tissues, and the pathology, diagnosis and treatment of disorders of these systems. Transfusion science covers the biology of blood groups and serology, and the preparation and use of blood components.				
<b>Assessment with weighting</b>	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1. Examination</td> <td style="width: 50%;">50%</td> </tr> <tr> <td>2. Examination</td> <td>50%</td> </tr> </table>	1. Examination	50%	2. Examination	50%
1. Examination	50%				
2. Examination	50%				

## 6BM009 Clinical Biochemistry and Clinical Immunology

<b>Credit value</b>	20
<b>Pre-requisites</b>	5BM006 Biology and Investigation of Disease 2
<b>Prohibited combinations</b>	None
<b>Module Leader</b>	Dr Simon Dunmore
<b>Module description</b>	The module aims to provide an understanding of the disease mechanisms in common metabolic & immunological diseases and enable appreciation of the application of laboratory investigations in clinical biochemistry & clinical immunology in the diagnosis, monitoring and treatment of disease.
<b>Assessment with weighting</b>	1. Coursework           50% 2. Examination         50%

## 6BM010 Medical Microbiology

<b>Credit value</b>	20				
<b>Pre-requisites</b>	4BM005 Microbes and Immunity, 4AB012 Microbiology with Immunology				
<b>Prohibited combinations</b>	None				
<b>Module Leader</b>	Dr Elizabeth O’Gara				
<b>Module description</b>	Medical microbiology begins with a overview of the role of pathology laboratories, reference laboratories and the Health Protection Agency in the prevention and control of infectious disease. A system based approach is then used to study infectious diseases of the respiratory tract, urinary and gastrointestinal tracts, skin and central nervous system. Sexually transmitted infections and opportunistic infections of the compromised host will be covered. You will review and investigate aetiology, pathogenic mechanisms, clinical presentation, and diagnostic procedures for selected medically important microbial pathogens.				
<b>Assessment with weighting</b>	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1. Coursework</td> <td style="width: 50%;">40%</td> </tr> <tr> <td>2. Examination</td> <td>60%</td> </tr> </table>	1. Coursework	40%	2. Examination	60%
1. Coursework	40%				
2. Examination	60%				

## 6BM014 Honours Research Project

<b>Credit value</b>	40				
<b>Pre-requisites</b>	Students must study 100 credits of BM coded modules at level 4 and at level 5 relevant to their programme of study, or equivalent.				
<b>Prohibited combinations</b>	None				
<b>Module Leader</b>	Dr Janine Fletcher				
<b>Module description</b>	Undertake a research project, in an area relevant to your discipline, from conception to completion.				
<b>Assessment with weighting</b>	<table><tr><td>1. Presentation</td><td>20%</td></tr><tr><td>2. Report</td><td>80%</td></tr></table>	1. Presentation	20%	2. Report	80%
1. Presentation	20%				
2. Report	80%				

## 6BM017 Advanced Human Physiology

<b>Credit value</b>	20
<b>Pre-requisites</b>	5BM009 Integrated Physiology
<b>Prohibited combinations</b>	None
<b>Module Leader</b>	Dr. Gillian Conde
<b>Module description</b>	This module aims to explore the fundamental systems involved in Human Physiology and to introduce current, up-to-date theories which underpin these systems. You will receive weekly lectures/tutorials, relating to the specialism of the staff on the module
<b>Assessment with weighting</b>	1. Exam 100%



## 25. Assessment criteria

### Level 4 A6

Outstanding work of excellent quality. The student demonstrates a thorough knowledge and understanding of the issues involved, perceptive and well organised use of relevant material and an ability to sustain a coherent argument. Some evidence of coherent thought, originality and evaluation.

### Level 4 B5

Best possible organisation of material and consideration of all the relevant issues. Demonstrates a sound ability to apply knowledge critically. Well written, completely relevant, coherent, good linking of ideas and paragraphs. B13/B12 always supports comments with appropriate references. B11 some comments are not justified but overall shows an ability to use evidence gleaned from independent reading.

### Level 4 C4

The student demonstrates an ability to understand the issues involved and having read around the subject. There is some evidence of application of knowledge, ideas and theories. If work contains sweeping unjustified statements then a maximum of a C10 is appropriate even if there is some evidence of originality.

### Level 4 D3

The student demonstrates knowledge and some understanding of the issues involved but does not utilise material to support their argument. There is evidence of reading and the student has correctly referenced their work and included an appropriate bibliography. The work, though relevant, is descriptive.

### Level 4 E2

Poor English, poor structure, some irrelevant material but nevertheless shows some understanding of the task in hand. Little evidence of reading, most of the material emanating from taught sessions only. Possibly lacking in bibliography

### Level 4 F1

Little or no evidence of knowledge or understanding of the task involved. No evidence of reading, no bibliography.

### Level 5 A16 A15 A14

Outstanding work of excellent quality. Shows an exceptional ability to analyse and synthesise. There is considerable evidence of independent thought, originality and ability to evaluate.

### Level 5 B13 B12 B11

Shows an ability to inter-relate concepts, ideas and theories with some evidence of independent thought, originality and evaluation.

### Level 5 C10 C9 C8

Competent in terms of originality and independent thought, with evidence of sound, balanced critical thought. Adequate demonstration of an evaluative approach. (C8 if some analysis but has poor structure and lacks coherence.)

### Level 5 D7 D6 D5

The student demonstrates a sound knowledge and understanding of the issues involved, an ability to apply knowledge, concepts and theories, and an attempt at evaluation. There is some evidence of critical thought but some difficulties at balancing and substantiating points. There is evidence of the reading and application of information from specialist texts and review papers where this is appropriate.

### Level 5 E4 F3

Limited evidence of appropriate reading, shows some ability to apply knowledge, ideas and concepts, but work is lacking in critical thought and evidence of an

<p>evaluative approach.</p> <p><b>Level 5 F2 F1</b></p> <p>Little or no evidence of application of knowledge, ideas and concepts. Totally inadequate evidence of reading from appropriate sources. Mainly descriptive.</p>
<p><b>Level 6 A16 A15 A14</b></p> <p>Outstanding work of excellent quality. Demonstrates an exceptional ability to evaluate critically using a wide range of appropriate criteria, to inter-relate and synthesise concepts, ideas and theories with considerable evidence of independent thought and originality.</p>
<p><b>Level 6 B13 B12 B11</b></p> <p>Demonstrates considerable competence in terms of ability to analyse, synthesise and to evaluate, making balanced judgements. Clear demonstration of original thought.</p>
<p><b>Level 6 C10 C9 C8</b></p> <p>Sound ability to analyse critically and definite evidence of synthesis of ideas, concepts and theories. Shows competence in making independent judgements based on broadening criteria. Original thought is demonstrated.</p>
<p><b>Level 6 D7 D6 D5</b></p> <p>Shows evidence of reading a wide range of literature including specialist texts and original research papers where appropriate. Demonstrates an ability to analyse critically and to see relationships in what has been learned. There is some evidence of synthesis of ideas, concepts and theories but the work is limited in terms of originality. Some form of independent judgement has been attempted but this is limited in terms of the scope of the criteria applied.</p>
<p><b>Level 6 E4 F3</b></p> <p>Some evidence of appropriate reading for this level of study, but the work lacks originality of thought and any attempt to evaluate.</p>
<p><b>Level 6 F2 F1</b></p> <p>Little or no evidence of analysis, synthesis and evaluation of ideas, concepts or theories. Lacking in evidence of reading of original research papers or current developments in the chosen field or discipline where this is deemed to be appropriate.</p>

***Disclaimer statement***

This course guide was correct at the time of writing and whilst every effort has been made to ensure the accuracy of the information supplied herein. The University of Wolverhampton cannot be held responsible for any errors or omissions.