Grants

The University attracted a total of £105 million in grants during 2010/11. This included the following:

Over £2 million from the European Research Council to Professor Nigel Smart in the Department of Computer Science for an examination of the various methods designed to ensure that cryptographic protocols are secure. Cryptography is widely used to hide information and applications include cash machines, computer passwords and internet communications. The project will focus on advanced cryptographic protocols, which enable various security-related functions, such as identifying who you are, securing data, or performing a given operation securely. The protocols to be examined include currently underlying mobile phone and internet communications, as well as in emerging areas such as electronic voting.

Over £1 million to Dr Morag McDermont at the Law School by the European Research Council to conduct a project on the law in Russia, from the early 18th century to the first large-scale history of the French language in Russia, from the early 18th century. This includes the decline following the October Revolution of 1917.

Over £2 million from the Medical Research Council for a project in the School of Physiology and Pharmacology looking into the neural network basis of learning, memory and decision-making in health and disease. The majority of the grant will fund Dr. Matt Jones’ research into the use of electrical stimulation techniques to control the brain’s electrical signalling and improve cognitive performance in patients with schizophrenia and other disorders.

£8 million over six years from the Engineering and Physical Sciences Research Council to a team from the University’s Advanced Composites Centre for Innovation and Science (led by Professor Michael Winnoch) and the Composites Centre at Imperial College London (led by Professor Alexander Bismarck) to develop a new generation of high-performance, fibre-reinforced polymer composites. Current materials, though strong and stiff, are inherently brittle, and failure can be sudden and catastrophic. More robust materials will provide greater reliability and safety, reduced design and maintenance requirements, and longer service life.

£1.2 million from the National Institute for Health Research for a survey of the types of treatment available for pre-school children with speech and language difficulties. The study – the first of its kind in the country – will be led by Professor Sue Roulstone (Research Fellow in the School of Clinical Sciences and Clinical Research Director at the Speech and Language Therapy Research Unit at Frimley Hospital) and carried out by North Bristol NHS Trust in partnership with the universities of Bristol and the West of England and Manchester Metropolitan University. Barnardo’s and Alias Avail England are also supporting the project.

Almost £0.5 million to a team led by Professor Mark Duffield from the University’s Global Insecurities Centre in the School of Sociology, Politics and International Studies, and Dr Sarah Collison of the Humanitarian Policy Group, Overseas Development Institute, London, for a project on risk management in conflict-affected states. The two-year project, which began in October 2010, is funded by the Department for International Development and the Economic and Social Research Council as part of its Security, Conflict and Development theme.

The University’s priorities in this area are to:

- ensure a fair and transparent system of student representation that provides students with the opportunity to shape their educational and extra-curricular experience;
- support a vibrant, active and democratic Students’ Union;
- ensure the provision of learning and skills opportunities that enhance students’ future employability;
- offer a rewarding extra-curricular experience that provides for students’ health, well-being and personal development;
- provide advice and support for students’ personal welfare and ensure effective integration into the University and local community.

Good works: Bristol students in the charitable and voluntary sector

The Students’ Union emphasises to its members the importance of escaping the ‘student bubble’ and engaging with the local community in a positive way. The Union’s Raising and Giving (RAG) and Student Volunteering (formerly Student Community Action) programmes offer a tremendous range of opportunities for charitable work, along with related training and personal development courses to help students complement their academic work and enhance their CVs.

RAG

In the year 2010/11, RAG activities raised a total of £109,573 through a variety of programmes that included street collections, skydiving, trekking in Nepal, and a revival of the traditional RAG procession through the streets of Bristol. Two undergraduates set a new record in the annual RAG Jailbreak Challenge: Physics student Emma Blott and Music student Mary Spender made it all the way to Perth in Australia – a journey of 9,113 miles – in 36 hours, comfortably beating the previous record (Arizona, USA).

Student Volunteering

During 2010/11, Student Volunteering ran 31 student-led projects involving over 1,000 students, and ran 10 different training programmes, reaching over 400 new volunteers. A new initiative has established a student self-help group for those suffering from eating disorders, and is to be followed with a new programme of student peer mentoring. Other developments include a wider range of support to older and isolated people, and an employability and training programme for young adults with learning disabilities (run by students together with MENCAP).

The organisers of one Student Volunteering project, the Daycentre Lunch Club, received a inspired award (from the UK’s young volunteers’ service) in January for their volunteering and community engagement work. The Lunch Club organises events and trips for the city’s senior residents.

Jonathan Board, a medical student at Bristol, was awarded the 2011 Matt Spencer Award from Volunteering England, an independent charity committed to supporting and celebrating volunteering. Jonathan’s community engagement work includes taking musical entertainment into residential homes and teaching English at a refugee centre. He also established Foodcycle, a project in which students collect surplus food from shops and deliver it to people affected by food poverty.

PhD student front the UK science and engineering campaign

Owen Rackham, a PhD student in the Bristol Centre for Complexity Sciences, has been chosen to lead a nationwide campaign communicating the impact of science, engineering and maths on our everyday lives. He will attend festivals and events around the country as part of NOISE (New Outlooks In Science and Engineering), a UK-wide campaign funded by the Engineering and Physical Sciences Research Council. He will also talk to the public about his own research, which examines whether it is possible to re-programme human cells for a range of medical applications.

Students

Every year, our students reach beyond the basic requirements of their studies and demonstrate their initiative, energy and enthusiasm in a tremendous range of different contexts – academic, sporting, business and volunteering, to name just a few. The University endeavours to provide a supportive environment for such talented individuals to thrive and excel in every aspect of their lives at Bristol. It is committed to providing a full range of services and facilities that will enable students to make the most of their university career and equip them to become tomorrow’s leaders and pioneers.
Bristol engineers take the lead again
Following on from previous years’ successes, six students from the Faculty of Engineering performed extremely well in the Royal Academy of Engineering (RAE) Leadership Advanced Awards, where they were selected as ‘inspirational role models’ to the next generation of engineers.
Alexandre Bradford and Joe Smith (Civil Engineering), Sophie Sladen (Engineering Design) and Alex Creake, Adam Moss and Peter Symes-Thompson (Aeronautical Engineering) competed in a challenging selection event against 170 students from UK universities.

Nimble idea is double winner
A business idea developed by Chris Strand, a final-year Computer Science student, won two top competitions in July, just as he graduated. Nimble Servers is an on-demand game server provider that enables customers to rent game servers on a pay-per-hour basis, rather than the standard per-month model. The proposal, which will allow users to pay a fraction of the price, is based on an infrastructure design not used by any competitors.
Nimble Servers won Deloitte’s Top Technology Talent competition for business ideas with innovative uses of technology, and shortly thereafter Strand (and his business partner, Zac Moody) won Mint Digital’s ‘Don’t Be a Banker’ scholarship, set up to steer recent graduates away from a career in the banking sector and instead help them launch a business. They hope to launch a beta version of Nimble Servers in late 2011.

Bristol engineer receives international Student of the Year award
Alexey Ukhodey from the Department of Aerospace Engineering was one of the winners of the 2010 Science, Engineering and Technology Student of the Year awards. He received the Airbus Award for Best Aeronautical Engineering Student for his project entitled “Vision-Based Recovery of a Rotary Wing UAV”. The international awards programme provides a showcase for educational excellence by recognising the exceptional achievements of students and universities.

Bristol surgeon wins prestigious award for research paper
Pradeep Narayan, Senior Registrar in Cardiothoracic Surgery at the Bristol Heart Institute and a postgraduate at the University, became the first UK winner of the Hans G Borst Award for Thoracic Aortic Surgery. He won for his study of the treatment options for conditions affecting the descending thoracic aorta – the lower part of the main artery of the body inside the chest.

PhD student wins award at Systems Biology conference
Tom Gorochowski, a PhD student at the Bristol Centre for Complexity Sciences, was commended for his work at the International Conference on Systems Biology. His poster, illustrating a computational toolkit for investigating network dynamics and evolution, was selected as the best in its category in the Computational Methods and Tools Session.

Students win gold at MIT competition for precision farming prototype
A design for ‘precision farming’ created by a student team from the Centre for Complexity Sciences was shortlisted from over 100 entries at the 2010 International Genetically Engineered Machine competition, hosted by the Massachusetts Institute of Technology (MIT). The team’s prototype design, AgEcoLi, could allow farmers to map the nutrient content of their fields with a device that uses modified E.coli bacteria contained in biodegradable beads that can detect and signal the presence of nitrates. This approach could help to optimise their use of fertiliser. AgEcoLi received a gold medal and the award for the Best Food or Energy Project; and overall, the team was one of three runners-up.

Bristol surgeon wins Emma Humphreys Memorial Prize
Finn MacKay, a PhD student at the Centre for Gender and Violence Research, won the Emma Humphreys Memorial Prize for her extensive work on tackling violence against women. MacKay has been active in the women’s movement since her adolescence, and speaks and writes regularly on issues of women’s rights, particularly violence against women. In a professional capacity she has managed and delivered domestic violence prevention and education programmes in schools and communities. Her research is on the Reclaim the Night marches, which began in Britain in the 1970s. In 2006 she featured in The Guardian’s list of 15 world-changing British women.

Engineering students bag Boeing awards
Six students from the Faculty of Engineering have been awarded prizes from The Boeing Company for their outstanding academic performance in the field of integrated aerospace systems. Bridget White and Joshua Shmirin received scholarships for their final year of study, and James Wilcox, Samantha Huntley, Sky Sartonius and Ben Buxton received awards for their final projects. The range of their work covers intelligent vehicles, fluid mechanics, helicopter design and ultrasound radio echoes.

Bristol student is first female Young Scientist of the Year
Hannah Eastwood, a first-year undergraduate studying veterinary science, was named Young Scientist of the Year at the UK Young Scientists’ and Engineers’ Fair. She is the first woman to have been awarded a senior title in the competition. Her winning project explored how chromium can be removed from drinking water, enabling tap water to be purified and reclaimed for the steel industry, where it is a valuable resource.

PhD student wins award for obesity research
Laura Wilkinso, a PhD student in the School of Experimental Psychology, won the Association for the Study of Obesity’s Student Researcher 2011 Award. Her paper, ‘Attachment anxiety, disinhibited eating and body-mass index in adulthood’, published in the International Journal of Obesity, provides compelling evidence that adults with an ‘anxious’ attachment orientation (a set of ideas and expectations around interpersonal relationships characterised by a fear of abandonment) are more likely to overeat and have a high body-mass index.

Dental student wins for innovative view of the future
Laura Cove, a third-year Bristol dental student, won an Award for Innovation in a new competition run by 3M ESPE, a leading provider of dental products and services. Entrants were required to submit up to 500 words describing their dental practice in the year 2020. They were judged on their ability to demonstrate an innovative approach, their consideration of future changes in general dentistry and their understanding of how the introduction of new technologies will help deliver better patient care.