

# APPLY YOUR SKILLS WITH US



School of  
Applied Sciences



London  
South Bank  
University

EST 1892

# Want to change the world? And earn great money doing it?

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## Welcome to THE SCHOOL OF APPLIED SCIENCES



LSBU's outstanding science programmes can help get you there. Learn how to...

- Investigate a crime
- Support elite athletes
- Transform the health of whole communities
- Feed the world

Our courses range from forensic science and psychology to nutrition and sports science. The way we teach combines academic knowledge with fantastic opportunities to apply your learning in the real world, setting you on the road to a great career. We organise work placements, talks and seminars in partnership with organisations like the Metropolitan Police Service, the NHS and The British Psychological Society, giving you valuable experience that makes you extremely employable.

Our academics are experts in their field, carrying out research on the front line. The scientific creativity, intellectual rigour and employability skills you'll develop with us will open up a broad and exciting range of careers. Take a look at the courses we offer and come for a visit to see what it's all about.

**Professor Patrick Callaghan**  
*Dean*

## THE SCHOOL AT A GLANCE



## HIGH QUALITY TEACHING

The majority of our courses are either accredited or developed in partnership with professional bodies, and our academic staff are often industry professionals who continue to foster working relationships in their respective fields.

LSBU holds the highest possible rating for teaching from the independent Quality Assurance Association (QAA). Teaching in the School is applied and we set it against real-world challenges and case studies.

Staff bring their expertise and experience into the classroom and practical modules and learning techniques help bring this to life. We are constantly looking for ways to innovate and improve our teaching, and courses are taught in a supportive environment focused on student success.

### ACCREDITATIONS

Many employers actively seek graduates holding accredited degrees. Accreditations are a mark of quality assurance and professional relevance - that's why it's highly relevant that all degrees at LSBU are accredited or developed in partnership with leading professional accrediting bodies.



## STUDENT'S VIEW

**Daniel Walters**  
BSc (Hons) Sport and Exercise Science

Clearing gave Daniel his opportunity to go to university. He completed a full-time foundation degree over two years and followed this with a further two years on our full degree to gain his BSc in Sport and Exercise Science.

Daniel's passion and accomplishment in Taekwondo, which he has been studying since the age of four, allowed him to receive a full Sports Scholarship from the University. Offered by our Academy of Sport, the scholarship is designed to support talented athletes balance their sport, academic and personal lives. "I chose this course because the subject has always been a major interest. I've always excelled in sports and science. I love the science behind what makes athletes exceed physical limitations."

"One of the best things about studying at LSBU was the support from its many dedicated academics," he says. "The course was really challenging but the lecturers were always willing to offer extra support to students who put in the work. Jumping from the foundation course to the full degree was a big step and some of the subject areas were out of my depth but the extra support from my lecturers allowed me to reach my potential."



## APPLIED RESEARCH



Our research is wide-ranging – but underlying all of it is the goal of creating new knowledge that has a practical purpose.

Our highly applied academic environment supports the communities we serve by providing the high quality applied research they need to improve and grow.

At the same time these external links enhance student success by offering opportunities, enriching the learning experience and ensuring our students have the knowledge and skills that are attractive to employers.

LSBU's mission is to be recognised as a civic university that addresses real world challenges. Only by connecting our research to the real world can we deliver outstanding socioeconomic and cultural benefits, which improve the lives and experiences of people and their environments.

The School has found success in a variety of research areas, particularly around the area of sports and exercise sciences, where we scored highly in the Research Excellence Framework in 2014. Looking to the future the School will expand upon this success by attracting more PhD students and developing research in new areas, as well as building on existing strengths.

## DR. GASPAR EPRO

### RESEARCH FELLOW

Gaspar joined London South Bank University (LSBU) in June 2017 and is a post-doctoral Research Fellow at the School of Applied Sciences (Sport and Exercise Science Research Centre). Prior to joining LSBU, Gaspar worked as a Research Associate and Research Assistant at the Institute of Biomechanics and Orthopaedics and at the Institute of Sport and Movement Gerontology, German Sport University Cologne (Germany). Besides research Gaspar is also active in the teaching of various courses in biomechanics and sports performance in our Sports Degrees.

“My main research areas are the plasticity of the human musculoskeletal system in response to long - and short-term mechanical loading, as well as the interaction between the neural and the motor system during human locomotion and sports performance. The aim is to improve our knowledge in the function and adaptation of the musculoskeletal system, as well as about the prevention and rehabilitation of sport related injuries (e.g. tendon rupture) and in the locomotor stability control across the whole human life span.”

Apart from the academic career Gaspar is also active in the biomechanical diagnostics and coaching of athletics at elite performance level and has represented the Estonian Athletic Association at various major international competitions (Olympic Games, World Championships, European Championships, World University Games) as a team coach or team leader.

“In teaching I aim to share and combine my knowledge from both fields, once as a researcher and secondly as an active athletics coach, by delivering research-based practical content for the students. The objective is to demonstrate that in order to assure an optimal development and best performance, a close collaboration and understanding between researchers and coaches is essential.”



## RESEARCH CENTRES AND GROUPS

### SPORT AND EXERCISE SCIENCE RESEARCH CENTRE

Our world-class research into human functions and wellbeing promotes elite athletic performances and healthy lifestyles.

Our mission is to improve knowledge and drive innovation for human performance in sport, physical activity and health. Central to this mission is the provision of inclusive research-led education and professional development.

"We rank in the top 10 teams in the UK for research and teaching excellence in Sport and Exercise Science according to the combined results from the Teaching Excellence Framework 2017 and the Research Excellence Framework 2014."

Our research is consolidated into two multidisciplinary themes that address major scientific priorities and societal challenges.

90% of sport and exercise research received 4\* or 3\* for 'impact' (reach and significance) and 75% a 3\* for 'environment' – "conducive to producing research of internationally excellent quality, in terms of its vitality and sustainability".

### CENTRE FOR ADDICTIVE BEHAVIOURS RESEARCH

We bring together a unique blend of world-class research, scholarship, training and enterprise activity to understand the psychosocial causes, effects and treatments of addictive behaviours.

We serve as a hub for internationally esteemed research into the causes, effects and treatment of addictive behaviours. We also provide expert consultancy to organisations on the analysis of current and developing treatments and policy practice.

Past and current collaborative work has covered numerous addictive behaviours including alcohol use, smoking, e-cigarette use, sexual compulsivity, cannabis use, methadone use, internet use, performance enhancing drugs, novel psychoactive substances and social media use.

### DEVELOPMENTAL COGNITION

This group investigates the development of neurotypical and non-neurotypical cognition from infancy into adulthood. Members have expertise and research interests in autism, developmental dyslexia, developmental coordination disorder, specific language impairment and William's Syndrome and will work to explore the impact of these conditions on executive functions, numerical cognition, and a range of memory systems.

### FOOD, NUTRITION AND HEALTH

This Group will innovate in food product and nutraceutical development and the use of nutritional strategies to enhance human well-being, as well as the evaluation of their effects. Members have expertise in nutrition, health and food science (food composition, innovation, product development, functional foods and food safety).

### LIVED EXPERIENCES OF DISTRESS

This group researches lived experiences of mental distress, centring on how individuals interpret, embody, manage and live with mental health challenges. An integral part of these investigations is the examination of professional relationships and identities of staff and service users, in the context of delivering interventions, as well as the use of innovative methodologies, including action research and visual methods.

### PSYCHOLOGY AND PEDAGOGY

This group brings together staff with expertise in various fields of psychology to research the numerous hurdles Higher Education students face in terms of engagement, satisfaction, progression, and retention. The group aims to produce enhancements to the teaching and learning provision for students across multiple disciplines, based on rigorous, empirical research.

60% of research in Psychology was awarded 3\* out of 4\* for 'impact' – "very considerable impacts in terms of their reach and significance" ≠ by the Research Excellence Framework. (REF 2014)



IN THE UK ALONE  
100,000 ARE  
NEWLY DIAGNOSED  
WITH PERIPHERAL  
VASCULAR DISEASE  
EACH YEAR.

Poor circulation is an increasing health problem; it is associated with clinical issues such as diabetes and peripheral vascular disease. In the UK alone over 100,000 are newly diagnosed with peripheral vascular disease each year and an estimated 30 million people suffer worldwide.

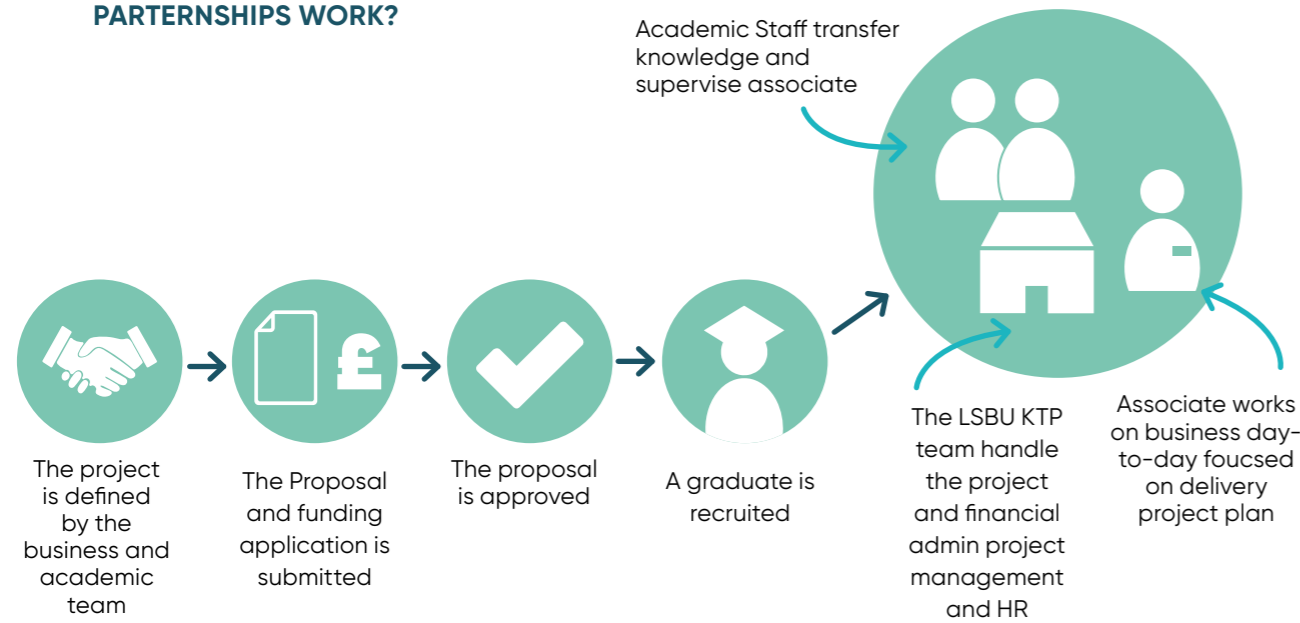
To tackle these issues the healthcare technology company Actegy Ltd have developed a range of extremely successful circulation boosters (Revitive™ range). The relationship between LSBU and Actegy Ltd began in 2006, when Actegy reached out to Dr Paul Sumners and Dr Katya Mileva, specialists in human cardiorespiratory and neuromuscular physiology from the Sport and Exercise Science Research Centre (SESRC) at LSBU to undertake the scientific research needed to support the health claims of their products.

The research reports conclusively demonstrated that independent of age, healthy individuals who have regular periods of prolonged inactivity due to employment conditions or lifestyle, as well as those with peripheral circulatory deficiencies will benefit from daily use of the circulation boosters. The research reports also assisted the company to acquire approval for advertising and trading in the UK, USA and Australia.

The research also identified an opportunity for product improvement. By 2011, the SESRC's work had led to developing three innovative technologies which Actegy Ltd subsequently incorporated into their new circulation boosters and commercialised under its Revitive™ range. Patent applications on the three technologies were filed by Actegy Ltd in 2013 naming Dr Sumners and Dr Mileva as the lead inventors. Based on research carried at SESRC, these products have generated revenues of £53m, won a 2012 Red Dot Good Design award and helped the company to expand business operations into overseas markets.

# KNOWLEDGE TRANSFER PARTNERSHIPS

## HOW DO KNOWLEDGE TRANSFER PARTNERSHIPS WORK?



**KNOWLEDGE TRANSFER (KT) PROGRAMMES ARE DESIGNED TO HELP BUSINESSES IMPROVE THEIR COMPETITIVENESS AND PRODUCTIVITY BY TAPPING INTO THE KNOWLEDGE, TECHNOLOGY AND SKILLS OFFERED BY UNIVERSITIES.**

LSBU is one of the UK's leading KT providers and won the collaborative Innovation Excellence Award at the London Knowledge Transfer Awards. We are also among a handful of universities that have been commended by the Higher Education Funding Council for England (HEFCE) for our KT work.

Our KTP team can help define your strategic challenge, and then find the right academic expertise for your project from across the University.

KTPs are part Government-funded (up to 67% of the costs) with your organisation investing the final third. Our KTP team guides you through the whole process: advising on the grant application process and proposal writing. The team also manages the administration of the project throughout the KTP lifecycle.

Each KTP project has an academic supervisor who supports and mentors the KTP associate to deliver the project for your company.

# KTP AT WORK

## SUSTAINABLE PACKAGING AND PROCESSING AT ALARA WHOLEFOODS LTD

Alara Wholefoods Ltd is a producer of specialist muesli, including organic, Fairtrade and gluten-free products.

They supply mostly own-label muesli for customers, with a small own-brand range. They wanted to explore ways to reduce environmental impact and promote sustainability but didn't have the internal capacity to do so. As a solution they formed a Knowledge Transfer Partnership (KTP) with LSBU to develop packaging and processes that reduced waste, energy consumption and environmental impact, and to help seek environmental accreditation.

**"We're hoping to set an example to other companies, demonstrating that you can be an environmentally aware company and still make money. One does not exclude the other."**

**Joanna Southernwood  
Project Associate**

In order to achieve these ambitious objectives, project associate Joanna Southernwood helped introduce energy saving and waste reduction techniques around the factory. This ranged from changing incandescent bulbs to low energy ones, training the staff in new recycling systems, monitoring energy outputs and researching biodegradable packaging options.

Joanna also helped to convert an area of wasteland into a permaculture garden which is now used to produce food for the staff canteen. There are additional environmental benefits as waste food can be used as compost and Alara's carbon output is further reduced due to the carbon storing capabilities of the plants growing there.

As a result of the project Alara has become carbon-neutral with zero waste and is believed to be the first UK food manufacturing site to achieve this.

Their total energy use was reduced by 10% and lighting energy by 50% which has helped to lower costs as well as reduce environmental impact. The changes in packaging and waste recovery means Alara recycles or re-uses 100% of its waste, improving packaging suppliers and negotiating enhanced contracts with waste removal companies.

Sales of £300,000 in new business have been achieved so far as a result of these initiatives.



## SPECIALIST WELL-EQUIPPED FACILITIES

We have equipped our state-of-the-art laboratories to prepare students for the workplace. Aside from the specialist facilities listed below, students have access to extensive multi-purpose labs.



### LONDON FOOD CENTRE

Based at the University, the London Food Centre investigates all aspects of food manufacture. Its pilot plant area and kitchen are heavily involved in product development. It has a well-equipped food technology laboratory in which product concepts can be developed and produced in test quantities. Equipment includes ovens, sterilisers, heat sealers, MAP sealers, blast coolers, bratt pans, industrial mixers, pasteurisers, bottling machine, farinograph, rheometer and an Instron Food Materials Testing Machine, which can assess the composition of materials in order to find out why they may change or maintain state.



### THE NATIONAL BAKERY SCHOOL

In the National Bakery School we have two bakery rooms with proving ovens, baking ovens, mixers, work benches and pastry brake – a specialist device with contra-rotating rollers that works pastry and reduces its thickness. There's also practical study rooms dedicated to the production of fermented goods, chocolate making and confectionary making.



### BIOCHEMISTRY LAB

State of the art analytical equipment to underpin biochemical investigations including extensive DNA, chromatographic, spectrometric and photometric instrumentation. Extensive range of specialist laboratory areas including a large multipurpose laboratory for undergraduate work with integrated workstations. Excellent provision for biochemical lab based investigations underpinning molecular biology with specialist research areas for final year research projects.



### FORENSIC LABORATORIES

Our forensic laboratories feature the latest analytical equipment, including electron microscopy and inductively-coupled plasma spectrometry - ICPMS. Students can also carry out detailed DNA testing, and the strong links we have with the London Fire Brigade provide analysis opportunities of many real-world situations.



### HUMAN PERFORMANCE AREA

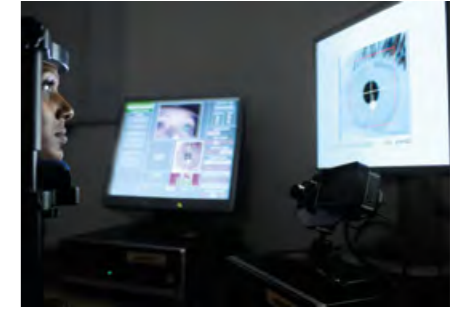
Our Human Performance area, with specialist biomechanics, physiology and gait analysis laboratories, grows in reputation year on year. Over the past three years we have assisted both elite and Olympic level and developing athletes.

The Human Performance Centre has 3 key areas upon which the work of the scientific team is focused.

InnovateWell generates and delivers new ideas to market.

PerformWell provides services for coaches; athletes; sports teams and recreationally active people.

LiveWell supports people to initiate exercise and guide lifestyle interventions for health and wellbeing



### PSYCHOLOGY FACILITIES

The growing Psychology division at LSBU has all the facilities needed to carry out in-depth studies and analysis including an observation room with a w one-way mirror, bio-psychological recording equipment (BIOPAC), an eye tracking facility, psychometric library, computer labs with experiment generator software and a bar-lab, which allows observers to study drinking habits in a controlled environment.

## COLLABORATIONS AND PARTNERSHIPS



**WE'RE NOT JUST HERE FOR THE YEARS YOU'RE WITH US.  
WE WANT TO SET YOU UP FOR A LIFETIME OF OPPORTUNITY  
AND SUCCESS.**

To do that, we work in partnerships with organisations from the Metropolitan Police Service to the NHS, not to mention major sports clubs including Crystal Palace. This gives students the opportunity to gain experience from our network of industry partners. LSBU also works closely with local schools and colleges. This relationship ensures we align our outreach and recruitment activities with the mission of these institutions to ensure their students make well informed and appropriate decisions about their future.

## CAREER DESTINATIONS

Our partnerships, accreditations and amazing labs and facilities have all helped to make us University of the Year for Graduate Employment\*. We apply science to the real world, and encourage our graduates to go on and find success in all kinds of areas.

They become scientists in small companies, public institutions or multinational corporations and in the fields of bioscience, healthcare, public health, commercial analysis and food production. They go into sports nutrition, health promotion and education, research and teaching. Psychology graduates go on to careers in clinical, forensic and counselling psychology, teaching, the probation and court services, and human resources and business.

*\*The Sunday Times Good University Guide 2018.*

## STUDENT'S VIEW

**Edit Barnoth**  
BSc (Hons) Psychology

Edit has taken full advantage of every opportunity to enhance her skills and explains how her time at LSBU has helped her prepare for her future career

"I looked for extra opportunities and responsibility wherever it was appropriate. I volunteered at the Blackfriars Settlement as a befriender, visiting elderly ladies in their homes once a week to keep them company and talk about whatever interested them."

It was an opportunity Edit had found through LSBU's volunteering database, and an experience that she thoroughly enjoyed.

'From the moment I arrived I felt welcome, the lecturers treated me like a colleague rather than a student. The quality of the teaching is excellent and I have been able to gain a position as a research assistant to one of the lecturers in the School; this has given me great insight into the area I want to work in when I graduate.'

As for the course itself, Edit loved every second – but she remembers her project with particular fondness.

"It compared eyewitness reliability in sober and intoxicated people," she says. "Eyewitnesses often encounter false information about what they have witnessed, and may later recall that information as a memory item – it's known as the misinformation effect."

Edit's research investigated this effect in intoxicated and sober participants. "I was particularly interested in the time of alcohol consumption in relation to the witnessed event," she says.

The research could have a significant impact, as the criminal justice system relies heavily on the memories of eyewitnesses. Many crimes in the UK take place in public and are associated with alcohol consumption, so finding out whether alcohol is detrimental or beneficial for eyewitness memory is very important.





**“ONE OF MY TUTORS WAS AN ABSOLUTE FOUNTAIN OF KNOWLEDGE AND AN AMAZINGLY PATIENT TEACHER WHO TOOK TIME FOR EVERYONE REGARDLESS OF CAPABILITY, CULTURE, STATUS OR EXPERIENCE.”**

The Dee Light Bakery, founded by National Bakery School graduate Dee Monteleone, scooped top honours at the 2015 Farm Shop and Deli Show Awards and was recently named the Best Bakery in Balham and Tooting, London. The bakery is the realisation of a childhood dream for Dee who has been making cakes professionally for almost two decades.

As a young girl growing up in Sydney, Australia, Dee spent many happy hours baking with her mother and got her first job in a bakery at the age of 14. From that moment, she knew one day she would run her own bakery.

When she finished her studies, she came to London with big ideas: “I did a cake decorating course at a local community centre and I was recommended to apply for The National Bakery School to further my studies.”

“Working with shapes to produce amazing colour designs is also a skill I will always treasure,” says Dee of her studies. “I learnt so many new skills throughout my time at LSBU that I use in my baking and decorating career.”

Whilst Dee sometimes pinches herself that her journey from Sydney has brought her to the historical streets of London, she still has ambitious plans for Dee Light Bakery: “I’ve started employing more staff so I have more time to concentrate on the opening of our second site. In fact I have employed a lot of students from the National Bakery School as I know first-hand what they have studied and how great the tutors are!”

## COURSE LIST

### UNDERGRADUATE

- Applied Biology HND
- Science Extended Degree Programme
- Baking Technology Management FdSc/Top up to BSc
- Baking Science and Technology (New Product Development Science) FdSc/Top-up to BSc (Hons)/BSc (Hons)
- Baking Science and Technology (Nutrition) FdSc/Top-up to BSc (Hons)/BSc (Hons)
- Bioscience BSc (Hons)
- Food and Nutrition BSc (Hons)
- Food Science BSc (Hons)
- Food Science (Food Safety) BSc (Hons)
- Food Science (New Product Development BSc (Hons)
- Forensic Science BSc (Hons)
- Human Nutrition BSc (Hons)
- Human Nutrition (Exercise Science) BSc (Hons)
- Human Nutrition (Psychology) BSc (Hons)
- Psychology BSc (Hons)
- Psychology (Addiction Psychology) BSc (Hons)
- Psychology (Child Development) BSc (Hons)
- Psychology (Clinical) BSc (Hons)
- Psychology (Forensic Psychology) BSc (Hons)
- Psychology (Health and Nutrition) BSc (Hons)
- Psychology (Sport Psychology) BSc (Hons)
- Psychology with Criminology BSc (Hons)
- Sports Coaching and Analysis BSc (Hons)
- Sport and Exercise Science BSc (Hons)

### POSTGRADUATE

- Addiction Psychology and Counselling MSc
  - Food safety and control MSc
  - Food Sciences MRes
  - Human Sciences MRes
  - Investigative Forensic Psychology MSc
  - Mental Health and Clinical Psychology MSc/PgDip/PgCert
  - Psychology Graduate Diploma
  - Psychology MRes
- ### RESEARCH
- Food Sciences PhD
  - Human Sciences PhD
  - Psychology PhD

## BE IN THE HEART OF LONDON

LSBU is centrally located in Elephant and Castle, two minutes' walk from the underground station. It's also close to London Bridge and Waterloo mainline stations, giving access from further afield. It's connected to the rest of South London by several bus services.



### HOW TO APPLY

Students can apply for full-time undergraduate courses through [ucas.com](https://www.ucas.com), and to postgraduate and research courses through the UKPASS system. For part-time undergraduate courses please apply direct to LSBU. International students should also apply direct to LSBU. See [lsbu.ac.uk](https://lsbu.ac.uk) for more details.



## Contact

Course enquiries  
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