

## Sport & Exercise Science Newsletter 2020

### List of Courses

**BSc**

Sport & Exercise Science  
 Biomedical Sciences (Nutrition, Health and Exercise)  
 Human Biology & Health  
 Life Sciences

**MBiol**

Biology

**Interested?** Phone Dr Marco Arkesteijn on 01970 628559 or Email: maa36@aber.ac.uk



**IBERS** Institute of Biological, Environmental and Rural Sciences

### *Using sport to apply what you learn in the modules.*

Often, a passion for sport is a key factor to decide to study Sport and Exercise Science. If you can combine learning about the human body, while immediately applying that knowledge to better understand sport performance, it is likely to stick with you a lot better. Of course, there are practicals and seminars that do this and also help you expand your horizons in other domains such as exercise and health. But nothing is better than applying it directly to your own, personal interests. If you can combine that with a Sport Scholarship that the University offers, then you have a double benefit. For example, Mathew Jones is in receipt of the prestigious Aberystwyth Town FC scholarship, as part of the partnership with the local Welsh Premier League team, who he is now playing for.



Mathew Jones playing for Aberystwyth Town FC

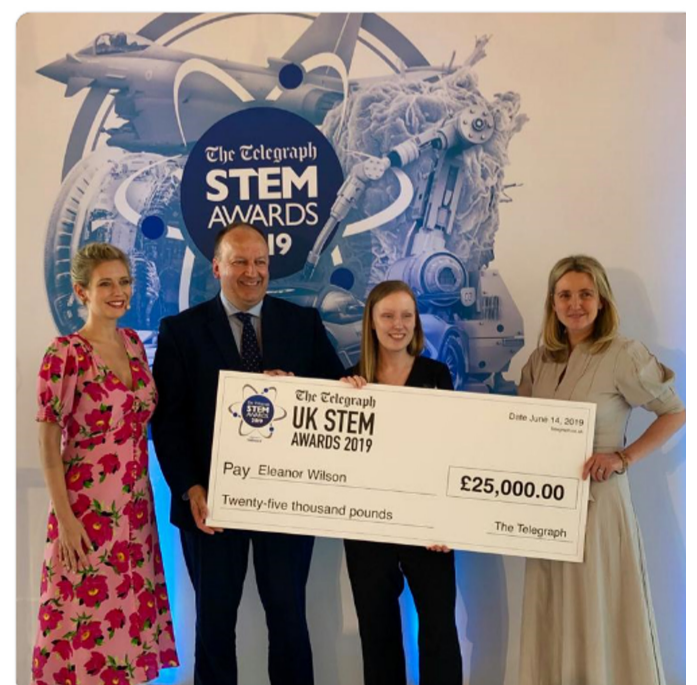
Mathew: “Studying and playing football for Aberystwyth has been an enjoyable experience so far as I have met so many new people in university as well as outside. The work load always keeps me busy and is a good way to not always be stressed about football and vice versa. It is also good to be able to use my football knowledge into some of the assignments I complete for the course. For example, I used football knowledge in the motor learning assignment on a penalty kick. I also have found that my increased knowledge in motivation (e.g. intrinsic and external motivation) and attitude (e.g. positive self-talk) and positive thinking has changed the way I play football. And for example, that different strategies are relevant both before and after games.”

### *Student Innovation Success*

Our new degree schemes of Human Biology and Health and Biomedical Sciences share lots of modules with more established degree schemes. For example, Biochemistry has got a long history within IBERS, and during the summer, final Year Biochemistry undergraduate Eleanor Wilson won the 2019 Telegraph STEM Awards. Eleanor’s third year research project, with Dr Hazel Davey, looked at the use of CRISPR gene editing technology in a novel way – to identify disease rather than to edit genes. Developing her project ideas further, Eleanor came up with a way to potentially detect the presence of particular DNA sequences – in this case sequences diagnostic of Mycobacterium tuberculosis, the causative agent of TB.

Eleanor’s idea won the GlaxoSmithKline Healthcare category of the Telegraph STEM awards, before going forward to the final round. Pitted against four other category winners at a high profile London event, Eleanor’s idea won the overall prize. Eleanor said after receiving the award “I’ve had a crazy, innovative idea and I’ve run with it, and all these experts in the field have said: ‘Yeah, that could work.’ This will open up so many opportunities.”

her healthcare category submission, using a CRISPR based system for diagnosing TB @STEMawards #globalhealth #innovation @RachelRileyRR



A Tweet from GlaxoSmithKline shows Eleanor (centre), receiving her prize at the Telegraph STEM Awards ceremony.

## It's always nice to hear back from our graduates.

Your degree is only the start of your career, and many more steps are needed once the foundation has been laid. We aim to provide you with various extra-curricular activities alongside the modules, so you can develop yourself as much as possible. Once you graduate, lecturers are always interested to hear how you develop.

From time to time, we receive the type of email you see to the right; and this makes us happy and proud to be in the teaching profession! We hope you enjoy reading the email as much we did!

Dear Dr Thatcher,

You may or may not remember me but I was an ex-student of Aberystwyth University whom studied Sports and Exercise Science. My name is Chloe Bailey and I graduated in 2018, and you were one of my lectures at the time. I am writing to you today to say thank you, to you, all the sport science staff and to Aberystwyth University, because without you I would not be in the situation I am in now.

Since Aberystwyth, I have completed a Masters in Sports Performance Analysis, Analytics from Cardiff Metropolitan University. I found this interest in performance analysis thanks to Dr. Marco Arkesteijn biomechanics lectures, Dr. Dan Low support as my dissertation tutor, and the opportunity (provided by the department) to volunteer with Disability Sport Wales as a performance analyst.

During my masters I had two placements, (1) The Welsh Netball Team - Celtic Dragons as their lead performance analyst, and (2) I was a performance analyst for USA Rugby. It was actually a quote that you Dr Thatcher said to me in my third year, which was "you will receive the same amount that you put in"... this quote has stuck with me and was one of the main drives for me in the past year, to complete two placements whilst doing a masters, in order to achieve my goals.

Today, my master's dissertation is due in 1 month, and I am first female analyst and the first Post-Match/Data Analyst at Tottenham Hotspur Football Club, at the age of 22. I have been there for 3 months now and I have: (1) worked alongside Mauricio Pochettino; (2) now under the new reign of Jose Mourinho; (3) work 1 to 1 with world famous footballers; and, (4) I am flying all around the world. This truly is all down to Aberystwyth Sports and Exercise Science Department! Every lecturer I had during my three years in Aberystwyth has had a huge influence. To this day I tell everyone that no University compares to Aberystwyth.

Thank you from the bottom of my heart, always pushing me to the next step and opening my eyes to what I could achieve.

Once again, thank you.

Yours Sincerely,

Chloe Frances Bailey

## Year in Industry

Our BSc degree schemes in Biochemistry, Genetics and Microbiology are available as 4 year version with an integrated Year in Industry.

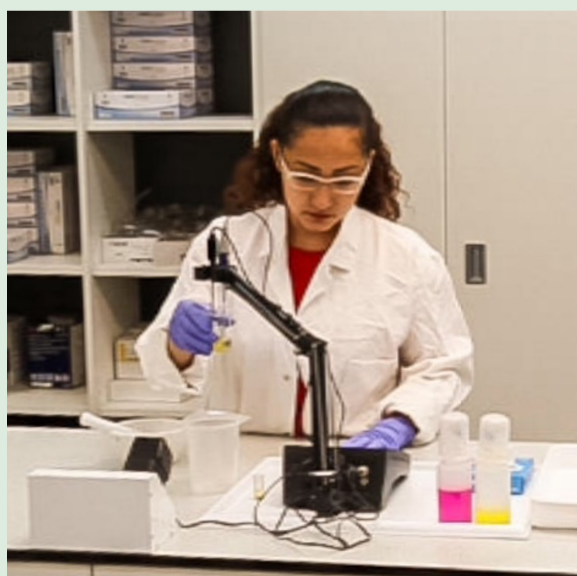
This year, students on those schemes were placed with diverse biotech companies including Micropharm, Biocatalysts, and The Catalan Institute of Oncology (Spain). Year in Industry placements increase employability, starting salary and increased job security (The Wakeham Review). The quotes below from students currently on placement show why:

“My placement is laboratory based so the experience I have gained has been mainly skills based. I have learnt how to set up cytotoxicity and trypsin assays, handle liquid nitrogen, calibrate pipettes and how to use various other pieces of lab equipment. But additionally I have learnt how to present my findings in meetings and write standard operating protocols for others to understand.”

“I am now fully confident with handling most laboratory equipment and machines, skilled in several assay procedures focussing on enzyme manufacturing and development. My communication, time management, organisational skills have improved significantly. I am always encouraged to understand the science behind every assay we perform, and this has made working in a laboratory very interesting for me while exploring the wonders of science.”

“Alysson Turcios is currently on placement as part of her degree (BSc Hon Genetics and Biochemistry) and is an ardent advocate of the Year in Industry. She says:

“I'm currently in my Year in Industry in the Catalan Institute of Oncology, working with a translational research group and preparing my first publication. It wouldn't have been possible without the support of the Careers Service, Industrial Year Coordinator and Erasmus Office who helped me with each application and encouraged me to keep applying until I got a position. I strongly recommend doing a placement, because it's the best way to firm up your career choice.”



Alysson in the laboratory during her Year in Industry placement

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Generalitat de Catalunya  
gencat.cat

Institut Català d'Oncologia

**MicroPharm**



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