Welcome to the School of Medical Sciences (SMS) at the University of Aberdeen.

It is my hope that you will join our dynamic and friendly community, and enable us to help you achieve your aspirations and potential. We pride ourselves in world-leading excellence in both teaching and research. As our teaching is research-led you will be taught by some of the top academics in the UK, delivered in the best possible environment with access to world class facilities.

We offer a range of degrees, and many choices within these, allowing you to shape your study to suit your career aspirations and interests. Our exciting curriculum and the opportunities we provide for you to enhance your transferable skills and employability, mean that when you graduate you will leave this University empowered and with the right skill set for the next stage of your career.

I hope you enjoy reading about the opportunities there are for you in the School of Medical Sciences.

Professor Colin McCaig
Head of School
Undergraduate degree programmes

Biomedical Science Degrees
Human physiology, form and function, health and disease, across the span of medical biosciences.
- Biomedical Sciences
- Human Embryology & Developmental Biology
- Neuroscience with Psychology
- Immunology & Pharmacology
- Pharmacology
- Physiology
- Sports & Exercise Science
- Sports Studies

Molecular Medical Science Degrees
A range of cell and molecular biology subjects taught in the context of human health and disease.
- Biochemistry
- Biotechnology
- Genetics, Genetics (Immunology)
- Immunology
- Microbiology
- Molecular Biology

www.abdn.ac.uk/sms
At the School of Medical Sciences (SMS) you will be taught within a strongly research led environment.

Our degree programmes are built to enhance your employability and three flagship options give our degrees a distinctively different flavour from many others. All our honours disciplines offer the following features highly relevant to your future job prospects:

1. a 3 month full time research project in the final year as standard;
2. an optional industrial placement year and graduation with a Masters (MSci), and;
3. highly relevant and sought after experience in Bio-business.

All BSc Honours degrees offered by the SMS follow the traditional Scottish four year structure. Typically, you will take a selection of courses in your first year. These will include introductory courses in Medical Sciences and Chemistry (tailored to studies of Life Sciences). However, you will also have the opportunity to choose courses from a broad range of subject areas, giving you the opportunity to expand your academic experience. The key advantage to this four year system is that it allows a substantial level of flexibility. This means that you can defer your ultimate degree subject choice because the requirements for first year are largely the same for all degrees offered by SMS (currently 22 different degree options).

Depending on your additional choices, you may still have many options available to you outside those offered by SMS. This gives you the opportunity to experience for yourself what the different subject areas you might be interested in are all about. You are then in a stronger - more informed - position to make the correct judgement about what you will specialise in. This is not always obvious when you are applying from school.
The research we carry out in the School directly informs and guides our teaching, particularly in the final Honours year. Our commitment to teaching is underscored by our recent re-build and modernisation of the teaching lab space dedicated to practical teaching at years 1, 2 and 3.

A variety of teaching methods and styles are used at the SMS to make the teaching engaging, exciting and responsive to the latest research in that subject area.

As a student, your learning is supported by MyAberdeen, our virtual learning environment from which you can access the lecture Powerpoint slides, on-line practice tests, links to related reading, and tutorial support material.

We make innovative use of ‘educational voting’ handsets in class, remote control ‘clickers’ that allow each and every student to electronically respond in class by anonymous vote to questions posed by the lecturer.

Your academic development is supported from year 1 through to year 4 by an assigned personal tutor, who acts as adviser and mentor throughout your University career.
**Key teaching staff**

**Prof. Gordon McEwan** is the Director of Teaching in the School of Medical Sciences. He is a Physiologist by trade and has interests within the broad field of membrane transport – particularly in the gastrointestinal tract. His research career started in Glasgow, and then took him to Giessen in Germany, Vellore in India, Copenhagen and Newcastle.

He has been working for the University of Aberdeen for over 20 years and has a wealth of experience in teaching at all levels. He is co-organiser of the first year introductory Medical Science course and is heavily involved in its delivery – so you will be seeing a lot of him during the early phase of your educational experience here!

**Dr John Barrow** is a Senior Teaching Fellow in the School of Medical Sciences. He started his scientific career right here in Aberdeen, as an undergraduate Biochemistry student. He has remained in Aberdeen ever since as he firmly believes the University provides an ideal educational and work environment, that in his own words, “…is big enough to provide lots of opportunities, but is small enough to care.”

As a trained Molecular Biologist, he has worked in the fields of diabetes and psychiatric disorders, and continues to be fascinated by the way our genes and genomes are regulated. His current research interests involve insulin gene regulation and stem cell biology. As a Senior Teaching Fellow he is involved in all aspects of undergraduate teaching, which includes being the co-organiser of the first year Medical Science and Cell Biology courses, so you will get to know him pretty well right from day one of your degree!

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**Any questions?**

Phone us on 01224 437466

or Email sms@abdn.ac.uk
Dr Steve Tucker is a Senior Teaching Fellow in the School of Medical Sciences and is a local, having been raised just outside the Granite City. He began his love affair with Science right here at the University of Aberdeen, where he studied a BSc in Biomedical Sciences (Pharmacology) continuing on to complete his PhD (also in Pharmacology).

Having experienced several post doctoral research fellowships at the University of Aberdeen and the University of Edinburgh, Steve began teaching in 2007 on many of the courses he studied as an Undergraduate; a responsibility he loves and takes great pride in. His current teaching roles include all levels from 1st year through to Masters level, where he teaches many aspects of Physiology and his beloved Pharmacology… so there is no escaping him within the School! Steve also plays a central role in supporting students across the Institution.

He maintains research interests in cell signalling in cancer cell division and migration, modern imaging techniques and development of new delivery systems for anticancer drugs. Steve also has established interest in developing new practical classes and using eLearning tools to make teaching and learning more interactive and fun. Across your 1st year courses, he will teach you about a variety of topics including the pharmacology of drugs such as cannabis, morphine and Viagra!
Dr Derryck Shewan is a Senior Lecturer in Biomedical Sciences and a Physiology graduate of the University of Aberdeen. He undertook his PhD in Guy’s Hospital Medical School in the University of London and then experienced postdoctoral research fellowships at Guy’s Hospital and the University of Cambridge. Dr Shewan came back to the University of Aberdeen in 2003 and is an internationally recognised researcher in the cell biology of nerve growth and regeneration.

Together with Dr Steve Tucker, Dr Shewan has led pioneering research using state-of-the-art image analysis technology to study cell signalling activity in neuronal cells to help us understand important mechanisms in the development and regeneration of the nervous system.

No one else in the world has better expertise in this subject and we have trained undergraduate students how to do these techniques in summer placements and Honours projects. Their contributions have added to our knowledge of axon growth and regeneration. We continue to enthuse undergraduate students in translating the knowledge they learn to application for future careers.

Dr Shewan is also a prominent member of teaching staff. You will see him from day one as he helps oversee student induction at the start of term and he is involved in the teaching of Introduction to Medical Sciences. He coordinates the Skills Courses in 2nd year and perhaps his most prominent role is to coordinate Honours projects for Biomedical Science degrees. Dr Shewan is also Disabilities Officer for SMS and makes sure students with particular needs are catered for.
Degree programmes with an integral industrial placement offer students the opportunity to spend the fourth year of their degree in paid employment and graduate after five years with an MSci (an undergraduate Masters degree) instead of a BSc.

Placements vary considerably but in general terms, students are placed in an industrial, commercial or research environment where they will obtain a breadth of practical experience to complement their degree programme.

All degree programmes offered by the School of Medical Sciences, offer the opportunity for students to undertake a year’s placement. We currently have links with a number of different companies and have recently placed students in companies such as Novartis, GlaxoSmithKlein, AstraZeneca and NIMR as well as a number of smaller companies in the UK and abroad.
Alia Hafiz Abbas Gasim
Alia undertook an industrial placement with Epistem in Manchester for 15 months.

“For my industrial placement I worked in a biotechnology company researching cancer metastasis and cancer stem cells hypothesis. I not only increased my knowledge about cancer and stem cells, I also got acquainted with and mastered several laboratories techniques as my project involved various experiments. I really enjoyed the placement year; it prepared me as a scientist and it was great to put knowledge into practice.”

Why undertake a year’s industrial placement?

Employers now expect an impressive list of skills, knowledge and experience in their graduate recruits. They welcome ‘transferable skills’ acquired during a work placement, such as communication, numeracy, use of IT, group work and time management.

In addition to allowing you to experience workplace culture, completing an industrial placement makes you a more effective employee following graduation. Increasingly, placements or periods of work experience are being used as a tool by employers for pre-selecting the best students for graduate roles. An industrial placement year may therefore become a passport to employment.
The range of degrees within the Medical Science disciplines prepare you to follow a broad range of careers relating to medicine and the life sciences.

The quality of your training will permit you to take advantage of international career opportunities in research and development. Some pursue these within Universities and Research Institutes, while others find employment in the biomedical research, biotechnology and pharmaceutical industries. Our bio-business courses teach you how biology links directly to commerce which may inspire you to set up your own business.

But not all Medical Scientists are to be found in laboratories. Others choose further study in related areas such as medicine, dentistry, veterinary science, dietetics and physiotherapy. Some may be found teaching in schools, inspiring the next generation of scientists, or in courts of law, arguing over complex patent cases.

In addition, an understanding of contemporary biology combined with your wider graduate skills will give you an additional broad choice of potential career options such as bioethics, journalism, and health economics.

Many of the career opportunities outlined also apply to graduates with a Sport & Exercise Science background. However, athletes themselves need to be educated and a degree in Sports Science gives them a clear understanding of the limitations to their performance and how to optimize it.

Equally, this applies to the wide range of sports and athletics support staff – such as coaches, trainers, managers, physiotherapists and other health related professions concerned with fitness and nutrition.
What our students say

Eva Szunyogova
BSc (Hons) Biomedical Sciences (Anatomy)

The most enjoyable part of my degree was definitely working on my Honours project. It was very exciting to be part of a research team and have the opportunity to search for answers not solely through reading other journals but by newly acquired skills and techniques. Moreover I will fondly remember all the amazing people within the Institute of Medical Sciences that were always there helpful and kind and without which I would not have gotten this far.

Jonathon Alexander Smith
BSc Sports and Exercise Science

The reason I chose the University of Aberdeen to study Sports and Exercise Science is that it seemed a lot more science based than a lot of similar courses run at other institutions. That is what I’ve enjoyed most about the actual teaching side of my degree, specifically learning the molecular aspects of nutrition and adaptations to different modes of exercise. The honours project was also a particular highlight.
10 reasons to choose Aberdeen

1. **The academic strength you would expect from a 500 year old university – yet right at the forefront for careers in the 21st century**
   A thriving, cosmopolitan community with students from 120 countries set within a beautiful, historic campus that has seen five Nobel Prizes.

2. **Degrees which are recognised and respected worldwide**
   Unique programme options with professional accreditation, industrial placements, plus the opportunity to study abroad.

3. **Choice and flexibility**
   It’s your degree and we believe it should be planned around you, with the freedom to plan your own programme of study from a wide range of options.

4. **A proven track record for employment, with the best head-start your career can get**
   Our experience and connections can help secure that all-important first step on the ladder to a successful career. 93% of University of Aberdeen students enter directly into good jobs, research posts or further study within six months of graduating.

5. **Opportunities to develop yourself and your interests**
   Not only academic qualifications to rival the best, but also personal, communication and teamwork skills to make you an all-round achiever in whatever you choose to do. We boast over 150 clubs and societies for students to join and offer excellent on-campus sports facilities.

www.abdn.ac.uk/sms
The very best learning resources
We pride ourselves on providing state-of-the-art learning resources for our students. Computing and library facilities are geared towards your needs and we are especially proud of our exceptional museums and special collections.

A supportive community
A self-contained friendly campus in a friendly city; we will do everything we can to help you quickly feel at home. Our support services rank with the best in the UK and we aim to make sure, right from the start, that you have access to any guidance you might need – academic, personal, medical or financial.

First class accommodation
All new students are guaranteed a place in student accommodation, either on the campus or close by – so no need to set the alarm too early!

A buzzing, friendly city that has it all
Aberdeen is everything a student city should be and more! Historic, international, fashionable and friendly, Aberdeen is the perfect place to live and study. Aberdeen has also been voted the best place to be a student in the UK by a leading accommodation website.

We’re on the map!
Aberdeen is probably closer than you think. Cheap and regular air, rail and bus connections will get you around Scotland, the UK and further afield in no time.
Get in touch

Phone us on 01224 437466
or Email sms@abdn.ac.uk

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