



**BM2009**

**Human Anatomy A**

**Course Handbook  
2019-20**

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Cover image:

**Confocal micrograph of fluorescently labelled HeLa cells.**

Nuclei are labelled in blue, tubulin in green and actin fibres in red.

Courtesy of:

Kevin Mackenzie

Microscopy and Histology Core Facility

Institute of Medical Sciences

University of Aberdeen

<http://www.abdn.ac.uk/ims/microscopy-histology>

## Course Summary

BM2009 is restricted to students registered for the BSc in Biomedical Sciences. BM2009 is a practical anatomy course that explores gross anatomy and functions of the human body. The main method for student learning is supervised study of human prosected cadaveric material.

The course will consist of:

1. An introductory lecture and tour of facilities
2. 20 practicals (incl. one revision session) and 2 tutorials
3. Regular short talks
5. 3 in-course assessments, the first formative, the 2<sup>nd</sup> and 3<sup>rd</sup> summative

All students on this course must comply with The Anatomy Act 1984 as amended by The Human Tissue (Scotland) Act 2006 and its regulations. Other local rules for practical work involving embalmed human specimens will be provided during the course. Students must familiarise themselves with the particular policies relating to health, safety and confidentiality when working within the Anatomy Facility. Information on these will be provided at the beginning of the course.

## Course Aims & Learning Outcomes

- Name and describe, in standard terms, anatomical planes and relations and the gross anatomical components of the human body and explain their functions.
- Describe the location of functional systems in the regions of the body.
- Demonstrate anatomical skills, in particular be able to point out surface markings of internal organs and structures and explain their significance.
- Begin to identify the spectrum of usual variation of normal human structure and function and how this relates to abnormality.
- Explain the two-dimensional projection of structures on radiographic images.
- Work as part of a team towards stated objectives.
- Develop problem-solving and IT skills.

As far as the BM2009 course is concerned, the above objectives refer to the following regions of the body: back, upper and lower limbs, thorax and abdomen.

(The BM2509 course, in Semester 2, covers the pelvis and perineum, head, neck and brain.)

## Course Teaching Staff

### Course Co-ordinator:

Dr Flora Gröning, [f.groening@abdn.ac.uk](mailto:f.groening@abdn.ac.uk)

### Course Administrator:

Ms Agnieszka (Aggie) Kruk-Omenzetter, Email: [a.kruk-omenzetter@abdn.ac.uk](mailto:a.kruk-omenzetter@abdn.ac.uk)  
Tel: 01224-274320 (Anatomy Administrator)

### Other Teaching Staff:

Mr David Chorn, [d.j.chorn@abdn.ac.uk](mailto:d.j.chorn@abdn.ac.uk)

Dr Premnath Ballal, [p.ballal@abdn.ac.uk](mailto:p.ballal@abdn.ac.uk)

Dr Shahida Shahana, [s.shahana@abdn.ac.uk](mailto:s.shahana@abdn.ac.uk)

Dr Bahgat Sami, [bahgat.sami@abdn.ac.uk](mailto:bahgat.sami@abdn.ac.uk)

Prof Simon H Parson, [simon.parson@abdn.ac.uk](mailto:simon.parson@abdn.ac.uk)

In addition, postgraduate demonstrators and PAL tutors will often be available to assist during practical classes.

N.B. Teaching staff can be recognised by the green lab coats that they wear. Technical staff are recognised by blue lab coats.

## Assessments & Examinations

Students will be required to pass the whole course – i.e. a total composite mark, based on the continuous summative assessments and examination components as specified below, of 9 or above on the University of Aberdeen common grading scale (CGS) will give 15 credits. There are no ‘mock’ examinations in BM2009. Students should assess their own progress by self-testing their attainment of the learning objectives for each practical and by realistically interpreting the results of formative assessments, online quizzes and “spotter” tests during practical classes.

### **Upper & Lower Limb summative assessment – 20%**

### **Thorax and Abdomen summative assessment – 20%**

(Continuous assessment: 40% of total assessment)

### **Examination: 60% of total assessment**

- this will take place in the December diet, with a resit paper in July
- the examination will comprise two parts, both compulsory, as follows:

**An MCQ paper** consisting of multiple-choice questions that examine the student on material covered in the course (the learning objectives associated with the practicals serve as a good guide to the material examined). Total = 30%

**A “spotter” examination** with short questions based on the interpretation of e.g. prosected cadaveric specimens, bones, models and X-rays. Total = 30%

Students who attain an overall mark for the course of 8 or less on the CAS will fail the course. A resit diet will be held in July.

Class certificates will be valid for two years and permit a total of three attempts at the required assessment within that two-year period i.e. the first attempt plus up to two resits.

N.B. For this course (and for BM2509 in Semester 2) the in-course assessment marks will only be considered at a student’s first attempt of the examination. In any resit examination, the final mark will be determined on the basis of the MCQ paper (50%) and the “spotter” examination (50%).

## Class Representatives

**We value students' opinions in regard to enhancing the quality of teaching and its delivery; therefore in conjunction with the Students' Association we support the Class Representative system.**

In the School of Medicine, Medical Sciences & Nutrition we operate a system of course representatives, who are elected from within each course. Any student registered within a course who wishes to represent a given group of students can stand for election as a class representative. You will be informed when the elections for class representative will take place.

### What will it involve?

It will involve speaking to your fellow students about the course you represent. This can include any comments that they may have. You will attend a Staff-Student Liaison Committee meeting and you should represent the views and concerns of the students within this meeting. As a representative you will also be able to contribute to the agenda. You will then feedback to the students after this meeting with any actions that are being taken.

### Training

Training for class representatives will be run by the Students Association. Training will take place within each half-session. For more information about the class representative system visit [www.ausa.org.uk](http://www.ausa.org.uk) or email the VP Education & Employability ([vped@abdn.ac.uk](mailto:vped@abdn.ac.uk)). Class representatives are also eligible to undertake the STAR (Students Taking Active Roles) Award with further information about this co-curricular award being available at: [www.abdn.ac.uk/careers](http://www.abdn.ac.uk/careers).

## Problems with Coursework

If students have difficulties with any part of the course that they cannot cope with alone they should notify the course coordinator immediately. If the problem relates to the subject matter, general advice would be to contact the member of staff who is teaching that part of the course. Students with registered disabilities should contact Mrs Jenna Reynolds ([medsci@abdn.ac.uk](mailto:medsci@abdn.ac.uk)) in the Medical Sciences Office (based in the Polwarth Building, Foresterhill), or Mrs Sheila Jones ([s.jones@abdn.ac.uk](mailto:s.jones@abdn.ac.uk)) in the Old Aberdeen office associated with the teaching laboratories, to ensure that the appropriate facilities have been made available. Otherwise, you are strongly encouraged to contact any of the following as you see appropriate:

- Course student representative(s)
- Course co-ordinator
- Convenor of the Medical Sciences Staff/Student Liaison Committee (Professor Gordon McEwan)
- Medical Sciences Disabilities Co-ordinator (Dr Derryck Shewan)

All staff are based at Foresterhill and we strongly encourage the use of email or telephone the Medical Sciences Office. You may have a wasted journey travelling to Foresterhill only to find staff unavailable.

If a course has been completed and students are no longer on campus (i.e. work from second semester during the summer vacation), coursework will be kept until the end of Freshers' Week, during the new academic year. After that point, unclaimed student work will be securely destroyed.

## Course Reading List

Textbooks – The purchase of an anatomy textbook is considered essential for all students. The following book is recommended:

*“Moore’s Essential Clinical Anatomy”* by Anne M.R. Agur and Arthur F. Dalley, 6<sup>th</sup> edition, 2019 published by Wolters Kluwer. ISBN 978-1975114435 (older edition is also fine!)

**N.B. Reading the recommended textbook, or similar texts, is an integral part of your study of anatomy!**

Written material and diagrams in classes are similar to what you will find in your recommended text.

A small collection of books is available for students' use in Anatomy Teaching areas. These books must not be removed from Anatomy.

## Anatomy on the Web

The following online resources are available on the course website on MyAberdeen:

- **Toolkit videos** on “How to make the most of Anatomy practical classes” and “Top tips for successful Anatomy revision” (also available on the Anatomy Toolkit homepage: <https://www.abdn.ac.uk/toolkit/services/anatomy/>)
- **Acland’s Video Atlas** of Human Anatomy
- **Anatomy.tv** (available through the generosity of the Roland Sutton Academic Trust)
- **Weekly quizzes**

Some stand-alone PCs with additional anatomy software are available in the Anatomy Museum. The software packages available on these computers include:

- A.D.A.M.
- McMinn’s Interactive Clinical Anatomy
- Imaging Atlas of Human Anatomy (Radiology)

- Instant Anatomy
- Primal 3D Interactive (7 packages): Head and Neck; Spine, Shoulder, Hand, Hip, Knee and Foot and Ankle
- Primal 3D Sports Injury (5 packages): The Knee, The Foot, The Shoulder, Body in Motion and Interactive Skeleton Sports and Kinetics

To access the above software:

- Switch on computer
- Click on Start button to reveal list of packages available
- Double click on appropriate icon to enter package

Because of licensing requirements, not all of the above packages are available on all of the machines.

All of the packages listed above have “quiz” applications which you may find useful for revision purposes.

Please note that these are commercial packages which have not been specifically designed for your course. Much of the material covered in these packages is presented in greater depth than you are expected to know for the examination.

## Lecture Synopsis

This course does not use traditional lectures as part of its teaching, except where specific material must be covered in greater detail (e.g. the Anatomy Act lecture at the very start of the course).

Before practical sessions, there may be a short talk that indicates the points of interest or concepts that you should focus on during your practical work.

Detailed contents for each practical session will be published on MyAberdeen, plus students will use a workbook containing specific tasks/learning activities that will help them focus their studies in anatomy.

## Talks/Tutorials/Practicals

### Talks

A short (up to 30 minutes) talk is provided on each region of the body. This talk will highlight an area of difficulty / interest.

### Tutorials

Two tutorials will be provided. In these sessions, all students will be expected to make an active contribution to the tutorial. You are expected to undertake whatever reading or problem-solving exercise you are given as preparation.

### Practicals

This component comprises 19 practicals (each 2-3 hours) during which students will be expected to actively investigate the anatomy of the limbs, back, thorax and abdomen by studying the prosected cadaveric specimens provided. The course will provide students with a framework of basic anatomical knowledge and practical skills. The practicals focus on the morphological aspects (how parts of the body are put together) of the body and how these components work. The learning during these practicals will be guided by a workbook that is handed out at the beginning of the course. **Students will be expected to come to each practical class prepared, which means that they are expected to have worked through the relevant sections in the workbook and the recommended textbook!**

### Anatomy Museum

The Museum will be available for self-study during the following times:  
Monday – Friday (including Wednesday pm), 9.00am – 4.45pm

## University Policies

Students are asked to make themselves familiar with the information on key institutional policies which have been made available within MyAberdeen (<https://abdn.blackboard.com/bbcswebdav/institution/Policies>). These policies are relevant to all students and will be useful to you throughout your studies. They contain important information and address issues such as what to do if you are absent, how to raise an appeal or a complaint and indicate how seriously the University takes your feedback.

These institutional policies should be read in conjunction with this programme and/or course handbook, in which School and College specific policies are detailed. Further information can be found on the [University's Infohub webpage](#) or by visiting the Infohub.

The information included in the institutional area for 2019/20 includes the following:

- Absence
- Appeals & Complaints
- Student Discipline
- Class Certificates
- MyAberdeen
- Originality Checking
- Feedback
- Communication
- Graduate Attributes
- The Co-Curriculum

## Medical Sciences Common Grading Scale

Grade	Grade Point	Category	Honours Class	Description
A1	22	Excellent	First	<ul style="list-style-type: none"> <li>Outstanding ability and critical thought</li> <li>Evidence of extensive reading</li> <li>Superior understanding</li> <li>The best performance that can be expected from a student at this level</li> </ul>
A2	21			
A3	20			
A4	19			
A5	18			
B1	17	Very Good	Upper Second	<ul style="list-style-type: none"> <li>Able to argue logically and organise answers well</li> <li>Shows a thorough grasp of concepts</li> <li>Good use of examples to illustrate points and justify arguments</li> <li>Evidence of reading and wide appreciation of subject</li> </ul>
B2	16			
B3	15			
C1	14	Good	Lower Second	<ul style="list-style-type: none"> <li>Repetition of lecture notes without evidence of further appreciation of subject</li> <li>Lacking illustrative examples and originality</li> <li>Basic level of understanding</li> </ul>
C2	13			
C3	12			
D1	11	Pass	Third	<ul style="list-style-type: none"> <li>Limited ability to argue logically and organise answers</li> <li>Failure to develop or illustrate points</li> <li>The minimum level of performance required for a student to be awarded a pass</li> </ul>
D2	10			
D3	9			
E1	8	Fail	Fail	<ul style="list-style-type: none"> <li>Weak presentation</li> <li>Tendency to irrelevance</li> <li>Some attempt at an answer but seriously lacking in content and/or ability to organise thoughts</li> </ul>
E2	7			
E3	6			
F1	5	Clear Fail	Not used for Honours	<ul style="list-style-type: none"> <li>Contains major errors or misconceptions</li> <li>Poor presentation</li> </ul>
F2	4			
F3	3			
G1	2	Clear Fail/ Abysmal	-	<ul style="list-style-type: none"> <li>Token or no submission</li> </ul>
G2	1			
G3	0			

## Course Timetable BM2009 – 2019-2020

Date	Time	Place	Subject	Session	Staff
<b>Week 7</b>					
Mon 9 Sep					
Tue 10 Sep					
Wed 11 Sep					
Thu 12 Sep	15:30-16:00	FLT	Anatomy Act Lecture	Lecture	SHP & FG
	16:00-17:30	Anatomy Facility	Introduction to course and tour	Practical	Anatomy Staff
Fri 13 Sep					
<b>Week 8</b>					
Mon 16 Sep					
Tue 17 Sep	10:00-13:00	Anatomy Facility	Introduction to Anatomy	Practical	Anatomy Staff
Wed 18 Sep					
Thu 19 Sep	15:30-16:00	1:143-144	Talk: Joints	Lecture	FG
	16:00-17:30	Anatomy Facility	Bones & Joints	Practical	Anatomy Staff
Fri 20 Sep					
<b>Week 9</b>					
Mon 23 Sep					
Tue 24 Sep	10:00-11:00	1:147	Talk: Nerve Arcs	Lecture	SS
	11:00-13:00	Anatomy Facility	Muscles & Nerves	Practical	Anatomy Staff
Wed 25 Sep					
Thu 26 Sep	15:30-17:30	Anatomy Facility	Back	Practical	Anatomy Staff
Fri 27 Sep					
<b>Week 10</b>					
Mon 30 Sep					
Tue 1 Oct	10:00-11:00	Anatomy Facility	Formative Assessment: Introduction & Back	Practical	Anatomy Staff
	11:00-13:00	Anatomy Facility	Upper Limb 1	Practical	Anatomy Staff
Wed 2 Oct					
Thu 3 Oct	15:30-16:00	1:143/144	Talk: Muscle compartments of the upper limb	Lecture	FG
	16:00-17:30	Anatomy Facility	Upper Limb 2	Practical	Anatomy Staff
Fri 4 Oct					
<b>Week 11</b>					
Mon 7 Oct					
Tue 8 Oct	10:00-11:00	Anatomy Facility	Tutorial: Brachial plexus	Tutorial	SS
	11:00-13:00	Anatomy Facility	Upper Limb 3	Practical	Anatomy Staff
Wed 9 Oct					
Thu 10 Oct	15:30-17:30	Anatomy Facility	Upper Limb 4	Practical	Anatomy Staff
Fri 11 Oct					
<b>Week 12</b>					
Mon 14 Oct					
Tue 15 Oct	10:00-13:00	Anatomy Facility	Lower Limb 1	Practical	Anatomy Staff
Wed 16 Oct					
Thu 17 Oct	15:30-16:00	1:143/144	Talk: Weight bearing & Walking	Lecture	FG
	16:00-17:30	Anatomy Facility	Lower limb 2	Practical	Anatomy Staff
Fri 18 Oct					
<b>Week 13</b>					
Mon 21 Oct					

Tue 22 Oct	10:00-11:00	Anatomy Facility	Tutorial: Lumbosacral Plexus	Tutorial	FG
	11:00-13:00	Anatomy Facility	Lower Limb 3	Practical	Anatomy Staff
Wed 23 Oct					
Thu 24 Oct	15:30-17:30	Anatomy Facility	Lower Limb 4	Practical	Anatomy Staff
Fri 25 Oct					
<b>Week 14</b>					
Mon 28 Oct					
Tue 29 Oct	10:00-11:00	Anatomy Facility	Summative Assessment: Upper & Lower Limb	Practical	Anatomy Staff
	11:00-13:00	Anatomy Facility	Thorax 1	Practical	Anatomy Staff
Wed 30 Oct					
Thu 31 Oct	15:30-16:00	1:143/144	Talk: Respiration	Lecture	FG
	16:00-17:30	Anatomy Facility	Thorax 2	Practical	Anatomy Staff
Fri 1 Nov					
<b>Week 15</b>					
Mon 4 Nov					
Tue 5 Nov	10:00-11:00	Med Chi Hall	Talk: Heart	Lecture	FG
	11:00-13:00	Anatomy Facility	Thorax 3	Practical	Anatomy Staff
Wed 6 Nov					
Thu 7 Nov	15:30-17:30	Anatomy Facility	Thorax 4	Practical	Anatomy Staff
Fri 8 Nov					
<b>Week 16</b>					
Mon 11 Nov					
Tue 12 Nov	10:00-13:00	Anatomy Facility	Abdomen 1 (incl. Peritoneum talk)	Practical	Anatomy Staff
Wed 13 Nov					
Thu 14 Nov	15:30-17:30	Anatomy Facility	Abdomen 2	Practical	Anatomy Staff
Fri 15 Nov					
<b>Week 17</b>					
Mon 18 Nov					
Tue 19 Nov	10:00-13:00	Anatomy Facility	Abdomen 3	Practical	Anatomy Staff
Wed 20 Nov					
Thu 21 Nov	15:30-16:30	Anatomy Facility	Summative Assessment: Thorax & Abdomen	Practical	Anatomy Staff
Fri 22 Nov					
<b>Week 18 - No teaching during this week REVISION WEEK</b>					
Mon 25 Nov					
Tue 26 Nov					
Wed 27 Nov					
Thu 28 Nov	15:30-17:30	Anatomy Facility	Revision	Revision	Anatomy Staff
Fri 29 Nov					

### Staff

Dr Flora Gröning (FG), Course Co-ordinator
Prof. Simon Parson (SHP)
Dr Shahida Shahana (SS)
Mr David Chorn (DC)
Dr Prem Ballal (PB)
Dr Bahgat Sami (BS)