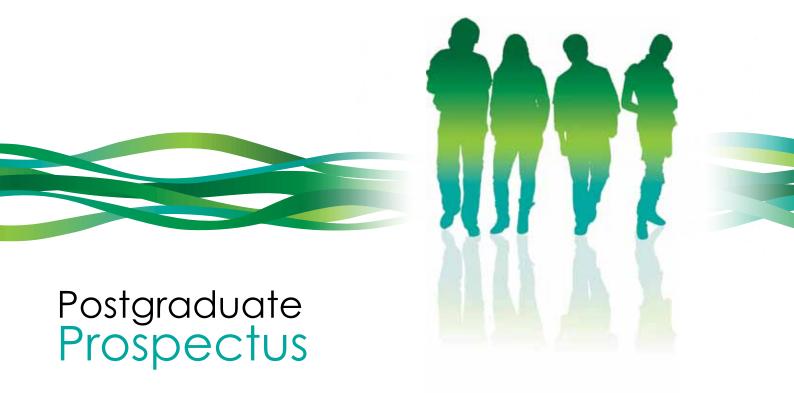
Abertay University



WELCOME &



Being at University is an exciting and rewarding experience, offering opportunities to make new friends, discover new interests and develop career prospects. Abertay works hard to help you achieve all these things, putting you at the centre of everything we do and striving to give you the best possible educational experience throughout your time with us. Our courses are designed to give you the high-level skills and subject mastery needed to achieve challenging and rewarding careers.

You will benefit from a unique approach to studio-based learning, through group-work and individual study, tackling real-world challenges alongside experienced practitioners and researchers. And you will study in our excellent learning facilities. The University's multi-award winning Bernard King Library is recognised as one of the best in the United Kingdom, and is complemented by custom-built teaching facilities designed specifically to emulate the working conditions you will experience after you graduate. Our purpose-built Student Centre is right in the heart of the campus giving you a high quality social and cultural space to augment the special educational experience of learning and studying at Abertay.

This prospectus is designed to give you a feel for life at Abertay and what we have to offer you. However, the best way to find out more about us is to talk to our students and staff. I warmly invite you to visit us at any time and see for yourself the qualities that make Abertay an excellent choice.

Professor Nicholas TerryPrincipal & Vice-Chancellor (Acting)



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WELCOME TO ABERTAY



DUNDEE CITY LIFE

Big enough to provide a variety of entertainment whatever your interests, yet small enough to feel like home - Dundee is the jewel of North East Scotland. In an ideal setting on the banks of the River Tay. Dundee offers an excellent quality of life.





Location

Dundee, beautifully located on the banks of the River Tay, combines all the shopping, cultural and entertainment benefits of city living but with easy access to wide open spaces in the surrounding countryside, coupled with excellent road, rail and air links to Edinburgh, Glasgow, Aberdeen, London and other major centres across the UK.

Reputation

Dundee has a reputation for excellence in fields as diverse as life sciences and creative industries. And with a population of approximately 142,000, Dundee is a buzzing hub of science and technology based 'knowledge industries', closely linked to the city's two universities with complementary strengths in creative digital media (Abertay University) and life sciences (Dundee University). Dundee has one of the highest proportions of students in its population of any city in the UK, injecting a unique and distinctive energy and vibrancy into Dundee's nightlife, leisure and cultural scenes.

Shopping

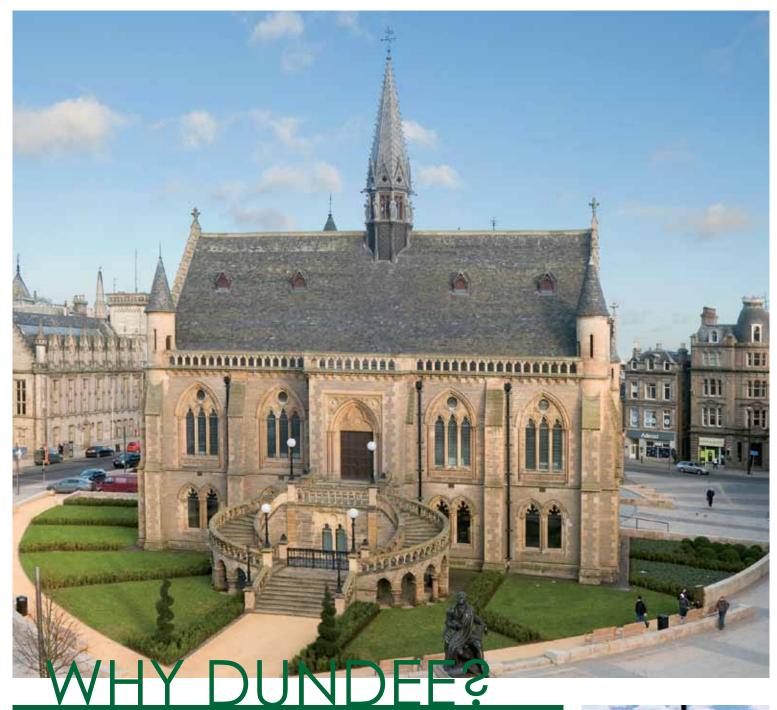
Dundee's rejuvenated city centre has created one of the finest shopping zones in Scotland, with all the major national store chains represented. The Overgate shopping centre is a £150m retail development at the heart of Dundee city centre which is Europe's only singlesided shopping mall with a curved glass façade – only two minutes' walk from our campus.

Budget-conscious students can find a host of bargain outlets who can supply those essential student needs of clothes, food and music.

Entertainment

Dundee is a centre for Arts and Culture. The city's cultural quarter features the award winning Dundee Contemporary Arts centre, the Dundee Rep theatre and the Sensation science centre as well as an array of restaurants and cafes.

Elsewhere, Dundee boasts a generous offering of theatres, museums, galleries, shopping malls and retail parks. Leisure facilities abound and Dundee is a key centre for golf with a number of world famous courses on its doorstep including St Andrews, the home of golf, just across the



- Three times nominated as one of Top Seven Intelligent Communities of the Year
- Chosen by the world famous V&A Museum as its first outpost beyond London the V&A at Dundee project is scheduled to open in 2014
- Dundee Contemporary Arts is widely recognised as one of the most successful arts projects in the UK
- Ranked as cheapest Scottish university city by Accommodation For Students (AFS)





OUR CAMPUS

Abertay is right at the heart of Dundee, combining all the advantages of a close knit campus with the buzz of city centre life. All our buildings are within a quarter of a mile of each other, along with hundreds of shops, bars, clubs, cinemas and theatres, and we're just a few minutes walk from the bus and train stations.

So convenient . . .

The heart of the University lies in Bell Street, with most teaching and learning facilities, offices, research centres, the Bernard King Library and the Student Centre all within just a few yards of each other. Whether you're going to lectures, meeting with staff, studying in the library, or attending tutorials and seminars, you'll always feel like a part of our bustling community.

So supportive . . .

Coming to University marks a major step in your life, and our fully trained support staff are on hand to make sure that the transition is as smooth as possible. The University can offer advice and support on everything from accommodation and managing your finances, to staying healthy and planning your workload. We have a counselling service that can help you work through any problems, and we employ a team of students each year to act as mentors for all newcomers. The Students' Association also provides help and advice via the elected student executive. No matter what your question, we have someone who can help answer it.

So friendly . . .

Our friendly and welcoming environment is created by our students, who represent a great diversity of backgrounds and cultures. Over 80 nationalities are represented on campus, and our courses attract everyone from local school leavers to overseas research students.

... And world leaders

Abertay isn't just a great place to be a student – the University is also home to world leading research teams, whose discoveries are hailed internationally. We are the toprated modern university in Scotland for environmental science research, with leading-edge initiatives such as the Abertay Centre for the Environment promoting 'green' business practices; the Urban Water Technology Centre developing innovative new drainage and pollution-control technology; and the SIMBIOS unit exploring bioinformatics and soil dynamics. All of our researchers are involved in teaching and developing courses - giving our students the chance to learn from world leaders every day.

Abertay scored another worldfirst in 2006 with the launch of its undergraduate degree in Ethical Hacking and Countermeasures followed in 2008 by the world's first postgraduate degree in Ethical Hacking & Computer Security. We have researchers developing new software and new systems in an amazing variety of fields not just in computer games, but in customer-oriented sales and service, environmental monitoring and prediction, novel medical diagnosis and treatment systems, cyber-security, town planning, policing, critical infrastructure planning, education and learning, heritage preservation, soil science and sustainability, infection control, sports psychology, telehealth, energy, business innovation capacity and much more. The new Prototyping and Business Support Project for the UK's games and digital media industry run by





Abertay is a £5m initiative that is planned to create dozens of new businesses and hundreds of new graduate-level jobs over the next few years.

Abertay has also been chosen to manage the Scotland Food and Drink Skills Academy, promoting the development of high-level skills and innovation through an industry which, in an age of food security, is a key component of Scotland's competitive economy.

And in 2009, the University was designated the UK's first national centre for excellence in computer games education, and we opened a new Institute of Arts, Media and Computer Games to take forward research and teaching the creative industries.







WHY ABERTAY?



- ranked **best** modern university in Scotland for its environmental science, law and psychology research
- world-leading courses in computer arts and computer games technology
- launched Scotland's first degrees in computer arts, bioinformatics and biotechnology
- **state-of-the art** library fully networked for the digital age
- purpose-built student centre at the heart of the student experience
- according to government figures, Abertay is Scotland's best modern university for helping students progress in their studies
- one of the Top Ten **most cost-effective** universities in UK according to **cost-of-living** index survey by Push (2007)



Taught Degrees

The University offers a range of taught postgraduate degrees including MSc, PGDip, MProf, MBA and MPA.

MSc/MProf/MBA

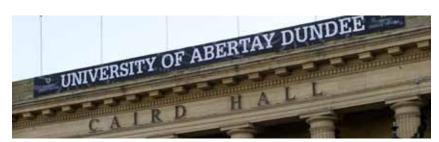
These are one year taught courses, usually consisting of two semesters (full time) or equivalent part time study together with a dissertation or project, to be completed by the end of the academic year.

PGDip

This is a nine month taught course, usually consisting of two semesters (full time) or equivalent part time study. Students who successfully complete the PGDip may continue to complete their dissertation for an appropriate Masters course.

Research Degrees

There are different types of research degree that can be undertaken in a range of different subject areas. Similarly, there are many career paths that can be followed once the research degree has been successfully completed.







Types of research degrees Masters by Research

This is a one year research programme (which may involve some taught elements where necessary). It will be supervised by one or more of our faculty members. Successful graduates will be awarded a masters degree with one of the following titles depending on the subject area of research. A list of currently available research projects that can be supervised can be found on pages 12-16.

Master of Science by Research (***) (MSc) Master of Arts by Research (***) (MA) Master of Technology by Research (***) (MTECH)

Master of Laws by Research (***) LLM

The bracketed term (***) will describe the main subject of the research project.

Master of Philosophy (MPhil)

This is a two year research programme. It will be supervised by one or more of our faculty members and may involve an external supervisor. It is for the applicant to propose a suitable research topic and methodology. Successful graduates will be awarded a Master of Philosophy (MPhil) degree for the approved research project title. MPhil research can be supervised where it is related to the University's current research expertise see link to website.

Doctor of Philosophy (PhD)

This is a three year research programme. It will be supervised by one or more of our faculty members and may involve an external supervisor. It is for the applicant to propose a suitable research topic and methodology. Successful graduates will be awarded a Doctor of Philosophy (PhD) degree for the approved research project title. PhD research can be supervised where it is related to the University's current research expertise see www/abertay.ac.uk/research.

TAUGHT POSTGRADUATE COURSES

All course details are correct at the time of publication, for an up-to-date list and information, please refer to www.abertay.ac.uk/studying/find/pg

| Subject | Course Available | Web Adress |
|--|------------------------|--|
| Accounting & Finance | | |
| Oil & Gas Accounting | MSc/PGDip | www.abertay.ac.uk/studying/schools/dbs/dbscourses/ |
| Oil & Gas Finance | MSc/PGDip | www.abertay.ac.uk/studying/schools/dbs/dbscourses/ |
| Finance | MSc/PGDip | www.abertay.ac.uk/studying/schools/dbs/dbscourses/ |
| Management Accounting | MSc/PGDip | www.abertay.ac.uk/studying/schools/dbs/dbscourses/ |
| Biology and Biotechnology | | |
| Bioinformatics | MSc/PGDip | www.abertay.ac.uk/studying/schools/cs/scscourses/ |
| Biotechnology | MSc/PGDip | www.abertay.ac.uk/studying/schools/cs/scscourses/ |
| MBA Biotechnology | MSc/PGDip | www.abertay.ac.uk/studying/schools/cs/scscourses/ |
| Medical Biotechnology | MSc/PGDip | www.abertay.ac.uk/studying/schools/cs/scscourses/ |
| Renewable Bio-Energy | MSc/PGDip | www.abertay.ac.uk/studying/schools/cs/scscourses/ |
| Business & Management | | |
| Business Administration | PGDip | www.abertay.ac.uk/studying/schools/dbs/dbscourses/ |
| MBA Business Administration | MBA | www.abertay.ac.uk/studying/schools/dbs/dbscourses/ |
| Human Resource Management | MSc/PGDip | www.abertay.ac.uk/studying/schools/dbs/dbscourses/ |
| Management | MSc/PGDip | www.abertay.ac.uk/studying/schools/dbs/dbscourses/ |
| Computer Games | | |
| Computer Games Technology | MSc/PGDip | www.abertay.ac.uk/studying/schools/amg/courses/ |
| Games Development | MProf | www.abertay.ac.uk/studying/schools/amg/courses/ |
| Computing & IT | | |
| Digital Forensics | MSc/PGDip | www.abertay.ac.uk/studying/schools/ces/courses/ |
| Intelligence and Security Informatics | MSc/PGDip | www.abertay.ac.uk/studying/schools/ces/courses/ |
| Ethical Hacking and Computer Security | MSc/PGDip | www.abertay.ac.uk/studying/schools/ces/courses/ |
| Information Technology | MSc/PGDip | www.abertay.ac.uk/studying/schools/ces/courses/ |
| Counselling | | |
| Counselling | MSc/PGDip | www.abertay.ac.uk/studying/schools/shs/shscourses/ |
| Counselling Skills | Graduate Certificate | www.abertay.ac.uk/studying/english/ |
| English Language | | |
| English for Postgraduate Study | University Certificate | www.abertay.ac.uk/studying/english/ |
| Environment | | |
| Energy and Environmental Management | MSc/PGDip | www.abertay.ac.uk/studying/schools/cs/scscourses/ |
| Environment and Business | MSc/PGDip | www.abertay.ac.uk/studying/schools/cs/scscourses/ |
| Environmental Biotechnology | MSc/PGDip | www.abertay.ac.uk/studying/schools/cs/scscourses/ |
| Industrial Environmental Management | MSc/PGDip | www.abertay.ac.uk/studying/schools/cs/scscourses/ |
| Interdisciplinary Systems Approach to | MSc/PGDip | www.abertay.ac.uk/studying/schools/cs/scscourses/ |
| Environmental Challenges | | |
| Urban Water and Environmental Management | MSc/PGDip | www.abertay.ac.uk/studying/schools/cs/scscourses/ |
| Water Pollution Control | MSc/PGDip | www.abertay.ac.uk/studying/schools/cs/scscourses/ |
| Food Science | | |
| Food Biotechnology | MSc/PGDip | www.abertay.ac.uk/studying/schools/cs/scscourses/ |
| Nursing | | |
| International Nursing | MSc/PGDip | www.abertay.ac.uk/studying/schools/shs/shscourses/ |
| Public administration | | |
| Public Administration | MPA | www.abertay.ac.uk/studying/schools/shs/shscourses/ |
| Psychology | | |
| Psychology | MSc/PGDip | www.abertay.ac.uk/studying/schools/shs/shscourses/ |
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Institute of Arts, Media and Computer Games

- Master of Arts by Research in Game Art
- Master of Arts by Research in Game Design
- Master of Arts by Research in Creative Sound Production

Dundee Business School

- **Economic Development**
- Energy Industry Management
- Energy Economics
- Oil & Gas Finance
- Oil & Gas Management
- **Environmental Accounting**
- Finance
- Intellectual Capital
- Entrepreneurship
- Human Resource Accounting
- Organisational Performance Measurement
- International HR; HR; Cross-cultural Management
- Strategy
- Innovation Management
- Knowledge Management
- Marketing
- Retail Marketing
- EU Justice and Security
- EU Agricultural law and trade barriers
- The profession of law
- Employment Law
- Financial Services Law
- Property law succession and trusts in Scotland

MASTER BY RESE



Computer Security

- Insight Digital Forensic Visualization
- Clouds, mobiles and crime: Digital forensics in the mobile age
- Information visualisation and digital forensics
- Detecting suspicious behaviour using surveillance techniques and human behaviour analysis
- **Botnets**
- Social Networks and Accessibility & Usability
- Usable Security

Human Computer Interface and Intelligent Living

- Understanding and modelling users with functional impairments
- Novel HCI technologies
- A robust voice driven command and control system for use in high noise environments
- Security versus usability in human identification
- Modelling the Home Environment for Telecare
- Capture of Observational Data
- Visual / Tactile / Aural Interaction
- Mood and emotional state detection in people with profound and complex disabilities
- Gesture filter for intention detection in people with profound and complex disabilities

Pervasive and Mobile Computing

- The future of gaming
- Affective computing in Telecare
- Behaviour based User Authentication in Smart Mobile Phone Applications
- Aural Metaphors for Complex Data
- An Autonomous Intelligent Agent for Games
- Mobile Telecare
- Accessible Security
- Mobile health

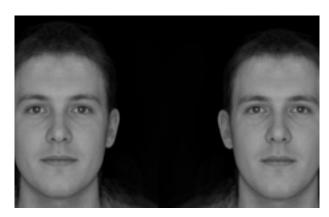
Smart Grids

Smart Grid

- Anti-malware in the cloud
- Clustering Strategies within Energy Management
- Sustainable Design Methodologies
- Biological metaphors for managing speckled computing networks
- Web Services for Integration of Smart Houses in the Smart Grid
- Intelligent Data Gathering and Automated Learning

Psychology

- Face recognition (both theoretical and applied)
- Forensic Psychology and Forensic mental health
- Stereotyping processes relating to gender and social class in the domains of education, health and the law
- Human Factors, Human performance in an applied context
- Evolutionary progression of cognitive abilities, taking a comparative approach to look at cognitive underpinnings of complex behaviours displayed by modern hominids
- How experience during critical developmental stages affects cognitive development in humans and non-humans
- Social cognition self-reference effects in memory
- The early development of self-processing biases, and implications for learning and education
- The impact of ownership on cognition
- Effects of stereotypes on cognition and behaviour
- Person perception across the lifespan
- Strengths and weaknesses of human memory
- Applying psychology theory from social cognition and memory domains to real-life issues such as everyday memory use and the accuracy of eyewitness testimony
- Social influences on memory, such as the effects of discussion on subsequent memory accuracy
- Identifying the cognitive and social factors operating in collaborative retrieval and recognition
- Animal Behaviour in wild, zoo or domesticated animals
- Personality and psychometrics
- Zoo visitor behaviour (public engagement and understanding)





ARCH DEGREES

- Role of child-directed speech in language acquisition
- Cross-linguistic research and neural network modelling of language learning and processing
- First and second language vocabulary acquisition and learning of inflectional morphology
- Individual differences in language learning and in child-directed speech
- Emotion and Communication
- Forensic interviews with children and guidelines for interviewers
- Cognitive impairments in normally ageing and brain-damaged individuals focusing on language, memory and metacognitive function in people with Parkinsons Disease
- Teaching and learning in higher education including authentic assessment, peer and student evaluation of teaching, evaluation of problem based learning and 'threshold concepts' in psychology and other disciplines
- Concurrent verbal protocol analysis in sport illustrating thought processes e.g. during a putting task in golf using the DAT (Discourse Analysis Tool)
- Ecology of reproductive decision making (e.g. mate choice trade offs)
- Hormonal mediation of sexual signalling (including facial attractiveness)
- Social and evolutionary psychological models of human behaviour
- How faces, voices and odour contribute to our assessments of others
- The changes and development of attractiveness judgments during childhood and adolescence
- How visual experience shapes judgments of attractiveness
- · Chemosignals and "pheromones"
- Hormonal influences, including the menstrual cycle, on attraction and relationship behaviour
- Human perception, attention and memory
- Internet shopping activities, how people relate to food
- How students can benefit from different formats of displaying information
- Laterality (particularly handedness)
- Emotions (both emotional processing and identification of emotions)
- 2nd to 4th digit ratio (particularly on task performance)
- Problem-solving (approaches towards novel problems, differences between manual and computerised problems)
- Examination of children and adult's drawings
- Behavioural Inhibition & Reinforcement Sensitivity Theory





Sociology

- Social Movements and Political Protest
- Environmentalism
- Work & Employment
- Education and Training
- Political Sociology
- Sex Education, Sexuality and Social Movement Activity
- Issues related to gender, feminism, rape, sexual assault, domestic abuse, commercial sexual exploitation, legal responses to sexual offences, alcohol
- Ethnicity, migration and integration
 - Epistemology and belief systems
- The sociology of emotion
- Social Theory
- Nation and Society
- Class
- Welfare Movements
- Collective Memory
- Cultural Technologies Urbanism
- Discourses of occupational identities
- Doctor-patient interactions and shared decision-making
- Tourism as visual experience
- Death and dying
- Young people and crime,
- Criminal justice and gender
- Gender violence
- Personal development planning, graduate attributes and citizenship within higher education

MASTER BY RESE



- Sociology of Media and culture
- Scotland's developing environmental sustainability agenda
- Analyzing sustainable land management techniques and practices, on the Scotland's West coast
- The political and therapeutic way in which crime and the issue of antisocial behaviour have developed in the UK
- The way in which 'vulnerability' and the construction of it have impacted upon crime and society
- Moral but more specifically amoral panics in society
- The changing nature of politics beyond left and right and the impact this has upon crime as a socially constructed problem
- The history of early intervention and its emerging centrality to crime related social policy
- Education and training programmes in prisons
- Evaluation research on crime prevention strategies and interventions, notably rehabilitation through education within a prison environment
- Tracking progress beyond release social inclusion
- Progress and retention of traditional and non-standard students in Higher Education
- Sociology of race and racism
- Organised racism and the far right in the US, Canada and Britain
- Terrorism, hate crimes and political violence
- Right-wing political ideologies and movements
- Conspiracy theory
- American history and politics (with particular focus on race, religion and conservatism)

Nursing and Counselling

- Media portrayals of mental illness in 19th Century Dundee
- Measuring recovery in mental health
- Hope Studies

Therapists hope and therapeutic outcomes

Clients hope and therapeutic outcomes

Operationalising hope in therapy

Perspectives on the Self

The differentiation of self – development of a new inventory The differentiation of self within family therapy

The recovery of the reflective self within counselling and psychotherapy

• Epistemic Development and Style

Therapists' epistemic development

Epistemology and approaches to counselling and psychotherapy



- Psychotherapy Integration
 Metatheory and psychotherapy integration
- Personal approaches to psychotherapy integration
- Counselling in Voluntary Organisations
- Outcome evaluation, training

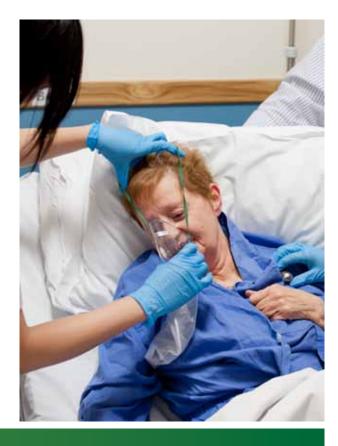
Non-professional counselling

Supervision of voluntary counsellors

The role and scope of voluntary counselling

Organisational and managerial issues in voluntary counselling agencies

- Professional development in counsellors and psychotherapists,
- Solution-focused therapy
- Counsellor's experiences of CBT training and practice
- Communication and interpersonal skills training for nurses and healthcare professionals
- The psychosocial impact of acquired sight loss
- Sight loss and mental health
- Counselling interventions for sight loss
- Therapeutic outcomes for counselling and sight loss
- Accessible healthcare for people with sight loss
- Sight loss and social inclusion
- Disability and social inclusion
- Access to professions through higher education: student experiences of disability in professional training
- The experiences of student nurses in the clinical area
- Pre-hospital care particularly remote and wilderness emergency medicine
- The management of long-term cardiac disease and cardiac rehabilitation



ARCH DEGREES

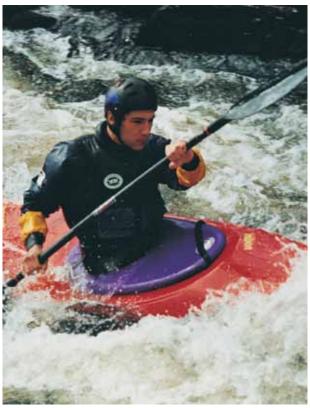
- Understanding Patient and Nurse Experience: the influence of context on experience, with a particular focus on power
- People with dementia expressing their experiences of healthcare through the use of a digital story telling medium
- Patient experience stories and the development of emotional intelligence, specifically empathy, in nursing students (and the wider professional audience)
- How creative methods of representing the experience of the 'other' might emotionally engage audiences
- Narrative methodologies
- Qualitative methodologies
- Aesthetic knowledge development in nurses
- Nursing in the acute mental health context
- Nurse-patient relationships
- Health care experiences of women with and without learning disabilities
- Cancer in people with learning disabilities
- Health and ageing issues in people with learning disabilities
- Ethics in medicine and research
- Methodological issues in research with vulnerable groups
- Attitudes/experiences of health care workers
- Media Portrayals of Nurses in the aftermath of concerns about practice
- Media portrayals of older people with mental health problems

School of Contemporary Sciences

- Cell culture testing of a GNB3 specific, inhibitory, antisense oligonuleotides, to the GNB3 gene, as putative therapeutic drugs for essential hypertension patients
- Evolution of biofilm formation
- Molecular analysis of biofilm formation
- Biofilm-formation amongst sewage-associated enteric bacteria
- The Ecosystems Approach Project (linked to on-going PhD research in SCS)
- Urban Green-space optimisation projects (linked to current AHRCfunded projects and possibility of collaboration with City or Regional Councils)
- Soil Erosion project
- Investigate soil erosion risk in an agricultural catchment
- Investigate the biological roles of the DNA damage response pathway in the aetiology and treatment of ovarian cancer
- Combine Experimental and Computational Modelling Studies on the Regulation of ATM/ATR Pathway in Ovarian Cancer







- Bioinformatics analysis of gene expression microarray data on cellular response to cancer therapy to predict drug efficacy and identify biomarker(s) Application of bioinformatics analysis of gene expression microarray data to track cancer progression and therapeutic response(s)
- Investigate the biological roles of melacortin-1 receptor (MC1R) in the aetiology and treatment of melanoma
- Investigate Malaria Vector Control: Targeting the mosquito (Anopheles gambiae) defense enzymes system to overcome pesticide resistance
- Investigate Sorghum and its utilisation as alternative renewable energy source Computer-assisted enzyme and protein engineering for drug discovery and development
- Cloning, expression, purification and characterization of recombinant proteins
- Nanobio technology applied to Food Sciences: Yeast physiology & biotechnology
- Nanobio technology applied to Forensics: Aging of biological stains exposed to environmental stresses
- Nanobio technology applied to Life Sciences: Nanoscale analysis of membrane fluidity changes during capacitation of animal sperm
- Development of nanosensors for a highly sensitive detection of RNA, DNA and protein molecules in cells and within biological samples
- Characterisation of novel CDK inhibitors as anti-cancer drugs
- Evaluation of CDK inhibitors as potential therapeutics for cardiac hypertrophy
- Targeting ATM pathway for therapeutic intervention in cancer
- Role of Gb3s protein subunit for predisposing individuals to hypertension and cancer
- Systems biology in cancer research and treatment
- Bioethics

MASTER BY RESE



- Hydrological models on networks for soil structures
- Ecological network models for soil biodiversity
- Meta-networks as a tool for controlling spread of epidemics
- Parrallelisation of a fungal growth model
- Effect of Carbon distribution in soil on fungal dynamics
- Experimental systems for species interactions in 3D structured environments
- Using X-ray CT to examine the dynamics of soil structure during organic matter decomposition
- Bio-imaging with X-ray CT
- Experimental quantification of hydrological properties of structured soils
- X-ray CT imaging of 3D soils: development of methods to evaluate image quality
- Sample size estimation and statistical modelling of multilevel data structure with application to biomedical data
- The effect of processing (roasting and frying) on the microstructure of a variety of oil seeds (peanut, rape and sunflower seeds)
- Investigating the association between visual processing of food and body image or shape using eye tracking technology
- Effect of food texture on the sensory perception of salt.
- Application of CT scanning to evaluate the curing process in hams

Sport and Exercise Science

- Human Load Carriage
- Energy cost
- Electromyographic aspects
- Subjective perceptions
- Novel loading systems
- Strength and Conditioning
- Strength and power training regimens
- Autoregulatory training
- Training for strength and power with no external load
- Novel training methods
- Role of microRNAs in human disease processes and their utilization as blood biomarkers
- Regulation of skeletal muscle metabolism in type 2 diabetes
- Diseases of the eye and secondary complications of type 2 diabetes
- Training modalities to enhance performance and health
- Nutrition to promote performance and health
- Participation in extreme sports Sport, motivation and motivational climates
- Outdoor education
- Sport and social policy





- Interpersonal perception in sport, how coaches and athletes see
 the world in different ways and how this influences their ability to work
 together, communicate, and ultimately their performance in
 competition
- Empathic accuracy
- Interpersonal percéption
- Interdependence in social processes in sport
- Coach-athlete relationships
- Climbing and 'adventure' sports
- General sport and/or social psychology
- Sport psychology and mental health
- 'Flow' and peak mental experiences in sport and exercise, and the use of imagery interventions
- Exploring the power of Sport and Football as a vehicle for Social Change
- Measure, articulate and improve strategic and operational effectiveness in sports organisations
- The role of sport in social change
- Corporate Social Responsibility



ARCH DEGREES





Professor Jim Bown, Systems Biology

Professor Jim Bown's research focuses on modelling, simulation and visualisation of complex systems. He is working on developing novel interactive visualisations within multi-scale systems with a focus on cancer systems biology. Professor Bown's studies will offer biological scientists realistic models linked to visualisations which scientists can use to interact with their data. These visualisations will allow the development of in silico experiments which can help design the most appropriate in vitro studies. Jim's work is producing a generic toolbox which can be used in other areas such as traffic management, crowd control, environmental science work and soil biophysics as there are many complex interacting entities.

Professor Simeon Keates, Human Computer Interaction

Professor Keates is undertaking research in inclusive design which is used by people who have functional impairments and capability limitations. For example, he worked with the UK Department of Trade and Industry to assess the accessibility of information on the conversion of TVs from analogue to digital within a group of Identities (Abertay Press, 2001), brought some of these interests together in the early days of Scottish devolution. Ongoing work examines theories of state and nation for understanding devolved government.

Professor Derek Carson, Applied Cognitive Psychology

Derek Carson's PhD research and early publications concentrated on face and person recognition. Professor Carson was particularly interested in understanding the mechanisms involved in the storage and access of semantic information belonging to familiar people. For example, why is it that many of us disproportionally struggle to remember people's names? Why when presented with a famous person such as David Cameron are we quicker to recognise other famous politicians? Answers to these questions help us understand how semantic memory works. More recently Derek has concentrated less on theoretical research and, in an attempt to gain a better understanding of the processes underlying tasks that eyewitnesses participate in, has applied his knowledge of memory and face recognition to the forensic situation. Working with colleagues at the Universities of Stirling and Central Lancashire

MEET SOME OF OUR LEADING RESEARCHERS



people aged 60-75. His research was presented to the BBC and significantly influenced elements within the interactive pages they produced as a guide. A challenge for the future is to correct the current trend to produce the cheap interfaces for electronic goods. Interface design should be considered as an integral part of the design envelope but currently this is not the case. Currently designers do not consider that usability is as important as, for example, aesthetics. Simeon's work will involve training a generation of designers who produce goods that look good, function well AND have high degrees of usability.

Professor Wilfred Otten, Biophysics of Soil Ecosystems

Professor Otten researches soil biophysics, looking at the interplay between physical and biological science. How do soil microorganisms interact with their physical environment, how can theories from physics help this understanding? Wilfred studies soil processes using x-ray tomography and is looking at the internal structure of soil and asking how organisms will invade soil and asks if general network theories and dispersal kernel theorems help in understanding and predicting how this will happen. The major challenge at the moment is to develop predictive systems in soil science to understand how soil will react to climate change and land use. Currently there is no theoretical understanding of soil sustainability. Wilfred's research is impacting on other fields such as food security, and his groups expertise is interpreting data from CT scanners has resulted in links with dentistry, museums/archaeology, rocks and the oil industry.

Professor Alex Law, Sociology

Rootedinthe bedrocktraditions and recent syntheses in social theory, Professor Law takes a broad approach that draws on sociology, human geography, philosophy, social and public policy. His research interests are mainly concerned, though not exclusively, with different sociological facets of Scotland: social structure, state relations, culture, national identity, media, education, welfare, public policy, and social movements. Some of this work appears in journals such as Sociology, Media Culture & Society, Antipode, Critical Social Policy, Sociological Research Online, Historical Materialism, and Critique. Recent textbooks include Key Concepts in Classical Social Theory (Sage, 2011) and Understanding Social Welfare Movements (Policy Press, 2009, with Annetts, McNeish and Mooney). A major theme for Alex has been on forms of national identity in Scotland, including work on language, the press and national identity (2001, 2002, 2004, 2006), welfare nationalism (2006, 2006), and British identity (2005). A co-edited book, Boundaries and

he has published a number of studies evaluating featural-based facial composite systems (e.g. E-Fit) that are used by UK police forces and compared them to newer holistic systems such as Evo-Fit. As part of a multi-disciplinary team from across the UK, Derek has contributed to investigations of pathways of offenders with intellectual disabilities into and through the UK criminal justice system.

Professor Vera Kempe, Psychology of Language Learning

Professor Kempe's general interest is in the area of language learning. She is interested in how children learn the language of their surroundings, keeping in mind that many children are exposed to more than one language at some point in their lives. Vera is also interested in how adults learn other languages, how this process differs from children and how language might have evolved. Finally, she is exploring the interaction between emotion and language. Specifically, research in my lab focuses on the following topics: a) cognitive predictors of successful first and second language learning, b) evolutionary underpinnings of individual differences in language abilities and c) emotion and language. To expand on just one of these, emotion and language, this line of research investigates how situational and temporal factors like emotions affect the way we learn and use language. For example, do positive feelings like love of their child make mothers better at using language with their children? Are happy people more effective communicators than sad people (preliminary evidence suggests they are not)? This research will advance our understanding of the complex interplay between emotion, cognition and communication.

Professor Ashok Adya, Nanotechnology

Prof Adya is internationally renowned for his work on nanoscopic structural elucidation of ionic melts, amorphous materials, aqueous and non aqueous electrolyte solutions, and molecular liquids and liquid mixtures. He has gained international recognition for the study and characterisation of biological systems and processes by using nano- and micro-scopic techniques. Ashok founded and still leads the Abertay University's BIO- and Nano-Technologies for Health and Environment Research Group to investigate aspects and mechanisms of growth, metabolism and effects of a variety of environmental stresses on a diverse range of cells, such as yeast, urothelial, blood, candida, and cancer cells of industrial, environmental and medical significance in biotechnology, life, food and forensic sciences. Prof. Adya's group established an international reputation in applying nanotechnology tools in a whole range of scientific areas.

RESEARCH AT THE UNIVERSITY



IMPACT is the key feature of research undertaken at the University of Abertay Dundee. Impact on business, impact on society, impact on health and well being and, most importantly, the impact of the researcher and students.

All research focuses around a 'research question' - a statement of what it is the researcher is trying to answer. For the shorter programmes such as the Masters by Research programmes the research question will probably be suggested from the research supervisor. For a PhD, the research question is very much that of the researcher - indeed, identifying the research question is often a key part of the research process. Once defined the researcher's role is to formulate an appropriate research method and techniques necessary to identify at least some of the elements of an 'answer' to the research question. Finally the findings and results of the research are written up for scrutiny by the academic community. The supervisor's role is to advise and guide throughout the process.

Some Key Research Themes

The University has a number of core research themes which cluster around the areas of energy and environment, health (including life sciences), policing and criminal justice, computer security, creative industries, visualisation, and psychology. Other areas of particular strength include sport, food, sociology, oil & gas accounting, and law.

The University offers a unique research experience, an experience that will help define future careers and provide insights into the world through research that will facilitate a lifelong approach to life and work. The basis of our uniqueness is the focus on a number of core themes and a closely interconnected research community







willing to cooperate across traditional disciplines. What this means to the researcher is that, just because they may be undertaking research with a focus on (say) computing they are likely to be working alongside or with biologists, or usability experts, or psychologists et al. In other words, our uniqueness is linked to interdisciplinarity - the ability to be strong in a discipline but with the ability to utilise skills and thinking from outside that discipline as well as to being able to contribute to thinking in discipline areas.

Interdisciplinarity is of course how world really works! If we want to research a matter, to have impact, then we need the ability to work with or alongside a range of people with a range of skills. And that means developing interpersonal skills – to work in or with a team to make the results of research make a difference. This is the University's unique strength and one which is becoming increasingly crucial to society and the economy.

Current Research Projects

Listed below is a selection of current research projects at the University.

Environmental Research

Abertay has two centres of environmental research, the Scottish Informatics Mathematics, Biology and Statistics Centre (SIMBIOS) and the Urban Water Technology Centre (UWTC). These groups are delivering a wide range of research into more sustainable technologies which impact upon the natural, agricultural and urban environments.

1. Soil Ecosystems Research

in the SIMBIOS Centre (www.simbios.ac.uk)

The SIMBIOS Centre offers an interdisciplinary research environment for students interested in studying soil and ecosystems. Soil processes support all terrestrial life and provide irreplaceable ecosystem services. These services include agriculture, climate regulation, flood prevention, and the provision of fresh water. Despite their importance, there is great uncertainty around how much longer we can expect soil services to meet increasing demands.

Our researchers and research students are from a diverse range of disciplines including physics, chemistry, microbiology and mathematics, and work collaboratively on this core theme, approaching it simultaneously from theoretical, modelling and experimental angles. Ultimately our research will deliver improved predictive capabilities to researchers, and less uncertain predictions on which to base policy decisions and regulations. It will also provide guidance to field soil scientists and surveyors as to what they should be measuring in the field/lab in the soil samples they collect, and which key properties of the soils they should be mapping.

We can offer a stimulating research environment for students seeking projects in physics, soil science, microbial ecology, mathematics and statistics. Our philosophy is that the behaviour of complex ecosystems like soil emerges from interactions at microscopic scales within a heterogeneous environment.

Projects are offered in the following interlocking areas:

Characterising soil micro habitats

Soil exhibits heterogeneity at a range of spatial scales. The extreme heterogeneity and interconnectivity of the 3D pore space within soil makes it a unique habitat for the diverse microbial population and has a pivotal role in microbial interactions. Our research focuses on the development of novel techniques to characterize soil at spatial scales that are relevant for microorganisms.

Bio-physical modelling

Modelling provides a powerful and essential tool to understand the consequences of the microscopic heterogeneity of soil. A particular strength of the SIMBIOS Centre is our expertise in modelling and visualisation of dynamic soil processes such as water flow and microbial community dynamics. We are exploiting recent advances in modern techniques that characterise the soil environment at micro scales, and combine this with parameterised and validated models of fungal growth to develop a predictive framework for fungal growth in heterogeneous soil environments.

Microbial adaptation

Adaptation of micro-organisms to changing environmental conditions is a major missing link in long term predictions of soil ecosystem functioning. Our work aims to get a better understanding of how the physical and chemical environment of soil pores at the micro-scale determines microbial colonisation, activity and fitness. The approach is to combine aspects of molecular microbiology, microbial ecology and evolution with the use of microcosms ranging in complexity reflecting soil systems.

Modelling and up-scaling of emergent behaviour

One of the key objectives of the Centre is to develop and test experimentally a mathematical model of soil dynamics, and to use this model to analyse in detail how micro-scale soil dynamical processes need to be up-scaled to account for observed macroscopic behaviours. This research presents a number of significant challenges, for example, how to efficiently and non-subjectively extract information about pore geometry from X-ray microtomography data without biasing the picture.

2. Research into sustainable technologies at the Urban Water Technology Centre

the research being carried out in the four themes.

UWTC has a vibrant programme of environmental research led by six key members of academic staff. Around 20 research students and two members of support staff are currently registered on research degrees at the university, all working on PhD programmes in four themes. Many of the themes have the strong underlying thread of investigating ways of improving the water environment both above and below ground. The stories are best told through

Sustainable technologies

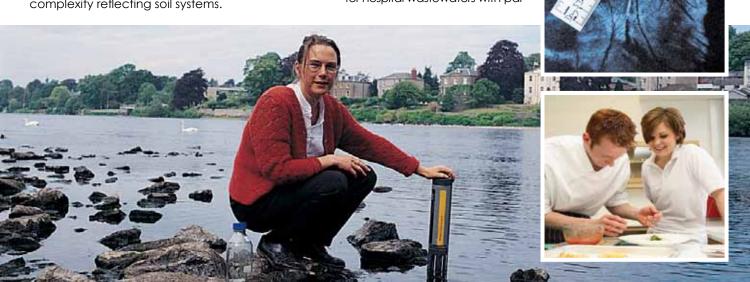
Efficient, well engineered and techniques and processes which are viable in the long term are essential for the improvement of environmental conditions. Four programmes are driven by a policy shift in Europe towards developing more sustainable technologies for drainage, with the goal of reducing the impact of stormwater flows on the environment. Applied research into Sustainable Urban Drainage (SUDS) is a key area of strength at Abertay and these research programmes, which look at process science and engineering, are mixtures of lab, pilot scale and fieldwork.

Three further programmes are seeking to improve and develop anaerobic digestion technologies. This more fundamental research on different types of biomass under different conditions supports environmental improvements and the development of new energy technologies. Further work is examining the technological, economic and ethical aspects of bio-ethanol production in developing countries with a clear link to the bio-fuel industry. The Forensic Science research group is also investigating the use of highly efficient Activated Carbon Cloth for high-tech filter applications.

Managing environmental improvement

The second strand of our environmental research is to investigate the ways in which engineered and environmental systems interact, with a view to developing

better or cheaper ways of managing their interaction.
There are five PhD programmes in this category: one programme is exploring appropriate management and technological solutions for hospital wastewaters with par-





ticular application to Saudi Arabia. Four further students are working on the reduction of environmental footprints in a number of contexts; on using sustainable drainage technologies to reduce the energy cost of operating the drainage network in Scotland; on reducing the environmental footprint of the roads network, again in Scotland; and examining how the principles of natural flood management can be applied both in Scotland and Nigeria.

Environmental evaluation and decision making

The third strand is the conversion of the technical and management processes into good ways of actually making a difference – and then of evaluating the extent of the change achieved. New environmental approaches, supported by appropriate policies can only be implemented through technological and societal changes which must be evaluated.

There are six PhD programmes in this category: examining the sustainability of decisions made by local authorities; on rolling out a sustainable drainage policy in Scotland; on developing a common language for planners in the water sphere; on examining how the ecosystem services approach can be applied to sustainable drainage; on sustainable decision making in the water supply sector in Oman; and on exploring social technological and economic aspects of sustainable municipal waste management in development countries, specifically Rwanda. Finally, on using GIS to optimise the locations of decentralised, medium scale bio-energy developments with a view to reducing CO² emissions and costs.

Visualisation of environmental problems

The final strand of our environmental research is interpretation of the numerical output from environmental models so that they can be readily understood by decision makers. The work is highly technical using techniques developed for the computer games industry and involves the development of models of environmental phenomena and the conversion of their numerical outputs into 3D interactive simulations of rural and urban environments which can be more readily understood by stakeholders in environmental decision making.

Forensic Science Research

Abertay has an active Forensic Science research group with eight academics and students. This team is actively investigating a number of aspects of value to crime investigation. Projects include the acquisition of fingermarks from fabrics using vacuum

metal deposition and superglue fuming techniques; the use of nanoparticles and other novel treatments for fingermark enhancement; the recovery, enhancement and lifting of footwear impressions from fabrics; illicit drug analysis for police intelligence purposes.

Further research projects include etching of metals for recovery of erased identification numbers via a newly developed etching paste; damage caused by air weapons using CT scanning to examine the target material; visualisation of fingerprints on metals, particularly when they have been heated; and the application of atomic force microscopy for specialised forensic applications.

Research into Food Technologies

Various aspects of food-related research are conducted at Abertay University with projects being conducted in: investigations into valueadded products (eg. biofuels) from lignocellulosic food processing residues such as spent grains and sorghum residues with a particular focus on novel, low-energy, pre-treatment technologies leading to production of bioethanol (fuel alcohol); the characteristics of the complex microbial community associated with anaerobic bioconversion of food/beverage processing and agricultural wastes/wastewaters for the production of bio-energy in the form of methane gas; exploring new ways to utilise ultrasound for enhanced bio-fuel (bio-gas, bio-ethanol) production from waste biomass. Yeast research at Abertay is concerned with investigating both fundamental and applied aspects of yeast cell physiology. Projects focus on regulation of nutrition, growth, cell division, metabolism, stress and cell death in yeasts of industrial and environmental significance with applications in food preservation and food antioxidant properties.

Cancer Systems Biology Research

The cancer systems biology research in Abertay focuses on two overlapping areas: quantitative cancer biology and computational modelling. Our quantitative cancer biology research aims to understand the regulation of the signal transduction pathways related to tumorigenesis through the development of methods that can provide quantitative information about the complex interactions of such pathways in real time in a single cell. For example, we have developed the first live-cell biosensor for monitoring activity on cancer targets such as cyclin-dependent kinases in tumours.

In addition, researchers in Abertay develop and implement computational modelling using optimised quantitative pathology to understand the basis of drug resistance to treatment and so contribute to discovery programmes that identify new targets. To achieve this we combine computational modelling of complex systems, cutting-edge experimental data generation, games-based real-time interactive visualisation and statistical modelling using Bayesian networks. Computational models of cellular signalling networks offer an excellent platform for exploring the impact of drug interventions on cell functioning.

Computer Art and Animation Research

Within the Institute of Art, Media and Computer Games, we aim to combine studio-based activity with other forms of inquiry in order to conduct practice-led research. In other words, research that stems from creative art and design practice, but which also connects to the approaches of other disciplines, such as psychology or business. One example of this type of research is in the computer animation of facial expressions. As an art form, animation is founded upon a series of fundamental principles and guidelines, but it is ultimately a creative and imaginative practice. By combining studio-based research with qualitative and experimental studies, we've been able to reveal new methods for effectively animating emotional facial expressions on virtual characters, drawing upon both artistic and scientific modes of inquiry.

Intelligent Security Research

In 2011, the world witnessed the Arab Spring and here in the United Kingdom we watched in disbelief as the domestic riots spread across the country. Crowd sourcing through social networking media played a significant role in mobilising these events through organising people, penetrating cultural barriers and disseminating news and opinion into the public domain. They demonstrated the "Power of the People" and the effectiveness of virtual media in today's digital world. Yet, with all this information in the public domain, could it have been possible to predict these events in advance? This is a very powerful concept and one that carries the potential to influence or intervene in the course of history. It is a question we are attempting to address and we have projects underway that will analyse repositories such as Twitter and the blogosphere to ascertain the 'mood' associated with a political movement. Algorithms will search for relevant text from these open sources and organise the information into actionable intelligence for use by policy-makers and executives of law enforcement.

Human Identification/Biometrics Research

In everyday life the range of computing devices and the increased use of mobile and cloud computing is leading to vastly distributed computer systems within which information is required to be stored in a private and secure manner. The weak link in any security system is often the user and their behaviour rather than the underlying technology. We are using multi-modal Biometric technology based on physical measurements of a person to determine identity so that the behaviour of the individual is not so important and the security of the overall system is more resilient. An example of the use of this technology is our Biometric scanner which measures the characteristics of the person who walks through it. This is physically very similar in nature to the security scanners used at airports although the measurements are different. In addition to the use of physical measurements to enhance security, we are also studying how users can be persuaded to behave in a secure manner and "what new metaphors for security can make the user's tasks easier"? Related to this we are also addressing the questions "how can security be made accessible" and "can systems be made secure by designing out the possibility of misuse"?

Evolutionary and Biological Psychology Research

The Evolutionary and Biological Approaches to Behaviour (EBAB) research group, has researchers taking an evolutionary and biological approach to the study of behaviour, covering a wide range of behaviour in humans and other animals. The key lies in our understanding of how biology and evolution influences the way that we behave; with the purpose of helping us to better understand human behaviour. For example, how different is our intelligence compared to primates? Can this be related to differences in brain structure? We also examine what influences language development and learning, as well as the evolution of language itself. Handedness and other lateral preferences, in conjunction with personality differences, can also be shown to influence behaviour. We research the role of hormones in many aspects of behaviour, such as stress, reproduction, health and happiness. Understanding attractiveness is a key area where our research covers multiple areas such as hormones, social status, smell and facial attractiveness and has had a major impact on the field. In doing our research, we work closely with colleagues from across the UK as well as Europe and the USA.

Criminal Justice Research

Abertay houses many experts across the University who are directly or indirectly engaged with research relating to the promotion of criminal justice. Together we form the Investigation, Security, Policing & Intelligence (I-SPI) Research Group; a unique multi-disciplinary team of applied researchers, including psychologists, forensic scientists, computer scientists, lawyers and sociologists. We regularly organise knowledge-exchange activities, provide expertise, and engage in collaborative projects, with end-users of our research. Strong links with UK and European police forces, as well as the Scottish Institute for Policing Research (SIPR), and the Scottish Police Service Authority (SPSA), provide us with a platform to promote our research. Group members have achieved exciting advancements and impacts in the field of criminal justice research, including ground-breaking forensic techniques to detect fingerprints on fabrics, and innovative ways to obtain reliable evidence from victims and witnesses of crimes. Becoming part of the I-SPI group provides members with a supportive environment for sharing and stimulating new ideas, and creates unique opportunities for multi-disciplinary research within this field.









STUDENT PROFILES

Santiago Martinez, PhD Student

Santiago Martinez is a PhD student working on an interdisciplinary research project funded by the Alison Armstrong Studentship. He has a first degree in software engineering and computer science from Seville and Masters degree in software engineering and artificial intelligence from Malaga.

"I was attracted to do research at Abertay by the very rich multidisciplinary environment. My research is focused on how humans interact with technology for first time. My time working in a Hospital in Spain with software application users, made me realize that software applications could be better built, and overall, the technology should be designed working for and with users. For instance, representative cases can be found when the interaction occurs on public spaces. ATM's, self-checkout or public kiosks are what we call 'paradigms of self-service technologies'. Simple transactions may become very complex for those who have never done them before, or for those unfamiliar with the technology and the environment. For those users in general, and for special needs users in particular, the Interaction Design in connection with Psychological Science findings still have to be applied in order to offer holistic solutions for everyday routines. Putting these disciplines together allows us to explore more intuitive ways doing everyday transactions like buying a train ticket, withdrawing money from the cash machine or doing some shopping at the supermarket."

Hilal Khalil, PhD Student

Following completion of a MSc in Biotechnology, Hilal Khalil from Pakistan is now completing a PhD at Abertay. His research is on the interface between molecular biology and modelling and is directed towards understanding the DNA Damage Repair pathways in cancer cells. Hilal is funded by the Northwood Trust.

"Abertay is a small, practically-oriented University. Because of this each student gets a lot of attention and a lot of hands on experience and the laboratory facilities are excellent.

Dundee is a city of science with a large student population. By being located here, I have been able to work with some of the greatest minds in the country in the fields of cancer research and molecular modelling."

Ali Bakari Mohammed, PhD in Sustainable Drainage Systems and the Impact on Groundwater



"I chose Abertay as a place of study because of its superb learning environment with state-of-the-art facilities in Environmental Science. I really enjoy the practical aspect of my course which involves relevant Scottish case studies and receive a lot of support from my supervisors.

The city of Dundee is absolutely great, with lots of great people although the Dundonian accent did prove difficult to understand at first! It is truly the 'city of discovery' and a wonderful place to study and live. The University is very close to the city centre."

Roshni Jose, PhD in Ecosystem Services and Urban Water



"I chose to study at Abertay because it has a good environmental department and has international connections and collaborations.

Abertay is really good at bringing a new generation which are excellent in environmental science and computer games technology. Abertay focuses on bringing together skilled people in different areas of expertise. There is ample opportunity to interact with students from different nations and cultures while at Abertay.

I enjoy anything related to water, thus I chose to study environmental science. I enjoyed everything in my course, from lectures, field trips and case study week to class room discussions. The main differences I

felt compared to the courses in India are the field trips and the laboratory opportunities which helps the students to get better exposure to the application level of the subjects.

After my Master's dissertation, I started working at Abertay's Urban Water Technology Centre (UWTC) as a project assistant. The work gave me exposure to the research and academic areas which increased my thirst for higher education. Currently, I am doing my PhD in Ecosystem Services and Urban Water. I see myself continuing on the research and academic route, someone who can pass the knowledge to new generations and enlighten their skills in the future."

Muhammad Nasidi, PhD in Bioethanol Fermentation from Sorghum Crop



"My sponsor chose Abertay for my MSc degree in industrial environmental management. After being taught by some of the best lecturers during this course I was inspired to return and study for a PhD – something I never thought that I would do.

There is a lot that I enjoy about studying here, I am particularly glad to be supervised by a renowned Professor in my field of research. In this environment I am constantly exposed to current global developments in my field of research study.

After graduation I will settle for nothing less than being the very best in rendering energy & environmental sciences consulting services,

particularly in Nigeria, as I hope to use the knowledge that I have gained towards the development of my country."

Sylvie Mucyo, PhD research degree in Solid Waste Management



I received a scholarship for the University of Abertay Dundee to pursue an MSc in Environmental Biotechnology under the Rotary University Scholarship Scheme Rwanda (RUSSR). After the completion of my MSc programme, my aspiration was to pursue my PhD in the field of solid waste management which was one of the course's subjects. Naturally, I choose Abertay for my PhD course due to the constructive academic experience and the friendly environment offered by the University.

Due to its small size, Abertay provides a friendly environment and easy access to lecturers; this really helps in getting the most out of your academic experience.

I get an opportunity to meet and learn from interesting people of different expertise, and participate in exchanges of ideas while creating a network that should be useful in my research and future career plans."





Ndenyangnde Ripiye, PhD Research Degree in Natural Flood Risk Management and Land use

"Abertay is a small, but outstanding University in world-leading research. It is the top-rated university in Scotland for environmental science research. My MSc sponsors chose Abertay for me and I loved it and decided to return for my PhD.

The course is very interactive, most of the staff are either actively involved in research or work with schools and employers and this is a great advantage. "

Mhairi Thurston, MSc/PGDip Counselling

"Last year, I completed a Postgraduate Certificate in Counselling Skills. I really enjoyed it, although it was a shock to the system to be writing essays again after 20 years! Doing the certificate course gave me the confidence to enrol in the diploma course. The diploma course can be done full-time over one year or part-time over two years. I decided to do the course full-time, which was not without its challenges, particularly with limited vision and three young children! I am, however, enjoying rising to this challenge and have decided to go on to complete an MSc next year.

I'm glad I chose to do the counselling course at Abertay. One of its best resources it is its lecturers, particularly John McLeod who has made significant contributions to the world of counselling literature. It has also been good to use the on-site Tayside Counselling Centre for practical work."



LIBRARY and IT

Our converged service combines the information provision skills of library staff with the technical expertise of IT staff. The result is that Abertay is one of the leading universities in the use of Information and Communication Technology (ICT) in the support of teaching and learning, with access to electronic and other information resources central to every course at the University.

Information Resources

Our multi-award winning Bernard King Library provides long-opening hours and a mix of learning environments to meet different student needs, be it a quiet, individual study space or a group study room equipped with a plasma screen for team working, discussion or practising a presentation. Almost 50% of the 507 study spaces have a networked PC to provide the flexibility to work online alongside traditional print resources and our wireless network gives students the option of using their own mobile device.

The library is well stocked with over 128,000 books but our extensive range of online resources extends the library beyond the campus, allowing students to work from any location across the world. Online access to a vast range of information, including 10,000+ electronic journal titles and 75,000+ e-books – is available to all our students whether they are on or off campus.

Our support mechanisms reflect the blurring boundaries between IT and the electronic library, with an integrated enquiry desk offering students friendly help and advice on the use of IT and library resources. All students are offered formal or informal information skills training at various points during their studies, to help them develop their capacity to access and evaluate the information they need to develop their subject expertise and the Abertay Graduate Attributes.

ICT Resources

We recognise the importance of providing our students with the type of networked computing environment they can expect to work in after graduating. An ongoing programme of continual improvement ensures that both hardware and software are industry standard, providing our students with one of the best common IT platforms of any UK university.

Although we have an impressive 1,000 student PCs (giving one of the best student to PC ratios in the UK), we also appreciate that students increasingly need access to networked information resources anytime and from anywhere. Our Abertay Portal provides students with secure access, both on and off-campus, to coursework, electronic teaching and learning materials, exam results, timetables and a plethora of other information and services, much of which is personalised. Our wireless network is available throughout the campus enabling mobile access to resources from a wide range of devices.

University staff are continually developing innovative ways of using technology to support teaching and learning through our virtual learning environment, including e-portfolios, podcasts, streaming media and online discussion groups and quizzes. In our physical classrooms and laboratories, a number of smart classrooms offer enhanced technology such as interactive whiteboards and classroom response systems, to improve the overall learning experience for students and staff.







Abertay offers comprehensive support to all its students to help you make the most of your time with us.

SUPPORTING YOUR STUDIES

Study

We offer assistance to help you to succeed in your studies. Every course incorporates support to help you to develop how you approach different aspects of degree-level work, such as thinking critically, researching, writing, working in groups and giving presentations. This support is delivered not only by course tutors but also by the Academic Librarians, IT Trainers, English for Study tutors and the Student Academic Support advisors.

Help is also offered on an individual basis out of class. The Academic Librarians can meet with you to help you use online research tools more effectively. The Student Academic Support advisors can meet with you to guide you through writing coursework, from understanding your tutor's instructions through to checking your work before you submit it.

The **English for Study** tutors provide language support seminars during term time for international students who want to improve their written and spoken language skills for academic purposes.

Students are entitled to receive additional support if they require help or assistance in practical or academic matters due to a disability or medical condition. Our Disabled Student Advisor, working with other dyslexia advisors/tutors, can advise on special exam and assessment arrangements, additional funding for equipment and support, and other personal support requirements. The Advisor will also liaise with the academic schools to arrange the most appropriate means of support throughout your time at University. Please indicate on your application form if you have any additional support requirements.

Money

For most students, managing their finances is a concern throughout their studies. Our **Student Funding Advisor** can help you to plan your budget and suggest appropriate steps to help if you face financial difficulties. UK students can also access government funds for childcare costs or if they enter hardship. For more information on student finance, please refer to the further information section at the back of this prospectus.

Our Career Development Centre advertises local part-time job vacancies to help you find work while you are studying. The Centre can also provide advice and guidance with writing CVs and job applications and practicing for interviews. The Centre also organises employer visits and presentations, undertakes psychometric testing and has an information library.

Managing study and everything else

Our one-stop **Student Services Reception** is a great starting point for general practical information, such as help with timetables or finding your way around the campus at the start of term. It is also where you can make appointments for the other support services Abertay offers.

Counselling is an opportunity to discuss and explore issues that concern you, in the company of someone (the counsellor) who offers you a particular time and space to reflect, be heard, and not judged and a place for you to be supported during times of difficulty. If you are not happy with aspects of your life whilst at University, counselling can support the possibility of change. The counsellor's approach is to enable and support you to find your own

directions in life that suit you as a unique human being. The counselling service is confidential.

The University has an International Student Advisor who provides advice and information on a variety of issues pertinent to International and EU students. Advice includes information on immigration, visas and entry clearance, as well as general welfare issues. The advisor coordinates the University's Orientation programme that includes information on living and working in Scotland, study skills, English for academic purposes and an opportunity to meet new friends. The Advisor also works with International students to provide a wide range of social activities ranging from trips to place of interest, film nights, and social events.

As part of our commitment to student support and as a resource for students and staff of all faiths and none we maintain a **Chaplaincy** at Abertay. Most Christian denominations and other faiths including Buddhists. Hindus, Jews, Muslims and Sikhs are represented in Dundee and the Chaplaincy team seeks to maintain links between the University and local churches and faith centres. The Chaplaincy team is available for spiritual and pastoral support. Chaplaincy is also a place for meeting, friendship and a social centre where students and staff can meet informally and relax.





Moving to Dundee and living in University halls of residence is a great way to meet new friends, discover new places and develop many new interests.

Students new to Dundee normally look for somewhere affordable, comfortable and within easy travelling distance of the University. The University has approximately 750 bedspaces available for its students varying from single bedsits to multi-occupancy flats and all located within easy walking or travelling distance of the University. All of our accommodation is self-catering, furnished and complete with standard kitchen facilities. Almost half of all rooms available are en-suite (have their own shower room) with all rooms having access to the internet. Accommodation staff are happy to provide details of the range and prices of accommodation currently available, however all the information required, including how to apply, is easily found on our website (see contact details below).

The University is continuing to upgrade its existing accommodation provision and a new high quality residence has recently become available. Opal 1, Dundee is within a short walking distance of the main campus, has en-suite facilities and Internet access supplied. If you want to know more about this exciting new development check out the pages within our website which are regularly updated.



Accommodation Policy

When allocating accommodation, the University gives priority to first entrants and to overseas students who are new to Dundee.

If you are a late applicant you should email or call our Accommodation Office staff for up-to-date information on vacancies. For those who do not wish to be placed in University accommodation, information on private accommodation is available on our website.

Living in the University's Residential Accommodation

Living in student accommodation is great fun and an ideal opportunity to make both good friends and, undoubtedly, unforgettable memories. In the self-catering flats, which are grouped together on separate sites, students have their own study bedroom and typically share a communal living/kitchen area and shower/toilet area (except en-suite rooms). Students therefore have daily contact with the people in their own flats and in the other flats situated on the same site. This provides the ideal environment for arranging nights out and entertainment, while the single study bedrooms provide privacy and an area in which to study and relax. If a student has a particular request or requirement, they will have an opportunity to provide information on their accommodation application.

Married Students, Students with Partners and Families

The University has a limited number of double/premium rooms which are ideal for couples who wish to live in University accommodation for the duration of their studies. The Accommodation Officers are happy to give advice on finding suitable accommodation in the private sector or in local authority housing for students planning on coming to Dundee with their families.

How to Apply for University Accommodation

The accommodation application process is now available online and can be accessed through the applicants portal on Abertay's website (www.abertay.ac.uk). Access to the portal will be available once the applicant accepts an unconditional offer from the University. Paper applications are also available on request.

Living in Private Rented Flats

Many senior students prefer to stay in private rented flats with friends, particularly in their second or subsequent years. The Accommodation webpages have up-to-date information on flats to rent and letting agencies in Dundee. Prices of flats vary and range from £60 upwards per person per week, depending on the location and facilities of individual properties.

Want more information?

If you would like to make any further enquiries about accommodation, please contact:

w: www.abertay.ac.uk

e: accommo@abertay.ac.uk

t: +44 [0] 1382 308059

FEES & FUNDING

Tuition Fees (2012 entry)

All tuition fees are charged on an annual basis, and are subject to increase in subsequent years.

| Course | Scottish/EU | RUK (English, Welsh and Northern Irish) | Overseas |
|--|--|---|----------|
| PhD/MPhil/Masters by Research (Dundee Business School School of Social & Health Sciences) | £3,600 (full-time) £1,800 (part-time) | See website | £10,185 |
| PhD/MPhil/Masters by Research (Institute of Arts, Media and Computer Games School of Computing and Engineering Systems School of Contemporary Sciences) | £3,600 | See website | £12,285 |
| Taught Masters • MSc/PGDip • MProf • MPA | £3,400 | £7,000 | £9,975 |
| MSc/PGDip Counselling | £5,100 | See website | £9,975 |
| MBA | £8,500 | £8,500 | £11,025 |
| PGDip Business Administration | £5,740 | £5,740 | £9,975 |

Please note that fees are subject to change, and we recommend that you refer to our website for the most up-to-date information: UK and EU Students www.abertay.ac.uk/applying/ukeu/fees/
Overseas Students www.abertay.ac.uk/applying/overseas/fees/

Postgraduate Funding

UK/EU STUDENTS

There are a limited number of options available for students undertaking full time PG study.

From 2012/13 the Student Awards Agency for Scotland (SAAS) are offering eligible students a Tuition Fee Loan for some full time and part time post graduate courses – check on the University web site or SAAS web site to see which courses are eligible or contact the Student Funding Advisor at the University. Application forms for the Tuition Fee Loan will be available from the University in mid May.

Another option is the Professional Career Development Loan (PCDL). Student Services has responsibility for PCDL certification on behalf of the University. We are registered with the Learning and Skills Council for these purposes. You can borrow anything between £300 and £8000 to help you fund up to two years of learning plus (if relevant) up to one year's practical work experience where it forms part of the course. For general information and advice contact telephone: 0800 585 505; or visit the website:

http://www.direct.gov.uk/en/Education AndLearning/AdultLearning/FinancialHelp ForAdultLearners/ProfessionalCareer DevelopmentLoans/DG_10033237.

OVERSEAS STUDENTS

The majority of our overseas students are selffunded, however the University does offer a range of Scholarships towards the cost of tuition fees. Please refer to our website for information.

The Overseas Student Scholarship Fund is open to students living outside the European Union and the European Free Trade Area, who are liable to pay overseas tuition fees and whom Abertay believes would bring to the University additional personal and academic qualities.

The fund will support individual scholarships based on academic merit, and/or personal achievement in either sports or music. The scholarships will be available for students enrolling for study at Abertay in September 2012, and we have set 31 January 2012 as the deadline for applications for the first round of awards. Two further rounds of applications will be invited in April and July 2012. More information can be found on our website www.abertay. ac.uk/applying/overseas/scholarships/

Scottish Saltire Scholarships

The University is participating in the Scottish Saltire Scholarships programme. Scotland's Saltire Scholarships (SSS) is a substantial programme of scholarships, offered on a matched funding basis between the Government and Scottish Higher Education Institutions. The scheme offers up to 200 awards, each worth £2000 towards the cost of tuition fees. These Scholarships are applicable to any of our full-time one year taught postgraduate Masters programmes. www.scotlandscholarship.com

The following options are also available to overseas students:

British Chevening Scholarships – www.chevening.com US-UK Fulbright Commission – www.fulbright.co.uk Marshall Scholarships – www.marshallscholarship.org

The British Council website includes comprehensive information about grants and awards for overseas students studying in the UK. **www.britishcouncil.org**

EDUCATIONAL TRUSTS AND CHARITIES

There are numerous educational trusts and charities that individuals may be eligible to apply for an award from to assist with funding your studies. The following websites provide advice, information and searchable databases:

http://www.family-action.org.uk/section.aspx?id=1037 www.scholarship-search.org.uk

Want to know more?

Student Funding Advisor: Jan Murphy

Tel: +44 (0) 1382 308051 Email: j.murphy@abertay.ac.uk

Student Awards Agency for Scotland (SAAS) (Scotland & EU)

Tel: 0300 300 3133 **Website:** www.saas.gov.uk

INTERNATIONAL



As an international student you'll receive a warm welcome at Abertay. Coming to the UK to study can appear to be a daunting experience, but with our friendly, supportive campus and truly international student body we think you will find your experience at Abertay to be both rewarding and enjoyable.

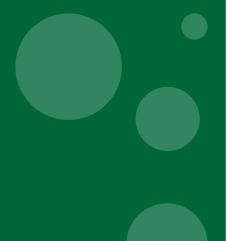
International support

Around 16% of our on-campus students are from outside the UK, with over 80 nationalities represented. Our international students are given excellent support during their studies through our range of services, including:

- An International Student Advisor to assist and advise on a range of matters
- Comprehensive English language support to help you maximise your academic performance and feel at home in an English-speaking community
- Preferred consideration for a place in University residential accommodation for those new to Dundee, and accommodation support to those seeking to rent privately
- An international welcome to help you settle into the British way of life
- A programme of special visits to tourist sites and cultural
- A very successful International Students' Society which organises social events and outings
- An International Student Hosting Programme with members of local Rotary International Clubs
- Pre-arrival handbook

International qualifications

Entry to our courses is competitive and we will consider a wide range of qualifications offered worldwide for entry. International applications are considered on an individual basis, taking into account your qualifications, references, etc. To find out whether your qualifications are acceptable for entry, please refer to the country specific pages on our website, or contact the Student Recruitment Office.



We provide a range of English language courses to support your studies with us, including:

Intensive English summer course

This summer course is for international students who wish to improve their English and work on their study skills. This course runs from 30 July - 31 August. The minimum entry requirement is IELTS 5.5. Successful completion of this course will ensure that the students meet the language requirements for entry onto Abertay courses.

Certificate in English for **Undergraduate/Postgraduate Studies**

This year long course commences each year in September, and is aimed at students who want to study in the UK but do not have the necessary English language requirements, or who feel that they would like to spend some time familiarising themselves with academic practise and culture in the UK, before embarking on their academic studies. The course is designed to develop the necessary academic language skills of reading, writing, speaking and listening to enable the learner to process and understand the type of language they will encounter during their studies. You'll need a minimum of IELTS 4.5 (with no score below 4) for entry in September (two semesters) and IELTS 5.5 (with no score below 5) or equivalent for entry in January (one semester).

English for Study

While you are studying on your degree course, you can take free part-time support classes throughout your first year – up to four hours per week, depending on availability. These classes focus on academic reading, writing, listening and speaking. You may need to take a short English language placement test to find out which class is best for you.





Prepayments

All students who are eligible to pay overseas tuition fee rates are required to pay a non-refundable, non-transferable 30% prepayment in order to confirm their place and receive a Certificate of Acceptance of Studies (CAS) for their visa application. Students who are subsequently refused a visa are eligible to have the prepayment refunded.

Living Costs

Apart from paying your fees we recommend you allow approx £6250 per year to pay for your accommodation, food and other living costs.

Application

For information on how to apply, please refer to page 28.

Working during your studies

You can work without obtaining permission, part-time for up to 20 hours a week during your studies. However, please note that the Immigration Authority will not recognise prospective earnings as proof that you will be able to support yourself during your studies. So you must be able to prove that you can afford to live during the course of your studies without earning income from employment or any recourse to public funds.

University Scholarships

A limited number of competitive scholarships as a contribution towards tuition fees for overseas students are available. Further information and application forms can be found on our website www.abertay.ac.uk/applying/overseas/scholarships/.

English language

All of our courses are taught and examined in English. To make the most of your study with us, you must be able to communicate fluently and accurately in spoken and written English. If your first language is not English you will be required to provide certified proof of your competence in

English before starting your studies. The University accepts the following qualifications as proof of competence in Enalish:

Taught Masters degrees

- **IELTS:** Band 6.0, with no individual test lower than 5.5
- TOEFL: Computer based: 213, Internet-based: 80, Paperbased: 550 + TWF 5
- **TOEIC**: 850
- Cambridge CAE: Pass
- International Baccalaureate: Higher (4) or Standard (5) Level English
- City and Guilds: Expert
- SQA Higher ESOL: Pass at Grade B
- Pearson Test of English: 59 better
- West African Exam Council: English C6 or better

Masters by Research/Research Degrees IELTS 6.5 (no band less than 6.0) or equivalent







Want more information?

Student Recruitment Office t: +44 (0) 1382 308080 e: sro@abertay.ac.uk



All applications for postgraduate courses including taught and research degrees should be made direct to the University.

How to apply for a Taught Masters **Degree**

To apply online, go to the University's website at www.abertay.ac.uk/studying/find/pg and click on the course that you want to apply for. Then click on the Apply Online button to complete your application.

Alternatively, you can download an application form which you should complete and send to the address shown on the last page of the form.

Please note that Overseas Students must submit a £25 non-refundable application processing fee with their paper application.

How to apply for a Master by Research **Degree**

To apply for a Masters by Research one year research programme, go to the University's website at www.abertay.ac.uk/studyingfind/ pg/ and select the subject/project you wish to research. You will then be offered the opportunity to apply on line.

How to apply for a Research Degree (MPhil/PhD)

All applications are dealt with centrally through the University's Research Degrees office according to the procedures set in the University's Research Degree Application Documentation.

To apply complete the application form on the University's website www.abertay.ac.uk/ studying/schools/dbs/researchdegree/ entryrequirements/ and email it to rdc@ abertay.ac.uk along with two referees' reports and your written research proposal.

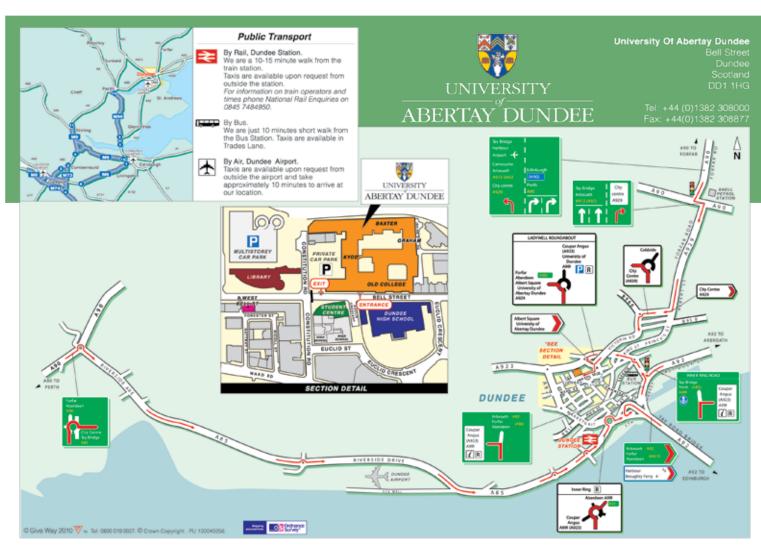
Once the formal application and proposal are received and acknowledged by the University they are forwarded to the relevant School's Director of Research who undertakes an initial vetting of the application, if necessary

in consultation with the Head of School and/or other members of staff in the School or the wider University community, as appropriate. The vetting procedure is to assess whether (a) the proposed project and applicant are suitable for admission to the School and whether (b) an adequate supervisory team is available either in the School or through the School's provision of the Principal Supervisor with other supervisory staff being obtained from other Schools in the University. An important part of the rationale for the decision to proceed with the application is therefore not only the quality of the proposal and the qualifications of the applicant, but also the presence of a suitably experienced and academically expert core supervisory team of a least two members of staff from within the University. Unless an appropriate supervisory team can be established the School will decline the application









Useful Contacts

University Switchboard

For enquiries of a general nature:

†: **+44 (0) 1382 308000**

f: +44 (0) 1382 308877

Prospectus Order Line

To order additional copies of the prospectus:

t: +44 (0) 1382 308080

f: +44 (0) 1382 308081

e: sro@abertay.ac.uk

Student Recruitment Office

Pre-admission enquiries including entrance requirements, application procedures, open days, international student enquiries:

†: **+44 (0) 1382 308080**

f: +44 (0) 1382 308081

e: sro@abertay.ac.uk

Central Admissions

For enquiries relating to a submitted application for entry to a course, and UCAS procedures:

†: +44 (0) 1382 308045

f: +44 (0) 1382 308081

e: admissions@abertay.ac.uk

Accommodation Office For enquiries regarding University accommodation:

t: +44 (0) 1382 308059

e: accommo@abertay.ac.uk

Terms and Conditions

Disclaimer of Liability

This prospectus is published some time before the commencement of the session to which it relates. Courses, course contents, entry requirements, regulations and other matters change from time to time and the University reserves the right to make alterations and modifications to the foregoing without prior notice. Whilst every care is taken and effort made to ensure the accuracy of information in this prospectus, the contents do not form the basis of any binding undertaking on the part of the University Court and the University accepts no responsibility for the accuracy of the information contained herein.

Applicants are advised to contact the University to check up to date course and other information.

Any course or class may also be altered, withdrawn or discontinued at any time at the University's discretion. Courses may also be altered or withdrawn at any stage owing to circumstances beyond the University's control. Such circumstances include (but are not limited to) industrial action. Fees quoted were correct at the time of going to press but may vary without notice.

Programmes marked as 'subject to approval' are proposed future courses of study and applicants are advised to refer to the University's website where updated information on these programmes will be posted as, and when available.

University of Abertay Dundee Students' Association (UADSA)

As required by the Education Act 1994, the University Court gives notice that a student has the right not to be a member of UADSA and that any student who exercises this right should not be unfairly disadvantaged in regard, for example,

to the provision of the services offered by the UADSA. The University Court considers that it does not require to make alternative arrangements in respect of the services provided by UADSA.

Data Protection Act 1998

Any personal data provided by you may be processed the University in accordance with the provisions of the Data Protection Act 1998.

The University of Abertay Dundee holds information about you in order to manage student recruitment, admission, registration, study, examination, graduation and other student services such as accommodation and careers. Information is passed between various sections of the University for operational reasons (for example, the Registry notifies changes of address to relevant academic departments, and other units on a 'need to know' basis). Also, it may be disclosed to external agencies to which the University has obligations; for example: Council Tax Registration Officers; Electoral Registration Officers; Scottish Funding Council; Higher Education Statistics Agency; Student Loans Company; Research Councils.

If you have any queries about data protection please contact foidesk@abertay.ac.uk.

Compiled & Edited:

Student Recruitment Office, University of Abertay Dundee

 $\begin{tabular}{ll} \textbf{Design:} Shona Norman, University of Abertay Dundee \\ \textbf{Print:} \ ? \end{tabular}$

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