Postgraduate Prospectus
Research Programmes
2018 Entry

University of St Andrews
Scotland’s first university – 1413
Facts and Figures

Research quality
The University is one of Europe's most research intensive seats of learning. It is the top rated university in Scotland for teaching quality and student satisfaction. In the Research Excellence Framework (REF) 2014, the University was ranked top in Scotland for quality of research output and one of the UK's top 20 research universities.

www.st-andrews.ac.uk/research/quality/ref2014

Times Higher Education World Rankings 2016-2017:
Placed 110th in the world – 8th for Social Sciences, 36th for Arts and Humanities, 78th for Life Sciences, 94th for Business and Economics and 99th for Physical Sciences.

QS World Rankings 2018:
92nd in the world. Research output ranked as 'Very High'. 15 subjects were ranked in the top 200:

- 18 Theology, Divinity and Religious Studies
- 19 Philosophy
- Archaeology
- English Language and Literature
- Geography
- History
- Politics & International Studies
- Psychology
- Accounting and Finance
- Biological Sciences
- Chemistry
- Earth and Marine Sciences
- Materials Science
- Modern Languages
- Physics and Astronomy

Get in Touch

Staff in the Admissions team are available to provide you with information on all aspects of postgraduate study at the University of St Andrews.

Our personal and friendly approach reflects the ethos of the University as a whole, and the community spirit that exists here. All prospective students are welcome to contact us by email or phone, or to ask questions via Facebook.

Postgraduate visiting days

There are two visiting days each year specific to postgraduate study and they will be held on 15 November 2017 and 14 March 2018.

A visiting day gives you the opportunity to meet academic staff, and see the various facilities throughout the University. For more information and to book a place, please see: www.st-andrews.ac.uk/study/pg/meet-us/visiting-days

Individual visits to St Andrews – talk and tour

We offer individual visits to the University from Monday to Friday, on a date that suits you. You will meet with a member of our Admissions team on a one-to-one basis and also go on a tour with a current student. If possible, we will arrange for you to meet staff from the academic area in which you are interested. Please give us an early indication of which School or Department you would like to visit.

Select talk and tour on our webpage:
www.st-andrews.ac.uk/study/pg/meet-us/visiting-days

E: talk.tour@st-andrews.ac.uk
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Welcome to St Andrews

As Principal and Vice-Chancellor of the University of St Andrews I am delighted to introduce you to our prospectus for postgraduate research students. We are so pleased that you are considering joining our research community.

Your choice of destination as a research student is a crucial one. We want you to make the right, informed choice. This prospectus will be really useful to you. It gives you a wealth of information on research areas, supervision, skills training, fees and funding, accommodation, and future careers; and it contains personal testimonies from our own students about their experiences here.

If you come to St Andrews you will be joining a cohort of over 1,600 postgraduate students half of whom are postgraduate research students. We have a strong research presence in all the areas in which we offer postgraduate opportunities, and you will be joining a thriving research community with a distinct sense of identity.

St Andrews combines the global and the local. We have staff and students from over 140 countries and territories, but we are small enough to provide individual attention to everyone who chooses to study here. We hope you will want to join us.

Professor Sally Mapstone
Principal and Vice-Chancellor

St Leonard’s College is one of the ancient constituent colleges of the University. In 2013, St Leonard’s was launched as the University’s research postgraduate school.

As Provost of St Leonard’s, I look forward to welcoming you to our diverse and friendly community of researchers. Each School – the academic ‘home’ of every postgraduate research student – offers distinct and subject-specialised training. However as a member of St Leonard’s College and the University, you will also benefit from a wider environment which fosters intellectual endeavour, entrepreneurial spirit and a sense of shared creativity. The University’s GRADskills Programme offers a wide range of workshops, seminars, online resources and conferences which support your ongoing research as well as enhancing your skills and future employability. We are determined to keep the needs and aspirations of our postgraduates at the heart of our vision for the University’s future.

I look forward to meeting you, whether you come on a Visiting Day, or enter the College as a new or returning student, and I hope that St Leonard’s will contribute to the success of your postgraduate career.

Professor Andy Murphy
Provost of St Leonard’s College
Studying at Research Level

Research degrees at St Andrews

We have a vibrant, stimulating research environment in St Andrews. One of the great strengths of many programmes is the collaborative atmosphere which enables access to expertise beyond your formal supervisors and the ability to conduct interdisciplinary research. Most students studying a research degree at St Andrews choose a PhD, but for some it is beneficial to take an MPhil as preparation and training for a doctoral degree. See also: www.st-andrews.ac.uk/subjects/study-options/pg/qualifications

PhD

The Doctor of Philosophy (PhD) research degree usually takes three and a half years full time. The qualification is completed upon submission and defence of a substantial thesis of original research. You will be supported by a supervisor throughout your time with us. You may also have the opportunity to teach at undergraduate level. This pattern of research allows you to focus on your doctoral thesis from the very start.

MRes, MSc (Res), MSt (Res)

The Master of Research (MRes), the Master of Science by Research (MSc (Res)) and the Master of Studies by Research (MSt (Res)) are research-based Masters degrees. You will engage in a full-time research project and write a dissertation. It is an excellent opportunity to spend a shorter time in a research environment either for a standalone degree or as preparation for a PhD.

EngD

The Engineering Doctorate (EngD) is a four-year research degree with a strong industry focus. A substantial amount of time is dedicated to research work, usually based at the premises of the sponsor company, with the remaining time being spent on taught coursework at the University.

MPhil

A Master of Philosophy (MPhil) is a stepping-stone between the Masters-level degree and a doctoral degree. The first year comprises taught modules which may be undergraduate or postgraduate level depending on the subject area, while the second year is dedicated to a thesis. Some well-qualified candidates with a good postgraduate degree in a relevant discipline or a suitable research background may be admitted directly into the second year to begin the research thesis.

MD

The Doctor in Medicine (MD) degree is offered by the School of Medicine to candidates holding a recognised medical qualification. See page 92 for more information.

Part-time study

In order to qualify for part-time status you must show that you are unable to pursue studies full time (for example, because you are in full-time employment). Arrangements may vary depending on the degree intended. If you wish to apply for part-time study you are advised to discuss your proposed programme with the Director of Postgraduate Studies in the School/Department in which you are planning on studying. Students from outside the EEA are not normally able to study part time, due to UKVI regulations.
Applying to St Andrews

Before you apply

Specific areas of research specialisation, including PhD opportunities, can be found in this prospectus and online:

- Research Centres and Institutes
  www.st-andrews.ac.uk/research/university/centres
- Research in Schools/Departments – see from page 26 in this prospectus
  www.st-andrews.ac.uk/research/university/schools

Most research takes place within the academic Schools and research centres. The precise focus of research for a PhD is agreed between you and your supervisor to suit your particular interests and needs. Matching with a suitable supervisor is important and it is recommended that you review our staff profiles and publications online before applying, to provide you with a better understanding of staff interests and backgrounds.

We strongly recommend that you contact your potential supervisor or academic School before applying (see subject pages 26-117).

Our research staff and supervisors welcome direct contact with potential students as it allows them the opportunity to discuss your research proposal. This is an important aspect of the application process as the University must be assured that:

- we can provide a suitable programme of training and research support.
- a supervisor who has the requisite expertise is available.
- we have suitable facilities and equipment for the proposed research.

The University must also be satisfied that you have the necessary qualifications and experience. Furthermore, this early discussion allows you and your potential supervisor to explore funding opportunities. If you already know which member of staff you wish to supervise your research project, you should make direct contact with them or the academic School. If you are applying for a funded research position, you should contact the individual named in the funding information.

The University handles applications within the framework of its Admissions and Equal Opportunities policy:
www.st-andrews.ac.uk/study/pg/policy

The policy for supervisors and students in research postgraduate programmes is at:
www.st-andrews.ac.uk/staff/teaching/strategypolicy/policy/postgraduate/research
When to apply

There is no fixed closing deadline for most applications to research degrees, although there may be specific deadlines associated with scholarships and funding opportunities. The exceptions are the School of Divinity and the School of International Relations, with an application deadline of 15 January.

We strongly recommend that you apply early (particularly if you will require a visa) and where possible no later than three months before your intended start date. While research degree registration can begin in August, September, October, January and May, it is recommended that you begin in either September or January to take full advantage of the University’s induction programme.

Entrance requirements

Admission to doctoral level programmes is normally on the basis of a first degree at 2:1 level or higher (or the overseas equivalent) in the relevant subject, or a relevant postgraduate qualification. Country-specific information can be found at: www.st-andrews.ac.uk/study/entrance-requirements

Most programmes in arts and humanities require a Masters degree. However, this is not necessarily the case for programmes in the sciences or business-oriented subjects. The UK research councils in several disciplines require that funded students on doctoral programmes have first completed an approved Masters programme that prepares the student for doctoral work. See subject pages 26-117 for further details.

The qualifications listed here are our minimum requirements for entry. Some academic Schools will ask applicants to achieve significantly higher marks than the minimum standard. Some programmes require students to have studied a specific subject and these are detailed in the subject pages (from page 26). Where a prospective student lacks a suitable first degree, alternative mechanisms for assessing qualifications and suitability for research, reflecting professional or other work experience, may be used.

English language requirements

If your first language is not English you must provide us with evidence of your proficiency in English (in all four skills of writing, speaking, listening and reading) as well as meeting our other entrance requirements. Typically, this evidence will be a satisfactory result in a recognised test of English language, for example IELTS, TOEFL or a degree previously studied entirely in English from a reputable institution.

Degree entry: English language requirements for postgraduate study

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>IELTS</td>
<td>6.5 - 7.0</td>
</tr>
<tr>
<td>TOEFL iBT</td>
<td>90 - 100</td>
</tr>
</tbody>
</table>

Our postgraduate programmes generally require a score of IELTS 6.5 - 7.0 overall (with a minimum sub-component score of 6.0 - 6.5) OR evidence of an equivalent level of English language proficiency in the form of another approved test of English language, or a first degree completed in English. More detailed information on specific programme requirements and acceptable forms of evidence can be found at: www.st-andrews.ac.uk/elt/entry

You should submit a copy of the relevant certificate, or Test Report Form number, with your application, if you have already taken an English language test. Test scores must be notified to Postgraduate Admissions before you arrive in St Andrews to begin your studies.

We may ask you to complete our own language assessment and we may also decide to interview you. You may be asked to attend a University pre-sessional programme as an alternative means of satisfying our language requirements (see page 7).

Required documents

Applications for postgraduate study are made online. When you apply, you will create an online account with us. Applications are School/research specific. Your School/potential supervisor will advise you on specific required information about applying.

Please be prepared to supply any or all of the following:

- A completed online application.
- A copy of your CV / résumé.
- Evidence of your qualification(s) (e.g. your educational certificates including interim and final transcripts and professional qualifications).
- Contact details of two academic referees.
- Evidence of English language proficiency (required if English is not your first language).
- A research proposal and sample work may be required depending on the School or research area: www.st-andrews.ac.uk/study/pg/apply/research
**Research proposal**

For most Schools, a research proposal is a crucial part of the application process and helps to assess both your suitability for a research degree and whether we can offer you supervision. You should include an outline (approximately 500 words) of your proposed research topic. Research proposal formats will vary by subject and by academic School. As a minimum the proposal should:

- explain the particular topic or question you wish to study.
- explain how you intend to investigate the research questions, and indicate where possible what methodologies you will be using.
- briefly summarise existing research on the topic, making reference to publications as appropriate.
- give a clear outline of the research you intend to undertake.

If accepted, you are not committed to following this research proposal exactly, however applications received without one will not be considered. A personal statement alone will not meet this requirement. Please visit your specific School or research centre webpages for further guidelines on writing your research proposal. It is important to review the details as applicants can be unsuccessful due to the submission of a weak proposal.

**A decision on your application**

Application decision times will vary. Decisions on applications submitted are made by academic staff and the decision will be communicated to you by email. The decision will be one of the following:

- An Unconditional offer, which means that you have already satisfied all the academic conditions required for entry and we are offering you a place.
- A Conditional offer, which means that you have not yet satisfied the academic conditions required for entry. The condition(s) of your admission will be given in the offer letter and may include such things as the result of your undergraduate degree, or evidence of English language ability.
- We are unable to offer you a place.

Please remember that the offer of a place on one of our research programmes does not carry with it the guarantee of financial support for that course. See also page 10 on financing your studies.

**Accepting your offer**

If you wish to accept an offer to study at St Andrews you should follow the instructions detailed in your offer email; this will normally include a time limit by which to reply to us.

www.st-andrews.ac.uk/study/pg/apply/after

Application forms and guidance notes are available here:

www.st-andrews.ac.uk/study/pg/apply/research

If you have any questions about your application please contact: pgr.application@st-andrews.ac.uk
International research induction

This course provides a four-week introduction to doctoral study at St Andrews, and is designed to meet the needs of international students whose first language is not English. The course aims to help you understand the requirements of doctoral study, participate in your research community and extend your language skills in the context of your chosen discipline.

While the main emphasis of the course is on written and spoken skills for communicating your research, you will also develop your grammatical and stylistic repertoire, and hone your everyday social communication skills. Workshops will prepare you for the transition to study at doctoral level, with a focus on how to build an effective working relationship with your supervisor. A group research project provides the opportunity for you to interact more widely with staff and students in your School, while a social programme of trips and events adds to your understanding and appreciation of what Scotland has to offer. For more information, please visit: www.st-andrews.ac.uk/elt/presearch

In-sessional English Language Service

The In-sessional English Language Service offers you a variety of ways to develop your research communication skills and language proficiency. The Service runs parallel with your doctoral studies and is completely free to use.

You can sign up for bespoke one-to-one tutorials, in which you and a tutor work on your specific communication or language goals. These tutorials are particularly useful as a means to develop your writing skills at the start of your PhD programme and can be tailored to meet your individual needs as your research and thesis progress. They can also be used to practise and receive feedback on your speaking skills, particularly with regard to presentations and interviews.

General workshops are available to help with academic writing, grammar, listening, pronunciation and speaking. These are complemented by workshops which address the specific needs of doctoral researchers, for example, writing conference abstracts and giving conference presentations. For more information, please visit: www.st-andrews.ac.uk/elt/els
A Year in the Life

James (Auckland, New Zealand) PhD Ancient History

Throughout the Year – Weekly departmental seminars

September
Moved to St Andrews and into my first flat!
First meeting with primary supervisor, Dr Nicolas Wiater
Attended departmental postgraduate reception
Began research in the library

October
Signed up for the University cricket team
Started Beginners Reading German for Historians course
First Skype meeting with both of my supervisors
Attended a CAPOD course on referencing tools

November
Signed up for the Ancient Languages tutor’s training course
Attended lecture held by the Archaeological Society

December
Went out to a departmental dinner with a speaker from the weekly departmental seminars
Departmental Christmas lunch
Returned home for Christmas

January
First semester departmental review
Signed up for the staff and postgraduate cricket team
Weekly departmental seminars restarted

February
Began the Ancient Languages tutor’s training course
Continued research in the library

March
Attended STAGE, a postgraduate conference run by the Classics departments of St Andrews, Glasgow and Edinburgh
Signed up for the CAPOD tutor’s training course in September

April
Played my first cricket game for the University First XI
Writing in the library
Attended workshop on Early Roman Historiography hosted by our Department

May
Attended Haynes lecture at Oxford University
Yearly departmental review
Played my first cricket game for the staff and postgraduate team

June
Moved out of my first flat
Went to Greece to explore the museums and archaeological sites

July
Returned to St Andrews, settling into a new flat for the summer
Attended the British Open golf tournament hosted in St Andrews
Assisted at the Masters students’ dissertation workshop

August
Travelled around Perthshire and Fife at the weekends playing cricket for the staff and postgraduate cricket team
Signed up for tutoring in the coming semester

Zoe (Glamis, Scotland) PhD Applied Mathematics

Throughout the Year – Weekly supervisory meetings
Weekly Solar and Applied Mathematics seminars

September
Attended STFC Advanced Summer School in Dundee
Visited Blair Castle and whisky distillery in Pitlochry
Presented poster at the 14th European Solar Physics Meeting in Dublin

October
Tutored first year undergraduates on introductory maths module
Marked Scottish Mathematical Challenge for schoolchildren across eastern Scotland

November
Bonfire night postgraduate social event
Attended applied mathematics seminar
Trip to Edinburgh for weekend
Received confirmation that, as part of a team of PhD students, I will organise the Young Researchers in Mathematics (YRM) 2016 conference in St Andrews

December
Departmental Christmas lunch
Christmas carol service
Visited Glamis Castle for yearly Christmas market

January
Begun teaching Fundamental Maths course in ELT (English Language Teaching unit)
Organised and participated in postgraduate Intra-disciplinary Mathematics Symposium at the Burn house in Edzell
Attended School research day
Attended Carnegie Scholars Gathering for recent and current PhD scholars at Andrew Carnegie House

February
Submitted grant application to Royal Astronomical Society for funding for Flux Emergence Workshop (FEW2015)
Weekend trip to London
Contributed talk and public outreach at Maths Space School for primary children

March
Set up contract with conference services for YRM2016
Tutored on Fundamental Mathematics course
Public outreach at Science Discovery Day within the University

April
Climbed Lomond hills
Contributed talk and public outreach at Maths Space School for primary children

May
Annual PhD student progress review
Presented my research at UKMHD (Magnetohydrodynamics meeting) in Newcastle
Submitted paper to Astronomy & Astrophysics
Marked exams for Fundamental Mathematics course

June
Presented research at FEW2015 in Boulder, Colorado to world experts in my field
Contributed lecture and led activities on the Sun for a group of high-school children at the Sutton Trust Summer School

July
Continued teaching over summer at ELT to smaller group of students
Thesis chapter writing while the School is quiet
Completed paper corrections

August
Paper accepted for publication
Submitted yearly progress report to the Carnegie Trust for the Universities of Scotland
Commitment to our students’ research success is one of the most distinctive aspects of the programmes at the University of St Andrews; we cultivate both research skills and imaginative thinking. Dedicated supervision is a hallmark of our programmes. The PhD thesis is a lengthy and demanding research project which asks for a substantial degree of originality and independent critical thinking.

PhD students are full members of their School, and in most cases have a designated workspace.

There is an expectation that you will be an active participant in the intellectual and collegiate life of a large and lively community and as such will attend advanced or postgraduate seminars. You may also attend interdisciplinary courses as well as others in the core area of your research. You are encouraged to engage with the international research community by presenting your work at appropriate workshops and conferences.

Beyond the writing of the thesis, professional development is a valuable part of doctoral training, and we strive to give you the most up to date and practical information concerning your career options.

Supervision of postgraduate research students varies depending on the subject area, the background and needs of the student, and the work patterns and personalities of the student and supervisors.

Your supervisor should have relevant research expertise in your proposed area of study and will be the main source of day-to-day guidance on your research. Together, you and your supervisor will shape the proposed thesis into a rigorous, innovative work of scholarly significance.

You are expected to produce research work which contributes to expanding knowledge in your chosen field of study and be of sufficient quality to be printed in academic publications. Students and supervisors should be in regular contact and it is expected that substantive discussions of your work are held at least ten times per session; local policies may also apply and will specify the exact nature and frequency of contact.

In many cases you are supported by a research group and/or a network within the chosen School. In all Schools, a second person is appointed to your supervisory team who will have a role in supporting and monitoring your progress as well as providing a broader perspective on your research.

www.st-andrews.ac.uk/subjects/study-options/pg/research-degrees

Towards the end of your first year, a review takes place. This includes the submission of a substantial piece of written work followed by a review meeting to monitor progress and any issues.

There will be some local differences at School level as to the exact requirements for the review, for instance Computer Science requires an annual report and a poster presentation whereas Divinity requires a detailed thesis proposal and plan as well as a classified bibliography relating to your research.

Your School’s Postgraduate Committee will continue to monitor your progress on an annual basis over the course of your studies, offering guidance and support as necessary. In some cases, agreed action points are formally recorded in order to ensure that you are making progress with your research.

For a PhD, your work must be of sufficient quality to gain a satisfactory progress report and proceed to the next year of the programme. Full-time postgraduate students must submit their PhD thesis within four years of entering the programme. For the MPhil, students will normally submit their dissertation within two years.
Fees and Funding

Postgraduate study is an investment in your intellectual development and your career potential. However, you will need to ensure that you have enough money to cover your tuition fees, accommodation and living expenses.

**Tuition fees**

Tuition fees vary depending on the programme you are studying and your assessed fee status. Further details are available from: www.st-andrews.ac.uk/study/pg/fees-and-funding/research-fees

**International students**

If you are classified as Overseas for tuition fee purposes, you will be liable to pay the Overseas tuition fee rate for your course. There may be funding available from your government, independent sponsors, or from other awarding bodies.

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

If you are from the USA, you may wish to visit the US Department of Education website for loan information and advice: www.studentloans.gov

We also have a dedicated US Loans officer to assist you: www.st-andrews.ac.uk/students/money/internationalstudents/loansforusstudents

E: usloan@st-andrews.ac.uk

**Isle of Man and Channel Islands**

If you are normally resident in the Isle of Man or Channel Islands, you should approach the Island Education Authorities for more information about funding opportunities.

- States of Guernsey Education Department: www.gov.gg
- States of Jersey Education Committee: www.gov.je
- Isle of Man Department of Education: www.gov.im/education

**Scholarships**

**University scholarships**

The University of St Andrews is actively investing in the future of the next generation of world-leading researchers. There are a number of funding options available to research students at St Andrews, including research-specific funding. The range of support may vary from individual grants, or a contribution towards the cost of tuition fees, to full tuition fee support with a maintenance stipend to cover your living costs. The standard UK research council maintenance grant for the 2017-2018 academic year is £14,553.

The availability of scholarships may vary according to your area of study and/or whether you are classed as a Home/EU or Overseas student for fee purposes. For a list of available scholarships, including eligibility criteria and how to apply, go to: www.st-andrews.ac.uk/study/pg/fees-and-funding/scholarships/research

**Recent Graduate Discount**

To recognise the loyalty of our students, the University of St Andrews offers a 10% discount in postgraduate tuition fees to students who have graduated or are eligible to graduate from St Andrews within the last three academic years. Students who completed a Study Abroad or Exchange programme at St Andrews and are returning for postgraduate study are also eligible: www.st-andrews.ac.uk/study/pg/fees-and-funding/scholarships/recent-graduate-discount

**Accommodation Award**

The University of St Andrews operates an Accommodation Award scheme, which each year offers a number of awards of £3,000, tenable for two years for postgraduate research students: www.st-andrews.ac.uk/study/pg/fees-and-funding/scholarships/entrantaccommodationpg

**Funded or co-funded by the University of St Andrews**

Examples include:

- China Scholarship Council and University of St Andrews Scholarships
- Commonwealth Scholarships
- Fulbright-University of St Andrews Award in Arts and Humanities
- Ewan & Christine Brown Postgraduate Scholarship in the Arts and Humanities
- Scotland’s Saltire Scholarships

**External scholarships and awards**

Examples include:

- Anglo-Danish Society Scholarships
- Charles Wallace Trust
- The James E Crockett Educational and Charitable Trust
- Trudeau Scholarships

**Academic School scholarships**

Many academic Schools at St Andrews offer University postgraduate research scholarships, available for various lengths of study and research. You should contact the academic School to which you are applying in order to discuss possible sources of funding which may be available in the forthcoming year.

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Trusts and charities

Student Services hold limited information on outside trusts for registered or prospective students: [www.st-andrews.ac.uk/students/money/bursariesandscholarships/outsidetrusts](http://www.st-andrews.ac.uk/students/money/bursariesandscholarships/outsidetrusts)

You may also wish to consult the Grants Register/Directory of Grant Making Trusts available from most libraries. Online versions of many of these directories are available, but often require a subscription, for example: [www.grantsforindividuals.org.uk](http://www.grantsforindividuals.org.uk)

Research council funding

In general, research council awards provide full tuition fees with a maintenance grant of up to four years’ duration for UK students; EU students usually receive tuition fees only, and not maintenance.

Awards from research councils are highly competitive. You must apply through the University and we encourage early application. Schools and Departments will normally have internal deadlines that you must meet in order for applications to be submitted to the research councils for their deadlines.

St Andrews has a proven record of attracting funding from the following UK research councils:

- **Arts and Humanities Research Council (AHRC):** AHRC Block Grant Partnership which will substantially increase and sustain recruitment of world-class doctoral students to English, History and Philosophy.
- **Biotechnology and Biological Sciences Research Council (BBSRC):** Around seven BBSRC funded places per annum to quality students for up to four years.
- **Economic and Social Research Council (ESRC):** ESRC-accredited Scottish Doctoral Training Centre offering places in seven Schools: Earth & Environmental Sciences, Economics & Finance; Geography & Sustainable Development; International Relations; Management; Philosophical, Anthropological & Film Studies; and Psychology & Neuroscience.
- **Engineering and Physical Sciences Research Council (EPSRC):** We hold a large number of EPSRC-funded places within the Schools of Chemistry, Computer Science, Mathematics & Statistics, Physics & Astronomy and Psychology & Neuroscience.
- **Medical Research Council (MRC):** MRC doctoral funding for up to four years in Biomedicine.
- **Natural Environment Research Council (NERC):** NERC-accredited Doctoral Training Partnership offering places within Biology and Earth & Environmental Sciences.
- **Science and Technology Facilities Council (STFC):** Annual STFC quota awards in the Schools of Mathematics & Statistics and Physics & Astronomy.

Collaborative or CASE (Cooperative Awards in Science and Engineering) funding can be linked to any of the above research councils, providing students in Mathematics & Statistics, Biology, Physics and Geoscience with a first-rate challenging research training experience within the context of a mutually beneficial research collaboration between academic Schools, research councils and partners such as industry or government.

Conference funding

During your PhD studies, you are encouraged to present your work at international and national conferences. Academic Schools may offer funding towards the costs of conference attendance. Please contact your academic School for further information.

Contact details

T: +44 (0)1334 462254
E: pgscholarships@st-andrews.ac.uk
[www.st-andrews.ac.uk/study/pg/fees-and-funding/scholarships/research](http://www.st-andrews.ac.uk/study/pg/fees-and-funding/scholarships/research)
Twitter: @StAFunding

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St Leonard’s College is at the heart of the postgraduate community of St Andrews. As such, it provides a central point for the administration of all research postgraduate business. It plays a pivotal role in the dissemination and presentation of knowledge, the organising of postgraduate events, and the promotion of research skills training. For example, at the start of the new academic year there is a Welcome Reception for all postgraduates and in the spring there is the St Leonard’s College Lecture Prize, which gives postgraduate students the opportunity to deliver an original series of three research-based lectures. The College also organises the St Leonard’s-Santander Research Mobility Awards enabling postgraduate students to carry out study or research overseas. And those who are in first or second year of doctoral studies are invited to apply to be an Associate Researcher at St Leonards School, a leading independent school in St Andrews.

The head of the College retains the historic title of Provost, and the current holder of the post is Professor Andy Murphy of the School of English, whose research interests are in the areas of Shakespeare studies and Irish literature. He is supported by two Pro Deans (one has responsibility for taught postgraduate learning and teaching, and the other for research postgraduate learning and teaching matters).
St Leonard’s College has also been given added impetus by the University’s desire to develop a growing, vibrant and intellectually demanding environment for advanced study. Led by a strategic vision that aims to position the University at the forefront of research excellence, the research postgraduate population at St Andrews has more than doubled over the last decade.

We are committed to delivering outstanding support and services for research postgraduates not only in terms of research and study facilities but also in terms of the intellectual reward associated with a vibrant community of home and international research postgraduates. As Scotland’s first university, the University of St Andrews is one of the leading research-intensive universities in the world, offering a postgraduate experience of remarkable richness.

As a research postgraduate you will have a number of identities within the University – including the academic School or Department to which you belong, the residence in which you live, or the clubs or societies you join. Additionally, however, you will also have an inclusive and overarching identity as a member of St Leonard’s College. Should you choose to join us at St Andrews as a research postgraduate, we hope that the experience of being a member of St Leonard’s College will contribute to that shared and inherently diverse sense of identity.

History of the College

In 2012 we celebrated the 500th Anniversary of the founding of our medieval college, only 100 years after the original founding of the University itself. St Leonard’s College was originally established as a college for poor clerks of the Church of St Andrews, based on the older Hospital and Church of St Leonard within the Priory of St Andrews in 1512. Records of College Minutes date from 1710 but the College’s accounts date back to 1549 and include diet books from 1586-1743. Over the centuries little seems to have changed – what is in our pockets and our stomachs remains important!

After falling on hard times during the eighteenth century, St Leonard’s College joined St Salvator’s College to form the United College. St Leonard’s College, however, was reconstituted as a postgraduate institute in 1972, and as the Research Graduate School of the University in August 2013.

Postgraduate Society

In addition to its historic charm, architectural splendour, academic pedigree, several gorgeous beaches, and golf courses, St Andrews has become a home away from home for many postgraduates, myself included. The University provides support for postgraduates to get together to achieve their academic and professional goals, while enabling the freedom to explore unknown terrain, whether in research, personal development, or the Scottish Highlands.

The Postgraduate Society is the student society for postgraduates in St Andrews. All matriculated postgraduate students are automatically members of the Postgraduate Society. The Society provides formal postgraduate representation within the University and Students’ Association, the responsibility of the Postgraduate Academic Convenor and Postgraduate Development Officer. We also host a wide range of social events to foster a vibrant and welcoming postgraduate community. Our events calendar includes formal balls and dinners, pub nights, ceilidhs (traditional Scottish dance evenings), bonfires and bus trips to other locations in Scotland. We hope to see you at our next event, and you are welcome to get involved!

Ariana Brighenti
Postgraduate President 2016-2017

E: pgpres@st-andrews.ac.uk
Facebook: @pgsoc
www.st-andrews.ac.uk/pgstudents/stleonards/about/postgraduatesociety
About St Andrews

St Andrews – the University

The University was founded here over 600 years ago and its buildings are still part of the fabric of the town. Yet this university with its medieval origins also looks to the future with its high-tech laboratories and redevelopments designed to ensure that it offers excellent facilities for postgraduate students.

St Andrews – the town

St Andrews is located on the east coast of Scotland in a beautiful town. It is small but diverse, rich in culture, natural beauty and history. Its stunning and unique location, strong community feel and cosmopolitan student body contribute to a fantastic quality of life.

St Andrews is a friendly town, which hosts major cultural and sporting events throughout the year from food and drink to arts, poetry and golfing events. Students and staff make up about half of the population and, because there is no separate campus, the town is the hub of student life. A wide variety of restaurants, cafés and shops are available to suit all tastes and budgets.

Students can enjoy the historic parts of the town, such as the Castle, Cathedral and museums, or take a walk along the beaches and enjoy the views. The cinema shows current blockbusters and art-house films, in conjunction with the University’s Film Studies Department. The University’s Byre Theatre and Barron Theatre host plays and other performing arts events by both students and professional groups.

This part of Fife, known as the East Neuk, enjoys a microclimate of sunny summer days with contrasting blustery rain, strong winds, crisp frosts, and the occasional snow in winter.

A green university

The University is moving towards being more sustainable. We aim to achieve a target of zero waste by 2020 and also to be the first carbon neutral university (for energy) in the UK. We use circular models to divert waste from landfill and have an award-winning Eden Campus Biomass Energy Centre delivering low carbon heating to our buildings. Students are welcome to get involved with a wide range of projects with sustainability at their heart. These include: helping in the organic community gardens (Edible Campus) and volunteering on practical projects such as dune restoration.

www.st-andrews.ac.uk/environment
Out and about

Most students get around by walking or cycling so it is not necessary to have a car. The University also funds a night bus which helps you home safely seven nights a week from 10pm until 2am.

Dundee is only 13 miles / 21 km away and Edinburgh is an hour by train. There are many small fishing villages along the coast from St Andrews that are easily reached by bus – Crail, Anstruther, Pittenweem (the nearest is 9 miles / 14 km away). There are express buses that run to major Scottish cities, almost hourly. Naturally there are many opportunities to travel north to the stunning Highlands and Islands for which Scotland is world-renowned.

Students come from the far corners of the globe, are embraced by the town and University and made to feel part of the community, however long you are studying here.

Academic talks and lectures

The University offers a vibrant intellectual community with a large number of lectures and seminars throughout the year, open to all, many of them by world-class scholars. Most academic Schools and Departments, together with their research centres and institutes, offer events especially for postgraduate students, and host international conferences. As a research student you will benefit from these many opportunities to socialise and engage in conversations with other early-career researchers.

For more information about research at St Andrews, please see:
www.st-andrews.ac.uk/pgstudents

Music

Music plays a large part in student life for many in St Andrews. We have a wide range of musical activities across classical and contemporary genres. Whether your passion is for contemporary music, choral singing or playing in an orchestra, there are many opportunities for you to be involved.

In recent years we have cemented our reputation for incredible singers with a capella groups, including The Alleycats and The Other Guys who have appeared at the Edinburgh Festival Fringe. There is also an opportunity to sing in choirs of the highest calibre. The St Salvator's Chapel Choir sings at University services and tours abroad each year. The St Leonard's Chapel Choir sings at a late-night candlelit service during term. Both choirs offer choral scholarships, as do several others in St Andrews.

There are many societies in the Students' Association for those who are interested in contemporary music. Whether you are interested in musical theatre or enjoy jazz, there will be a society that matches your interests.

Instrumental music is equally strong with a variety of instrumental groups providing many opportunities for playing with others. We are the only Scottish university with a professional orchestra in residence: the Scottish Chamber Orchestra, one of the UK's leading ensembles, which performs five times a year and gives frequent masterclasses and workshops for students.

Scholarships are also available for particularly promising students in the form of free instrumental or vocal tuition. In addition, the Hebdomadar's Music Fund can provide financial help for students who would otherwise find it hard to pay for lessons.

E: music@st-andrews.ac.uk
www.st-andrews.ac.uk/music

Student societies

All postgraduate students are automatically members of the Postgraduate Society (see page 13). At St Andrews you are encouraged to get involved in all aspects of student life, which includes a huge number of clubs and societies.

The Students' Association is responsible for over 150 different societies, covering every possible interest, for the benefit of all our students. Their website has an A-Z list of all affiliated societies and there is a chance to sign up for any that interest you at the Societies Fayre held during Orientation Week in September and January. You are encouraged to make the most of everything on offer for all our students.
www.yourunion.net/activities/societies/societiesa-z

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Advice and Support

The University aims to provide a supportive academic and social environment for all of its postgraduate students, as this is likely to be one of the most challenging – and rewarding – experiences of your life. Most will find that there are times when advice and support are needed, and with that in mind we offer a wide range of assistance to ensure that on both an academic and a personal level your experience as a postgraduate is successful and fulfilling.

In addition to the support mechanisms available to all St Andrews students, Student Services offers a designated member of staff specifically devoted to the postgraduate community. The Postgraduate Support Adviser is available to discuss any issue that might be affecting your student experience, helping you to access resources and making referrals to specialist services where appropriate. For matters involving academic issues, transitions, health and wellbeing, and managing university life in general, the Postgraduate Support Adviser is your first point of contact. The Adviser has experience of teaching and supervising postgraduate students so is aware of the pressures that you will experience.

The Postgraduate Support Adviser can be reached by email or telephone, or by visiting the University’s Advice and Support Centre (ASC), 79 North Street, St Andrews, KY16 9AL.

T: +44 (0)1334 462020
E: support.advice@st-andrews.ac.uk
www.st-andrews.ac.uk/students/advice
When you arrive

**Bank accounts**

Bank accounts can be opened at one of the banks in St Andrews once you have matriculated. You will need to present identification (in the form of a passport) and a letter from the University confirming your student status. Some bank accounts are provided especially for international students. [www.st-andrews.ac.uk/students/money/bankaccounts/bank](http://www.st-andrews.ac.uk/students/money/bankaccounts/bank)

**Registering with a doctor and dentist**

All students are encouraged to register with one of the local General Practitioners (GPs) when you first arrive at the University. The doctors’ practices are within St Andrews Community Hospital, which can also treat minor injuries; however, Ninewells Hospital, in Dundee, provides an accident and emergency service. [www.st-andrews.ac.uk/students/advice/health/doctors](http://www.st-andrews.ac.uk/students/advice/health/doctors)

It is recommended that UK postgraduate students remain registered with their home dentist since there are few places available for new applicants to National Health Service (NHS) dentists. Should you need emergency dental treatment you are free to contact any dentist for an urgent appointment. You may register and pay for a private dental practice if you wish. [www.st-andrews.ac.uk/students/advice/health/dentist](http://www.st-andrews.ac.uk/students/advice/health/dentist)

For further information on the above topics and a range of others, please see the Advice and Support pages: [www.st-andrews.ac.uk/students/advice](http://www.st-andrews.ac.uk/students/advice)

**Chaplaincy / Faiths**

The Chaplain may be approached in confidence about any matter, whether or not related to faith, for sympathetic listening and support. The Chaplain also visits any student in hospital to offer support. The Chaplaincy facilities are available to all members of the University community regardless of personal belief. The Chaplaincy (located in the town centre) provides a meeting place for individuals and groups. Various faith groups meet here, and prayer rooms are available specifically for Muslim students. There is a further Multi-faith Space located in Agnes Blackadder Hall of residence. Buddhist, Christian, Humanist, Islamic, Jewish and Pagan members of the Chaplaincy team can be contacted through the Chaplaincy. The Chaplaincy supports student-led faith societies in providing opportunities for prayer, meditation, study and fellowship, as well as offering worship in the University Chapels. There is also an honorary Chaplain, whose support is offered specifically to international students. Further information can be obtained from: [www.st-andrews.ac.uk/chaplaincy](http://www.st-andrews.ac.uk/chaplaincy)

**Disabilities**

We are committed to ensuring that all of our students are able to achieve their academic potential. Student Services has a team advising students with physical disabilities, sensory impairments, unseen medical conditions, mental health difficulties and Autistic Spectrum Disorders. We can also help in identifying the support, equipment or alternative formats you may require to undertake your research and will liaise with your academic School about appropriate adjustments. More information can be found at: [www.st-andrews.ac.uk/students/advice/disabilities](http://www.st-andrews.ac.uk/students/advice/disabilities)

**Family and childcare**

If you are bringing your family to St Andrews and require information about available resources, including childcare provision in the area, please contact Student Services via the Advice and Support Centre. They can provide details of nurseries, child-minders and after-school care services. For more information: [www.st-andrews.ac.uk/students/advice/family](http://www.st-andrews.ac.uk/students/advice/family)

**Primary and secondary education**

If you wish to enrol your children in primary or secondary education, there are a number of schools in the area. The school(s) that your children will be eligible to attend depend on a number of factors, including where you are living. International students with children between the ages of 5 and 18 may attend school (primary and secondary) free of charge provided they gained visa entry clearance to the UK as dependants of their parent(s).

We recommend that you consult the Fife Council website as early as possible if you intend to relocate your family to St Andrews. [www.fifedirect.org.uk/topics](http://www.fifedirect.org.uk/topics)

**International students**

The University welcomes students from around the world, and enjoys a diverse community. Before making any visa or entry clearance application to study in the UK, it is essential that you read the UK Immigration website information: [www.gov.uk/government/organisations/uk-visas-and-immigration](http://www.gov.uk/government/organisations/uk-visas-and-immigration)

Help and advice on all issues affecting international students is available from our International Adviser before, during, and after study. [www.st-andrews.ac.uk/international/information/visas](http://www.st-andrews.ac.uk/international/information/visas)

**Legal advice**

There is a legal clinic every fortnight, during which any University student can take advantage of a free initial consultation. For the schedule and location details, please visit: [www.st-andrews.ac.uk/students/advice/legalclinic](http://www.st-andrews.ac.uk/students/advice/legalclinic)
Accommodation

Halls of residence

Embarking on postgraduate study at the University is an exciting time and finding the right place to live is important. We have a fantastic variety of accommodation to suit all tastes and budgets for single postgraduate students. In 2015 we added an extra 135 new standard self-catered rooms to our accommodation options. The purpose-built residence for postgraduate students consists of two and three storey blocks, each flat accommodating five single students sharing a kitchen and two bathrooms. A map at the back of this Prospectus shows the location of our residences. We recommend that you visit Student Accommodation Services’ webpages for up-to-date rental price information. Whilst visiting our webpages please take a few moments to familiarise yourself with the full range of facilities on offer in each residence, prior to making your online application:
www.st-andrews.ac.uk/accommodation/pg/prospective

Supporting the living experience

Your life in halls of residence is supported by a Postgraduate Support Adviser who can be contacted during normal office hours by calling the ASC (Advice and Support Centre) and will be the first point of call if a health crisis occurs, or if you have a personal problem (see page 16). Outwith office hours the out of hours team will be able to assist you. There are opportunities for postgraduate students to join the Wardennial Team (who provide on-site support in undergraduate halls of residence); the role includes a rebate of accommodation costs. For further information, please see: www.st-andrews.ac.uk/accommodation/pg/awrole
The University has only limited accommodation for couples or for students with families. Student Accommodation Services manage a range of studio apartments, flats and houses primarily designed for mature students, couples, or those with families. Please see: www.st-andrews.ac.uk/accommodation/pg/prospective/couples

We also run an online database of private sector properties in the town and surrounding areas. The site provides advice that will be particularly helpful to those new to renting in Scotland. Renters can search the database by occupancy date, number of rooms, rent and location, with useful maps included.

www.st-andrews.ac.uk/accommodation/ug/current/managed

The private sector accommodation rents vary. For further information on costs see: www.standrewsstudentpad.co.uk/statistics/Area

For further information regarding accommodation available in the private sector, please go to: www.standrewsstudentpad.co.uk

Students with disabilities and limiting long-term illness

The University gives all possible support to disabled students and those with limiting long-term illness. To enable us to work with you to help meet your individual requirements, it is important that you provide full information on your application form of anything that is likely to impact on your accommodation needs. Since the University understands that disability is not always visible or related to physical impairments, our Student Services and Wardennial Teams can also provide additional support. We have a number of adapted rooms and we encourage you to visit the accommodation to see the facilities and talk to Student Accommodation Services before you accept a place in residence. If you want us to take account of your special circumstances, please let us know as soon as possible. (See also page 16.)

How and when to apply

Once you have received an offer and accepted a conditional or unconditional place to study at the University, and would like to be considered for halls of residence or managed properties, you can apply online from 1 March. We try to allocate based on your first preference but cannot guarantee this. Please ensure, therefore, that you are happy with all the preferences that you have selected.

Please note that postgraduate students are not guaranteed accommodation.

Further information

Student Accommodation Services,
Butts Wynd, North Street, St Andrews, Fife KY16 8YL.
T: +44 (0)1334 462510
E: accommodation@st-andrews.ac.uk
Facebook: @StudAccStAndrews
Twitter: @StudentAccommSv
Opening hours: Monday-Friday 9.30am-4.30pm

For further information on what our residences can offer you, including current accommodation prices and how to apply, please visit: www.st-andrews.ac.uk/accommodation/pg
Sport

Sport plays a significant part in student life at St Andrews and enhances the unique experience of studying at Scotland’s first university. Under the banner of Saints Sport, the Department of Sport and Exercise and Athletic Union provide a welcoming environment that ensures every student makes the most of their time at St Andrews.

Excellence

The University continues to invest in making sport central to the student experience, providing the infrastructure and opportunities for everyone to participate and tailored support for those who seek to excel. A major £14m redevelopment of the sports centre is nearing completion, with the final phase, the construction of a four-court indoor tennis centre, due to be completed in October 2017.

Performance sport

The University recognises 12 sports as part of the Performance Programme, each benefiting from increased support and a dedicated sports-specific Director or Head Coach. This support includes sport science interventions such as strength and conditioning and performance analysis, increased funding, greater access to training facilities and long-term development and performance strategies. Our coaching team come to St Andrews with a wealth of experience gained at the top of their field and understand the balance between academic and athletic achievement. Our performance teams play at the highest level of university sport in the UK and students joining the University from US institutions are able to continue playing competitive sport, even after four years of NCAA (National Collegiate Athletic Association).

Supported athletes programme

The University also encourages individual sporting excellence by supporting talented athletes who are studying at St Andrews and competing at an international level. Students on the University’s performance golf programme may apply for the prestigious Arnold Palmer Scholarship or an R&A Bursary. St Andrews also participates in the Winning Students Scheme.

Experience

Sports clubs

Sports clubs form an integral part of University life at St Andrews, opening up a wealth of experiences and affording our students the opportunity to foster some of their closest friendships. With 54 sports on offer Saints Sport caters for all levels of ability and aspiration. Over 100 teams compete in British Universities & Colleges Sport (BUCS), Scottish Student Sport (SSS), local and national leagues and cup competitions. Most of our clubs also offer recreational activities, giving students an amazing opportunity to regularly experience the beauty of the Scottish Highlands and travel further afield across the UK.

Coaching and officiating

Students joining the University with coaching or officiating qualifications are encouraged to join our coaching team and get involved with our sports programmes. For those wishing to gain qualifications, this can be facilitated through Scottish Student Sport (SSS) and various Scottish Governing Bodies (SGBs). Health and Fitness and Strength and Conditioning internships are also offered, with opportunities for students to join our team of qualified fitness instructors.

Sports clubs (2016 - 2017)

- Aikido
- Archery
- Athletics
- Badminton
- Basketball *
- Boat *
- Boxing
- Canoe
- Cheerleading
- Clay Pigeon
- Cricket
- Croquet
- Cross Country
- Cycling
- Dance
- Fencing *
- Football *
- Futsal
- Golf *
- Handball
- Hockey *
- Ice Hockey
- Ice Skating
- Judo
- Jujitsu
- Karate
- Kendo
- Korfball
- Lacrosse
- Mixed Martial Arts
- Mountaineering
- Netball *
- Polo
- Real Tennis
- Riding
- Rifle
- Rugby *
- Sailing
- Sub Aqua
- Surfing
- Swimming
- Table Tennis
- Taekwondo
- Tennis *
- Trampoline & Gymnastics
- Triathlon
- Ultimate Frisbee *
- Volleyball *
- Water Polo *
- Weightlifting
- Windsurfing

* Performance programmes

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Saints Sport leagues
For those wanting the continuity of playing with a regular team but in a more informal environment, Saints Sport runs a variety of seasonal sports leagues throughout the year for students, staff and the local community; 6- and 11-a-side football, 8-a-side cricket, mixed 6-a-side hockey, indoor ultimate frisbee and tennis.

Heath and fitness
The Saints Fitness programme offers a full range of services, including fitness consultations, personal training, and strength and conditioning support. Our varied exercise class programme runs all-year round and is tailored to suit all abilities. With over 40 classes per week including Yoga, Pilates, Zumba, Spin and Barre Fit, our instructors are here to help you get the most out of your workout and improve your overall fitness.

Engagement
The Saints Volunteering Academy provides excellent opportunities for students to volunteer locally and also further afield across Scotland, the UK and in Africa.

Local volunteering opportunities
Our student volunteer projects in the local community aim at getting more people more active, whilst helping to facilitate the development of sport. Student coaches from our sports clubs run regular taster sessions in schools, coach at after school clubs and take sport specific training sessions for local clubs.

International volunteering opportunities
International volunteering offers students a wonderful opportunity to add value to their University education, enhance their global awareness and develop their leadership, coaching and teaching skills. Each year sports volunteers from St Andrews travel to Zambia and South Africa working with local NGOs to help deliver PE sessions, sport specific coaching and classroom based sessions in various schools and compounds.

For more information on any part of the Saints Sport experience please visit: www.st-andrews.ac.uk/sport Facebook/Twitter: @SaintsSport
Library and IT Services

Library services

The Library will be central to your life as a postgraduate student. Staff are available to assist with accessing the information you need to support your research.

The Main University Library:
- Is open 18 hours a day during each semester, including weekends.
- Offers flexible study spaces: café, group rooms, silent/individual areas or informal and relaxed spaces.
- Holds over one million volumes, a large e-book collection, thousands of print and electronic journals and academic databases.
- Offers expert subject-specific support and training on finding information and using referencing software.
- Has a fast Inter-Library Loan service and reciprocal borrowing rights with local and national universities.
- Has been modernised and is a welcoming space where staff are always happy to help.

In addition to the Main Library, you can use:
- The Richardson Research Library at Martyrs Kirk. Developed in 2013 in an historic church building, Martyrs offers an inspiring space for postgraduate students and staff. The Thomson Reading Room is located in the original nave, with the Special Collections Napier Reading Room in the same building.
- The JF Allen Library, which holds resources for science subjects and offers a variety of study spaces.
- St Mary’s College Library for Divinity and Mediaeval History, including the historic King James Library (pictured).

The University Library’s Special Collections Division:
- Houses 210,000 rare printed books.
- Is strong in theology, classics, history, English and Scottish literature.
- Includes the University’s manuscript and photographic collections and the University archives.

IT services

We continue to make significant investment in our infrastructure to provide the best possible IT service. This includes extensive Wi-Fi provision, Office 365, a wide range of software applications, a PC Clinic and a seven days a week support service.

Key IT Services:
- Wireless access available throughout most of the University buildings, including halls of residence.
- Computer classrooms are distributed throughout the University, with many open 24 hours a day, seven days a week.
- On-demand streaming of software applications via our Apps Anywhere portal.
- All students get University email, Microsoft Office 365 and data storage.
- A secure printing, scanning and copying facility with 60 devices located across the University. You can send print jobs from your own laptop so there is no need to bring your own printer.
- A PC Clinic service which provides technical support and repairs for personal computing equipment for both Mac and Windows. There is a charge to use this service.
- You will have access to specialist software to support and carry out your research.

www.st-andrews.ac.uk/library
Twitter: @StAndrewsUniLib
Facebook: @StAndrewsUniversityLibrary

www.st-andrews.ac.uk/itsupport
Twitter: @StAITServices
Research Support and Knowledge Transfer Centre

The Research Support sections of Finance and the Knowledge Transfer Centre (KTC) together provide proactive support for the University’s high-quality research and related commercial activities.

Research support

The Finance department offers a comprehensive support service to academics in all aspects of research awards and contracts from pre-application (ideas/finding funding and costing stage) to award (contract negotiation, project account setup, invoicing and financial reporting).

Within the Finance Department there are two sections providing research support: Research Business Development and Contracts (RBDC) and Finance Advice and Support (FAS). The Research Support sections of Finance provide:

- Direction to sources of funding and guidance on the priorities of external funding agencies; access to European funding through identification of new opportunities, including Horizon 2020 and the European Research Council.
- Research support and development of new University business by developing and cultivating links to research sponsors, industry and government.
- Drafting and negotiation of appropriate research related contracts which balance risk and intellectual benefit.
- Effective costing methodology to produce an estimate of the full cost and to agree an appropriate price on behalf of the University.
- Post-award financial management and reporting of research grants and contracts.

In 2015-2016 the total value of research grants and contracts awarded to the University was in excess of £45 million.

www.st-andrews.ac.uk/research

Knowledge Transfer Centre

FAS, RBDC and the KTC have a linked and complementary role to assist all researchers, staff and postgraduate students. The KTC specifically supports the applied development and commercialisation of research findings by helping to source development and translational funding and investment, encouraging technology transfer and commercialisation through licensing and new company formation.

The KTC provides:

- Encouragement, advice, training and practical support to postgraduate research students interested in enterprise, commercialisation and in generating impact from University research through all forms of KT.
- Expert staff to manage, maintain and protect the University’s intellectual property rights (IPR) and effect their development and consequent commercial transfer to industry through both licensing and the formation of spin-out companies.
- Assistance in formulating external bids for technology development and translational funding aimed at applying research findings to solving practical problems.

www.st-andrews.ac.uk/ktc

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The University provides an extensive and award-winning generic skills development programme – GRADskills – for all research postgraduate students, as well as specific support for postgraduate students who teach.

We offer a wide range of workshops, symposia, online training and other development opportunities from which you can select to meet your individual training requirements, academic interests and career ambitions. GRADskills is based in the Centre for Academic, Professional and Organisational Development (CAPOD).

GRADskills supports you in developing transferable skills to enhance your research capabilities and widen future employability. It has been designed with input from postgraduates, postdoctoral fellows and academic supervisors, and as a result of recommendations from the UK research councils and other national authorities. The various elements of the programme have been mapped against the Vitae Researcher Development Framework. The high quality of the programme is maintained by combining the expertise of St Andrews’ own academic and support staff with that of external consultants and training professionals. GRADskills provides support for attending external events offered in collaboration with other Scottish universities and national organisations such as Vitae.

There are mandatory workshops and online courses specifically for postgraduates who wish to teach within their Schools, as well as ongoing opportunities for support with teaching in the form of networking lunches. For those who wish to develop their teaching further, there are two optional Masters-level Introduction to University Teaching modules.

An introduction to GRADskills is given at Postgraduate Induction, and you are kept up-to-date with ongoing programme developments and opportunities throughout the year via GRADskills e-memos and the GRADskills section of the CAPOD webpages.

GRADskills aims to help you realise your personal potential and achieve your research and career goals, so that you can make the most of your postgraduate experience at St Andrews. For more information, visit CAPOD’s research postgraduate student webpages at:

www.st-andrews.ac.uk/capod/students/pgresearch
The Careers Centre offers information about the full spectrum of career and further study opportunities in the UK and abroad.

The Careers Centre organises opportunities for you to meet a large number of employers each October at the larger Law Fair, Careers Fair, Science and Technology Careers Fair and smaller Charity Sector Pathways. The fairs provide access to a wide variety of employers and students of all years and subjects are invited. For the benefit of research students, employers are asked prior to each fair whether they have an interest in employing PhD holders. The Careers Centre makes this information available to allow research students to plan for the fairs.

We provide the following resources to support you:

- One-to-one advice on academic career paths and other career options available.
- Bespoke careers related workshops including CV and interviewee skills training offered to research students through the GRADskills programme.
- Comprehensive webpages, which include information about moving on to further research, as well as advice on academic and postdoctoral work: www.st-andrews.ac.uk/careers
- Our global alumni engagement platform, Saint Connect, with over 4,000 members in 90 countries, connects students and alumni for career guidance and networking.
- International careers support including overseas careers panels and over 15 Careers Centre-led global networking events.
- Regular virtual events including employer presentations and alumni career insights.

Using the Careers Centre

- The Careers Centre encourages you to use its services throughout your degree, to ensure you benefit fully from the many career-related opportunities which St Andrews offers.
- Each semester employers come to the University in increasing numbers specifically to talk to postgraduates.
- The Careers Centre offers lifelong careers advice and guidance to all our students and graduates.

Recent destinations and careers for graduates from research postgraduate programmes at the University of St Andrews include:

- Dow Chemical Company lead improvement engineer
- University of Cambridge postdoctoral researcher
- University of Hong Kong assistant professor
- University of St Andrews lecturer
- Dundas Valley Co-Op theatre director
- Open College of Arts creative writing tutor
- Astra Zeneca postdoctoral assistant
- Johnson research scientist
- Rightscale software engineering manager
- Equal Arts community engagement
- Intel Process engineer
- Press Projects Ltd project editor
- Tessella associate analyst
- London Metropolitan Archives catalogue editor
- Historical Palaces project officer
- Yonsei University postdoctoral researcher
- BBC radio producer
- Royal Society of Chemistry publishing editor
- Owl Moon Environmental avian ecologist
- CCP Games game code developer

See also: www.st-andrews.ac.uk/careers
Art History

- One of the best Art History schools in the UK, we believe teaching is as important as research and we excel in both.
- One of the largest of its kind in the United Kingdom with an academic staff of 18.
- In the recent Research Excellence Framework (2014) the School was second in the UK for art historical research.
- We admit between 30-40 postgraduate taught and research students each year.
- We are responsive to the needs of individual students.
- Our School is large enough to offer a wide range of subject areas but small enough for students to feel part of a close-knit community in one of the most beautiful university towns in Britain.
- We are distinguished by our specialisms in History of Photography and Museum and Gallery Studies. The Museums, Galleries and Collections Institute (MGCI) is hosted at St Andrews, and we are also part of the University’s Institute of Mediaeval Studies.

Teaching and research interests of the School extend from the ancient to the contemporary periods. We particularly concentrate on the art of late medieval Europe, including England and Scotland; renaissance Italy; nineteenth- to twenty-first-century art in Britain, France, Russia, Eastern Europe and the Americas; the decorative arts; architectural history, the history of photography, and museum and gallery studies.

Contact

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www.st-andrews.ac.uk/arthistory/prospective
The School of Art History supports a large, active and diverse postgraduate community. Postgraduate students publish the *North Street Review*, a postgraduate journal of art history and museum studies. This is an annual journal containing articles on a wide range of topics by students at St Andrews and other universities. [www.st-andrews.ac.uk/arthistory/current/journals](http://www.st-andrews.ac.uk/arthistory/current/journals)

The School also organises postgraduate research seminars and occasional symposia. Each year we invite a number of artists and scholars to give lectures.

The School takes pride in offering a relaxed but stimulating environment in which staff and students contribute equally to the creation of a collegial and friendly atmosphere. Several members of staff have taught in Europe and in North America and have experience of international teaching practice.

PhD students are full members of the School, with designated workspace and an expectation that they will be active participants in the intellectual and collegiate life of a large and lively community centred upon Art History, History of Photography and Museum and Gallery Studies.

Academic life includes attending regular research seminars, editing and managing the postgraduate journal, participating in reading groups, workshops, conferences and teaching training, organising exhibitions, and undertaking international research and networking.

Facilities

Within the School, rooms are designated for postgraduate study and computers are made available exclusively for postgraduate use.

Teaching and research in the School of Art History are supported by extensive library holdings, a major Visual Resources Collection containing approximately 150,000 images, and computing facilities.

We also have a microfiche copy of the Conway and Witt photographic archives, comprising some two million images of works of art. The University of St Andrews itself holds a variety of important specialised collections on which students may draw in the course of their research. The superb collections and libraries of Edinburgh and Glasgow are also within easy reach of St Andrews.

Research Institutes

- Museums, Galleries and Collections Institute (MGCI)
- Institute of Mediaeval Studies

For full details see: [www.st-andrews.ac.uk/research/university/centres](http://www.st-andrews.ac.uk/research/university/centres)
Research areas

Dr N Adamson (na14@st-andrews.ac.uk)
Late nineteenth- and twentieth-century art in France; Surrealism and the Avant Garde; Abstract art; Post-1945 art in France and Europe; Transnational modernisms; History of photography, especially twentieth-century modernism and the photobook.

Dr K Brown (keb23@st-andrews.ac.uk)
History and theory of ekphrasis; Museology in the nineteenth and twentieth centuries.

Dr L Gartlan (lg321@st-andrews.ac.uk)
Early photography; The camera’s role in colonial-period visual culture; Orientalist visual culture; Art in the Habsburg Empire. Editor of History of Photography.

Dr L Goddard (ljg21@st-andrews.ac.uk)
Relations between art and literature in the nineteenth and twentieth centuries, focusing on France; Artists’ writings; Art criticism; Visual and literary cultures of colonialism and travel.

Dr J Howard (jch2@st-andrews.ac.uk)
Central and Eastern European art, architecture and design, 1600-present; Spaces, materialities and images of schooling; Social, socialist and public art; Questioning Realism; Art Nouveau; National Romanticism; Orientalism and Primitivism.

Dr E van Kessel (ejmvk@st-andrews.ac.uk)
Italian Renaissance art; Painting in Venice; Early modern art in relation to the viewer; Art and ritual; Portraiture; Collecting and displaying art around 1800, in Germany, France and Italy.

Dr J Luxford (jml5@st-andrews.ac.uk) (Head of School)
Later medieval British and continental art and architecture; History and culture of the medieval monastic orders; Northern European Gothic art and architecture; Northern Baroque art; The historiography of medieval art history.

Dr L Moretti (lm93@st-andrews.ac.uk)
Italian Renaissance art and architecture; The relationship between architectural design and musical performance in Renaissance Italy.

Dr S O’Rourke (so38@st-andrews.ac.uk)
Late eighteenth- and nineteenth-century British and French art; Relations between art, science, and philosophy; Technologies of display and spectatorship.

Dr A Rider (ajr1@st-andrews.ac.uk)
Histories of sculpture, from 1950 to the present; Experimental art from the 1960s and 1970s in North America and Europe; Histories of new media; Art and ecology; Art and activism; Changing conceptions of the artist.

Dr S Rose (isper@st-andrews.ac.uk)
Twentieth-century British art; The history of visual modernism (including in relation to theories of global modern art); The history and current state of aesthetics; Exchanges between art theory/criticism and art practice.

Dr K Rudy (kmr7@st-andrews.ac.uk)
Late medieval images from Northern Europe and their functions; Pilgrimage, indulgences, the physical handling of images.

Dr C Spencer (catherine.spencer@st-andrews.ac.uk)
Performance in the Americas and Europe 1960-present; Transatlantic exchange; Dematerialisation; Multi-media, participatory and collaborative practices; The body, gender and politics, Abstraction.

Dr I Sturkenboom (is64@st-andrews.ac.uk)
Islamic art and architecture from Iran, the Middle East, Central Asia and India.

Dr U Weiss (uew@st-andrews.ac.uk)
Museum and gallery studies (focusing on learning and audiences); The ‘long’ eighteenth century: Sculpture and interior decoration, court culture and numismatics; Hanoverian political iconography.

Painting: Cosmic Signal No7 by Alan Davie

Match head: Buddha in yellow, 2007 by David Mach
Sculpture made of matches
Accession no.: HC2008.3
©David Mach Ltd
Careers

A doctoral degree in Art History, History of Photography or Museum and Gallery Studies provides an excellent foundation for a career in the art or museum world. Recent graduates have gone on to work as curators, university academics and postdoctoral researchers. Others now work in auction houses, journalism, museum education and art consultancy.

Please see page 25 for details of the University's Careers Centre.
Biology

- The School of Biology at St Andrews is one of the largest in the UK, with 73 academic and related staff and 85 postdoctoral researchers.
- We admit about 25 PhD students each year.
- We are introducing a new one-year research MSc (Res) programme in 2017-2018.
- Our research is organised into three major interdisciplinary centres: the Scottish Oceans Institute (SOI), Biomedical Sciences Research Complex (BSRC) and Centre for Biological Diversity (CBD). Together these centres encompass the full spectrum of research in biological sciences, spanning investigations on the properties and behaviour of individual molecules to planetary environmental dynamics.
- Research in Biological Sciences is underpinned by world-class research-led teaching and wider impacts on policy, public engagement and the economy, thereby ensuring a vibrant and sustainable research culture.

Research community

PhD students are embedded within a research group and will often be actively involved in weekly group meetings: sharing ideas, techniques and questions with staff, postdoctoral researchers and students with similar research interests. To encourage a broader School-wide research community, a thriving society of postgraduate students (BioNetwork) provides an opportunity for socialising with other students, learning more about the diversity of activities in which others are engaged, and networking. BioNetwork holds an annual two-day conference, with talks from students and external speakers. http://standrewsbionet.weebly.com/about

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School ranked 2nd in UK for impact of research
The Scottish Oceans Institute (SOI) is a multidisciplinary research centre covering all aspects of marine biology from organisms to molecules and subjects ranging from polar ecology to coastal economics. The SOI is one of the few university departments in the UK that maintains this scope. We are ideally placed on the seashore adjacent to sandy beaches and rocky coasts (marine ecology and biodiversity) and positioned close to grey and common seal colonies and areas where bottlenose dolphins feed each summer (sea mammal ecology). We host the largest seal experimental facility in Europe (behavioural and physiological studies) and house a modern aquarium (fish physiology, aquaculture and behaviour) and well-equipped laboratories for molecular, developmental, and physiological studies of marine systems. We are also part of the European Marine Biological Resource Centre and the Marine Alliance for Science and Technology for Scotland.

The Centre for Biological Diversity (CBD) has excellent facilities for ecological and evolutionary research on small animals (including birds, insects and fish) and on plants. For larger animal work, Edinburgh Zoo’s Living Links – a field station and research centre for the study of primates – is only an hour’s drive away. Established links to the Royal Botanic Gardens Kew, the Royal Botanic Garden Edinburgh (as well as the local St Andrews Botanic Garden), and the nearby James Hutton Institute provide scope for larger-scale experimental projects. Fieldwork can take advantage of nearby terrestrial and marine habitats. In addition, CBD researchers have projects across the world, from Amazonia to the Great Barrier Reef, from Madagascar to New Caledonia, offering interested students additional opportunities for biological research.

The Biomedical Sciences Research Complex (BSRC) occupies modern, purpose built laboratory space adjacent to the Schools of Medicine and Physics & Astronomy and physically linked to the School of Chemistry. The ethos of the BSRC is to break down barriers between scientific disciplines and conduct world-class research on the broad theme of infection and immunity. Large multi-group laboratories are focused on structural biology, molecular microbiology, virology, chemical biology and molecular medicine. In addition there are state-of-the-art facilities for mass spectrometry, X-ray crystallography including crystallisation robotics, EPR, NMR and imaging. Two new high containment level laboratories have been built and equipped, allowing research on pathogenic viruses, bacteria and parasites.

You are very much encouraged to take advantage of a wide range of University-wide and more discipline-specific training opportunities, and to take an active part in lab-level discussion meetings and the active seminar and workshop series across the School of Biology. The School also offers ample opportunities to develop science communication skills through involvement in a variety of outreach activities and teaching of undergraduate students.

PhD and MPhil research students at St Andrews have access to the GRADskills Programme (see page 24). The School of Biology supplements this training programme with a number of more specialised sessions. These include:

- Health and Safety in the Laboratory and in the Field
- Information Retrieval (Library and IT)
- Demonstrating Practicals
- Laboratory and Environmental Techniques
- Oral and Visual Presentation Skills
- Biology and the Media
- Ethical and other Sensitive Issues
- Student-Supervisor Interactions
- School of Biology Postgraduate Conference

The School is organised into three interdisciplinary research centres with strong links to all the other science Schools:

- Biomedical Sciences Research Complex (BSRC)
- Centre for Biological Diversity (CBD)
- Scottish Oceans Institute (SOI)

For full details see: www.st-andrews.ac.uk/research/university/centres
Research areas
Staff emails and links to full profiles at: http://biology.st-andrews.ac.uk/people/

Biomedical Sciences
Occupies new, purpose-built, Wellcome Trust funded research laboratories on the North Haugh, adjacent to the School of Chemistry and Medical & Biological Sciences building. There are world-class structural biology laboratories and a focus on molecular and cellular aspects of infection and immunity.

Dr C Adamson – Molecular biology of retroviruses.
Dr M Bischoff – Dro sophila developmental biology.
Dr C Botting – Mass spectrometry and proteomics.
Dr P Coote – Mode of action and application of novel antimicrobials.
Dr H Ferreira – Telomere biology.
Dr D Evans – Molecular biology of positive-strand RNA viruses.
Dr T Gloster – Structure and function of carbohydrate processing enzymes.
Professor F Gunn-Moore – Molecular development and survival of mammalian neurons.
Dr D Hughes – Molecular and cellular biology of virus-host interactions.
Professor J Jones – Plant-nematode interactions.
Dr S MacNeill – Chromosomal DNA replication and genome stability.
Dr M Nevels – Epigenetics and innate immunity in human cytomegalovirus infection.
Dr C Penedo – Single molecule studies of nucleic acid and proteins.
Dr R Ramsay – Mitochondria and flavoproteins: function and regulation.
Professor R Randall – Viruses and innate immunity.
Professor M Ryan – Picornavirus replication and translational virology.
Dr U Schwarz-Linek – Structure and function of bacterial virulence proteins.
Dr R da Silva – Enzymology of human and bacterial drug targets.

Dr J Sleeman – Structure and dynamics of the mammalian cell nucleus.
Professor T Smith – Molecular parasitology.
Professor G Taylor (Master of the United College) – Structural biology of infection and immunity.
Professor L Torrance – Molecular biology of plant virus-host-vector interactions.
Professor M White – DNA Repair and the CRISPR system.

Evolution, Ecology and Animal Behaviour
This group occupies newly refurbished research space in the Sir Harold Mitchell Building with close links to the School of Psychology & Neuroscience. Research in the broad area of animal behaviour has been recognised as world leading.

Dr N Bailey – Evolutionary biology: behaviour and speciation in insects.
Professor W Cresswell – Behavioural ecology and conservation ecology of birds.
Dr M Dornelas – Macroecology and biodiversity patterns.
Professor O Gaggiotti – Ecology, population genetics, evolution and conservation biology.
Dr A Gardner – Darwinian adaption, theories and mechanisms.
Dr S Healy – Spatial memory, the brain and behaviour.
Dr C Kosiol – Bioinformatics, phylogeny & comparative genomics.
Professor K Laland – Social learning, cultural evolution and niche construction.
Professor A Magurran – Fish behaviour and evolution.
Professor T Meagher – Plant evolutionary biology.
Dr J Minderman – Behavioural ecology, conservation biology and ornithology.
Dr M Morrissey – Modelling evolutionary dynamics.
Dr A Ojanguren – Fish behavioural ecology.
Dr L Boehme – Oceanography using animal-borne sensors.
Professor A Brierley – Ecology and biology of zooplankton.
Dr C Duck – Monitoring populations of harbour (c. common) and grey seals in Scotland.
Dr D Ferrier – Evolutionary developmental biology.
Dr D Gillespie – Passive acoustic monitoring of marine mammals.
Dr A Hall – Environmental and physiological factors affecting marine mammal health and survival.
Professor P Hammond – Population dynamics, ecology and foraging behaviour of seals and cetaceans.
Dr C Harris – Landscape, population and spatial ecology.

Marine Biology
Situated in the Scottish Oceans Institute on the East Sands next to the North Sea, this interdisciplinary group has an international reputation for excellent marine science and conservation.

Professor M White – DNA Repair and the CRISPR system.
Professor G Taylor – Molecular parasitology.
Professor T Smith – Molecular parasitology.
Professor G Ruxton – Sensory reactions between organisms.
Dr D Shuker – Insect behavioural ecology and evolution.
Dr C Smith – Fish reproductive biology and coevolution.
Dr A Smith – Complex biological networks.
Dr C Templeton – Vocal communication in birds.
Dr J Tilsner – Plant molecular virology.
Professor P Willmer – Social insect ecology and animal plant interactions.

Professor G Ruxton – Sensory reactions between organisms.
Dr D Shuker – Insect behavioural ecology and evolution.
Dr C Smith – Fish reproductive biology and coevolution.
Dr A Smith – Complex biological networks.
Dr C Templeton – Vocal communication in birds.
Dr J Tilsner – Plant molecular virology.
Professor P Willmer – Social insect ecology and animal plant interactions.

Dr N Hason – Osmoregulatory function in fish.
Dr S Heinrich – Marine mammal ecology.
Dr S Hooker – Ecology and behaviour of marine mammals.
Professor V Janik – Acoustic communication and behaviour in marine mammals.
Dr M Johnson – Sound production, foraging, locomotion, and echolocation in marine mammals.
Professor I Johnston – Muscle growth and adaptation in teleost fish.
Dr I Matthews – Fish and arthropod behaviour and biodiversity.
Dr B McConnell – Marine mammal interactions.
Professor P Miller – Acoustic communication and behavioural ecology.
Dr S Northridge – Interactions between people, fishing and the environment.
Professor D Paterson – Ecology and dynamics of coastal ecosystems.
Dr P Pomeroy – Behavioural ecology of marine mammals.
Dr V Smith – Comparative immunology.
Dr S Smout – Predator life history and trophic interactions.
Dr I Somorjai – Regeneration biology.
Dr D Thompson – Foraging, diving behaviour and population dynamics of seals.
Professor C Todd – Marine ecology.
Professor P Tyack – Marine mammal communication and anthropogenic noise.
Many recent Biology PhD graduates have continued their academic careers working as postdoctoral researchers in laboratories worldwide, including research groups at prestigious universities.

Others have found employment with organisations as varied as the Physiological Society, Royal Society of Chemistry, the Maritime and Coastguard Agency, the Royal Botanic Gardens Kew and the Wellcome Trust.

In addition to working in social behavioural, biomolecular, ecological, environmental, marine and virology research environments, Biology’s PhD graduates have secured posts in areas as diverse as higher education management, teaching, publishing and journalism, charitable sector, the food and biotechnology industries, the constabulary and the BBC.

Please see page 25 for details of the University’s Careers Centre.
Chemistry

- In the academic year 2016-2017, the School of Chemistry has 48 full-time academic and academic related staff, 16 technical staff, a student population of around 341 full-time equivalents, with around 180 postgraduates and 72 postdoctoral researchers.
- In the UK Research Excellence Framework 2014, EaStCHEM, the combined Edinburgh and St Andrews research school for Chemistry, was ranked top in Scotland with 28% of its overall research activity rated as ‘world leading’ (4*).
- Regular specialist seminars and colloquia by leading researchers.
- The School hosts the EPSRC Centre for Doctoral Training in Critical Resource Catalysis, which provides studentships and innovative training in catalysis research. UK and EU students are eligible for full fee studentships and will receive a stipend (£14,553 p.a. in academic year 2017-2018) throughout their four-year course.

www.criticat.co.uk

Contact

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www.st-andrews.ac.uk/chemistry/prospective/pg
Research community

Our size promotes a friendly atmosphere with a cross-flow of ideas while providing the depth and breadth necessary to pursue major scientific programmes at an international level. More than 250 publications are produced per year and there are very strong connections with industry across a range of research areas. We are particularly proud of our strong interdisciplinary links with materials, physics and biomolecular sciences. These collaborations often take place through interdisciplinary research centres such as the Biomedical Sciences Research Complex, the Centre of Magnetic Resonance and the Organic Semiconductor Centre. There is an active student-based Chemical Society which hosts guest speakers and organises social events throughout the year.

Chemical research has a long and distinguished history at St Andrews. Chemistry has been taught as a subject since 1811 and the first Professorship in Chemistry was established in 1840. Nobel prize winners Sir Robert Robinson and Sir Norman Haworth carried out their most important research at St Andrews. The partners in the joint research school (EaStCHEM, i.e. Edinburgh and St Andrews Chemistry) are both leading schools with complementary areas of expertise, publications and a similar level of research income (around £10 million per year over the academic years 2012-2016). Our aim is to compete with Chemistry centres of excellence anywhere in the world, not only with our research but also through our joint training activities. Students from St Andrews have equal access to all of the very specialised equipment and techniques being developed at Edinburgh (and vice versa for Edinburgh students).

Advice on applying

All prospective postgraduate students are urged to establish contact as soon as possible, especially where a position with a specific supervisor is sought. Competition for postgraduate places has increased in recent years and positions are filled early. The School typically has around 35 grants for fully-funded postgraduate studentships to start in any given year, mostly for UK and EU citizens.

St Andrews has a special partnership with the China Scholarship Council: www.st-andrews.ac.uk/study/international/csc

This programme has been running for two years and we have recruited 13 PhD students as well as finding ways to support the funding of an additional four applicants. For more information, please see: http://csc.wp.st-andrews.ac.uk/20167-2

Facilities

The Purdie Building, the adjoining Biomolecular Sciences building and the new Biomedical Sciences Research complex offer excellent accommodation and facilities for teaching and research in some of the most modern and well-equipped laboratories in the UK. In addition, SASOL, the South African based fuels and chemicals giant, has its European laboratory in catalysis research here.

The School is equipped to support major facilities across the full spectrum of Chemistry, including NMR (both solution and solid-state), X-ray crystallography (single-crystal, powder and macromolecular), electron microscopy, catalyst evaluation, analytical chemistry, spectroscopy and surface science, together with all the standard chemical evaluation techniques.

The School of Chemistry also houses the Dr Ettie Stewart Steel Reading Room containing all of the major books required for postgraduate research work. Comprehensive online access to journals and national and international databases is available.

Research Centres and Institutes

- Biomedical Sciences Research Complex (BSRC)
- Centre of Magnetic Resonance (CMR)
- Organic Semiconductor Centre (OSC)

For full details see: www.st-andrews.ac.uk/research/university/centres

Research areas

The School has several groups carrying out research in core areas of organic synthesis and molecular inorganic chemistry. This includes natural product chemistry, asymmetric synthesis, inorganic and organic heterocycles, sulfur and phosphorus chemistry. We are a leading centre in the area of catalysis, where we are heading an EPSRC-funded Centre for Doctoral Training. Homogeneous work includes asymmetric catalysis, carbonylation and oxidation reaction, together with novel dendrimer systems. Heterogeneous catalysis includes synthesis and characterisation of zeolites and other solid-acid catalysts and sorbents, preparation and study of supported metal catalysts for automotive and fuel cell applications and also surface and interface studies.

The key areas of research within the School can be classified as follows:

- Molecular Synthetic and Structural Chemistry
- Materials Chemistry
- Chemical Biology
- Surface Science
- Theoretical Chemical Physics

Academic staff in these research areas are noted overleaf.
Molecular Synthetic and Structural Chemistry includes many aspects of organic synthesis, molecular inorganic chemistry and catalysis. Structure characterisation involves mainly, but not exclusively, powder, single crystal and macromolecular X-ray diffraction, and covers areas of structure-property relations within a diverse range of chemical systems, together with studies in crystal engineering and supramolecular chemistry.

Dr R A Aitken (raa@st-andrews.ac.uk)
Synthetic Organic Chemistry
Keywords: Synthetic chemistry; Asymmetric synthesis; Heterocyclic chemistry; Organophosphorus chemistry; Main group chemistry.

Dr B Bode (beb2@st-andrews.ac.uk)
EPR Spectroscopy
Keywords: Pulsed and continuous wave EPR spectroscopy; Nanometre distance measurements; Hyperpolarisation techniques.

Dr M L Clarke (mc28@st-andrews.ac.uk)
Organic Synthesis using Homogeneous Catalysts
Keywords: Asymmetric synthesis; Greener organic chemistry; Homogeneous catalysis; Organometallic chemistry.

Dr G Florence (gf1@st-andrews.ac.uk)
Organic Synthesis
Keywords: Asymmetric synthesis; Synthetic of bioactive natural products and structural analogues; New methods and strategies for acyclic stereocontrol.

Dr P Killan (pk7@st-andrews.ac.uk)
Main Group Chemistry
Keywords: Organo-element synthesis; Organo-phosphorus and organo-nitride chemistry; Low and hypercoordinated main group chemistry; Main group catalysis.

Professor D O'Hagan (do1@st-andrews.ac.uk)
Bio-organic and Natural Product Chemistry
Keywords: Organic synthesis; Biosynthesis; Organo-fluorine chemistry; Stable isotopes; Biotransformations; Chiral compounds; Enzyme chemistry.

Professor D Philp (D.Philp@st-andrews.ac.uk)
Physical Organic Chemistry; Bio-organic Chemistry
Keywords: Molecular recognition; Self-assembly; Replication processes; Computational methods; Reaction mechanisms; Crystal engineering.

Professor A M Z Slawin (amaz@st-andrews.ac.uk)
Crystallography
Keywords: Single crystal; X-ray; Sensors; H-bonding; Structure; Receptors.

Professor A Smith (ads10@st-andrews.ac.uk)
Organic Synthesis
Keywords: Asymmetric synthesis; Molecular enantiorecognition; Organocatalysis; Asymmetric carbone catalysis; Chiral auxiliary development.

Professor J E Taylor (jet20@st-andrews.ac.uk)
Non-covalent Chemistry
Keywords: Low oxidation states; Metal hydrides; Bonding modes; Organometallics; Low coordination numbers; Ligand design.

Professor J T S Irvine (jtsi@st-andrews.ac.uk)
Materials Science
Keywords: High resolution transmission electron microscopy; Fuel cells; Heterogeneous catalysts; Electro-active polymers.

Professor R E Morris FRS (rem1@st-andrews.ac.uk)
The Synthesis of Inorganic-Organic Hybrid Materials
Keywords: Solid state chemistry; Microporous materials; Mesoporous solids; Heterogeneous Catalysis.

Professor P A Wright (paw2@st-andrews.ac.uk)
Microporous and Mesoporous Solids
Keywords: Solid state chemistry; X-ray and neutron diffraction; Microporous solids; Ferroelectrics; Functional materials.

Professor P Lightfoot (pl@st-andrews.ac.uk)
Solid State Chemistry and Crystallography
Keywords: Structural chemistry; X-ray and neutron diffraction; Microporous solids; Ferroelectrics; Functional materials.
In **Chemical Biology**, we have particular strengths in the areas of bioactive molecule synthesis, organofluorine chemistry, the elucidation of enzyme mechanism and protein interactions, protein structure determination, drug design and synthesis and combinatorial methods of organic synthesis.

**Dr C H Botting** (cb2@st-andrews.ac.uk)  
**Mass Spectrometry**  
Keywords: Protein Mass Spectrometry; Proteomics.

**Dr R Goss** (rjmg@st-andrews.ac.uk)  
**Bio-organic Chemistry**  
Keywords: Natural product biosynthesis; Biocatalysis; Natural products of medicinal interest; Synthetic biology.

**Professor T K Smith** (tks1@st-andrews.ac.uk)  
**Bio-organic Chemistry**  
Keywords: Enzyme chemistry; Phospholipid metabolism; Carbohydrate chemistry; Molecular parasitology; Drug development; Mass spectrometry.

**Theoretical Chemical Physics** covers a diversity of areas in computational chemistry including the development of methods and calculations of spectroscopic properties of materials, properties of biological molecules as well as catalytic reactions.

**Professor M Bühl** (mb105@st-andrews.ac.uk)  
**Computational Chemistry**  
Keywords: Computational chemistry; Transition-metal complexes; Homogeneous catalysis; NMR properties; First-principles molecular dynamics simulations.

**Dr J B O Mitchell** (jbom@st-andrews.ac.uk)  
**Computational Chemistry**  
Keywords: Bioinformatics; Enzyme reactions; Chemoinformatics; Machine learning; Solubility; Computational toxicology.

**Dr T van Mourik** (tvm22@st-andrews.ac.uk)  
**Computational Chemistry**  
Keywords: Ab initio quantum chemistry; Conformation of biological molecules.

**Surface Science** involves the characterisation of surfaces and interfaces at the atomic/molecular level and focuses on heterogeneous catalysis including enantioselective reactions, functionalisation and patterning of surfaces as well as two-dimensional nanostructures using concepts based on molecular self-assembly, supramolecular chemistry and electrochemistry.

**Professor C J Baddeley** (cjb14@st-andrews.ac.uk)  
**Surface Chemistry**  
Keywords: Heterogeneous catalysis; Bimetallic surfaces; Chiral surfaces; Nanoparticle chemistry; Liquid-solid interface.

**Professor M Buck** (mb45@st-andrews.ac.uk)  
**Physics and Chemistry at Interfaces**  
Keywords: Molecular self-assembly at interfaces; Electrochemical nanotechnology; Non-linear optical spectroscopy; Scanning tunnelling microscopy.

**Dr G Hähner** (gh23@st-andrews.ac.uk)  
**Physics and Chemistry at Interfaces**  
Keywords: Functional ultrathin organic films; Self-assembled monolayers; Liquid/solid interface; Electronic structure; Photoelectron spectroscopy.

**Dr R Schaub** (rs51@st-andrews.ac.uk)  
**Surface Science**  
Keywords: Surface science; Heterogeneous catalysis; Scanning tunnelling microscopy; Mass spectrometry; Model systems; Metal-oxide surfaces.

**Careers**

Recent Chemistry PhD graduates have gone on to successful careers in the chemical industry with companies such as BP, Shell, Johnson Matthey, Siemens and the pharmaceutical industry e.g. GSK, Pfizer, Astra Zeneca. Many also continue in academic life, in universities or research institutions in the UK, Europe, North America, Japan and others worldwide. Other career routes outwith a research environment include scientific publishing, patent law, forensic science, and IT and energy consultancy.

Please see page 25 for details of the University’s Careers Centre.
Classics

• One of the largest Classics schools in the UK with 20 permanent members of staff.
• Between 10 and 20 postgraduates (Masters and PhD) admitted each year, with a postgraduate community numbering over 30.
• A diverse and international student body.
• Scholarships for strong applicants are offered each year.
• Research funds available to all postgraduates for travel.
• Friendly but academically challenging departmental ethos.
• Highly respected programme of weekly research seminars.
• Vibrant conference and workshop programme.
• Provision for individually tailored research skills training.
• Beginners’ and intermediate courses in Greek and Latin available for those who need to acquire a classical language as part of their training for subsequent research.
• Dedicated study spaces within the School for PhD students.
• The School of Classics is housed in the centre of the town, adjacent to the University Library, with views out to St Andrews Bay.
• Excellent collections in the University Library, as well as a dedicated class library in the School building.
• Opportunities for teaching within the School.
• Option to incorporate study abroad at the British School at Athens or the British School at Rome.

Contact

E: classpg@st-andrews.ac.uk
T: +44 (0)1334 462608
www.st-andrews.ac.uk/classics
We have a strong tradition of integrating all postgraduates into a welcoming and lively environment where regular contact between staff and students is given high priority. An established programme of weekly research seminars allows students and staff to keep in touch with the latest ideas in the field with speakers from St Andrews, from other institutions in the UK, and from overseas. Postgraduate students also hold their own weekly seminars: these events offer valuable experience in presenting work to fellow students and to staff, providing opportunities to share work and exchange ideas. See: www.st-andrews.ac.uk/classics/events

Postgraduates in second and subsequent years may be given the chance to participate in undergraduate teaching. The School runs its own programme to train postgraduates in teaching ancient languages.

Our postgraduate community has come together from all over the world. Most choose to come here because of the international reputation of one or more of the academics whose profiles appear later in this entry. Others have been attracted by the School’s position at the cutting edge in a number of fields, including Greek and Roman drama, archaeology, historiography, literature and culture (both Greek and Roman) of the Roman Empire, ancient science and philosophy, late antique literature and history.

The School of Classics has an outstanding record in research, recognised both by the international profile of many of our staff and by a series of high rankings in the UK’s Research Excellence Framework and university guides. Classics was ranked first in Scotland and joint second in the UK in the Research Excellence Framework 2014.

The School has many research links with other centres in Europe and elsewhere. Our 2014-2015 staff-student exchange programme with Columbia University began in 2014-2015, following a similar arrangement with Yale University. Our new agreement with the University of Cyprus enables visitors to come to St Andrews for up to a semester. We are members of the European Impact of Empire network on Roman history and of the AHRC-funded Classical Reception Studies Network.

We welcome visiting fellows, both independent researchers and those involved in research projects based in the School. The School’s annual Distinguished Visiting Scholar programme brings internationally renowned overseas scholars to St Andrews for at least one week each year; these visits always include a series of meetings with our postgraduate students. We have a vibrant programme of conferences (more than 40 events since 2008), attracting speakers from many parts of Europe, the US and beyond.

The School is also part of the StAGE Network, a collaborative enterprise, including a regular postgraduate research colloquium which fosters closer links between Classics postgraduates in St Andrews, Glasgow and Edinburgh. St Andrews postgraduates arranged and hosted two-day conferences in 2011 and 2015; the latter provided training in innovations in Classics.

We provide a supportive but rigorous intellectual environment where postgraduates enjoy frequent and intensive tuition from a world-class team of classicalists. We offer personal supervision in topics across the range of disciplines taught within the School. Thesis topics have included (among many others) the following: Greek Pessimism and Giacomo Leopardi, the pre-Julianic orations of the orator Libanius, the influence of Achaemenid Persia on fourth century and early Hellenistic tyranny, astrology and the intellectual culture of the fourth century AD, an evaluation of Sparta’s austerity, and social change in Roman Republican Spain. For more details of current and recently completed PhD theses see: www.st-andrews.ac.uk/classics/research/pg-research

PhD students will normally have completed a research training Masters degree in a relevant subject, and will be expected to pursue a programme of largely independent work from the outset, using libraries, archives, language classes and IT as appropriate. Applications from intending research students should include a description of the proposed research topic.

The School has a number of collaborative research projects, which are advertised on the School webpages. We received more than £1 million of research grant income from 2008. www.st-andrews.ac.uk/classics/research/projects

Specific facilities for postgraduate study include three dedicated postgraduate rooms and financial help with research expenses such as travel to conferences; inter library loans are free to students. The School has its own Library, supplementing the University Library’s major holdings of books and periodicals; the University also provides access to a wide range of important electronic resources, which include JSTOR (an online archive of leading scholarly journals), Oxford Scholarship Online in Classical Studies, Thesaurus Linguae Graecae, L’Année philologique and many others.
Late Antiquity, the period that extends from approximately 250 to 800 CE, was a crucial period in the history of humanity. During these centuries, a large area covering most of Europe, North Africa, and western Asia experienced profound social, political, and cultural changes. These included the rise and establishment of Christianity and Islam, the destruction of the Persian Empire, the progressive disappearance of the Roman Empire and the rise of smaller political units in the West, and the affirmation of Byzantium and Islam as major political and cultural players. This was a time of political and cultural innovations, a process that can be studied through a wide range of materials and specialisms. The University of St Andrews is home to a large number of scholars, whose range of expertise covers the archaeology, history, literature and religious life of this period. The Centre for Late Antique Studies brings together members of the academic staff and students from the Schools of Classics, Divinity, History, and Modern Languages, offering a unique environment for the study of this pivotal period of history.

Centre for Landscape Studies

Our recently founded Centre for Landscape Studies has two main aims. First, it is intended to facilitate and publicise a series of individual and collaborative projects primarily focused on ancient Mediterranean landscapes within the School of Classics, bringing literary, historical and archaeological approaches into dialogue with each other. Recent years have seen an increased interest in landscape, space, environment and geography within English literature, history and cultural geography. That interest is increasingly apparent also within the discipline of Classics. A significant proportion of our research staff and PhD students in the School is currently working on landscape-related topics. Second, it also aims, through a series of multi-School initiatives, to give a new momentum to inter-disciplinary studies on landscape, space, place, travel and environment within the University as a whole, with the involvement of colleagues in Art History, Computer Science, English, Film Studies, History and Geography & Geoscience. Landscape studies is an ideal vehicle for cross-disciplinary collaboration: it aims to understand territory in both its physical and imagined form, combining cultural, social, economic and ecological analysis, and viewing individual sites and buildings and stories within the context of their wider environment.

Research areas

For further details see: www.st-andrews.ac.uk/classics/staff

Ancient History

Dr Ralph Anderson (rta1@st-andrews.ac.uk)
Dr Anderson is interested in all aspects of Greek religion, divination and magic. He is particularly interested in the grounding of religious systems in lived experience; cognitive and anthropological approaches to religion; and religion and magic as systems of knowledge.

Dr Jon Coulston (jenc@st-andrews.ac.uk)
Dr Coulston is an archaeologist and historian specialising in Roman art, the Roman army and in the city of Rome. His publications include Ancient Rome: the Archaeology of the Eternal City (2000, jointly with Hazel Dodge), Roman Military Equipment from the Punic Wars to the Fall of Rome (revised edition 2006, jointly with Mike Bishop) and a forthcoming book entitled All the Emperor’s Men. Roman Soldiers and Barbarians on Trajan’s Column.

Professor Tom Harrison (tehh@st-and.ac.uk)
Professor Harrison specialises in the history (and historiography) of archaic and classical Greece, and of the Achaemenid Persian empire. His publications include Divinity and History. The Religion of Herodotus (2000), The Emptiness of Asia. Aeschylus’ Persians and the History of the Fifth Century (2000) and Writing Ancient Persia (2011). He is currently working on two book projects, one on Herodotus and the reception of his Histories in later periods, the other on Greek religious belief.

Dr Myles Lavan (mpl2@st-andrews.ac.uk)
Dr Lavan works on the culture and society of the Roman Empire, with a focus on the culture of Roman imperialism and Roman citizenship, and has wider interests in ancient empires and quantitative methods. He is the author of Slaves to Rome: Paradigms for empire in Roman culture (2013) and is working on a new study of the spread of Roman citizenship and a commentary on Tacitus Annals 14.

Dr Sian Lewis (sjl5@st-andrews.ac.uk)
Dr Lewis’ areas of interest include ancient animals, Greek political history and women’s history. Her current research project is a sourcebook, The Culture of Animals in Antiquity; her other recent work has been on the history of tyranny in archaic and classical Greece. Her publications include The Athenian Woman: An Iconographic Handbook (2002), Ancient Tyranny (2006), Greek Tyranny (2009).

Dr Carlos Machado (carm@st-andrews.ac.uk)
Dr Machado’s areas of interest include the history and archaeology of the city of Rome, Roman cities and civic life, and the religious history of the Roman Empire. He is currently preparing a book on Urban Space and Aristocratic Power in Late Antique Rome, and has recently published articles and chapters of books on the Roman senatorial aristocracy, the statue-habit of the cities of Italy and Africa, and late Roman epigraphy.

St Andrews is one of the world’s major centres for the study of Roman imperial literature and cultural history. This Centre, founded in August 2014, provides a focus for research for the large number of staff and postgraduates working in that broad area. Members of the Centre work on the literatures and cultural history of the Roman Empire from the late Hellenistic period right through to late antiquity. All of the projects within the Centre are tied together by attention to a single overarching question: how were established literary forms reconfigured in response to the political and cultural changes that followed the first sustained contact between Greece and Rome in the second century BCE, and especially the new monarchical and imperial order inaugurated by Augustus. Much of the work being conducted within the Centre aims to broaden our understanding of the interconnectedness of Roman imperial literature and culture (focusing, for example, on overlaps between Greek and Latin, between different regions and different centuries, between prose and verse, Greco-Roman and Christian).

Other projects may be viewed at: www.st-andrews.ac.uk/classics/research/projects

Centre for the Literatures of the Roman Empire

For further details see: www.st-andrews.ac.uk/classics/staff

Ancient History

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Dr Emma Buckley (eb221@st-andrews.ac.uk)
Dr Buckley works on the Latin literature of the early imperial era, especially post-Virgilian epic and drama, and on the reception of Virgil and Ovid in the medieval, Renaissance and early modern periods. Her monograph on Valerius Flaccus’ Argonautica is forthcoming and she is editor of the Blackwell Companion to the Age of Nero. She is co-editor (with E J Paleit) of a modern edition of Thomas May’s 1627 Paralipomena (forthcoming).

Dr Emma Gee (ergg@st-andrews.ac.uk)
Dr Gee’s interests include Latin and Greek literature and philosophy, astronomy in ancient and Renaissance literature, and Greek and Roman visions of the afterlife and psychoanalysis. Her publications include Ovid, Aratus and Augustus: Astronomy in Ovid’s Fasti (CUP 2000); Aratus and the Astronomical Tradition (OUP 2013) and Mapping the Afterlife (forthcoming with OUP New York). She is a published poet.

Dr Tom Geue (tag8@st-andrews.ac.uk)
Dr Geue works on Roman imperial literature and cultural history, from Virgil to the Historia Augusta. He is especially interested in anonymity, the authorial voice, and the politics of writing: both of his current projects (one on the Roman satirist Juvenal, the other a bigger synthesis of anonymous literature in the long first century CE) touch on these themes.

Dr Alice König (alice.koenig@st-andrews.ac.uk)
Dr König works on the Latin literature and culture of the first century CE, with a particular interest in ancient technical writing (especially Vitruvius and Frontinus), in literary interactions between Flavian, Trajanic and Hadrianic authors, and in the interface between Latin literature and imperial politics. She is currently writing a monograph on Frontinus, and directing a collaborative research project on Literary Interactions under Nerva, Trajan and Hadrian. She is also co-directing (with Dr Nicolas Wiater) a collaborative research project, Visualising War, on interplay between battle narratives in different genres and media from antiquity to the present day.

Dr Giuseppe Pezzini (gp63@st-andrews.ac.uk)
Dr Pezzini’s area of research is republican Latin literature, especially comedy, Latin language, from its origins to the modern era, metre and textual criticism, and the history of classical scholarship. His publications include a monograph on the verb esse in Latin (2015), papers on Caesar and Lucullus, an edited volume on the theory and practice of classical scholarship (2013), and contributions to the Dictionary of Medieval Latin from British Sources (completed in 2013). He is currently working on an edition of and commentary on Terence’s Heauton Timorumenos, and a collaborative project on linguistic thought in late Republic and Rome.

Dr Roger Rees (rdr1@st-andrews.ac.uk)
Dr Rees works on Latin prose, poetry and later Roman history. His main focus is on Latin panegyric, through an international collaborative research team. His publications include Layers of Loyalty in Latin Panegyric 289-305 (2002), Diocletian and the Tetrarchy (2004), Romane Memento (ed. 2004), Ted Hughes and the Classics (ed. 2009), Latin Panegyric (ed. 2012) Pliny the Younger in Late Antiquity (co-ed. 2013), and Roman Rule in Greek and Latin Writing (co-ed. 2014).

Greek Literature and Philosophy

Dr Jon Hesk (jphk@st-andrews.ac.uk)
Dr Hesk works on Greek literature and culture, especially Homer, tragedy, comedy, Attic oratory and Greek and Roman rhetorical theory and education. His publications include Deception and Democracy in Classical Athens (2000) and Sophocles: Ajax (2003).

Professor Stephen Halliwell (fsh@st-andrews.ac.uk)
Professor Halliwell has published extensively on Greek literature, philosophy, and various cultural topics which overlap those two fields. His interests include tragedy, comedy, literary criticism, philosophical aesthetics, and the influence of classical texts in the later history of ideas. Among his books are The Aesthetics of Mimesis: Ancient Texts and Modern Problems (2002), Greek Laughter: A Study of Cultural Psychology from Homer to Early Christianity (2008) and Between Ecstasy and Truth: Interpretations of Greek Poetics from Homer to Longinus (2011).

Dr Alex Long (agl10@st-andrews.ac.uk)
Dr Long works on Greek and Roman philosophy, with special interests in Plato, political philosophy and the response to Plato in Hellenistic philosophy. His monograph Conversation and Self-Sufficiency in Plato was published in 2013, and he is the editor of Plato and the Stoics (2013).

Professor Jason König (jpk3@st-andrews.ac.uk)
Professor König works broadly on the Greek literature and culture of the Roman Empire, including early Christian literature, with particular interests in the Greek and Latin novels, the literature of the symposium, the encyclopaedic and miscellaneous writing of the Imperial period and ancient athletic culture. His books include Athletics and Literature in the Roman Empire (2005) and Saints and Symposiums: The Literature of Food and the Symposium in Greco-Roman and Early Christian Culture (2013).

Dr Giuseppe Pezzini (gp63@st-andrews.ac.uk)
Dr Pezzini’s area of research is republican Latin literature, especially comedy, Latin language, from its origins to the modern era, metre and textual criticism, and the history of classical scholarship. His publications include a monograph on the verb esse in Latin (2015), papers on Caesar and Lucullus, an edited volume on the theory and practice of classical scholarship (2013), and contributions to the Dictionary of Medieval Latin from British Sources (completed in 2013). He is currently working on an edition of and commentary on Terence’s Heauton Timorumenos, and a collaborative project on linguistic thought in late Republican Rome.

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Dr Nicolas Wiater (nw23@st-andrews.ac.uk)
Dr Wiater’s main areas of research interest are Hellenistic and early imperial Greek literature and culture, especially historiography (Dionysius of Halicarnassus, Polybius, Diodorus, Josephus) and literary criticism (Dionysius of Halicarnassus). He is the author of The Ideology of Classicism: Language, History, and Identity in Dionysius of Halicarnassus (2011) and editor (jointly with Thomas Schmitz) of The Struggle for Identity: Greeks and their Past in the First Century BCE (2011).
Computer Science

- Our research outputs were ranked second in Scotland in the 2014 REF, with 84% of our outputs rated ‘world-leading’ or ‘internationally excellent’ (4* or 3*).
- With 31 academic staff and 21 research staff, the School is located in two neighbouring purpose-built buildings on the University’s North Haugh.
- We admit approximately 10 students to our PhD programmes every year, as well as over 80 MSc students and 80 undergraduates.
- We provide excellent office and computer facilities for our research students.
- We host regular research seminars and a biannual lecture series by distinguished visitors from academia and industry. Our research groups also each have their own specialised seminar series coordinated as part of our overall School seminar series.
- The School includes part of the Centre for Interdisciplinary Research in Computational Algebra (CIRCA), which offers a unique interdisciplinary environment for research on the intersection of mathematics and computer science, including computational group theory, constraint solving, algorithms, parallel computing and other topics.
- We are an active member of the Scottish Informatics and Computer Science Alliance (SICSA) with our members currently acting as SICSA Director, SICSA Director of Research and leading one research theme and a short research theme. We also regularly organise SICSA events including summer schools, distinguished visiting fellowships and workshops.
- Alongside colleagues in science, medicine, and the arts, the School contributes to the St Andrews Institute for Data-Intensive Research (IDIR) by developing and promoting better access to computational and data-driven techniques across disciplines.
- Everyone is encouraged to engage with the intellectual life of the School, as well as with the international research community by presenting work at appropriate meetings, workshops and conferences. Some School funding is available for such meetings.

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The School of Computer Science at St Andrews conducts internationally excellent research on a broad range of topics in theoretical and practical computer science. We have a long history of effective postgraduate training and research, and graduates from St Andrews are successful in industry and universities throughout the world.

Since 2001, the School has expanded from 12 to 31 academic staff. We have eight professors in core research areas of artificial intelligence, human-computer interaction, computer systems engineering, and programming languages. The numbers of postdoctoral research staff and of PhD students are also growing rapidly, deepening and broadening our research environment and improving the research student experience.

Researchers in computer science study the fundamental abstractions used in the construction and use of computer systems. The work ranges from the development and analysis of new formal models, through construction of prototype hardware and software systems using new techniques to exploring new ways for people to interact with computers. Our main research areas include:

- **Artificial intelligence** including computational logic, computational algebra, natural language processing, constraint programming, image processing, robot navigation and intelligent computation.
- **Human Computer Interaction** including information visualisation, input and output technologies, intelligent interactive systems and pervasive and ubiquitous computing.
- **Computer Systems**, covering data-intensive and high-performance computing, sensor and networked systems, systems architecture, system dependability and social informatics.
- **Programming languages**, including functional programming, compiler technology, virtual machines and programming models.
- **Health informatics**, including normative modelling in physiology and endocrinology, predicting late-effects of cancer treatments, computational histology and health psychology using mobile devices.

For more information about our research projects see: [www.cs.st-andrews.ac.uk/research](http://www.cs.st-andrews.ac.uk/research)

**Facilities**

Our purpose-built buildings provide excellent teaching and research laboratories. Our labs are extremely well equipped with a mix of modern Linux and Windows PC and Apple systems, as well as specialised high-speed networking and monitoring equipment. The School’s dedicated server room caters for production and experimental systems and hosts a wide variety of modern, enterprise-grade server and storage equipment. A range of virtual and physical server resources are in place and three dedicated clusters are available to support a variety of computationally intensive research activities. We have a dedicated HCI laboratory with specialist equipment including an 84 inch Surface hub, Wacom Cintiq devices, eye trackers, interactive surfaces, mobile devices, an electronic workbench, a motion capture system and many novel interfaces. The School has in-house facilities, supported by extensive expertise, for fabricating experimental electronic devices and physical components through 3D printers and CNC machines.

**Supervision and support**

You are assigned a primary and secondary supervisor, with whom you develop an individual programme of study and research that may include taught modules and joint work with other students in similar areas. Your progress will be reviewed on a regular basis to ensure that any problems or issues are identified and addressed quickly. This is done through annual review sessions with additional members of staff, and poster sessions where you will present your work to the entire School.

**Research areas**

Staff undertake research as individuals and in focused groups, organised around four broad research themes, described on the following pages.
Artificial Intelligence
Research in artificial intelligence ranges widely. Among other topics, we study search techniques used in planning and optimisation; the development and analysis of algorithms to solve subtle mathematical problems, computer processing of human language, images and music, and software that works better by modelling emotions.

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Dr C Jefferson (cj21@st-andrews.ac.uk)
Dr M-J Nederhof (mjn31@st-andrews.ac.uk)
Dr A Toniolo (a.toniolo@st-andrews.ac.uk)
Dr M Weir (mweir@st-andrews.ac.uk)

Main research areas
Constraint Programming and Search
Constraints are a natural means of representing knowledge. Constraint programming is the solution of problems such as timetabling, scheduling and design by first modelling the problem as a set of constraints on decision variables and then searching for assignments to the decision variables that are solutions to the problem. We are developing tools to automate the notoriously difficult modelling process and, working with computational mathematicians, we are exploiting symmetries in problems and models to reduce the amount of search needed, using a branch of mathematics called group theory.

Intelligent Computation
What computational principles can characterise the special goal-directed action in natural agents and also be general enough to allow transfer of these features to generate the same type of plasticity and persistence in robots? We are investigating principles that enable cognitive strategies to be picked out in natural agent behaviour as well as providing prediction of the trajectory as the goal is attempted. The same principles provide robots with smoother and more successful behaviour and are put to work in artificial neural search and adaptation. Another activity explores how artificial agents may be designed to compute more effectively by using models of emotion. The aim here is to design emotional models that allow agents to perform more flexibly and powerfully. Neural networks are used to learn the emotions of other agents.

Natural Language and Syntactic Analysis
Syntactic analysis plays an important role in automatic processing of language. Our research focuses on formal models of syntax and syntactic processing, and involves machine learning and statistical techniques. The structure found in this way can be exploited in further phases of analysis, for example in order to determine the meaning of sentences. As well as widespread modern languages, we are interested in processing corpora of ancient languages and scripts, and for localised languages and dialects that receive little attention.

Computational Algebra
Computers play an increasing role in modern mathematics, and computation plays an increasing role in cryptography, computer science, physics and engineering. As part of CIRCA (Centre for Interdisciplinary Research in Computational Algebra), we work with mathematicians and others on the application of computers to problems in abstract algebra – particularly group theory, the mathematical theory of symmetry, and related areas, and the application of computational methods in these areas in computer science, physics and mathematics.

Human Computer Interaction
HCI researchers at St Andrews study a wide range of topics, including wearable and novel interaction methods, privacy in pervasive and ubiquitous computing, new input and output technologies, visual programming languages, and information visualisation. Additionally, the virtual worlds team addresses technology-enhanced learning through the use of virtual environments and interactive education. Our approach is based on grounded theory leading to new practice, and involves interdisciplinary research, funded collaborations with industry and other internationally leading researchers from around the world. Previous work has been commercialised in industry and taken into start-ups. We are supported and funded by a range of institutions, including the EU, Innovate UK, AHRC, DSTL, JISC, EPSRC, SFC and industry. We regularly publish at the top venues in the area (e.g., ACM CHI, Infowis, ACM UIST).

We have a regular dedicated seminar series, social activities, summer schools and internships.

Academic staff
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Main research areas
Ubiquitous Computing and New Input Devices
This is a model of computing in which computation is everywhere and computer functions are integrated into everything. We are interested in exploring mobile and embedded devices in almost every type of physical artefact including cars, toys, tools, homes, appliances, clothing and work surfaces. Indeed, wherever computation aids someone in solving a problem or performing a task in situ, Ubicomp can be viewed as the model of computation. Some of our current research explores interfaces for managing personal data in ubiquitous computing and methodologies for measuring privacy concepts.

Information Visualisation
This is a research area that focuses on the use of graphical techniques to present data in visual interactive forms. As such it relies on research in mathematics, data mining, data structures, algorithms, graph drawing, human-computer interaction, cognitive psychology, semiotics, cartography, interactive graphics, imaging and visual design. Some of our current research explores large graph layout, visualisation in public spaces, visualisation and text, novel display environments and realtime visualisation.

Ambient Sensing
This is a research area focused on detecting and measuring people and objects without the need for contact and active participation. This field involves developing imaging and sensing hardware and software, particularly the development of image and signal processing techniques, which can include machine learning algorithms. Some of our current work involved automatically measuring people’s vital signs at a distance, including heart rate and blood oxygenation level, using camera and image processing based technology, we have also used radar and machine learning for object classification. Overall the aim is to have an environment which infers or measures useful information automatically without the need for wearing wires or clips, and without the need for human based monitoring.

CoDiMa project funding helps solve mathematical problems
In Artificial Intelligence GAP and Minion continue to be used worldwide to solve outstanding mathematical problems. Recently, the EPSRC funded the CoDiMa project in Computer Science in St Andrews. This Collaborative Computational Project in the area of Computational Discrete Mathematics is centered on two open source software systems: GAP and SAGE which are already widely used for research and teaching in abstract algebra, number theory, cryptography, combinatorics, graph theory, coding theory, optimisation and search, among other areas.

Radar-based HCI and Sensing with Google Soli
HCI researchers and their collaborators have been exploring object and material recognition in a project called RadarCat. This has given rise to a number of follow-on projects on wearable computing and smart keyboards along with projects funded by the EPSRC and Innovate UK on environmental monitoring and material sensing. These projects have resulted in a range of high quality publications (e.g. UIST 2016), new projects and several pathways to impact from this work are now being pursued.

CoDiMa project funding...
Natural Language Processing
This is the research area that studies how we can use computers to analyse, generate or transform data that is in the form of a natural language, such as English or Chinese, either written or spoken. Examples of analysis include grammar checking and automatic comprehension of texts. Examples include automatic generation of weather reports from tables and text-to-speech applications. The most obvious example of transformation of natural language data is machine translation. Natural language processing has also been applied to several other areas of study such as linguistics, artificial intelligence, formal language and automata theory, and psychology. Our research mostly focuses on the mathematical and algorithmic aspects of processing of natural language.

Computational models of argumentation
This is a research area that investigates the structure of arguments and their relationships in dialogue and reasoning. This approach draws from philosophical studies on the theory of argument and applies to many domains where disagreement exists such as in daily deliberation dialogues and intelligence analysis. Some of our current research is focused on resolving conflicting opinions on the basis of evidence and its provenance, our current research is focused on resolving conflicting opinions on the basis of evidence and its provenance, and understanding the impact of argumentation-based systems in supporting human reasoning.

Technology Enhanced Learning
We have several activities looking at how learning can be improved and enhanced by the use of online, service-based learning environments. For example, Finess is a Finance Education in a Scalable Software Environment, which has been created to support the teaching and learning of finance. Finess simulates a microcosm of the real market by using live market data that is updated every few minutes from numerous stock exchanges, enabling students to manage their own investment portfolios. As part of the European Learning Grid Infrastructure we developed software technologies that promote and support learning through knowledge construction rather than information transfer. We are investigating the use of network learning objects to improve understanding of advanced network topics such as the Transmission Control Protocol and Wi-Fi (IEEE 802.11) networks. In particular, we are developing a framework for the exploitation of Planet Lab for computer networking education. Most recently we have been involved in the construction of Multi User Virtual Learning Environments using OpenSim and Second Life.

Computer Systems
Systems is the largest research area in the School of Computer Science, covering distributed systems, networked systems, sensor systems and data-intensive systems. The Systems Research Group (SRG) consists of twelve interdisciplinary faculty members, and a large cohort of Research Fellows and PhD students. Our interdisciplinary nature means that we can work on problems which cross multiple areas of systems research, many in collaboration with industry partners. Members of the group have expertise in research areas spanning: datacenteres, cloud computing, many-core systems, networking, middleware, sensor networking, machine learning, Internet of Things (IoT), autonomic computing and software architectures. We take a very practical approach to research, by building and evaluating real systems, whilst publishing in many of the top-tiered systems research conferences and journals.

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Main research areas

Data-Intensive Systems
The era of big data is upon us. The volume, velocity and variety of enterprise and scientific data are growing at an exponential rate and will continue to do so for the foreseeable future. Data-intensive applications require systems software to operate at an unprecedented scale on highly distributed infrastructure. Our research focuses on supporting the design and implementation of scalable, robust and efficient distributed systems, which address current and future data-intensive challenges.

Sensor Networks
Sensor Networks are simple computing devices that collect data from their environment. We are creating methods and tools for the design, implementation, and adaptation of entire environmental sensor network systems. We are also looking at routing and communications in sensor networks, a key component in enabling the operation of the whole sensor network.

Additional challenges focus on how to interpret imprecise, partial and often conflicting sensor observations to inform intelligent actions. Our work in this area focuses on situation recognition (to understand what is happening in the sensors’ environment), programming paradigms (to cleanly and efficiently express what we want to happen), and mathematical analysis (to ensure that systems remain within a safe envelope of behaviour).

Networking and Internet Architecture
We are interested in the design, use and performance of computer communication systems. We are involved in work on protocols and mechanisms for high-speed, QoS-controlled networking within Internet Protocol based environments. We are also researching how applications make use of the new services, mechanisms and protocols within a real network environment operating at Gb’s speeds. A particular area of interest is the Identifier-Locator Network Protocol (ILNP), which is enhancing Internet Architecture by enriching the set of namespaces.

Network Architectures for Mobile Systems and IoT
The connectivity available to a mobile system may vary, from GSM, to wireless LAN, to 3G. The system may require more than one of these modes to be active at once, for example making a phone call whilst performing a document download. We are examining how flexible and dynamic connectivity can be enabled, by redefining how edge networks make use of routing, addressing and control signalling to organising intra- and inter-network connectivity.

Pervasive Data
Data fragmentation, the problem of user data being dispersed over multiple devices and services with different properties, is growing as those devices and services become cheaper and more widely available. This work addresses the data fragmentation problem through development of high-level pervasive data abstractions, and corresponding infrastructure. Such infrastructure needs to provide views over all data accessible to the user, with physical locations visible or abstracted over as desired; be usable with minimal configuration; and allow optional fine-grained control via high-level declarative policies governing the placement and movement of data, taking into account storage capacities, physical locations, network capacities, and resilience and governance requirements.

Software Architectures
Work on software architecture focuses on methods and techniques for developing evolvable system architectures that can adapt to the needs of the application. One approach is to develop tools that support performance-driven evolution of applications. This helps explore the need for change by empirically measuring application performance.

We are also interested in formal architectural style-based languages for describing and analysing design-time and run-time evolvable software architectures, taking into account reuse of components. Customised process-driven environments will provide tools to support architectural models (including quality attributes), reasoning about these models and refining them into compliant implementations.

Data Science
We collaborate across the University and beyond to develop and deploy computational techniques on diverse datasets. Recent examples include environmental monitoring (with the Department of Earth & Environmental Sciences), DNA analysis and the understanding of clinical trials (with the School of Medicine), data linkage for genealogical records and modelling the processes behind flooding (with the School of Geography & Geosciences). In all these collaborations we are developing core techniques that can be re-applied across domains, and contributing to the global understanding of “big data” and its potential.

EU Horizon 2020
Our School continues to have notable success in the EU Horizon 2020 programme with OpenDreamKit, the Rephrase project and the WORKANDHOME project with the School of Geography & Sustainable Development.

Principal investigator in collaborative projects
The St Andrews contribution to the Administrative Data Research Centre Scotland is now led from Computer Science. This Scotland-wide collaboration studies how public records can safely and effectively be used for research.

http://adrn.ac.uk/about/research-centre-scotland
Programming languages
Programming languages form an important and long-running strand of research within the School. Our research mainly focuses on functional programming languages, including cost bounds and dependent type systems. We also have a strong interest in compiler technology and languages for high-performance computing.

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Main research areas
Functional and Dependently Typed Programming Languages
This area is at the forefront of advanced programming language design and implementation. Good programming language design and implementation makes a major difference to improving programmer productivity and to reducing expensive and hard-to-find errors. Many of the world's most successful companies have recognised this, and there is a major shift to new language technologies. As software is becoming increasingly complex and more connected, it is necessary to raise the level of programming language abstraction, and to deal with exciting new developments in multicore and manycore architectures. At the same time cybersecurity is becoming an increasing concern, and this cannot be dealt with purely externally. Security, performance and other non-functional properties of software must become first-class citizens in the programming language, and not simply delegated to the system. Several key advances in language design, type theory, program analysis, garbage collection, resource usage and compilation have already been made using functional language technology. We are currently researching a number of new areas including the application of functional programming to real-time embedded systems, multicore computing, cybersecurity, cloud computing systems, resource bounded computation, dependent types, generative programming and program logics.

Parallelism and Multicore/Manycore Computing
We are working on many exciting new challenges in parallel programming, including managing runtime resources, mapping programs to the latest heterogeneous multicore/manycore systems comprising dozens or hundreds of cores of various types, and formal approaches to designing parallelism at the program level. While parallel computing systems are now universal, there has been only limited work on implementing parallelism in programs. The static analysis community has been primarily concerned with provable safety, whereas the parallelism community has been primarily concerned with practically demonstrable performance. In order to meet both demands, it is necessary to simultaneously consider both the functional and the extra-functional properties of a parallel program. Building on our successful prior work, we propose to take a new type-based and formally-motivated approach that will enable us to reason both about the safe and correct introduction of parallelism using structured parallel patterns (the functional properties), and about the resulting performance of a structured parallel program using formally-based cost models (the extra-functional properties). We will exploit fundamental and foundational ideas from the functional programming community on program structure, patterns, types and a strong language semantics, and demonstrate their applicability in other language settings.

Automated Refactoring
Refactoring is the process of improving the internal structure of a program without changing its external behaviour. Structural changes can range from renaming functions or moving functions between modules, to the introduction of design patterns and the elimination of code clones. One new approach is based on automatically identifying recursion schemes (patterns) that can be transformed into structured parallel programs. In functional languages, higher-order functions enable simple and easily understood abstractions, and can be used to implement recursion schemes, i.e. patterns that traverse over data structures whose behaviour is well understood and can be used as effective targets for parallelisation. Map and fold are common examples. Anti-unification can be used to the least general generalisation of two functions or terms, which can then be implemented as a higher-order function and used to avoid code reuse or to introduce parallelism. We are exploiting this to automatically detect patterns, to produce rules that can introduce suitable parallel implementations, and then to refactor software automatically or semi-automatically by detecting and then introducing instances of parallel patterns.

Big Data, Data Fabrication and Data Cloaking in Massive Cloud-Based Systems
Despite the attractions of price, flexibility, reduced complexity, geographical reach and potentially improved reliability, a major obstacle to deploying cloud-based, or openly distributed, computing systems for big data systems lies in the potential leakage of information to unauthorised third parties, including competitors or even criminals. This severely limits the use of such systems for large-scale commercial or government data processing. In collaboration with major international companies, we aim to develop new techniques for ensuring safety and anonymity for big data, using novel data fabrication and cloaking mechanisms. Our approach will enable data to be shared both within an organisation and between organisations, using novel ideas of provenance tracking to ensure that only owned data can be accessed.

Resource-Bounded Computing and Real-Time Systems
Domain Specific Languages (DSLs) are designed to solve problems in specific domains (e.g. Matlab/ Simulink for real-time systems, SQL for database queries or Hume for real-time systems). One popular implementation technique is to embed a DSL in a host language, so creating an Embedded Domain Specific Language (EDSL). This allows rapid development of a DSL by exploiting host language features, such as parsing/code generation. However, host-language-specific information, such as details of host language constructs, often ‘leaks’ into the DSL, inhibiting usability and reducing abstraction. In order to be truly practical, we must address such issues so that our EDSL is modular, composable and reusable. This is the focus of our research, through Hume, a domain-specific language for real-time embedded systems.

Compiler Technology
High-performance computing is a difficult target for compilers, both because of the need for extensive optimisation and the complex concurrency requirements of modern processors. Our work has applied machine learning approaches to compilation so that optimisers progressively learn the effectiveness of various optimisation techniques, and have been at the forefront of the formal modelling of concurrency as applied to real-world languages and processors.

Health Informatics
Our focus is on developing and validating biomedical models and hypotheses for future biomedical research projects using data from both studies and collaborations. We model at the population, organism, organ, cell and sub-cell levels, and investigate both metabolic and genetic pathways. We publish extensively in medical & biomedical journals (so that our results can be used by clinical and scientific teams), and also in Computer Science journals and conference proceedings (so that informatics researchers have access to our tools and technologies).

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Computerscience and computational medicine
The School is making new inroads into computational medicine with EPSRC-funded projects such as Automated Conflict Resolution in Clinical Pathways and new data-driven techniques for human fertility modelling and management.

ParaFormance Scottish Enterprise high-growth Startup project tackles £1bn global market opportunity
ParaFormance™, a high-growth startup born from the School of Computer Science’s research programming languages research group aims to develop a unique software toolset to enable the majority of software developers to optimize multicore systems (such as those now found in mobile and desktop computers) for performance and energy consumption. With the goal of becoming a highly profitable Scottish business, target sectors include financial, healthcare, energy, and cyber-physical systems in key markets such as the UK, Germany, France, Hungary, the USA as well as Russia and throughout Asia.
Main research areas

Modelling Transgenic Mosquitoes
Malaria is one of the major global killers. Modern attempts at improving control centre around the use of transgenic mosquitoes to interrupt the cycle of infection, introducing mosquitoes that have been engineered to be less transmissive of the malarial parasites into wild populations. For such approaches to be effective, the new mosquitoes must breed sufficiently efficiently to dilute the (human) reservoir of infection, but without indefinitely changing the host population’s gene pool.
Complex networks have long been used to perform epidemiological research. In this project we looked to deploy complex adaptive coupled networks to model malarial infection and the propagation of transgenic characteristics within populations with complex structure. The use of networks allows researchers to address the behaviour of diseases in inhomogeneous media, which can challenge traditional approaches. An example of this is the use of social networks in which the probabilities with which individuals come into contact are highly irregular. This work is supported by a $20,000 in-kind grant from Microsoft Azure.

Normative Modelling in Physiology and Endocrinology
Using data from our labs, our research partners and from the published literature, we develop and validate age-related models that allow the assessment of individuals against the general healthy population. In addition we perform investigations and meta-analyses that use the models as a benchmark to gain new insights in the diagnosis and treatment of (for example) breast cancer and diabetes.

Predicting Late-Effects of Cancer Treatments
Chemo- and radiotherapies are sometimes very effective treatments for cancer. However, chemotherapy drugs are usually pretty indiscriminate in their work, killing not just the rapidly dividing cells of the cancer, but also other rapidly dividing cells and as such are dangerous to pregnancy. There is also the risk of developing infertility after treatment has ceased, due to damage done by the drugs to eggs. Likewise, radiotherapy is also effective at removing harmful cancerous tissue, but it is incredibly hard to target the cancer cells and not damage the surrounding tissue of the ovaries/testes if that is where the cancer is positioned. Our aim is to produce advanced models that allow the prediction and qualification of these adverse sequelae, thereby aiding clinical teams in their search for treatments that cure cancers with minimal adverse late-effects. Thus, we hope to reduce the number of cancer survivors that have impaired fertility due to the use of chemo- and radiotherapy in their treatment.

TB Modelling
Tuberculosis (TB) is a widespread infectious disease caused by various strains of the mycobacteria. It is normally fatal in cases where it is left untreated, and as such is a major problem in the developing world where medical help is scarce and immune systems are weakened by lack of food and water. TB normally affects the lungs but can affect other parts of the body, and is typically spread through the air by people with an active TB infection when their respiratory fluids get airborne. Only about one in ten infected with the bacteria progress to the active stage of TB however, with the rest remaining in the latent phase. Even though it is not a prevalent problem in developed countries, according to the WHO TB is the second greatest killer in the world behind HIV/AIDS, and so there is a lot of research into treatment of the condition. We are using advanced CS techniques and technologies to aid and improve the analysis of data from large-scale international clinical trials of TB treatment regimes. The aims are (I) to derive important insights from existing data, and (II) to provide evidence that helps choose options for future trials.

Computational Histology
Analysis of histology images of the human tissue biopsies remains the most reliable way of diagnosing and grading cancer. The current gold-standard for quantification and diagnostics based on prepared slides of human tissue is often a human expert looking through a microscope at the slides. Our aim is to enhance and extend this expensive and time-consuming process by performing automated analysis of high-resolution images of tissue. This investigation involves designing a combination of algorithms, classifiers, stains and biomarkers that allow fast and accurate identification of aspects of clinical interest.

eHealth & Patient Safety
The era of patient notes as a sheaf of papers in a file is fast coming to a close – it’s challenge is to replace traditional systems for monitoring patient pathways with technologies that simultaneously comply with data-safety regulations, provide audit data, improve patient safety, and increase the efficiency of clinical practice. There is great scope for improving the medical care business with use of computer technologies. Digitisation of medical records makes it far easier for doctors to access relevant and up to date medical information on a patient from anywhere, without the need for paper copies – this improves legibility and removes the time needed to request medical files. Digitising the data also makes it easier to analyse the files to find trends. Other eHealth technologies include telemedicine, which provides doctor-patient contact from a distance by connecting them using video interviews and remote monitoring systems.

Financial assistance within Computer Science

A summary of current funding options can be seen at: www.cs.st-andrews.ac.uk/pg/research-degrees

Scholarships
A variety of funding sources are available, including EPSRC’s Doctoral Training Grants, targeted funding from new projects and School scholarships, which cover living expenses and fees at the UK level and are open to all applicants, including international students. The tax-free yearly maintenance stipend is £14,553 for 2017-2018. Exceptional students can apply for an additional £2,000 per year. The allocation is competitive, but the selection process takes into account more than just previous academic performance. For example, we also consider the motivation, skills and previous experience of the applicants.

Careers

The postgraduate degree programmes in Computer Science produce graduates who are well equipped to pursue careers at the forefront of technology in industry as well as academia. Recent start-up companies include AetherWorks and PlanForCloud, and our graduates have taken roles in companies as diverse as Google, Amazon, Facebook, CCP (EVEOnline), Springer Nature, Adobe, Coles Myer, Sky, Oracle, Deloitte and CapGemini. Academic positions of our graduates include post-doctoral researchers to professors at institutions such as the University of Cambridge, the University of Glasgow, the Open University, Wayne State University, University of Dundee, University of Adelaide, University of Stirling and, of course, the University of St Andrews.

Please see page 25 for details of the University’s Careers Centre.
Scotland’s oldest university offers an exceptional heritage of academic excellence in theology extending from its founding in 1413. Divinity is based at St Mary’s College, which will celebrate its 480th anniversary in 2018.

- 18 academic staff undertaking research in a wide range of specialisms, with some researchers who are world leaders in their respective fields.
- Divinity’s research outputs were ranked first in Scotland for quality that was judged to be world leading (4*) in the UK Research Excellence Framework 2014.
- Around 75 postgraduate students enrolled, most of them resident in St Andrews with an intake of close to 25 each year.
- Outstanding weekly seminars in Biblical Studies; Systematic and Historical Theology; Theology, Imagination and the Arts; Religion and Politics; and Analytic and Exegetical Theology.
- Vibrant research centres and institutes pursuing cutting-edge work in Bible; Theology and Hermeneutics; Theology, Imagination and the Arts; Religion and Politics; and Analytic and Exegetical Theology.
- Regular workshops and colloquia on scripture and theology.
- Frequent national and international conferences with major visiting lecturers.
- A close-knit and highly supportive community, where academics and postgraduates pursue cutting-edge work together, in surroundings of exceptional beauty.
- Dedicated facilities for postgraduate students, housed in splendid historic buildings.
- A regular programme of College social events and activities specifically for graduate students.
- A commitment to your overall development, including enhancement of effective communication and leadership skills, in preparation for your future career.
- Regular liaison with staff and students from other Scottish universities.

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St Mary’s College offers a warm and friendly atmosphere, with a rich cross-flow of ideas between disciplines, and an open and integrative approach to study. It also gives you the depth and breadth necessary to pursue your research at the highest international levels. The staff of the College are all highly productive in their fields, and they seek to foster a commitment to excellence in scholarship. There are outstanding weekly seminars, and every year sees major publications and other research-focused activities, such as conferences, colloquia and workshops. World-class scholars visit on a regular basis.

Our greatest asset is not our distinguished history or our fine facilities, but our people – both staff and students. Since independent study can be an isolating experience, it is important to have a substantial number of students with whom you can exchange ideas on a regular basis – in seminars, libraries, common rooms or local coffee shops. These occasions become opportunities to get involved in one another’s projects and to learn from each other. We typically have about 60 research students in residence at any one time, making for an exciting, dynamic and supportive environment.

The Science-Engaged Theology Project
The Science-Engaged Theology Project is a new venture at St Mary’s College made possible by a £1.75 million grant from the John Templeton Foundation. Led by Dr John Perry with the assistance of research fellows Sarah Lane Ritchie and Kevin Nordby, the project promotes collaboration among leading universities across Europe, the United Kingdom, and the United States. Through a network of 12 postdoctoral fellowships, its goal is to produce a new generation of work at the intersection of science and religion in areas such as mind, virtue, disagreement, human wellbeing, and human purpose.

Facilities
The Roundel, an impressive renovated sixteenth-century house opposite the Cathedral, is the site of the College’s main Postgraduate Centre. With 24-hour access, it offers study spaces to around 45 postgraduates. There are data sockets, printing facilities, a common room, and disabled access.

St Andrews is fortunate to have fine, modern library facilities and a strong collection of books and journals in areas related to theological study. The basis of that strength was laid a long time ago: during the eighteenth and nineteenth centuries, the University Library enjoyed copyright status, and there are rich theological, historical and biblical resources from that period. In modern times, Divinity’s prominence in these areas has ensured the continuance of excellent research facilities. In addition to the holdings in the University Library, Divinity has a further collection of its books housed in the King James Library, which adjoins the College quadrangle; further study facilities are available there. Access to bibliographical and other scholarly databases, and electronic resources, is available online: www.st-andrews.ac.uk/library

Students have access to all the University’s facilities: sporting, debating, the performing arts, film, music (particularly strong in the University), and social and political societies of all kinds. There is a lively Chaplaincy Centre, plus denominational and other Christian societies and groups representing other faiths. On Sundays the University holds an ecumenical service in St Salvator’s Chapel, at which prominent individuals from all branches of the Christian church are invited to preach.
Collaborations

Collaborations, liaisons and networks are a distinctive aspect of the way research has developed in the Faculty of Divinity. Staff and students are attracted from across the world. More importantly, there is a desire among scholars to come together and share their discoveries. Evidence of this is found on several fronts:

- **The Scripture and Theology project** – a deliberate effort to bring our theologians and biblical scholars together into dialogue on the hermeneutical tasks of exploring the biblical tradition in contemporary settings. Periodically this peaks with a conference which looks at one book of the Bible and theological themes arising from it. This has resulted in a series of significant publications, on the theology of the Gospel of John, of Hebrews, and of Genesis. Major papers from the conference in July 2012, on Galatians, were published in 2014. Professor Mark Elliott provides leadership for these projects within the Institute for Bible, Theology and Hermeneutics, and there is significant involvement by Professor Tom Wright and others.

- **Interdisciplinary studies** – within the Institute for Theology, Imagination and the Arts, Dr Gavin Hopps works on theology and poetry and on ‘alternative music’, Dr Judith Wolfe specialises in the critical conversation between theology, philosophy and literature and Dr George Corbett specialises in the literature and thought of the medieval period with a particular focus on Dante. Professor Mario Aguilar directs the Centre for the Study of Religion and Politics, in which Dr Eric Stoddart is also closely involved. There is a wide variety of projects on religious groups in their political contexts, including the churches in Latin America, Asia and Africa. Dr Stoddart is pioneering innovative work in the area of religion and surveillance.

- **National and international conferences** – the School regularly hosts major conferences. In 2016 it held a day conference on The Doctrine of God – Conversation with Paul S Fiddes. It also co-hosted (with the St Andrews Institute of Mediaeval Studies) a day conference on Mediaeval Scriptural Exegesis. In 2017 the School is holding a day conference on Formation and Interpretation: Ways of Knowing and the Knowledge of God. The Logos Institute is holding a conference on God, History, and the Incarnation.

- **Graduate conferences** – students regularly organise conferences of their own, with invited speakers as well as local presenters. There has been a series of graduate Symposia in Biblical and Early Christian Studies in recent years, which has provided a lively forum for discussion of texts, text criticism, and the history of textual interpretation. Students have also set up online, real-time web conferences, with major scholars debating themes such as ecclesiology and ethics. The Symposium on Divine Sonship in Jewish and Christian Antiquity was held in June 2016.

First year of the programme

Regular participation in advanced or postgraduate seminars is expected. By the end of the first six months of work you submit a detailed thesis proposal and plan, a classified bibliography relating to your subject of research, and around 10,000 words suitable for potential inclusion in the thesis. Research students are expected to be resident in St Andrews during their first two years of study and exceptions to this rule are exceedingly rare.

Research Centres and Institutes

- Centre for the Study of Religion and Politics (CSRP)
- Institute for Bible, Theology and Hermeneutics (IBTH)
- The Institute for Theology, Imagination and the Arts (ITIA)
- The Logos Institute for Analytic and Exegetical Theology

For full details see: www.st-andrews.ac.uk/research/university/centres

The Roundel (above and right) provides first-class study facilities for Divinity postgraduates
Research areas

Divinity in St Andrews incorporates a variety of sub-disciplines – biblical, historical, theological, philosophical, ethical, literary, practical and contextual. The boundaries between these fields are increasingly porous, and St Andrews is highly distinctive for its work in bridging the biblical and theological disciplines. The research of the School has also promoted interdisciplinary engagement with literature, music, theatre, political science, anthropology, philosophy and the sciences. Major areas of study and leading scholars currently include:

**Hebrew Bible/Old Testament Studies**

Dr M Nevader (mn47@st-andrews.ac.uk) Hebrew Bible; Biblical and Classical Hebrew; Royal Institutions of the ancient Near East; Hebrew Bible and Political Theory; Ancient Israelite Religions; Book of Deuteronomy (interpretation and reception); Book of Ezekiel (interpretation and reception); Concepts of Divinity in the ancient Near East; Levantine Archaeology; History of ancient Israel and Judah.

Dr W A Tooman (wt21@st-andrews.ac.uk) Hebrew Bible; Biblical Hebrew; Prophetic literature; Inner-biblical interpretation; Ezekiel (interpretation and reception); Composition History; History of interpretation.

**Early Jewish Studies**

Professor J R Davila (jrd4@st-andrews.ac.uk) Second Temple Judaism; Dead Sea Scrolls; Old Testament Pseudepigrapha; Hebrew Bible and biblical Hebrew; Aramaic; Hekhalot literature/Jewish Merkavah mysticism; Divine mediator figures in antiquity.

**New Testament Studies**

Professor N T Wright (ntw2@st-andrews.ac.uk) Christian origins and the question of God; Paul and Pauline theology; The gospels; Scripture and theology.

Dr D Moffitt (dm206@st-andrews.ac.uk) Earliest Christians’ understanding of Jesus and their own identities in relation to Jewish scripture, practices, and beliefs; The Epistle to the Hebrews; Interpretations of early Christian claims about Jesus’ person, death, resurrection, and ascension in high-priestly and sacrificial terms.

Dr E Shively (ees3@st-andrews.ac.uk) Synoptic Gospels/Acacts; New Testament Theology; Jewish and Graeco-Roman backgrounds to the New Testament; Jewish Apocalyptic Literature; Hermeneutics.

Dr T J Lang (tjl@st-andrews.ac.uk) Pauline studies and the history of Paulinism;Canonical gospels; History of early Christianity, and especially figures such as Justin Martyr, Clement of Alexandria, Origen, and Tertullian. More specific interests include: patristic and medieval exegesis; Christianity and Platonicism; Ancient royal ideologies; Reception history and theory.

**Church History**

Dr W P Hyland (wph3@st-andrews.ac.uk) Premonstratensian Jacobus Panhausen, Abbot of Steinfeld from 1540-1582; Investigation into the participation of religious orders in the fifteenth century reform councils, and the role of religious rules in the wider phenomena of personal and ecclesiastical reform.

**Contextual Theology (including Religion and Politics)**

Professor M I Aguilar (mia2@st-andrews.ac.uk) The study of religion and politics; Practical theology with reference to the Church in Latin America and Africa; World religions, particularly Hinduism and Islam; Liberation theology; Religion and theology in Africa and Latin America; Islam in Africa; Theology of the poor and the disappeared; History and colonialism in Chile, Colombia, Rwanda and Tibet.

**Systematic, Historical, Philosophical Theology**

Dr T J Lang (tjl@st-andrews.ac.uk) History of Biblical Interpretation

Professor M W Elliott (mwe1@st-andrews.ac.uk) (Head of School) History of Christian spirituality (medieval and early modern); History of biblical interpretation; Scottish Church and theology; Biblical theology; History of doctrines; Catholic and Reformed theology.

Professor W A Tooman (wt21@st-andrews.ac.uk) Practical theology; Surveillance technologies and digital ethics; Citizenship and its relationship to spiritualities; Pastoral care in eschatological perspectives.

Dr J Perry (jmp24@st-andrews.ac.uk) Theological ethics; Christian ethics and political liberalism; Medical and sexual ethics.

**TheoArtistry**

TheoArtistry is a new dimension of the work of ITIA (the Institute for Theology, Imagination and the Arts) in the School of Divinity. Founded by Dr George Corbett, TheoArtistry celebrates the practice, making, performance, curatoship, and reception of Christian art. There are two theology and music collaborations in 2016–17 drawing inspiration, in particular, from Sir James MacMillan (a professor in ITIA). The TheoArtistry Composers’ Scheme linked up six Divinity doctoral students with six outstanding composers, leading to six new compositions for St Salvador’s Chapel Choir. The TheoArtistry CD recording brought together the ITIA research community and St Salvador’s Chapel Choir.

Dr G Corbett (george.corbett@st-andrews.ac.uk) Classical and medieval literature in Latin; Medieval and renaissance literature in English and Italian (especially Dante); Comparative literature.

Dr G Hops (gavin.hops@st-andrews.ac.uk) Theology and the arts, with a particular focus on romantic literature and contemporary popular music; The relationship between theology and humour.

Dr J Wolfe (jw240@st-andrews.ac.uk) Christian eschatology, its philosophical implications and literary expression; Theology and twentieth-century philosophy, especially Martin Heidegger; C S Lewis and the Inklings; Shakespeare.

**Financial assistance and career development**

Some funding is available to attend academic conferences most relevant to your fields of study, in order to meet other leading academics and to have an opportunity to present ideas in seminars and other groups. The University offers regular grant opportunities to researchers to support professional development, with awards for innovative seminar and conference activity. Recent years have seen very successful student-led development seminars, with input from senior academic staff and experts elsewhere in the University.

**Careers**

Applicants from abroad for the doctoral programme are naturally sometimes concerned about their prospects in gaining academic positions in their home countries upon completion of their studies. In recent years, many of our graduates have taken full-time posts, mostly but not exclusively in North America. This is not something which we simply take for granted. The close contacts of many St Andrews staff with North America, and their regular attendance at the annual meetings of the American Academy of Religion and Society of Biblical Literature, provide an important network for supporting graduates in building their future careers. This is further strengthened by our own exceptional network of alumni who have, over many decades, become established in teaching positions in the United States and Canada.

Please see page 25 for details of the University’s Careers Centre.

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Earth & Environmental Sciences

- The School consists of 18 academic staff, with research that spans the study of recent environmental change to Earth System evolution in Deep Time.
- Our research is both curiosity driven, addressing the exciting questions about the coevolution of Earth and life, and applied, with emphasis on providing societal and economic impact.
- A suite of state-of-the-art analytical and field facilities supports work in pure research and industry-applied projects.
- In the UK Research Excellence Framework 2014, the School was part of a combined submission with Geography & Sustainable Development. The combined result was the top ranking in the UK for research impact, and top in Scotland and fifth in the UK for overall research activity.

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Research in the School of Earth & Environmental Sciences combines fieldwork, laboratory and empirical analyses and modelling to gain insight into the geological, geochemical and biochemical processes that have shaped our planet and planetary neighbours. It is grouped into five themes:

- Global Change
- Solid Earth and Planetary Science
- Geobiology and Earth System Evolution
- Earth Surface Processes
- Economic Geology and Energy

Underpinning the School’s research are outstanding analytical facilities supported by full-time technicians. These allow for the detailed characterisation of natural (and synthetic) materials, culturing of micro and macro organisms in extreme environments, and geological and geophysical field deployment.

**Isotope and trace element geochemistry.** Analysis of trace metal concentrations and isotope ratios using three MC-ICPMS and two quadrupole ICP-MS with solution, GC, and laser ablation introduction systems. Gas isotope analysis using two Thermo Mat-253 IRMS with fluorination line, and Delta plus XP IRMS with peripherals for C-N-O-H gas chromatography. Elemental analysis by XRF, IC, ICP-OES. Geochemistry labs including two class 100 clean rooms support these facilities.

**Geobiology and culturing.** Facilities for 1) the cultivation, manipulation, and molecular investigation of micro-organisms, including under anaerobic, phototrophic, and lithotrophic conditions mimicking early Earth ecosystems, and 2) the culturing and investigation of corals under different CO2 and temperature conditions.

**Biogeomagnetism.** Analysis of organic matter-metal-mineral interactions using fluxgate magnetometers, magneto-optical microscope, and ex situ magnetic susceptometers, supported by a <5 nT shielded box, and supplemented by a nonmagnetic shallow drill rig.

**Geochronology and luminescence.** Dating of geological materials via automated readers for OSL/TL dating, dendrochronology, and experimental facilities for radio-/ cathodo-/thermo-luminescence.

**Experimental petrology.** Experimental facility for mineralogy and petrology at high temperatures and pressures, using a Rockland 250-ton piston cylinder press.

**Microscopy, spectroscopy and imaging.** Electron microprobe, two SEMs, XRD, XRF, Raman and NIR spectroscopy, and 2D-3D micro-imaging.

Geophysics and field deployment. A broad equipment base for surface and near-surface terrestrial and marine geophysics using ssSONAR, GPR, ER, EP, IR, laser, seismic and GPS sensors, and a suite of survey, hydrological and soil sampling equipment, including a 21-metre research vessel, eddy covariance towers and greenhouse gas analysers.

We collaborate with the St Andrews Centre for Advanced Materials, one of the largest materials analysis facilities in the UK, giving us access to luminescence analyses, TEM, ESR, XP and NMR spectroscopy. We also make extensive use of national facilities including the NERC radiocarbon, cosmogenic isotope, isotope geochemistry (NIGL) and ion microprobe facilities, and synchrotrons at Daresbury and Chicago.

School research in Earth and environmental sciences makes substantial contribution to society and economies by providing fundamental knowledge to secure supplies of resources and protect environments and heritage. To this aim we have established the Centre for Earth Resources St Andrews (CERSA), offering expertise and facilities to support industry, government and other research groups. CERSA emphasises particularly: geothermal resources; rare metals; petroleum geochemistry; offshore and onshore surveying; environmental impacts; geological mapping; forensic minerals and geochemical materials characterisation.

Nitrogen revolution: studies breathe new life into the 2.3 billion year old ‘Great Oxidation Event’

Research led by the School and published in the journal Nature has provided new insight into how life evolved alongside changes in the chemistry of Earth’s surface. Dr Aubrey Zerkle and her colleagues examined rock cores stored at the National Core Library, Donkerhoek, South Africa, and identified geochronological evidence for Earth’s ‘Great Oxidation Event’ 2.3 billion years ago. Their work captured for the first time the response of the nitrogen cycle to this major transition in Earth’s surface environment. According to Dr Zerkle “The ‘Great Oxidation Event’ was arguably the most dramatic environmental change in Earth history. It was critical to the development of the hospitable environment that we inhabit today, as it was a prerequisite for the evolution of animals that universally require oxygen to live.”
Staff conduct research in cross-disciplinary areas within the broad themes outlined on page 55. Staff emails and profiles are available at: http://earthsci.st-andrews.ac.uk/staff-academic

Dr Nicky Allison (na9@st-andrews.ac.uk)
Dr Richard Bates (crb@st-andrews.ac.uk)
Dr Andrea Burke (ab276@st-andrews.ac.uk)
Dr Mark Claire (mc229@st-andrews.ac.uk)
Dr Jonathan Cloutier (jc301@st-andrews.ac.uk)
Dr Claire Cousins (crc9@st-andrews.ac.uk)
Professor Adrian Finch (aaf1@st-andrews.ac.uk)
Dr Will McCarthy (wm37@st-andrews.ac.uk)
Dr Sami Mikhail (sm342@st-andrews.ac.uk)
Dr Tony Prave (ap13@st-andrews.ac.uk)
Dr James Rae (jwbr@st-andrews.ac.uk)
Dr Tim Raub (timraub@st-andrews.ac.uk)
Dr Catherine Rose (starting 09-2017 – email tbc)
Dr Paul Savage (ps3@st-andrews.ac.uk)
Dr Eva Stüecken (ees4@st-andrews.ac.uk)
Professor Richard White (starting 09-2017 – email tbc)
Dr Rob Wilson (jrsjw@st-andrews.ac.uk)
Dr Aubrey Zerkle (az29@st-andrews.ac.uk)

Global Change
Research on global change at St Andrews covers environments from tropical coral reefs, to the polar ice caps and deep ocean. We investigate change in climate and marine chemistry on timescales ranging from millions of years to months, and seek to understand controls on environmental change in Earth’s past, present and future.

Staff: Allison, Bates, Burke, Claire, Finch, Prave, Rae, Raub, Rose, Wilson, Zerkle.

Solid Earth and Planetary Science
Solid Earth research at St Andrews includes the formation of terrestrial planets, the processes of mountain building, and the genesis of igneous, metamorphic and sedimentary rocks in a range of environments. Our research ranges from the study of nano-scale structures and chemical compositions in rocks and minerals, to the geological mapping of supercontinents and sedimentary basins.

Staff: Cloutier, Cousins, Finch, McCarthy, Mikhail, Prave, Raub, Rose, Savage, Stüecken, Zerkle.

Earth Surface Processes
The processes which shape the Earth’s surface also control elemental fluxes between environments, and between the land, coasts and oceans. Earth surface research areas include the evolution of river systems, glaciation and glacial processes, geochemical budgets and land-ocean cycling, and contaminant transport.

Staff: Bates, Burke, Prave, Raub, Rose, Zerkle.

Geobiology and Earth System Evolution
Geobiology research at St Andrews spans a range of industrial applications, including ore exploration, development of non-conventional hydrocarbon reserves, geothermal energy and storage, and environmental impacts.

Staff: Allison, Burke, Claire, Cousins, Prave, Rae, Raub, Rose, Stüecken, Wilson, Zerkle.
Funding your research

The School is part of the multidisciplinary NERC funded Doctoral Training Partnership IAPETUS that brings together the universities of Durham, Glasgow, Newcastle, St Andrews and Stirling, together with the British Geological Survey and the Centre for Ecology & Hydrology to form world-class training in the science of the natural environment. Annual studentship competitions fund places within St Andrews with partner institutions in IAPETUS. www.iapetus.ac.uk

Other awards, usually tied to a specific project or sponsored by an external organisation or company, are published on the School’s webpages annually. Applicants for awards must follow the procedures guidelines and timetable set out in the application packs and also on our webpages: http://earthsci.st-andrews.ac.uk/opportunities

In addition, partial studentship support may be available to cover the costs of fees for self-funded postgraduate students and we welcome applications from self-funded graduates who wish to undertake a postgraduate degree on a full- or part-time basis. There are also opportunities to earn support through demonstrating and other forms of undergraduate teaching.

Conference funding

During your PhD studies, you are encouraged to present your work at international and national conferences. Funding is available within the School towards the costs of conference attendance.

Tree-rings reconstruct the South Asian summer monsoon index over the last millennium

The South Asian summer monsoon is a major atmospheric synoptic climate system affecting nearly a quarter of the human population. Dr Rob Wilson, School of Earth & Environmental Sciences, with co-authors from China have published a 1,000-year-long reconstruction of it in the Nature Group journal Scientific Reports. They utilised 15 tree-ring chronologies to reconstruct the SASM Index over the last millennium. The record generated is significantly correlated (r=0.7, p<0.01) with the instrumental SASMI record on annual timescales; this correlation is higher than that obtained in any previous study. Epoch analysis additionally indicates that volcanic events may also drive some of the SASM variability about two years after major eruptions.

Careers

We see postgraduate study as part of your long-term career development and we are here to offer advice and support in that. There are opportunities for postgraduates to gain experience in an academic context through tutorials, practical demonstrations and other related work, as well as gaining practical experience working with companies and governmental organisations. Recent postgraduates have obtained postdoctoral and lecturing positions in leading universities worldwide, while others have found jobs in environmental management, engineering, mining and the oil industry.

Please see page 25 for details of the University’s Careers Centre.
Economics & Finance

- In the 2014 UK Research Excellence Framework exercise, the School was ranked joint tenth in the UK and second in Scotland on the basis of the quality of its research publications, with over 80% of its research publications being classified as internationally excellent or world-leading.
- The School’s specialist strengths are in Macroeconomics, Monetary Policy, Microeconomic Theory, Behavioural Economics and Experimental Economics.
- Members of our School are active researchers pushing the boundaries of their respective fields of interest, with publications in top academic journals.
- We admit up to 100 postgraduate students each year across both taught and research degrees in our selective graduate programmes.
- We design our courses to prepare you for careers in either academia, business, government and international organisations. For this reason our courses are designed to appeal to private, public and international organisations as well as academic institutions.
- In addition to the usual regular programme of seminars (School seminars with speakers invited from both the UK and abroad, and “brown bags” talks given by staff in the School), the School in most years organises one international workshop/conference in Macroeconomics, Microeconomic Theory and Econometrics. These conferences see the participation of top class international researchers. Please see the School’s webpage for up to date details of our conferences, seminars and workshops.
- The yearly PhD Conference is a doctoral seminar, compulsory for all students, who present their research progress to the whole School.
- Students in Macroeconomics benefit from the activities of the Centre for Dynamic Macroeconomic Analysis (CDMA), which facilitates an active programme of work centred on macroeconomics theory and policy.
- Students in Microeconomic Theory benefit from the Microeconomics Reading Group, where both staff and research students present work which is too preliminary for a more formal seminar. This forum is ideal for the exchange of research ideas and allows students to get feedback on their work from members of staff in a friendly and informal setting.
- In 2013, the Economics Laboratory was refurbished for the purpose of conducting economics experiments. It is one of the School’s excellent research facilities available to students.

Contact

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T: +44 (0)1334 462443
www.st-andrews.ac.uk/study/pg/economics
www.st-andrews.ac.uk/study/pg/research-degrees/economics
Our School offers research supervision at MPhil and PhD levels, for high quality entrants with good research proposals that suit the research interests of the staff members. Our graduate programme is designed for capable and ambitious students to prepare themselves for a successful career as an economist, either in academia, the public sector, research institutions, the private sector or in international organisations in the UK and elsewhere.

**Research community**

By joining the School of Economics & Finance you will be immersing yourself in a thriving international research community, whose members come from the four corners of the world, having obtained qualifications at world-leading universities. Our School is active in advanced scholarship and research. Staff in the School have published in the top academic economics journals, such as the *American Economic Review*, *Econometrica*, and *The Review of Economic Studies*, as well as in top field journals. Members of our School are active in pushing the boundaries of their research fields, as well as in policy advising, in both micro- and macroeconomics and the research funding that the School is able to attract testifies to the real world relevance of the research carried out here.

**Facilities**

We offer excellent research facilities: a dedicated environment in which to carry out your research, your own desktop computer, and access to a well-stocked library.

**Supervision and teaching**

The School Postgraduate Training Programme consists of courses (as appropriate) and seminars. These aim to broaden and extend your postgraduate education, in areas that are not covered by the University’s GRADskills Programme (see page 24). Successful completion of your training will require satisfactory participation in this Programme. Part of the broader input will arise from various research seminar programmes within the School, which all students are expected to attend.

At the end of each year you are expected to present your original research work at the PhD Conference. This is a very important milestone in each year, for which performance at the conference is a crucial component. You are expected to produce research work which contributes to expanding knowledge in your chosen field of study and be of sufficient quality to be printed in quality academic publications.

**Research Centres**

- Centre for Dynamic Macroeconomic Analysis (CDMA)
  www.st-andrews.ac.uk/cdma

For full details see:
www.st-andrews.ac.uk/research/university/centres
Although the School can offer research supervision in many areas, we do have particular strengths. In Macroeconomics, these are: Macroeconomic Dynamics; Dynamic General Equilibrium; Economic Growth and Institutions; Financial Development; International Macroeconomics; Macroeconomic Policy; Open Economy Macroeconomics. In Microeconomics: Bounded Rationality; Decision Theory; Experimental Economics; Game Theory; Industrial Organisation; Market Design and Political Economy. In Econometrics, we are mostly active in the area of Time Series Econometrics, and in applications to Labour, Education and Health Economics. Below is a list of research interests of our current staff. You can consult the most up-to-date list of research online at: www.st-andrews.ac.uk/economics/people

**Research areas**

**Macro, Finance and Econometrics**

- Dr Sebastian Braun: International economics; Labour economics; Economic history.
- Dr Loran Chollete: Applied statistics and econometrics; CEO compensation; Decision making under uncertainty; Extreme events and Macro Finance and Central bank policy.
- Dr Oliver de Groot: Business cycles; Macroeconomics; Monetary economics; Macroe Finance and computational methods.
- Dr Paul Egan: Macroeconomics; International finance; Economics of transition; Chinese economic development; Monetary policy in China.
- Dr Peter Macmillan: European monetary union; Term structure of interest rates.
- **Professor Rod McCrorie**: Econometrics (theoretical and applied); Financial econometrics; Time series analysis.
- Dr Gosia Mitka: International macroeconomics; Policy coordination; Monetary, macro-prudential and trade policy; Welfare.
- Dr G Kemal Ozhan: International finance; Macroeconomics; Monetary economics.
- Dr Katerina Petrova: Econometrics; Macroeconometrics, DSGE and VAR models; Bayesian methods; Markov Chain Monte Carlo algorithms.
- Dr Vivek Prasad: Macroeconomics; Dynamic Stochastic General Equilibrium models with financial frictions; Financial shocks; Fiscal policy; Quantitative easing.
- Dr Ozge Senay: Dynamic general equilibrium models with imperfect competition and nominal rigidities in understanding macroeconomic policy questions; Exchange rate regime choice; Monetary economics; Open economy macroeconomics.
- Dr Radek Stefanski: Environmental economics; Growth and development; International trade; Natural resource economics; Structural transformation.
- **Professor Alan Sutherland**: Monetary policy; Open economy macroeconomics; International macroeconomics; Exchange rate policy; International financial markets.
- Dr Alex Trew: Economic growth; Financial development; Institutions.
- Dr Guanyao Zhu: Corporate governance; Financial econometrics.

**Microeconomics and Behavioural Economics**

- Dr Luc Bridet: Behavioural economic theory; Economics of education; Economics of experimentation; Mechanism design and contract theory.
- **Professor Miguel Costa-Gomes**: Behavioural economics; Bounded rationality; Experimental economics; Game theory.
- Dr Tugce Cuhadaroglu: Behavioural economics; Bounded rationality; Decision theory; Economics of inequality; Social choice and welfare.
- Dr Georgios Gerasimou: Behavioural economic theory; Choice theory.
- Dr Jim Y Jin: Industrial economics and comparative economics, including firm/industry study, market performance, competition policy and country comparisons.
- Dr Manfredi La Manna: Economics of optimal organisation; Economics of regulation; Industrial organisation (especially oligopoly theory, economics of R&D, research joint ventures, and patents).
- Dr Margaret Leighton: Development economics; Education economics; Labour economics.
- **Professor Paolo Manzini**: Bargaining; Choice theory; Bounded rationality; Economic theory; Experimental economics; Game theory; Microeconomics.
- Dr Irina Merkurieva: Labour and public economics; Retirement; Search theory.
- Dr Margherita Negri: Game theory; Microeconomics; Political economics.
- Dr M Kemal Ozbek: Bounded rationality; Choice and decision theory; Experimental economics; Mechanism design.
- Dr Matt Polisson: Applied Microeconometrics, Health Economics; Microeconomic theory.
- **Professor Clara Ponsati**: Bargaining; Mechanism design; Game theory; Microeconomics; Public economics and political economy.
- Dr Luca Savorelli: Economics of Innovation; Health economics; Industrial organisation.
- Dr Vibhor Saxena: Development economics; Applied microeconometrics; Inequality and discrimination; Demography; Impact evaluations.
- Dr Ian Smith: Household behaviour, especially the economics of the family and religion.
- **Professor David Ulph**: Design of Social Benefits systems; Economics of climate change; Economics of innovation; Enforcement of competition and Regulation policy.
- Professor Andriy Zapechelnyuk: Information and Communication; Persuasion; Mechanism design; Robust decision theory; Bargaining theory; Game theory.
- Dr Min Zhang: Industrial organisation; Microeconomic theory; Social learning.
MSc degree may register for either the MSc Economics, MSc Economics and Finance or MSc Money, Banking and Finance offered by the School as the first year of a PhD programme. Transition to the PhD programme is subject to outstanding performance in the MSc degree, a good research proposal, and availability of supervision. The compulsory summer dissertation may form the first step towards the development of a PhD research topic.

Entrance requirements

For direct entry to our PhD programmes you should have a Masters degree in Economics (at least a high 2:1 or equivalent qualification). Degrees with good marks in a cognate area, provided your curriculum includes a substantial amount of rigorous formal training in economics, mathematics and statistics, will also be considered. Students who do not hold an

Careers

Postgraduate study within the School of Economics & Finance is an excellent preparation for a wide range of careers. Our courses are designed so that, on completion of a postgraduate course, you will have the skills and knowledge necessary either to have a career in the private or public sector, or alternatively follow an academic career either in the UK or abroad. Previous generations of students have subsequently followed successful careers in:

• Industry or finance (recent destinations include CAPCO, CIRCUTOR, CSR Capital, DEVnet, SWISS Re), higher education and academic research (e.g. King Mongkut’s University of Technology Thonburi (Thailand), Makerere University (Uganda), National University of Kaohsiung (Taiwan), New York University (US), Royal Economic Society Junior Fellowship, Sweden’s National Institute of Economic Research, UK’s National Institute of Economic Research, University of Cambridge (UK)).

• Public sector institutions in the UK and in other countries (e.g. Slovak Republic’s Finance Ministry, UK Intellectual Property Office), and international organisations such as the UN, the International Monetary Fund and the World Bank (e.g. Croatian National Bank, National Bank of Belgium, United Nations Industrial Development Organization).

Please do check our PhD webpage for an updated list of recent destinations: www.st-andrews.ac.uk/study/pg/research-degrees/economics

Please see page 25 for details of the University’s Careers Centre.
The School of English currently has over 30 permanent members of staff, as well as Teaching Fellows, Honorary Lecturers/Senior Lecturers, and Honorary Professors.

The School admits around 10 new research postgraduate students each year.

Research excellence in all periods of English literature from Old English to the present day. In the UK’s 2014 Research Excellence Framework 86% of our research was recognised as world leading or internationally excellent.

Members of the School include winners of the Queen’s Gold Medal for Poetry, Whitbread Prize, T S Eliot Prize for Poetry, the Forward Poetry Prize, the Costa Poetry Prize, the Geoffrey Faber Prize, the Somerset Maugham Award, the Canongate Prize, the Petrarca Preis, the Prix Zepter Prize and a Commonwealth Writers Prize for fiction.

Varied programme of published writers and academics as visiting speakers, giving you the chance to meet some of the leading figures in their field.

St Andrews is one of only two universities outside the USA in the Folger Institute consortium.

The University has one of the highest concentrations of medievalists in the UK, united by the St Andrews Institute of Mediaeval Studies (SAIMS).

The School is home to the Cambridge University Press edition of Virginia Woolf edited by Susan Sellers and Jane Goldman (University of Glasgow), making St Andrews a prestigious international centre for Woolf studies.

Members of the School sit on the editorial board of Forum for Modern Language Studies, a humanities journal published by Oxford University Press.

The Centre for Research Students, housed in its own building with computers, office space and communal areas, fosters a strong postgraduate community spirit.

Contact

E: pgeng@st-andrews.ac.uk
T: +44 (0)1334 462668
www.st-andrews.ac.uk/english/postgraduate

Research community

The School has a vibrant postgraduate community of around 70 students (full and part time) with a dedicated administrator who manages and advises on all postgraduate matters from admissions queries to PhD vivas, ensuring continuity for both postgraduates and staff.

Postgraduates meet regularly at the School’s Postgraduate Forum and at various voluntary seminar series organised by English or other Schools within the Faculty of Arts. Information relating to the research culture of the School can be found at: www.st-andrews.ac.uk/english/newsandevents

The cross-fertilisation of ideas between traditional literary / theoretical research and creative writing provides a uniquely stimulating environment supporting the usual individual meetings between postgraduate students and their supervisors. You will have access to research funds to help offset the costs of attending conferences or other research libraries, and you are also encouraged to organise postgraduate conferences here at St Andrews. With around 600 undergraduates, the School may offer you opportunities to gain teaching experience.
The University Library has approximately two million books in print and electronic form, subscribes to over 60,000 current journals, and was a copyright library from 1710 until 1836. St Andrews holds the fullest records of eighteenth- and nineteenth-century student reading in the English-speaking world, and boasts remarkable medieval academic archives. Specialist collections cover areas from the Scottish Enlightenment to links between poetry and photography, and include substantial collections of work in manuscript and print by Andrew Lang, Willa Muir, Virginia Woolf, and Douglas Dunn. English is well served by specialist online resources and researchers are encouraged to work with the Library’s Department of Special Collections, some of whose holdings can be viewed via the St Andrews Digital Collections portal. In such areas as palaeography and book history the University Library works closely with the School of English in the provision of classes for Masters-level students which can be audited by research postgraduate students. Research students also have access to the Thomson Research Reading Room in The Richardson Research Library at the historic Martyrs Kirk, a beautifully appointed silent reading room for postgraduates and staff.

**Facilities**

St Andrews is one of only two universities outside the USA in the Folger Institute consortium and this relationship has been of particular benefit to the School of English. The remit of the Folger Institute is the study of British and European literature and history from the fifteenth to the eighteenth centuries. Staff and students of the School have attended the Institute’s seminar programmes in Washington and used the outstanding collections in the Folger Shakespeare Library. Additionally, the Folger has sponsored conferences in St Andrews, organised by the School, in which postgraduates have participated and which have resulted in book publication.

Our international profile is further enhanced by involvement in editing the journals *Forum for Modern Language Studies*, *Romanticism*, *The Hardy Review*, the *Keats-Shelley Review* and the *Medieval Journal* run by the St Andrews Institute of Mediaeval Studies (SAIMS). The School of English is also the administrative centre of the Andrew Marvell Society and its journal *Marvell Studies*.

**International profile**

The Creative Writing research group has three distinct strands: poetry, prose (which includes both fiction and life writing) and playwriting and screenwriting – the latter being based at the state-of-the-art Byre Theatre. Our staff consist of working novelists, poets, playwrights and screenwriters with national and international reputations. We also have an International Writer’s Residency, a post that has recently been filled by Karen Solie, Damian Galgut, Emma Jones and Reif Larsen. Our alumni include Booker-shortlisted novelists, leading crime writers and Forward Prize-winning poets (Sarah Hall, William Ryan, Rachael Boast). In 2014 one of our alumnae, Fiona Benson, was shortlisted for both the TS Eliot Prize and the Forward First Collection Prize. The group hosts numerous readings and other events throughout the year.

**Creative Writing**

The Modern and Contemporary Group is a vibrant research community within the School of English. The group organises conferences and research events and has hosted visiting speakers on topics as diverse as the ‘Blitz sublime’, ‘Women and Aviation’, and ‘The Weather in British Literature’. Our conferences, and workshop highlights include ‘Women and Prejudice’, ‘Bannockburn 1914: Anniversary Culture, War and National Identity in Scotland’, and ‘Textures’ an interdisciplinary conference devised and organised by School of English students. Other conferences organised by students include ‘The Twenty-first Century Bad Guy’ (October 2015) and a one day conference on David Mitchell (June 2017). Other activities include the ‘Virginia Woolf & Music’ project funded by the AHRC and public debates on the 1947 India/Pakistan partition.

**Supervision and support**

The School provides supervision for the research degrees of MFA, MPhil and PhD. Applications must include a fully developed proposal for an original research project along with other supporting documents. Staff expertise and support for research is available across the entire historical range of British literature from the Anglo-Saxons to the modern and contemporary. Postgraduate research is overseen and facilitated by the Director of Postgraduate Studies in concert with a full-time postgraduate administrator.

**You will be:**

- welcomed into a vibrant community of staff and student researchers.
- given training in research methods.
- offered training in undergraduate tutoring.
- offered paid undergraduate teaching where appropriate and when available.
- able to apply for funding to help with travel, attendance at conferences, and other research expenses.
- supplied with a desk space and use of computing and printing facilities.
- part of a world-leading research environment.

**Modern and Contemporary Group**

The Medieval and Renaissance research group hosts a variety of in-progress workshops, reading groups, and conferences, all organised by staff and postgraduates in the School. Recent events include ‘Bonds, Lies and Circumstances’ and ‘Dare to Tell: Silence and Saying in Ben Jonson’, both conferences organised by postgraduates. Recent visiting speakers have ranged from experts in Old English poetry (Andy Orchard) to Milton (Colin Burrow). The group also hosts meetings of EMGIS (Early Modern Studies in Scotland). Major research initiatives undertaken by members of the group include the ‘Geographies of Orthodoxy’ project and the MHRA (Modern Humanities Research Association) Tudor and Stuart Translations series.

**Medieval and Renaissance**

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Eighteenth Century, Romantic and Victorian

Already listed above: Dr Chris Jones

Professor Robert Crawford (robert.crawford@st-andrews.ac.uk)
Scottish literature; T S Eliot; Contemporary poetry; Creative writing, especially poetry.

Dr Katie Garner (kg7@st-andrews.ac.uk)
Romantic and Victorian women’s writing; Gothic literature; Medievalism.

Dr Clare Gill (cg209@st-andrews.ac.uk)
Book history; Fin-de-siècle literature; Nineteenth- and twentieth-century South Africa; Media history.

Dr Tom Jones (tej1@st-andrews.ac.uk)
Eighteenth-century literature, particularly poetry; Philosophy and literature, particularly in the eighteenth century; Poetics.

Dr Sara Lodge (sjl15@st-andrews.ac.uk)
Nineteenth-century literature; Comic writing; The grotesque; Children’s literature; Speechwriting.

Dr Susan Manly (sm32@st-andrews.ac.uk)
Literature of the 1790s; Maria Edgeworth; Romantic-period children’s literature.

Professor Nicholas Roe (nhr@st-andrews.ac.uk)
Romantic literature, history, science and culture 1750-1850; William Wordsworth; Samuel Taylor Coleridge; John Keats; Leigh Hunt; Landscape and literature; Writing biography and autobiograpy.

Dr Emma Sutton (es5@st-andrews.ac.uk)
Music and literature in the nineteenth and twentieth centuries; Virginia Woolf; The fin de siècle.

Dr Gregory Tate (gpt4@st-andrews.ac.uk)
Literature and science; Literature and psychology; Romantic poetry; Victorian literature and culture.

Modern and Contemporary

Already listed above: Professor Robert Crawford, Dr Chris Jones, Dr Emma Sutton

Dr Lorna Burns (lmb21@st-andrews.ac.uk)
Postcolonial studies; Contemporary world literature; Caribbean writing; Gilles Deleuze and twentieth- twenty-first century continental philosophy.

Dr Sam Haddow (sjh@st-andrews.ac.uk)
Twentieth and twenty-first century British drama; Politics and Performance; Popular Theatre; Critical Theory; Philosophy of History.

Dr Peter Mackay (pm83@st-andrews.ac.uk)
Twentieth-century and contemporary Irish and Scottish literature; Legacies of Romanticism in the twentieth-century; Scottish Gaelic literature; Contemporary poetry.

Professor Andrew Murphy (Provost of St Leonard’s College) (adm6@st-andrews.ac.uk)
Irish literature and culture, particularly its political and historical context; Shakespeare, especially the history of the dissemination and reception of his work; The history of the book.

Professor Gill Plain (gp3@st-andrews.ac.uk)
Literature and culture of the First and Second World Wars; Britain in the 1940s and 1950s; Crime fiction; Popular British cinema; War and cinema; Gender studies; Feminist theory.

Dr James Purdon (jjp5@st-andrews.ac.uk)
Twentieth- and twenty-first century literature; Modernism; Cold War culture; Writing and technology.

Dr Anindya Raychaudhuri (ar220@st-andrews.ac.uk)
Postcolonial and diasporic studies, with special emphasis on south Asia; Memory studies; War writing; Marxism; Critical theory and cultural studies; Popular culture and cinema; 1930s literature; The Spanish Civil War.

Professor Susan Sellers (scs2@st-andrews.ac.uk)
Virginia Woolf; Contemporary critical theory (particularly Hélène Cixous); Contemporary and twentieth-century fiction; Writers’ diaries and notebooks; Creative writing, especially literary and biofiction.

Creative Writing

Already listed above: Professor Robert Crawford, Dr Sam Haddow, Professor Susan Sellers

Professor John Burnside (jb44@st-andrews.ac.uk)
Creative writing, fiction and prose non-fiction; Life writing; Contemporary American poetry and fiction; Literature and ecology; Poetry collaborations and public art.

Mr Oliver Emanuel (oe3@st-andrews.ac.uk)
Playwriting; Writing for radio and young audiences.

Ms Lesley Glaister (lgg@st-andrews.ac.uk)
Creative writing, especially the novel and the short story.

Dr Emma Jones (ej26@st-andrews.ac.uk)
Creative writing (poetry); Victorian poetry, esp. Christina Rossetti; Poetic figures, esp. metaphor; William Blake, Emily Dickinson, Sylvia Plath, Wallace Stevens; Film; Maternity and literature; Australian literature.

Dr Oliver Hazzard (orh@st-andrews.ac.uk)
Creative writing (poetry); Modern and contemporary poetry; Life-Writing; Oulipo; The New York School; The Auden Group.

Ms Zinnie Harris (zkh2@st-andrews.ac.uk)
Playwriting and screenwriting.

Professor Don Paterson (dp31@st-andrews.ac.uk)
Creative writing (poetry); Ars poetica (especially cognitive, linguistic and pedagogical approaches); Twentieth-century poetry; The aphorism and very short prose forms; The translated poetic ‘version’. 

See also Medieval and Renaissance listed under Modern and Contemporary

Professor Andrew Murphy (nhr@st-andrews.ac.uk)
Early modern politics and poetics; Renaissance hermeneutics; Reception history; Marvell and Milton.

Dr Alex Davis (ald3@st-andrews.ac.uk)
Shakespeare and Renaissance literature; Early prose fiction; Medievalism.

Dr Ian Johnson (irj@st-andrews.ac.uk)
Old and Middle English literature; Medieval literary thought; Afterlives of medieval texts; Vernacular theology; Medieval translation theory and practice; Boethius.

Dr Chris Jones (cj52@st-andrews.ac.uk)
The history of poetry in English; Old English poetry; Twentieth-century poetry; Anglo-Saxonism; Medievalism; The reception of medieval literature.

Dr Rhianon Purdie (rpd6@st-andrews.ac.uk)
Middle English and Older Scots literature; Romance and epic cycles; The medieval/early modern divide; Editorial theory and practice in relation to medieval texts.

Dr Christine Rauer (cr30@st-andrews.ac.uk)
Old English language and literature; Insular Latin literature; Old Norse literature; Hagiography; The literary history of Anglo-Saxon England.

Professor Neil Rhodes (npr@st-andrews.ac.uk)
Renaissance literature, culture and society, especially translation, rhetoric, orality, popularisation.
Research Centres and Institutes

- Centre for Mediaeval and Early Modern Law and Literature
  http://cmemll.wp.st-andrews.ac.uk
- Centre for the Study of the Literatures of the Roman Empire
  https://roman-literatures.wp.st-andrews.ac.uk
- St Andrews Institute of Mediaeval Studies
  www.st-andrews.ac.uk/saims
- Theoria

For full details see:
www.st-andrews.ac.uk/research/university/centres

Eighteenth Century, Romantic and Victorian

The Eighteenth Century, Romantic and Victorian research group supports publication and other research activity across the eighteenth and nineteenth centuries. Recent books by members of the group include Jane Stabler, The Artistry of Exile: Romantic and Victorian Writers in Italy; Greg Tate, The Poet’s Mind: The Psychology of Victorian Poetry, 1830-1870 and Tom Jones’s edition of Alexander Pope’s An Essay on Man. Members of the group are also involved in major editorial projects focused on Byron’s Don Juan and the prose of Olive Schreiner. Speakers the group has recently welcomed include David Duff (Queen Mary) and Judith Hawley (Royal Holloway). Fleeman fellows, who visit the School to work in the library of the distinguished editor and bibliographer of Samuel Johnson, J D Fleeman, also contribute to the group’s activities. The group has links with learned societies including the Royal Society of Edinburgh, British Academy, Thomas Hardy Society and Thomas Hardy Association, BARS, NASSR, RSAA, The Byron Society, Wordsworth Trust, Keats Foundation, K-SAA, and John Clare Society.

Funding assistance within the School

The School of English normally offers a small number of its own awards for suitably qualified applicants who have been accepted for the doctoral programme. These are open to UK, EU and Overseas students. Information can be found at:
www.st-andrews.ac.uk/english/postgraduate/funding

Recent School of English postgraduate students have succeeded in obtaining funding from a variety of external sources in order to study here, including the Carnegie Trust, the Commonwealth Scholarship and Fellowship Plan, the Inlaks Scholarship, the Marshall Scholarship, the Ransome Trust and Rotary Foundation, the Scottish Graduate School for Arts & Humanities, the Social Sciences and Humanities Research Council of Canada and the Vinaver Trust of the International Arthurian Society.

Details of these and other scholarship opportunities and initiatives can be found on the University’s scholarships webpages:
www.st-andrews.ac.uk/study/pg/fees-and-funding/scholarships/research

Careers

Following their course of postgraduate research, many students continue into academic careers. The Careers Centre offers one-to-one support with this process, assisting with preparing applications and improving interview technique. For more information visit:
www.st-andrews.ac.uk/careers/researchers

For those electing not to continue in academia, the Careers Centre offers a wealth of information on alternative career routes and can work with students to decide on their next step:
www.st-andrews.ac.uk/careers

Please see page 25 for details of the University’s Careers Centre.
Film Studies

- The youngest department at Scotland’s oldest university.
- High profile reputation for research on Body and Performance, Cinema and Nation, Digital Studies, Documentary and ‘Useful’ Cinema, Early Film Cultures, Educational Film, Experimental Film, Film and Media History, Film and Politics, Film Festivals, Global Cinema, Identity and Representation, Sensory Cinema, Star Studies, and Visual Culture.
- The Film Studies Department has been recognised for work that is significant, rigorous and original in all its dimensions.
- Our impact has a reach and importance of international excellent or world leading quality, and our research environment is one whose vitality and sustainability is conducive to producing ‘world leading’ and ‘internationally excellent’ research.
- 80% of our total submission has been rated ‘world leading’ and ‘internationally excellent’.
- 100% of our research environment has been recognised as ‘world leading’ or ‘internationally excellent’.
- 100% of our research impact has been declared ‘outstanding’ or having ‘very considerable’ impact in terms of reach and significance.
- A large postgraduate community, including PhD students from numerous countries.
- A growing department: new senior appointments, with leading scholars joining the programme, including Dr Michael Cowan, Reader (2014) as well as new appointments at the lecturer level in 2012, 2015 and 2017.
- Regular research visits from high-profile scholars and film critics, including Jonathan Rosenbaum (2009), Professor Robert Rosenstone (2010), Professor Laura Mulvey (2013) and Professors Rachel Dwyer and Dana Polan (2015).
- The Department maintains its own publishing house and online journal.

Contact

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In learning and teaching, St Andrews sets the highest of standards and attracts students from all over the world. Teaching and research are closely related and postgraduate supervision is informed by the staff's research activity. At St Andrews, we investigate cinema as a vital and continuously evolving medium of modern life and as a forum of international exchange. Our research spans from pre-cinema to the digital and covers a wide range of geographical and linguistic areas. Our work examines art-house and festival circuits, but also film and media history, documentary, experimental cinema, film sound, and forms of non-theatrical film. We also cover a range of methodologies from close reading to industry studies to film history and film theory.

Formed in 2004 with the primary goal of creating a rigorous research practice in a then emerging field, the Department has long been known for its work in transnational film and film circulation. Recently we have expanded our scholarly practice in new directions, including the study of activism and political movements, avant-garde and experimental film, colonial cinema, ephemeral and commissioned films, film and other media, film and history, sensory cinema and sound, and sexuality in film. We have become a magnet for international scholars and research students working in non-mainstream cinemas, evidenced by our diverse and growing research postgraduate population and by the highly qualified group of pre- and postdoctoral researchers we attract.

Known throughout the UK for our highly engaged postgraduate research culture, our postgraduate programme is distinguished by an exceptional number of student-led initiatives, publications and conference presentations. Our PhD students take an active role in all aspects of departmental life and contribute to the intellectual project and the reputation of the University. While offering careful and thorough research supervision, the Department is also committed to the professional development of our postgraduates and offers experience in teaching, publishing and the organisation of conferences and symposia. In addition, our students are encouraged and mentored in grant and fellowship applications. The environment for research among postgraduates in Film Studies is characterised by active participation in a range of professional activities.

Postgraduate events
Every student in the Department presents his or her research annually at the annual Postgraduate Conference in late spring, to which we invite a leading scholar from outside the University to respond to the students’ work. PhD students also organise and run an annual Study Day on a subject of their choice, an event that brings important scholars to the Department, such as Richard Dyer, Rosalind Galt and Catherine Grant. Recent topics have included Open Access Film Studies, Ethics in Film, Expanded Cinema, Animation, and Film and Affect, and Remakes and Ripoffs. In addition to this annual Study Day, several postgraduate students have organised conferences and symposia funded by the AHRC and the Carnegie foundation. In 2011-2012, for example, our PhD students organised or helped organise conferences on History and Film, Japanese New Wave Cinema, and War and Cinema.

Our postgraduate researchers are also actively engaged in publication and are given the opportunity to participate in professional activities at an early stage of research. In 2012, we began publication of the peer-edited Film Studies journal, Frames Cinema Journal. Conceived and edited by St Andrews Film Studies postgraduate students, Frames publishes two issues a year. Its inaugural issue focused on new forms of digital film scholarship and featured essays by several world-leading scholars. The theme of the most recent issue is international horror cinema.

We organise numerous events within the town of St Andrews including the popular 60 Hour Film Blitz, which has attracted increasing numbers of participants and become an important part of University and town life. Our PhD students are also active contributors to the innovative heritage project, Cinema St Andrews, in which we are conducting original research on film and film culture as part of the heritage of St Andrews, from the earliest period of film history to the present. http://cinemastandrews.org.uk
The Department is housed in two buildings on North Street. They are within easy walking distance of the University Library, local cinema and town centre. The Department is well resourced with a dedicated teaching room at 99 North St and a shared teaching space with 3D projection capability at the Byre Theatre. The Film Studies Postgraduate Centre houses a DVD collection, computers, postgraduate workspaces, viewing stations and off-air recording facilities.

The rich and diverse film culture of St Andrews provides students with a number of choices. In addition to course-related screenings in our custom-built theatre, several small festivals and screening series take place across the University during the term, including films from many different national traditions. Visits by major filmmakers are planned each year. Recent filmmakers have included Patricio Guzmán and Joe Russo.

St Andrews has excellent library provision, with book, journal and other information resources in Film Studies at a level consistent with an international centre of excellence. The collection consists of over 5,600 books classified under Film Studies and related subjects (from a collection of over 1.2 million print monographs and 69,000 electronic books), and approximately 100 film, television and media-related journals (over 65 available electronically). The Main Library holds over 12,000 individual audio-visual titles. These are primarily selected to support the Department of Film Studies and in particular the DVD collection which includes films and holdings of extremely rare reference materials such as ethnographic films and the work of filmmakers like Harun Farocki, Anand Patwardhan, Jean Rouch and Frederick Wiseman.

For more information about the Department’s many activities, please visit the following sites we maintain on our homepage:

• Events, which includes invited speakers and activities by staff and students.
• News about the Department.
• The teaching blog, to which the staff contributes.

Research areas

Individual staff members have expertise in a wide range of time periods, geographical areas, media forms and research foci. For more information please visit our webpages at: www.st-andrews.ac.uk/filmstudies/about/who-are-we/

Dr M Cowan (mc258@st-andrews.ac.uk)
Film history in relation to media history and cultural history; German and European film; Cultures of early cinema; Visual culture; Non-theatrical film; Expanded cinema; Film magazines; animation; Advertising and propaganda; Media and cultural theory.

Dr L Donaldson (lfd2@st-andrews.ac.uk)
Film and television performance and aesthetics; Affect and embodiment in film; Audio-visual design; Film sound; Film criticism; Genre; American cinema.

Professor D Iordanova (di1@st-andrews.ac.uk)
Film in its socio-historical, discursive, and media context; Issues of comparative critical analysis of representations of history, cultural sensibilities, and diverse identities; Film festivals and transnational cinema.

Dr E Girelli (eg51@st-andrews.ac.uk)
Identity on screen (sexuality, gender, and nationality); Queer theory, crip theory, and theories of representation; Study of individual stars and auteurs; British and European cinemas; The representation of Italianess in British film history.

Dr D Hanlon (djh22@st-andrews.ac.uk)
Latin American, South Asian, and European political cinemas and the articulations among them; Transnational-cultural adaptations; Contemporary South Asian and East Asian genre cinema; Ethnographic cinema and indigenous video.

Dr T Rice (twtr@st-andrews.ac.uk)
Cinema and cultural history; Colonial cinema; Early and silent cinema; Useful cinema and non-theatrical forms of film; Non fiction, Instructional and educational film; Exhibition and audiences; Race; Social and political uses of film; Archives.

Dr L Torchin (lt40@st-andrews.ac.uk)
Documentary cinema; The human rights film; Representations of genocide on film; Media and activism; Media witnessing; Film festivals and activism; Film and television tourism.

For more information about the Department’s many activities, please visit the following sites we maintain on our homepage:

• Events, which includes invited speakers and activities by staff and students.
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• The teaching blog, to which the staff contributes.

For full details see: www.st-andrews.ac.uk/research/university/centres
Application process for Film Studies

Further information and an online form can be found on the postgraduate webpages:
www.st-andrews.ac.uk/study/pg/apply

Film Studies applicants must also complete and return the separate Departmental admissions form at:
www.st-andrews.ac.uk/filmstudies/prospective-students/postgraduate-research/how-do-i-apply

Applications are reviewed throughout the academic year; however if you wish to apply for funding, please note the various scholarship deadlines at:
www.st-andrews.ac.uk/study/pg/fees-and-funding

Departmental funding for research in Film Studies

The Department of Film Studies offers a select number of scholarships and/or fee-waiver scholarships for doctoral study each year, up to three years’ duration. Scholarships are equivalent to the value of the home or overseas fee and are available to UK/EU and overseas students. Scholarships may also include maintenance funding. Scholarships are only available to students who have already been accepted for a place in the Department of Film Studies by March 15 of the year on which they plan to begin their studies. As these funds are awarded by competition, please make sure to note in your application indicating that you would like to be considered for scholarships. Scholarships are decided in early to mid-April. Decisions on admission to the programme and funding are made independently.

Some PhD students may also find support by teaching in core undergraduate modules, typically in the second and third year of PhD study. Decisions on teaching assignments are made based on suitability of candidates and good progress in the PhD programme.

The Department is able to nominate UK and EU students for AHRC funding through the Scottish Graduate School for the Arts and Humanities. To be considered for AHRC funding, students must have two academic supervisors. For the latest information on all forms of funding see:
www.st-andrews.ac.uk/filmstudies/prospective-students/postgraduate-research/what-about-funding

Careers

In our media saturated culture, the opportunities for Film Studies graduates are remarkably diverse. Directly related are careers in academia, creative industries, development, distribution, film festival/cinema programming and arts administration. A Film Studies degree opens doors to many other spheres, including media management, film and TV research, journalism, publishing, advertising, cultural entrepreneurship, non-governmental organisations, marketing, public relations and education.

Please see page 25 for details of the University's Careers Centre.
The School of Geography & Sustainable Development (SGSD) has 31 academic staff, 18 research fellows and research assistants and 37 PhD students. Previously a Department within the School of Geography & Geosciences, its growth over time led to the establishment of SGSD as a stand-alone School in January 2017.

In the UK Research Excellence Framework 2014, the School was part of a combined submission with Earth & Environmental Sciences. The combined result was the top ranking in the UK for research impact, and top in Scotland and fifth in the UK for overall research activity.

- We admit about 10 research postgraduates (PhD) and approximately 30 taught postgraduates (MSc/MRes) each year.
- SGSD offers a wide range of expertise, with particular strengths in population and health geography; housing, neighbourhoods and cities; environmental change (physical geography); power and representation; and environmental economics and governance.
- We will develop your ability to understand the complex nature of environmental and social problems and how to create strategies that will allow you to overcome them, both now and in the future.
- We emphasise a range of skills training, producing highly literate and numerate graduates with excellent employment prospects.
- Our 1+3 PhD Research training is compliant with ESRC and SGSSS best practice.
- We have excellent in-house laboratory, IT and field resources for research.
- We promote collaborative research with other universities and institutions, including policy-relevant research with partner organisations.
- We encourage interdisciplinary research through our research centres.
- We offer the opportunity to develop your own research skills based on the proven excellence of supervisors in publishing their work in high-quality journals.
- We aim to combine theoretical insight into problems with practical solutions.

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www.st-andrews.ac.uk/gsd
Research Centres and Institutes

SGSD has an international reputation for research excellence. It attracts major funding from UK research councils and other bodies such as the Royal Society, Carnegie Trust, the Scottish Funding Council pooling initiatives SAGES and MASTS, Leverhulme Trust, the EU, Joseph Rowntree Foundation, and Scottish Natural Heritage. It hosts a number of research centres which provide a specialist focus for staff and postgraduate research activities.

- The Arctic Research Centre (ARC) undertakes leading international research to assess the environmental impact of infrastructure development in the Arctic.
- The Economic and Social Research Council (ESRC)-funded Census and Administrative Data Longitudinal Studies Hub (CALLS) supports the UK’s census-based longitudinal databases and seeks to promote strategic demographic, socio-economic and health research.
- The ESRC Centre on Dynamics of Ethnicity (CoDE) advances knowledge on ethnic inequalities and identities through interdisciplinary collaboration.
- The Centre for Housing Research (CHR) conducts policy-relevant research on social and supported housing, both independently and in conjunction with public and voluntary housing agencies.
- The ESRC Centre for Population Change (CPC) carries out a varied programme of collaborative research on fertility and family formation, household change, migration and population modelling.
- The Longitudinal Studies Centre – Scotland (LSCS) is the first research centre in Scotland specifically designed to undertake and support longitudinal studies, focusing on linking together census, vital events and health records for a large sample of the Scottish population.
- St Andrews Glaciology focuses on monitoring and modelling glacier and ice-sheet behaviour, including calving processes, ice/ocean interactions, surge glacier dynamics and glacier response to climate change.

For full details see: www.st-andrews.ac.uk/research/university/centres
The School of Geography & Sustainable Development is an active, vibrant and expanding research community. We offer research degrees in both Geography and Sustainable Development. We have excellent facilities for conducting a wide range of quantitative, qualitative, mixed-methods and laboratory-based research. Postgraduate researchers benefit from being members of research clusters where they can exchange ideas with other researchers in their field. SGSD also has strong links with several other Schools across the University, as well as with other UK universities. Research is conducted in many areas of the world including the UK, Eastern and Western Europe, North and South America, Australia, South-East Asia and Southern Africa. We are also involved in the public policy arena, producing advisory reports for key public institutions.

Research in Geography and Sustainable Development is led by academic staff who publish internationally recognised research in their field. Our four research clusters – Population and Health, Environmental Economics and Policy, Environmental Change and Geographies of Sustainability, Society, Inequalities and Possibilities – hold regular meetings, reading groups and workshops to present, discuss and exchange ideas. The School holds a seminar series each academic year and has hosted a number of international seminars and conferences.

The University of St Andrews embraces its responsibilities for the future, by placing sustainable development at the heart of its operations along four integrated fronts: governance, teaching, research and sustainable estates management. The idea is to integrate sustainability into day-to-day thinking and decision-making processes of the University. New buildings and major refurbishments of existing buildings are being designed to meet strict environmental standards. The £1.7 million SALIX energy fund is helping us to achieve this. The dedicated Estates Environment Team of professionals works closely with schools and units to raise awareness and understanding of operational sustainability issues.

The University is working with a range of key stakeholders to promote sustainable development across the higher education sector. As an active member of the Environmental Association for Universities and Colleges (EAUC) the University shares learning across the higher education and further education sector.
Transition University of St Andrews

This is part of the UK-based Transition initiative, which has been expanding worldwide over the last five years. Through working on practical projects with different community groups, the initiative helps communities minimise their impact on the planet, become more self-sustaining and strengthen community ties.

www.transitionsta.org

Paths to a research degree

Students wishing to pursue a PhD in Geography or Sustainable Development may be able to enter our PhD programmes direct from undergraduate study, or with a Masters degree. We offer an MRes programme in Human Geography/Sustainable Development which provides research training specifically for students who do not already hold a Masters degree. The School also offers a taught MSc programme in Sustainable Development.

Facilities

We have a variety of data-logging equipment suitable for library and archive use. Excellent GIS hardware and software (ArcView, ArcInfo, MapInfo) resources are available with good access to census products, Ordnance Survey and other digital databases. SGSD has safe setting facilities for the analysis of restricted and sensitive data, and there is a wide range of software available for both quantitative and qualitative data analysis (e.g. NVivo, SPSS, Stata, MLn, Minitab, SpaceStat plus database management and spreadsheet packages).

Geography and Sustainable Development research at St Andrews is undertaken across the world, including in Peru.

The School shares a number of School facilities with our sister School of Earth & Environmental Sciences (http://earthsci.st-andrews.ac.uk/facilities), in addition to supporting its own dedicated physical sciences laboratory and microscope suite. Research is supported by an impressive array of equipment and computing facilities, laboratories, support staff, research vehicles and vessels. Cartographic services are provided via state-of-the-art computer technology, graphics software, high specification PCs, scanners, digitiser and printers, all available in-house. Research postgraduates are allocated desk space in one of the postgraduate rooms, along with a dedicated desk-top computer. Laptops are available for use in the field.

Training is provided via the University’s GRADskills programme (see page 24) together with modules from our taught Masters programme and specialist in-house training. You may also attend interdisciplinary courses in the social sciences, or other courses in the core area of your research, such as the annual SAGES graduate school retreat and Scottish Graduate School of Social Science events.

Geography & Sustainable Development

Training is provided via the University’s GRADskills programme (see page 24) together with modules from our taught Masters programme and specialist in-house training. You may also attend interdisciplinary courses in the social sciences, or other courses in the core area of your research, such as the annual SAGES graduate school retreat and Scottish Graduate School of Social Science events.

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Migration; Labour markets and welfare. (dm82@st-andrews.ac.uk)
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Demography; Social statistics. Fertility; Migration; Health; Longitudinal analysis; Mixed-methods; South East Asia.
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Gender; Cultural and political geographies.
Dr R White (rmwh11@st-andrews.ac.uk)
Environment, landscapes and societies; Geographies of sustainability, society, inequality and possibilities (GOSSIP).
Research examines the mechanisms, rates and trajectories of past, present and future environmental change at regional to global scales, the implications for the biosphere and society, and advances and applications in geoinformatics.
Professor W Austin (wena@st-andrews.ac.uk)
Palaeoceanography and climate change; Quaternary environments; Micropalaeontology.
Professor D Benn (dbb2@st-andrews.ac.uk)
Glaciology.
Professor K Bennett (kdb2@st-andrews.ac.uk)
Holocene environmental change.
Dr T Cowton (tcowton@st-andrews.ac.uk)
Glaciology; Ice-sheet/ocean interactions; Glacial geology.
Dr A Davies (adavies@st-andrews.ac.uk)
Long-term ecology; Environmental archaeology; Environmental management.
Dr U Densham (urska.densham@st-andrews.ac.uk)
Geovisual analytics and geovisualisation; Spatial analysis; Mathematical modelling.
Dr I Long (itl2@st-andrews.ac.uk)
Geovisual analytics and geovisualisation; Spatial analysis; Mathematical modelling.
Dr J Long (jlong@st-andrews.ac.uk)
Tropical peatlands; Quaternary palaeoecology; Human impacts on past environments.
Dr L Reid (lreid@st-andrews.ac.uk)
Environmental behaviour; Household energy consumption; Subjective well-being; Diary methodology.
Dr M Sothern (mbs10@st-andrews.ac.uk)
Gender; Cultural and political geographies.
Dr R White (rmwh11@st-andrews.ac.uk)
Environment, landscapes and societies; Geographies of sustainability, society, inequality and possibilities (GOSSIP).
Research examines the mechanisms, rates and trajectories of past, present and future environmental change at regional to global scales, the implications for the biosphere and society, and advances and applications in geoinformatics.
Professor W Austin (wena@st-andrews.ac.uk)
Palaeoceanography and climate change; Quaternary environments; Micropalaeontology.
Professor D Benn (dbb2@st-andrews.ac.uk)
Glaciology.
Professor K Bennett (kdb2@st-andrews.ac.uk)
Holocene environmental change.
Dr T Cowton (tcowton@st-andrews.ac.uk)
Glaciology; Ice-sheet/ocean interactions; Glacial geology.
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Dr M Sothern (mbs10@st-andrews.ac.uk)
Gender; Cultural and political geographies.
Dr R White (rmwh11@st-andrews.ac.uk)
Funding your research

Various awards, usually tied to a specific project or sponsored by an external organisation or company, are periodically published on the SGSD webpages. Applicants for awards must follow the guidelines and deadline timetable set out in our application packs and on our webpages.

In addition, we offer studentship support each year (search for us on findaphd.com and jobs.ac.uk), and we welcome applications from self-funded graduates who wish to undertake a postgraduate degree on a full- or part-time basis. There are also opportunities to earn some support through demonstrating and other forms of undergraduate teaching.

Information about PhD awards can be found on the University’s scholarships webpage: www.st-andrews.ac.uk/scholarships

Conference funding

During your PhD programme studies, you are encouraged to present your work at international and national conferences. Funding is available within the School towards the costs of conference attendance.

PhD students take the lead

A successful two-day postgraduate event on ‘strategies for the modern academic’ was led by SGSD postgraduates as part of the Scottish Graduate School training programme. The event, in May 2016, brought together PhD students from Geography Departments across Scotland and academics from St Andrews, Glasgow, Edinburgh, Sheffield, University of the West of Scotland and Sussex. Sessions covered how to stand out to employers, writing strategies, using social media as an academic and performing well in the Research Excellence Framework. Fun was also had over a delicious conference dinner! Noor Saeed, second year PhD student in SGSD, who organised the event, commented, “It’s wonderful to have the opportunity to get involved in this training event, and to be part of a community of postgraduate researchers across Scotland.”

Careers

We see postgraduate study as part of your long-term career development. We are here to offer advice and also support you in the development of your career, as is the University’s Careers Centre. There are opportunities for postgraduates to run tutorials, practical demonstrations and other academic work to gain experience of working in an academic context. Others gain practical experience working with companies and governmental organisations. Recent postgraduates have obtained postdoctoral and lecturing positions in leading universities around the world, while others have taken up jobs in, for example, central and local government, environmental management, market research and health research.

Geography and sustainability impact upon almost all aspects of life, so your future career could take you in one of many different directions. For example, you could:

- Work as an academic pursuing research at the leading edge of geography and sustainable development.
- Work in industry addressing aspects of business management, engineering, planning, transport, project management, construction, waste, energy or environmental management.
- Make yourself heard as a researcher or policy adviser in local, regional or national government, NGOs and campaigning groups.
- Act as an adviser to supra-national bodies such as the United Nations, World Bank, European Union, and the Office of Community and Economic Development.
- Become a sustainability adviser and assessor working directly in private sector organisations, industry or as a consultant (in both mainstream and specialist businesses).
- Help others directly through development or aid work.
- Spread the word by outreach and education in geography and sustainable living via public or third sector organisations (e.g. councils or NGOs).

Please see page 25 for details of the University’s Careers Centre.
History

• The School of History is the largest academic School within the Faculty of Arts at St Andrews, and one of the largest such schools in the UK.
• We were top in Scotland in the UK Research Excellence Framework 2014 with 80% of our overall research activity rated ‘world-leading’ or ‘internationally excellent’.
• With around 50 staff, we can offer an unusually broad and varied portfolio of research expertise.
• Our large postgraduate community includes around 100 research postgraduates and a further 50 taught postgraduates.
• We have a strong commitment to providing skills training and teaching experience to enhance the employability of our postgraduates.
• We are committed to the provision of language training throughout the degree; we also offer up to six language bursaries to incoming postgraduates wishing to develop skills essential to their research.
• We offer allowances for research expenses to all our PhD students, who also have the opportunity to bid for funding to organise conferences.
• We have regular international exchanges, offering research students the opportunity to spend three or six months studying abroad in countries including Germany, France, Italy, and Ireland.
• We have a friendly and collegial atmosphere, in which our postgraduates are actively involved. Social events run throughout the year, and include parties organised by the different Departments, Centres and Institutes.

Contact

E: pghost@st-andrews.ac.uk
T: +44 (0)1334 462097
www.st-andrews.ac.uk/history/postgrad/postgrad
The University of St Andrews is one of the world’s top 40 Arts and Humanities universities and home to a major centre for postgraduate historical study.

The School of History has around 50 academic members whose combined specialist interests cover a vast geographical area and chronological range. Building on excellence in individual research, the School has expertise across the Medieval, Early Modern and Modern periods, and a wide geographical coverage. Our research interests range from sixth-century Scotland to Iran in the early twenty-first century (and many other places in between). We have particular strengths in Middle Eastern, Transnational, British, Continental European and US History; as well as groupings focused on Reformation History, Environmental History and Intellectual History. As befits Scotland’s oldest university, the School is also a leading centre of Scottish historical research.

There are currently around 100 PhD students in the School of History. Many of these students have been attracted to St Andrews by their wish to be supervised by a certain member of staff, often a leading authority in the field; others come to take a one-year degree and then continue into the PhD programme. Our PhD students are full members of the School of History, and are encouraged to participate actively in the intellectual activities of the academic community such as seminars, workshops and conferences, and at the social events associated with them. Many of the Institutes and Centres organise annual reading parties in the Scottish Highlands. We also have a Postgraduate Forum organised by, and for, the postgraduates themselves.

The University of St Andrews is home to a major centre for postgraduate historical study.

The School of History occupies three sites in the heart of the historic town of St Andrews. All are within a few minutes’ walk of each other, and of the University Library and the Richardson Research Library at Martyrs Kirk:

- On tree-lined South Street and close to the ruins of the Cathedral, most Medievalists and Reformation Studies colleagues are based in a charming seventeenth-century town house and the adjoining medieval residence of the Hospitallers.
- St Katharine’s Lodge on The Scores, which houses Modern and Scottish History, is a nineteenth-century former school (attended by Field Marshall Haig), close to St Andrews Castle and the magnificent West Sands beach.
- Middle Eastern History is in the Arts Building, which opened in 2006, with elegant teaching and work spaces.

The University Library houses extensive collections for use in historical study, including outstanding Special Collections, and continues to make substantial investment in materials, including electronic resources, each year.

- Computer facilities are readily available.
- You will be assigned a workspace, normally in the building appropriate to your area of expertise, so that you can easily participate in the academic and social life of the community.

Facilities

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- Computer facilities are readily available.
- You will be assigned a workspace, normally in the building appropriate to your area of expertise, so that you can easily participate in the academic and social life of the community.

Research community

The University of St Andrews is one of the world’s top 40 Arts and Humanities universities and home to a major centre for postgraduate historical study.

The School of History has around 50 academic members whose combined specialist interests cover a vast geographical area and chronological range. Building on excellence in individual research, the School has expertise across the Medieval, Early Modern and Modern periods, and a wide geographical coverage. Our research interests range from sixth-century Scotland to Iran in the early twenty-first century (and many other places in between). We have particular strengths in Middle Eastern, Transnational, British, Continental European and US History; as well as groupings focused on Reformation History, Environmental History and Intellectual History. As befits Scotland’s oldest university, the School is also a leading centre of Scottish historical research.

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- Computer facilities are readily available.
- You will be assigned a workspace, normally in the building appropriate to your area of expertise, so that you can easily participate in the academic and social life of the community.

Enhancing student learning: Postgraduate-led workshops for undergraduates

For the past few years, postgraduate students in the School of History have been developing a programme of workshops designed to help undergraduates learn the key skills for studying history. The programme tackles issues such as referencing correctly, finding and using primary sources, and engaging with historiography, and aims to serve as a means of enhancing students’ development as historians outside the time constraints of weekly tutorials. They also offer students the chance to engage with postgraduates in the School in an informal and relaxed atmosphere, allowing them to ask any questions they may have about essay writing or academic history in general. At the same time, the postgraduate students who lead the workshops benefit from the opportunity to develop their own lesson planning and teaching skills.

PhD Induction Day, Cambo House

At the start of the academic year the School of History hosted an induction day for all new PhD students, which took place at Cambo House just outside of Kingsbarns. The day included ‘speed meeting’ (with pairs asked to break the ice by discussing such pertinent questions as what they would do with a time machine and a bar of gold), an introduction to the new PhD handbook, and meaty discussions of what it means for a PhD thesis to form ‘an original contribution to knowledge’. The new cohort were also introduced to the idea of the PhD as an apprenticeship during which they would not only write their 80,000 words, but also gain a range of experiences and develop a variety of skills to the benefit of future careers both within and outwith academia.

Early Modern and Reformation Studies Reading Weekend

In mid-November, Early Modern and Reformation Studies students and staff gathered around the warmth of a fire and the grandeur of a Scottish country house for a Reading Weekend. Among many other things, this weekend included an international panel discussion comparing the American and British systems for undertaking a PhD as well as finding funding and applying for academic jobs. Also, Masters students were able to hear from both new and advanced PhD students about their experiences in choosing a topic and applying for PhDs. The weekend offered exposure to academic presentations and was a great opportunity to get to know friends, colleagues, and lecturers in a relaxed environment – surrounded by the incredible scenery and charms of Scotland.

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Research Centres and Institutes

The School of History at St Andrews also hosts or plays a major role in a number of Centres and Institutes within which postgraduate students are often very active. These organise regular seminar series, addressed by invited speakers and St Andrews historians. The Centres and Institutes often sponsor conferences and workshops as well as publication series and journals, and provide a home for visiting academics and graduate students. They also provide a friendly environment in which postgraduate students can present their research before audiences of their peers.

www.st-andrews.ac.uk/history/research/researchinst

- Centre for French History and Culture
  http://cfhc.wp.st-andrews.ac.uk
- Institute for Environmental History
  www.st-andrews.ac.uk/envhist
- Institute of Intellectual History
  www.intellectualhistory.net
- Institute of Iranian Studies
  www.st-andrews.ac.uk/~iranian
- The St Andrews Institute of Mediaeval Studies
  http://saims.wp.st-andrews.ac.uk
- Centre for Mediaeval and Early Modern Law and Literature
  http://cmemll.wp.st-andrews.ac.uk
- Institute of Legal and Constitutional Research (ILCR)
  http://ilcr.wp.st-andrews.ac.uk
- Institute of Middle East, Central Asia and Caucasus Studies
  www.st-andrews.ac.uk/ir/research/centres/mecacs
- St Andrews Reformation Studies Institute
  www.st-andrews.ac.uk/reformation
- Centre for Russian, Soviet and Central and Eastern European Studies
  www.st-andrews.ac.uk/crscees
- Institute of Scottish Historical Research
  www.st-andrews.ac.uk/ishr
- Institute for Transnational and Spatial History
  http://standrewstransnational.wp.st-andrews.ac.uk

For full details see:
www.st-andrews.ac.uk/research/university/centres

Former PhD student Sarah Greer looks back at the EU-funded research network ‘Power and Institutions in Medieval Islam and Christendom’ (PIMIC)

Dr Sarah Greer came to St Andrews as a doctoral student on a fellowship through the research network ‘Power and Institutions in Medieval Islam and Christendom’ (PIMIC). As PIMIC was an EU-funded Innovative Training Network, in addition to working on her thesis, Sarah took part in a variety of training workshops across Europe. She was also seconded to work at Brill Publishers in Leiden for three months in 2014; at the Université Paris 1 Panthéon-Sorbonne for three months in 2015; and at the Centro de Ciencias Humanas y Sociales in Madrid for two months in 2016. She also took part in a month-long documentary film school as part of PIMIC, and remains grateful to the PhD students from the Department of Mediaeval History who stood in as various members of the Ottonian imperial family for her documentary on Mathilda of Quedlinburg.

Hearing about research topics during a reading party

Participants of a Summer School that brought together scholars and postgraduate students

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Research areas

Medieval History

Professor F Andrews (fea@st-andrews.ac.uk)  
Late medieval Europe, in particular Italy; Ecclesiastical and religious history.

Professor M Brown (mhb@st-andrews.ac.uk)  
Political society of Scotland c.1250-c.1500 and the relationships between the various communities of the British Isles during the same period.

Dr R Cox (rvsc@st-andrews.ac.uk)  
Late medieval intellectual history; Military history and just war doctrine; Medieval assassination.

Dr J Firnhaber-Baker (jmfb@st-andrews.ac.uk)  
Early medieval France (1150-1450); Political and legal history; Revolts and rebellions; Archives.

Dr T Greenwood (twg3@st-andrews.ac.uk)  
Medieval Byzantium and the Near East (sixth to eleventh centuries) with particular interest in the Caucasus and Sasanian Persia.

Professor J Hudson (jghh@st-andrews.ac.uk)  
Medieval Legal History; Medieval historical writing: Political and social history of ninth- to thirteenth-century England and France; Nineteenth-century writings on legal and constitutional history of England.

Professor C Humfress (ch226@st-andrews.ac.uk)  
Roman law and legal history (Classical, Post-classical, Medieval); Modern legal theory; Law and anthropology; Religious, cultural and political history c.285-c. 600 AD; History of Ideas.

Dr D Kastritis (dk19@st-andrews.ac.uk)  
The political, cultural, and intellectual history of the early and classical Ottoman Empire; Byzantium, and the larger Islamic world, particularly in the late Middle Ages.

Professor S MacLean (sm89@st-andrews.ac.uk)  
Early medieval Europe (eighth to eleventh centuries), in particular the political, social and cultural history of the Carolingian Empire and its successor kingdoms; The Vikings; Kingship and queenship.

Dr J Palmer (jtp21@st-andrews.ac.uk)  
Early Medieval Europe (sixth to ninth centuries), in particular the cultural and political history of the Merovingian and Carolingian kingdoms; Anglo-Saxon England; ‘Barbarians’ and Vikings; Saints’ cults and hagiography; Apocalypticism.

Professor A Peacock (acsp@st-andrews.ac.uk)  
Middle Eastern and Islamic history and culture, c. 750-1650; Arabic and Persian historiography and manuscripts; History of the Indian Ocean region.

Dr A Stewart (ads@st-andrews.ac.uk)  
The eastern Mediterranean world in the age of the Crusades, with a particular interest in diplomatic, cultural and military encounters – especially relating to the Mamluks, the Mongols and the Armenians.

Dr A Wooff (aw40@st-andrews.ac.uk)  
The Late Antique West (c.350-650); Sub-Roman Britain; Anglo-Saxon England (particularly before 900); Dark Age Economics; Celtic History to 1175; Scandinavian History from the Iron Age to c. 1250.

Professor C Humfress  
Roman law and legal history (Classical, Post-classical, Medieval); Modern legal theory; Law and anthropology; Religious, cultural and political history c.285-c. 600 AD; History of Ideas.

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Early Modern History

Dr E Hart (efh2@st-andrews.ac.uk)  
Early America; British Atlantic World; Urban history in Britain and America 1660-1850; Economic and social history in early modern Britain and America; Material culture and the history of consumer society.

Dr B Heal (bmh6@st-andrews.ac.uk)  
European (especially German) religious and social history c.1450-1700, in particular the visual culture of the Reformation and Counter-Reformation and women's history.

Professor C Kidd (ckk3@st-andrews.ac.uk)  
Early Modern and Modern Intellectual History (broadly defined, including literature, anthropology, law and church history); Constitutional theory; Modern Scottish history; Racial, national and ethnic identities.

Professor R A Houston (rah@st-andrews.ac.uk)  
Scottish and English social history c.1450-1850; History of psychiatry, 1450-1850; Legal history, 1450-1850.

Professor R Mason (ram@st-andrews.ac.uk)  
Political thought and culture in late medieval and early modern Scotland and Britain; Renaissance and Reformation Studies.

Early Modern History

Dr E Hart  
Early America; British Atlantic World; Urban history in Britain and America 1660-1850; Economic and social history in early modern Britain and America; Material culture and the history of consumer society.

Dr B Heal  
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Professor R A Houston  
Scottish and English social history c.1450-1850; History of psychiatry, 1450-1850; Legal history, 1540-1850.

Professor R Mason  
Political thought and culture in late medieval and early modern Scotland and Britain; Renaissance and Reformation Studies.

Professor G Rowlands (gr30@st-andrews.ac.uk)  
Early modern British political, religious, and intellectual history – in particular kingship, counsel, religious identity, and toleration, c.1500 to c.1700.

Professor S Murdoch (sm117@st-andrews.ac.uk)  
Scottish and British relations with Scandinavia and Northern Europe 1560-1750; Scottish Maritime History; European contacts with Asia c.1500-1750.

Professor A Peacock  
Scottish and English social history c.1450-1850; History of communication – especially the history of the book.

Professor A Pettegree (admp@st-andrews.ac.uk)  
Reformation history; The history of communication – especially the history of the book.

Dr J Rose (jer9@st-andrews.ac.uk)  
Early modern British political, religious, and intellectual history – in particular kingship, counsel, religious identity, and toleration, c.1500 to c.1700.

Professor R Rowlands  
Seventeenth- and eighteenth-century European history – particular interest in military, naval and financial history, French history, and European international relations.
Modern History

Dr D Allan (da2@st-andrews.ac.uk)
Scottish, British and European history 1500-1900, with particular interest in cultural and intellectual history, historiography, the history of ideas and political thought.

Professor A Ansari (aa51@st-andrews.ac.uk)
History and historiography of modern Iran; Ideology, myth and nationalism; Social and intellectual history; Iran and the West.

Dr R Bavaj (rjbfb@st-andrews.ac.uk)
Twentieth-century German history, with particular interest in intellectual, conceptual and spatial history, and with particular emphases on radicalism, liberalism, modernity and ‘the West’.

Dr J Clark (jfc2@st-andrews.ac.uk)
Nineteenth- and twentieth-century British and Canadian history, including history of environment, science, and medicine (with particular interests in history of natural history, pollution, and environmentalism).

Professor G De Groot (gdjg@st-andrews.ac.uk)
Twentieth-century British and American History, including the Atom Bomb; World War I; The 1960s; The effects of war; Female soldiers.

Dr S Easterby-Smith (ses22@st-andrews.ac.uk)
Eighteenth-century French and British cultural and social history. Particular interests in history of science and global history, trade and consumption, cultural exchange, history of collecting and gender.

Dr K Ferris (kfl50@st-andrews.ac.uk)
Modern European history, with a focus on Italy and Spain from the late-nineteenth- to the mid-twentieth century, the history of everyday life and the ‘lived experience’ of dictatorship.

Dr A Fyfe (akf@st-andrews.ac.uk)
British cultural history in the late eighteenth and nineteenth centuries, with particular emphasis on science and technology, religion, the book trade and children’s literature.

Dr T Kamusella (tdk2@st-andrews.ac.uk)
The politics of language; Cultures, politics and societies in modern Central and Eastern Europe; Europe’s Roma (‘Gypsies’); Ethnic cleansing and genocide.

Dr C Kaul (ck24@st-andrews.ac.uk)
British Imperialism and Print Culture in the nineteenth and twentieth centuries; Modern South Asia, especially Indian history and politics; British media and popular culture including contemporary media; Globalisation and transnational communications.

Professor C Kidd (ck19@st-andrews.ac.uk)
Details above under Early Modern History.

Dr K Lawson (klml8@st-andrews.ac.uk)
Modern East Asian history (Japan, China, Taiwan, and the Korean peninsular); Decolonisation in East and Southeast Asia; Transition justice, human rights, and international humanitarian law; Aftermaths of modern war.

Dr G Mitchell (gamm2@st-andrews.ac.uk)
Post-1945 popular music in the United States, Britain and Canada.

Professor F L Müller (flm3@st-andrews.ac.uk)
European history from 1815 to the Second World War; Political and cultural history of Germany and Britain; Nationalism, liberalism, imperialism, militarism, foreign policy, biography and the role of monarchy throughout the nineteenth century.

Dr F Nethercott (fn4@st-andrews.ac.uk)
Russian nineteenth- and twentieth-century intellectual history with a particular focus on the dynamics of ‘cultural transfer’ across France, Germany and Russia; Russian historiography from the late eighteenth century to the present.

Dr J Nott (jn4@st-andrews.ac.uk)
Twentieth-century British social and cultural history; Popular culture and leisure (esp. music, dance halls); History of mass media (cinema, radio, gramophone); The British Film Industry; The BBC; Class and culture; Interwar Britain; Second World War home front.

Dr M Petrie (mp49@st-andrews.ac.uk)
Political history of Scotland and Britain in the twentieth century; Political thought and the development of popular politics; Scottish nationalism and unionism; The Labour Party and the radical tradition; Communist and Fascism in inter-war Britain.

Dr B Struck (bs50@st-andrews.ac.uk)
European history in comparative and translational perspective since later eighteenth century; History of travel, networks, cartography and science; Representation of space and borderlands.

Dr S Tyre (st29@st-andrews.ac.uk)
European (especially French) colonialism in the late nineteenth and twentieth centuries; Decolonisation; Post-colonial Europe; Twentieth-century French history.

Professor R Whatmore (rw56@st-andrews.ac.uk)
Early Modern and Modern Intellectual History (including politics, international relations, political economy and religion); Theories of empire, democracy and war; Enlightenment, revolution and the idea of Europe.

Dr A Yechury (ay21@st-andrews.ac.uk)
South Asian Studies; Comparative and global history in the nineteenth and twentieth centuries; Imperialism; The French in India.

Middle Eastern History
(Staff research interests are listed above)

Professor A Ansari
Dr T Greenwood
Dr D Kastritsis
Professor A Peacock
Dr A Stewart

Scottish History
(Staff research interests are listed above)

Dr D Allan
Professor M Brown
Professor C Kidd
Professor R Mason
Professor S Murdoch
Dr M Petrie
Dr A Stewart
Specific funding available

- We offer competitive scholarships and bursaries for postgraduate support and we are part of the AHRC-funded Scottish Graduate School for the Arts & Humanities and the ESRC-funded Scottish Graduate School of Social Science.
- All History postgraduates at St Andrews receive annual financial assistance from the School of History to subsidise research expenses.
- Postgraduates can apply for funding to support the organisation of conferences and seminars; this has led to some highly successful events and subsequent publication.

For information on other funding opportunities within the School of History see: www.st-andrews.ac.uk/history/postgrad/postgradfunding

Careers

We are committed to enhancing the employability of our postgraduates, by offering skills training, language training, and teaching experience. Large numbers of students who completed their doctoral studies in History are now in academic posts in the UK, North America or further afield, for example, the University of Oxford, University of Toronto and the Medici Archive Project (New York / Florence). Others have pursued careers where their historical training is particularly pertinent, working in archives, libraries, or schools. Many others have applied the skills acquired during their doctoral studies to work in new areas, from research strategy analysis to communications departments, teaching to journalism.

Please see page 25 for details of the University’s Careers Centre.

Postgraduate seminar series

The History postgraduate community at St Andrews is especially vibrant, with many opportunities for students to present their research, acquire new skills, and meet other postgraduates.

Over the past few years, both the Early Modern and Modern History (EMMH) Postgraduate Forum and the Mediaeval History Seminar Series have become a fixture both among PhDs and MLitt students. They provide a comfortable and relaxed environment for postgraduates to present their research, receive feedback, and generate discussion among their peers. Some papers have gone on to be published in peer-reviewed journals or have become the capstones of thesis projects.
The School of International Relations is the only one of its kind in Scotland and one of the few that exists in the UK. There are over 40 academic members of staff in the School.

There is a large and vibrant postgraduate community, with approximately 100 taught postgraduate and 90 research students in any year, many from overseas, as are several staff members.

We have an established reputation throughout the world for high-quality teaching and research.

International Relations was second in Scotland for its world-leading research in the UK Research Excellence Framework 2014.

We have specialist areas in international security, terrorism studies, peace and conflict, international theory, international institutions, and regional studies including the Middle East, South Asia, Central Asia, East Asia, South America and Africa.

Contact

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www.st-andrews.ac.uk/ir
Research community

International Relations has been taught at the University since 1978. A department was created in 1990, which became an academic School in its own right in 2003. We are located at the centre of the University, occupying a purpose-built building which opened in 2008.

International Relations is a distinct discipline that draws on diplomatic history, political theory, political economy, political science and international law to provide theoretical perspectives to explain the processes and patterns of international affairs in the modern world. This enables you to assess developments in the international system and specific geographic regions. Issues relevant to IR include the origins of war and peace, foreign policy making, international trade, international terrorism, human rights, international organisations, international law and the interaction of political and economic development. IR scholars also analyse the ways in which states relate to other international actors and develop normative theories that relate the world as it is to the world as it might be. All of these have practical applications for individuals as both citizens and as potential decision makers.

A vibrant and diverse postgraduate research community is integral to the School’s research culture. Approximately 90 PhD and MPhil students make a significant and valuable contribution to the intellectual life of the School, pursuing research that brings a distinctive multi- and interdisciplinary perspective to the study of international politics. The School’s strong research environment is also evident in a wealth of events and activities. These include a School-wide seminar series that brings major academic figures to St Andrews, five other seminar series hosted by specialist Centres within the School, occasional conferences and many other less formal events held throughout the year. There is also a seminar series which allows research students and staff to present work in progress with their peers and staff. A number of academic journals are edited by members of the School as well. These include the Journal of International Political Theory, Global Constitutionalism, International History Review, Syrian Studies, Hobbes Studies, Terrorism and Political Violence, War in History.

Recent graduates have produced theses on gender and peace promotion in a military intervention context; authoritarian resilience in Yemen; terrorism, the state and counter-terrorism; international political theory and the refugee problem; China’s engagement with Africa; the political thought of Mencius and Aristotle; the peacebuilding role of diaspora and religious actors. Current thesis topics include the experiences of colonial troops in World War One; the UK’s counterterrorism strategy; sectarianism in Syria and Bahrain; Indian foreign policy; peacemaking in post-conflict Northern Ireland; Chechnya and relations with Russia; co-operation between Transatlantic Security Agencies; cosmopolitanism, intervention and violence; Ethiopian foreign policy; The European Union and Central Asia; Responsibility to Protect.

Research students also benefit from an ongoing series of professional development workshops offered by the University’s GRADskills Programme (see page 24).

Training

You receive compulsory training in research methods and issues during your first semester through the School’s taught module, Research in International Relations. In second semester, there is a PhD Research Workshop which allows you to present your refined research proposal or draft chapter to your peers for feedback. You also have the option to take any of four social science research training modules (quantitative and qualitative methods, and philosophy and methodology of the social sciences) which are offered by the Faculty of Arts. In addition, you complete at least four short GRADskills courses/workshops during your first year, on matters addressing professional networking, career management, time management, and presentation skills.
Research Centres and Institutes

- Centre for Global Constitutionalism (CGC)
- Centre for Peace and Conflict Studies (CPCS)
- Centre for Russian, Soviet, Central and Eastern European Studies (CRSCEES)
- Centre for Syrian Studies (CSS)
- Handa Centre for the Study of Terrorism and Political Violence (HCSTPV)
- Institute of Middle East, Central Asia and Caucasus Studies (MECACS)
- Institute for the Study of War and Strategy

For full details see: www.st-andrews.ac.uk/research/university/centres

International Relations

Research areas

Further details and email addresses are available at: www.st-andrews.ac.uk/ir/people

International security

Dr R Beasley: Foreign policies of coalition governments; Psychological consequences of elections; Perceptual theory of legitimacy.
Professor R Fawn: International security and international relations theory with a geographical interest in Central & Eastern Europe and the Caucasus.
Professor P O’Brien: Twentieth-century international political and strategy especially World War I and World War II; Airpower in the twentieth century.
Professor R Fawn: International security and international relations theory with a geographical interest in Central & Eastern Europe and the Caucasus.

Dr S Scheipers: Irregular fighters; Rules and constraints of war; Prisoners of war; Heroism and courage in war.
Professor Sir H Strachan: Strategic studies especially World War I; Clausewitz.

Terrorism studies

See also: www.st-andrews.ac.uk/~cstpv

Dr J Argomaniz: European Union counter-terror policies; International co-operation in counter-terrorism; Basque Terrorism.
Dr B Blumenau: History of terrorism; German terrorism and antiterrorism policies; Links between terrorism and the Cold War; International organisations and multilateral antiterrorism efforts.
Dr C Gentry: Feminist theory; Gender studies; Political violence.
Dr P Lehr: Piracy and maritime terrorism; Terrorism and violence in South and South East Asia.
Dr K McConaghy: Ethno-nationalist terrorism; Nationalism and the politics of independence movements; State and media discourses on terrorism; Regional specialisation on Northern Ireland.
Dr D Muro: Terrorism; Ethnic conflict; Social movements; Comparative politics; Basque nationalism.
Dr G Ramsay: Jihadist ideology and culture; Cyberterrorism and terrorism on the Internet; Online dimensions of counterterrorism policy.
Dr T Wilson: Comparative approaches to the study of inter-communal violence across Europe and the Middle East.

Peace and conflict

Dr R Brett: Contexts of violence; Post-conflict social transformation; Mass atrocities and their endings; Politics and resistance in Latin America.
Dr H Cameron: State crime; Global elite bystanders and international criminal law; State and corporate complicity in political violence; Torture; Genocide; War crimes; Crimes against humanity.
Dr F Donnelly: Critical security studies; constructivism and language games; Securitization and rules; Identity and emblems.
Professor K M Fierke, (Director of the Centre for Peace and Conflict Studies): Narrative, emotion and trauma in conflict and its transformation; Healing after conflict and war.
Dr J McMullin: Ex-combatants; Conflict and post-conflict transition; Peacekeeping and peace-building; The United Nations; African politics.
Dr J Murer: Collective violence; Ethno-conflict and the psychology of identity politics.
Dr G Sanghera: UN peacekeeping; Human rights; Globalisation; The ‘politics’ of race and ethnicity post-9/11 and 7/7; Critical theory.
Professor A Watson: Childhood studies; Children in international relations; Activism; Motherhood.
Professor A Williams: International history; Conflict resolution.
International institutions and law

Dr A Bower: International law; Multi-lateral treaties; Disarmament.

Dr M DeVore: Political economy of the arms trade; Civil-military relations and violent non-state actors.

Professor A Lang: International political theory; Global constitutionalism; Ethics and the use of force.

Dr M Peter: Global governance and international organisations; Politics of international interventions; Peace operations and stat-building.

Dr W Vicek: International political economy; Offshore financial centres; Small states; Terrorist finance.

Regional studies including the Middle East, Central Asia and Southern Africa

Professor J Anderson: Soviet and post-Soviet politics; Religion and politics.

Dr F Costa Buranelli: IR theory especially the English School; Global governance and international institutions; Geographic specialisation: Central Asia.

Professor S Cummings: Arts; aesthetics and culture in relation to politics and security; Politics of identity; Nation- and state-building in Eastern Europe; Geographical specialisation: Central Asia.

Dr M Fumagalli: Ethnic conflict and violence; Energy and the politics of natural resources; Comparative authoritarianism; Asian security; Post-Soviet politics (especially Central Asia and the Caucasus); Myanmar.

Dr J Gani: Syrian foreign policy and contentious politics; Ideologies in the Middle East; European coloniality and legacies in the Middle East; Islam and politics; Critical perspectives on women’s activism in the Middle East.

Dr K Harkness: Conflict studies and ethnic politics of sub-Saharan Africa.

Professor R Hinnebusch: Syria, Egypt and the international relations and political economy of the Middle East.

Dr F McCallum: Christian communities and minorities in the Middle East; Religion in international politics; Interfaith dialogue; Migration and diasporas.

Dr C Ogden: International relations and domestic politics of South Asia (primarily India) and East Asia (primarily China); International relations theory; Social psychology; Identity politics.

Dr A Saouli: Historical Sociology, state formation, and social movements; Politics and international relations of the Middle East; Politics and foreign policy of divided states (Lebanon, Syria, and Iraq) and non-state actors (especially Hizbullah); Political violence.

Dr H Tamm: Conflict in sub-Saharan Africa especially the impact of external support for rebel groups.

Professor I Taylor: International relations of Africa; Africa’s political economy.

Dr F Volpi: Middle East; Democratisation and civil society; Religion and politics.

International theory

Professor P Hayden: International political theory; Human rights and global justice; Contemporary political theory; Genocide studies.

Dr V Paipais: Philosophy of science in international relations; International relations theory; Political theology.

Professor N Rengger: International and global ethics; International relations theory; The history of political and international thought.

Dr G Slomp: History of political thought; Thomas Hobbes; Carl Schmitt.

Help with financing your studies

The opportunity to work as teaching assistants (tutors) on first and second year undergraduate programmes may be available, but cannot be guaranteed for all who apply. Stipends attached to these appointments provide a useful source of support for postgraduate students in their second and third years. The School also offers highly competitive Economic and Social Research Council (ESRC) studentships through its involvement in the Scottish Doctoral Training Centre as well as highly competitive Arts and Humanities Research Council (AHRC) studentships.

Careers

Many graduates of our programme go on to careers in the academic field as university teachers, researchers or administrators. Some have gone into government service, including international organisations, while others find employment with NGOs, think-tanks, the media, the military, as well as the private business and financial sectors.

Recent PhD graduates from this School hold academic positions at many universities including St Andrews, Edinburgh, Manchester, Kings College London, Aberdeen, Portsmouth, Leiden, University College Dublin, Athens, Applied Sciences in Germany, National Research University Higher School of Economics in St Petersburg, American University of Iraq Sulaimani, Manitoba. Others are employed with the governments of the UK, South Africa, Canada and Georgia, the Centre for Strategic and International Studies in Washington DC, the African Union Peace Support Operation Division, United Nations Stabilisation Mission in the Democratic Republic of the Congo, Diakonia in Jerusalem, Hopelink NGO in Seattle, Centre for Humanitarian Dialogue in Nairobi, Figure 8 consultancy services in Scotland, Xyntee environmental consultancy in London and Controls Risk consultancy in South Africa.

Please see page 25 for details of the University’s Careers Centre.
Management

In the UK Research Excellence Framework 2014, the School of Management was placed thirteenth in the UK on Grade Point Average (out of 101 submissions), and fourth in the UK based on ‘intensity’ – a measure which considers the percentage of eligible staff submitted to the REF.

The School of Management at the University of St Andrews is a research intensive environment, operating under the overarching theme of ‘responsible enterprise’.

This theme reflects a set of values that shape what we research, the manner in which we undertake research, how we manage the School, and how we work with one another. We undertake research on structures, strategies and practices that can help organisations, industries and government agencies to operate more effectively and responsibly. We also seek to expose and challenge irresponsibility, hidden discourses and inequities in organisations, industries and government agencies. We believe that our research should be of demonstrable benefit to society. This benefit is realised via regular and open engagement with potential beneficiaries (including policy makers, organisation leaders, professionals and practitioners in local communities and the wider private, public and third sector).

The School has built and fostered a research environment that is highly collaborative. Research is organised into five thematic groups, which are central to the activities of the School, organising, for example, seminars, visiting speakers and reading groups. You are embedded in a group from arrival and this relationship is central to your intellectual and academic development. The thematic groups are:

- Cultural and Creative Industries (CCI)
- Ethics, Sustainability and Accountability (ESA)
- Financial Institutions and Markets (FIM)
- Knowledge and Practice (K&P)
- Organisations and Society (O&S)

Many of our academic staff belong to more than one group. Staff also contribute to three research institutes (which engage in both teaching and research):

- St Andrews Sustainability Institute (SASI)
- Social Dimensions of Health Institute (SDHI)
- Institute for Capitalising on Creativity (ICC)

There are also four research centres (which engage in research only):

- Centre for Responsible Banking and Finance (CRBF)
- Centre for Social and Environmental Accounting Research (CSEAR)
- Centre for the Study of Philanthropy and Public Good
- Research Unit for Research Utilisation (RURU)

For full details see: www.st-andrews.ac.uk/research/university/centres

Contact
E: phdres@st-andrews.ac.uk
T: +44 (0)1334 461969
www.st-andrews.ac.uk/management
A cosmopolitan study environment is critical to networking on a global stage. There are numerous countries represented at the University providing a truly international student community in which to learn. This cosmopolitan aspect of your education will allow you to become familiar with cross-cultural issues and to develop personal networks across the globe, an important factor in professional and personal development.

The School has a student population of approximately 695 undergraduates, 215 taught postgraduates and 31 PhD students. We have 35 academics and 9 teaching fellows.

The School of Management has staff and students from over 35 countries, representing a wide diversity of cultures and interests. Our programmes are student-centred and our staff are here to ensure that your arrival and integration into your programme of study are smooth and enjoyable. In addition, our students have developed a Management Society within the University which organises a broad range of activities, both subject-related and social. The University also has a number of other student societies relating to the management discipline.

The School has successfully competed for, and received, major grants which have funded the development of projects in key research themes. The results of this research have been reported in the top international journals as well as being used by policy makers and practitioners. Our research guides and informs our teaching in the School where we encourage you to engage critically with this subject matter and develop your skills in analysis, synthesis, evaluation and application. We believe that research and teaching should produce and communicate both theoretical and practical insights.

You can keep up-to-date with School of Management developments at: www.st-andrews.ac.uk/management
Supervision and support

In addition to your meetings with your supervisor, the great strength of our programme is informal access to supervisory expertise and that of other colleagues through the thematic groups.

You will have access to a wide range of training courses, provided by the University’s GRADskills Programme (see page 24). In addition, the School of Management provides in-house training for doctoral candidates on a needs-driven basis, focusing most recently on research and writing skills. First-year doctoral candidates without a specialised research methods background may also access the University’s Masters level research training, with modules accredited by the ESRC.

The School of Management is a member of the ESRC Scottish Graduate School of Social Science and you can benefit from a wide range of developmental courses in the social sciences, culminating in the annual SGSSS Summer School, held in June. You can find full details on the SGSSS website: www.socsciscotland.ac.uk

MRes programme

The School of Management will recommend enrolment to doctoral candidates on an individual basis. There is no direct application to this programme. It is designed for students who intend to pursue doctoral study and in particular those with a research interest aligned to the Schools’ research themes. The focus is on core research skills and equipping students with a wide knowledge of contemporary management thought.

MRes degrees are taught programmes with specific research training built in, and a dissertation of 15,000-20,000 words.

Modules comprise a combination of interdisciplinary and School of Management-specific modules:

- Being a Social Scientist (interdisciplinary)
- Contemporary Conceptual Issues in Management
- Contemporary Global Issues in Management
- Quantitative Methods in Social Research (interdisciplinary)
- Qualitative Methods in Social Science (interdisciplinary)
- Philosophy and Methodology of the Social Sciences (interdisciplinary)
- Optional/Elective modules
- Dissertation
Research areas

Creative and Cultural Industries
Dr R Brown: Entrepreneurship and public policy; Innovation; International business.
Dr S Chillas: Graduate labour market; Employability; Sociology of professions.
Dr G Greig: Knowing and learning in organisations; Activity theory.

Ethics, Sustainability and Accountability
Professor J Bebbington: Sustainable development; Academic work in practice.
Dr B Bratanova: Social psychology; Sustainability; Economic condition.
Professor J Ferguson: Accountability; Governance; Ethics.
Dr S Mansell: Business ethics; Stakeholder theory; Moral and political philosophies of business.
Dr F-R Puyou: Cultural approaches to accounting.
Dr P Roscoe: Formation and organisation of markets; Economisation.
Dr S Russell: Social and environmental accounting; Environmental governance.
Ms L Stevenson: Social and environmental accounting.

Knowledge and Practice
Dr C Akinci: Decision making; Organisational learning.
Dr S Chillas: Graduate labour market; Employability; Sociology of professions.
Professor H Davies: Healthcare policy and management; Policy design and implementation; Organisational dynamics and performance; Public accountability.
Dr G Greig: Knowing and learning in organisations; Activity theory.
Professor P Hibbert (Dean of Arts & Divinity): Management learning and leadership formation; Collaborative organisations.
Dr T Jung: Philanthropy, nonprofits and third/public sector management.
Dr L Lasselle: Issues in globalisation and education.
Professor K Orr: Public sector leadership and learning.
Dr S Romenska: Leadership; Innovation; Collaboration.

Financial Institutions and Markets
Dr P Abedifar: Banking; Islamic finance.
Dr K Bouslah: Investment analysis; Portfolio management; Asset pricing; Risk management.
Dr J Chen: Time-series modelling; Risk management; Responsible investment.
Dr D Chronopoulos: Banking; Productivity; Asset pricing; Mergers and acquisitions.
Dr L Lasselle: Education; Heterogeneous beliefs; Central banks.
Dr L Nguyen: Corporate finance; Governance; Bank regulation.
Dr D Oto-Peralias: Law and finance; Institutions; Inequality.
Professor R Scholten: Corporate social responsibility; Socially responsible investing; Environmental economics.
Professor J Wilson: European banking; Credit unions; Industrial organisation.

Organisations and Society
Professor K Ball: Big Data; Privacy; Organisation.
Dr A Baluch: Human resource management; Public and non-profit management; Organisational performance; Change and learning; Case study methods.
Dr R Brown: Entrepreneurship and public policy; Innovation; International business.
Dr E Burt: Third sector information management; Strategic positioning; Values, identity and professionalism.
Dr M Khalik: Firm internationalisation; Base of the pyramid; Emerging markets.
Professor B MacKay: Strategy; Scenarios; Economy.
Dr J Summers: Employee-ownership; Deliberative democracy; Social identity.
Professor R Woodfield: Gender differences and inequalities; Employment; Education.

Careers
Recent PhD graduates have taken up teaching and research positions at the universities of St Andrews, Cambridge, Dundee, Edinburgh, Glasgow and Bangor. Outside the university sector, recent PhDs have joined organisations as diverse as Google and the Royal Court Theatre.

Please see page 25 for details of the University’s Careers Centre.
Mathematics & Statistics

- The School has 36 permanent staff members and 48 postdoctoral and honorary research staff.
- The School typically accepts 9-12 research students each year.
- St Andrews plays a key role in the Scottish Mathematical Sciences Training Centre (SMSTC) that provides a wide range of postgraduate lecture courses to PhD students at several universities in Scotland. Further details are available at SMSTC's website: www.smstc.ac.uk
- We have first-rate facilities and an excellent environment for research.
- We offer opportunities to work closely, and undertake project work, within a world-leading research group.
- The School also offers the opportunity for a joint PhD degree with the universities of Cape Town, South Africa and Grenoble, France where candidates would spend between one and two years.

Contact

E: maths-research-enquiries@st-andrews.ac.uk
T: +44 (0)1334 462344
www.st-andrews.ac.uk/maths
Postgraduate community

The School of Mathematics & Statistics has a thriving postgraduate community consisting of around 40 research students, studying for a PhD degree, 43 full-time academic staff, an undergraduate student population of around 300, more than 20 MSc students and more than 40 postdoctoral researchers and honorary staff. The size of our School promotes a friendly atmosphere, allows for the cross-flow of ideas, and at the same time provides the depth of scholarship necessary to pursue major scientific programmes at an international level. The three Divisions within the School (Pure Mathematics, Applied Mathematics and Statistics) provide the natural environment for producing high-quality research and there are strong links between the different research groups. In particular, we are proud of our strong interdisciplinary links with computer science, biology, astronomy and geoscience.

Facilities

The School provides an excellent environment and first rate facilities for research students. It is well-equipped with computer facilities, and houses a large parallel computer. The J F Allen Library is located in an adjacent building. The School’s research groups regularly attract substantial amounts of external funding.

Supervision

Research students are members of one the School’s research groups and supervised by leading experts in their respective research area. You will have at least two supervisors (usually a principal supervisor and a second supervisor, but other arrangements are also possible).

Research Centres and Institutes

- Centre for Interdisciplinary Research in Computational Algebra (CIRCA)
- Centre for Research into Ecological and Environmental Modelling (CREEM)

For full details see: www.st-andrews.ac.uk/research/university/centres

Young Researchers in Mathematics Conference

The School hosted the eighth Young Researchers in Mathematics (YRM) Conference in August 2016. It was organised by PhD students for PhD students and attracted about 200 participants from across the UK.

Research areas

For full profiles and email addresses go to: www.st-andrews.ac.uk/maths/people

Research Groups:
Pure Mathematics Division

Algebra and Combinatorics

www.mcs.st-andrews.ac.uk/pg/pure/Algebra

Professor R A Bailey
Dr C Bleak
Professor P J Cameron (Head of Group)
Dr S Huczynska
Dr J D Mitchell (Director of Postgraduate Studies)
Dr M R Quick (Head of Pure Mathematics Division)
Dr C M Roney-Dougal
Professor N Ruskuc
Dr L Tharan

This research group supports a large volume of activity, such as:
- Original research into several areas at the cutting edge of algebra, combinatorics and discrete mathematics.
- A large number of research students and research collaborations, both within the group and with leading specialists worldwide.
- Involvement in interdisciplinary research, especially through CIRCA (see Computer Science page 42) at the interface with theoretical computer science, including the development of computer algebra systems.
- Weekly reading group and seminar programmes, organisation of international conferences, and research summer schools for undergraduates.

Specific areas of expertise include group theory, semigroup theory, combinatorics and discrete mathematics.
- The study of groups, and in particular computational group theory, was brought to St Andrews through the pioneering efforts of Campbell and Robertson. Group presentations and permutation groups have been the centre of attention for some time. New topics have been added more recently through the work of Quick, Roney-Dougal and Ruskuc: computation with matrix groups, structural theory and properties of infinite groups, varieties of groups, and connections between group and semigroup presentations.

Analysis Research Group

www.mcs.st-andrews.ac.uk/pg/pure/Analysis

Professor K J Falconer
Dr J Fraser
Professor L Olsen (Head of Group)
Dr M Todd

We have one of the world’s strongest research groups in fractal and multifractal geometry and dynamical systems, reflecting a reputation built up over many years and continuing into the present. Members of the group have done foundational research leading to many highly cited papers and books. Activities are based around weekly research seminars, learning seminars that are organised around specific topics and informal meetings. The group has an active and vibrant programme including research students, postdoctoral staff and visitors.

The interests of the core members of the Group, Kenneth Falconer, Jon Fraser, Lars Olsen and Mike Todd, ranges across geometric measure theory, fractal and multifractal geometry, dynamical systems, ergodic theory, thermodynamic formalism, Fourier methods, stochastic processes, differential equations on fractals, metric number theory, and related topics. Two Group members also work in Algebra and Combinatorics: Collin Bleak uses dynamical methods to study infinite groups, and James Mitchell’s research includes topology and combinatorial properties of functions.

St Andrews is one of the oldest centres for semigroup theory, due to the work of Howie and Blyth. With Mitchell and Ruskuc this tradition continues, and the research portfolio has been widened to cover a broad range of specific topics and projects. Probably the most exciting new developments are the theory of semigroup presentations, transformation semigroups, automatic structures for semigroups, combinatorics on infinite semigroups, and computational semigroup theory. Cameron and others pursue connections among transformation semigroups, graph endomorphisms, and synchronizing automata.

Current research in combinatorics, conducted by Cameron, Huczynska and Ruskuc, includes selected topics on permutations, mappings, words and finite fields. The work of Bailey on experimental design in statistics also has links to combinatorics.

For full profiles and email addresses go to: www.st-andrews.ac.uk/maths/people
This Group is supported by a Consolidated Grant from the Science and Technology Facilities Council and a European Research Council grant to Professor De Moortel. We attract a large number of international visitors for collaborations with staff, postdoctoral research assistants and PhD research students working in the Group.

Our approach to carrying out research on the nature of the Sun and the Magnetosphere is to set up a mathematical model of a dynamic phenomenon, observed by recent space missions, and then to explore its fundamental properties. This involves analytical methods (perturbation theory, special functions, ordinary and partial differential equations) combined with computer simulations. The numerical simulations are undertaken on multi-processor parallel computers, giving the opportunity to learn about the exciting new numerical techniques that are employed on such a computer.

The Group is currently investigating a wide range of different phenomena, including flux emergence, sunspots, coronal heating and solar flares, magnetic waves and instabilities, magnetic reconnection, global coronal field evolution and particle acceleration. We maintain close connections with solar observatories in various parts of the world and also with many current space missions, including Hinode, IRIS, SDO, RHESSI and STEREO. Thus, there is an exciting array of challenging problems for new research students to tackle.

Solar and Magnetospheric Theory Research Group
www.solar.mcs.st-andrews.ac.uk

Professor I De Moortel
Professor A W Hood (Head of Group)
Dr D H Mackay (Head of Applied Mathematics Division)
Professor T Neukirch (Head of School)
Professor C E Parnell
Dr A N Wright
Dr V Archontis (Royal Society University Research Fellow)

Vortex Dynamics Research Group
www.vortex.mcs.st-andrews.ac.uk

Dr M Carr
Professor D G Dritschel (Head of Group)
Dr J N Reinaud
Dr R K Scott
Dr C V Tran

We are studying the behaviour of nonlinear vortex interactions, wave-vortex interactions and turbulence, principally in relation to atmospheric and oceanic dynamics.

The atmosphere and oceans exhibit a multitude of wave and vortical phenomena across a vast range of spatial scales, from millimetres (where viscous forces come into play) to global scales, i.e. tens of thousands of kilometres. The effects of the Earth’s rotation and the generally stable density stratification (light fluid lying over heavier fluid) are crucial to many of these phenomena. Moreover, the huge available inertia (viscous dissipation is virtually negligible) implies that flow features tend to organise into long-lived coherent structures, i.e. vortices, whose interactions are greatly responsible for the flow evolution. These vortices and their interactions are highly nonlinear, leading to scale cascades, fine-scale structure, and general turbulence. In addition, these interactions excite internal-gravity waves, which may grow to nonlinear amplitudes and feed back on the vortex dynamics.

At the present time, we are studying fundamental aspects of vortex dynamics and wave-vortex interactions using a variety of approaches. Some analytical progress can be made for special classes of flows, or by perturbation theory. This is often used to complement more direct, numerical approaches, employing state-of-the-art numerical methods.

Research Groups: Statistics Division

Professor S T Buckland
Dr D L Borchers (Head of Statistics Division)
Professor R A Bailey
Dr M Papathomas
Dr M MacKenzie
Dr J B Illian
Dr C Donovan

Statistical Inference Research Group
www.st-andrews.ac.uk/statistics/indexstatsinf

There is an increasing need to analyse a variety of types of data for which standard methods are inadequate. Fundamental research in this area includes:

- Method development for spatial point process modelling, i.e. the analysis of the properties and geometry of patterns formed by objects in space.
- Bayesian statistics, including the development of efficient, and general, computational algorithms for Markov Chain Monte Carlo and particle filtering.
- Inferential methods for mark-recapture studies and also for plant-capture, in which estimation is assisted by the insertion of additional planted individuals into the target population.
- Development of empirical smoothing techniques, particularly in the presence of random effects.
Statistical Ecology Research Group
www.st-andrews.ac.uk/statistics/indexstatsecol.f rk
Research in statistical ecology is becoming increasingly important, not least in the management and conservation of ecosystems worldwide.

Particular areas of focus include:
- The design and analysis of sighting surveys.
- Wildlife population assessment.
- Modelling population dynamics.
- Embedding process models in statistical inference.
- Bayesian inference using sequential importance sampling and (Reversible jump) Markov Chain Monte Carlo.
- Generalised linear and generalised additive mixed models.
- Model uncertainty.
- Spatial point process modelling of ecological communities, including applications to biodiversity research.
- Biodiversity monitoring.

We are part of the National Centre for Statistical Ecology (NCSE), a joint centre with the universities of Bath, Bristol, Exeter, Glasgow, Kent and Sheffield, which is jointly funded by EPSRC and NERC. Established with a £11 million EPSRC Critical Mass grant, it is now funded under a similar-sized NERC grant, it is now funded under a similar-sized NERC.

Biodiversity monitoring.

We are part of the National Centre for Statistical Ecology (NCSE), a joint centre with the universities of Bath, Bristol, Exeter, Glasgow, Kent and Sheffield, which is jointly funded by EPSRC and NERC. Established with a £1.1 million EPSRC Critical Mass grant, it is now funded under a similar-sized follow-up award. The Statistical Ecology group is also the main driving force behind CREEM which was established in 1999.

History of Mathematics and its Applications
www-history.mcs.st-andrews.ac.uk/history
Several members of staff, including Dr Isobel Falconer, have active interests in the history of mathematics. Edmund Robertson and John O’Connor have created a large historical archive on the internet, comprising portraits and biographies of over 1,800 mathematicians as well as a wealth of other historical articles. Alex Craik is currently researching the work of several nineteenth-century Scottish and English mathematicians. At present we have two students working towards doctorates in this area.

The University of St Andrews Library is well equipped to support work on the history of mathematics. We would be interested to hear from any prospective students in this field.

London Mathematical Society Award
The London Mathematical Society (LMS) awarded the 2015 Hirst Prize and lectureship for the History of Mathematics to Dr John O’Connor and Professor Edmund Robertson for their creation, development and maintenance of the MacTutor History of Mathematics website that is hosted by the School and attracts in the region of two million hits per week. www-history.mcs.st-andrews.ac.uk

Financial assistance within the School
The School of Mathematics & Statistics is offering some or all of the following awards to suitably qualified applicants who in September 2018 will begin a programme of research at the University of St Andrews: up to four EPSRC Doctoral Scholarships, up to two Science and Technology Facilities Council (STFC) Doctoral Scholarships (only for PhDs in the Solar and Magnetospheric Theory Group) plus up to two scholarships funded directly by the School. All scholarships will be awarded for a minimum of three, and a maximum of four, years, and will cover either tuition fees and maintenance or tuition fees only, depending on eligibility.

These awards are only available to students who have already been accepted for a place and who match the eligibility criteria. For further details on eligibility as well as procedural guidelines and application deadlines please contact the School.

Research income
The School receives substantial research income from the research councils, the European Commission, the Scottish Funding Council and a wide variety of other public and private sources, both from the UK and overseas. In the past five years grants in excess of £10 million have been awarded.

Careers
Our graduates hold positions at leading universities and companies in areas as diverse as business administration, computer science and modelling, fisheries laboratories and pure mathematics. In short, a postgraduate degree in Mathematics or Statistics from St Andrews opens the way for a variety of careers. Our recent graduates at doctoral level have, amongst other things:

- Moved on to postdoctoral studies, at institutions such as: the Royal Observatory in Belgium, the universities of St Andrews, Dundee, Edinburgh, Bristol, Waterloo (Canada), Hebrew University of Jerusalem, Auckland (New Zealand), Cape Town (South Africa), International Council for Exploration of the Sea (Denmark), and Macau (China).
- Joined government and non-governmental organisations to advise wildlife and conservation managers, for example, GCHQ, and the Department for Communities and Local Government.
- Found academically rewarding positions and careers in the computer industry.
- Found rewarding and challenging positions in the finance industry.
- Joined companies such as: Leonodos (formerly Selex), Edinburgh, and Atkins (Cambridge).
- Joined the academic staff of leading UK and international universities.
- Found highly-paid positions in analysing futures/finance for large consulting firms and major financial institutions, such as the Royal Bank of Scotland, Tesco Bank, and KPMG.
- Found rewarding and challenging positions in the computer industry.
- Found academically rewarding positions and careers in government agencies, for example, GCHQ, and the Department for Communities and Local Government.
- Joined government and non-governmental organisations to advise wildlife and conservation managers, for example, the Wildlife Conservation Society.

Please see page 25 for details of the University’s Careers Centre.

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The University has undertaken one of the most ambitious projects in international medical teaching and research, with the construction of a new medical school at the heart of its science campus. This is a unique model designed to foster interdisciplinary collaboration and create significant advances in medical research. This also acknowledges the growing international consensus that the most significant advances in medical and biomedical research will result from unrestricted collaboration between medicine and the sciences.
With 22 active research groups, the School of Medicine offers postgraduate training for the degrees of MSc (Res), PhD and MD, in addition to providing clinical undergraduate training for the BSc (Hons) in Medicine. PhD positions are advertised on a regular basis on the School webpages. We have active research programmes covering a variety of areas of biomedical science. For example:

- Child and Adolescent Health Research
- Communication between patients and health care staff
- Genetics and epidemiology of neurodevelopmental disorders and cognitive traits
- Human carcinogenesis and cancer predisposition
- The immune system and inflammatory arthritis
- Interdisciplinary Centre for Medical Photonics
- Influence of diet on cancer risk and response to therapy
- Medical education
- Molecular mechanisms of exocytosis
- Nanoscale analysis of cells and organelles in health and disease
- Novel therapeutic approaches to tuberculosis
- Psychological aspects of oral cancer
- Cancer survivorship
- Receptor pharmacology and signal transduction
- Violence prevention
- Policy initiatives to improve health and reduce health inequalities
- Health promotion
- Implementation research in global health
- Addiction medicine
- Health informatics
- Community based clinical trials

For general information about the research activity of the School see: www.medicine.st-andrews.ac.uk/research

Prior to the offer of a place you may be invited to visit St Andrews. A visit to the University will provide the opportunity to meet potential supervisors (each postgraduate student works under the supervision of a member of staff), discuss your research project, and see something of the facilities available to research students.

Once Postgraduate Admissions have made an offer of a place and this has been accepted, arrangements will be made for you to be registered for the appropriate degree.

**Supervision and support**

**PhD**

During the first year of study the School may require your attendance on particular courses in order to acquire specific skills or knowledge, as appropriate to your area of study. The PhD degree may also be awarded through submission of a portfolio of published work, which must all be in the public domain at the time of submission. Examination of a PhD by portfolio is essentially similar to that of a PhD by thesis.

**MD**

The Doctor of Medicine research degree (MD) may be achieved by two routes. 1) The MD may be awarded as a result of research undertaken in St Andrews, for appropriately clinically qualified candidates. The minimum period of study on a full-time research project is two years, or four years for part-time study. 2) Graduates of the medical course at St Andrews are eligible for consideration for an MD no less than ten years after the date of their degree conferred by the University. Graduates of other universities who are presently members of staff at the University of St Andrews (of not less than four years’ continuous tenure as staff) are eligible for consideration as a candidate for the MD, provided it is no less than ten years after the date of their doctorate or other recognised terminal degree from any university. Submission is by portfolio of published work, all of which must be in the public domain.

**MSc (Res)**

We also welcome applications from suitable self-funded candidates to undertake a one year Master of Science by Research degree (MSc (Res)) to engage in a full time research project and write a dissertation. It is an excellent opportunity to spend a shorter time in a research environment either for a standalone degree or as preparation for a PhD.

**Award to PhD student**

Third-year PhD student, Gavin Robertson, has been awarded one of ten UK places on the Japan Society for Promotion of Science (JSPS) Summer programme 2017. This will provide an exciting opportunity for Gavin to conduct research under the guidance of world-leader Professor Hiroshi Takeshima at the Graduate School of Pharmaceutical Sciences, Kyoto University. The programme will run between 13 June – 23 August.
**Research areas**

**Molecular Medicine**

*Infection and Genomics*

**Professor S H Gillespie** (shg3@st-andrews.ac.uk)
Tuberculosis clinical trials; Molecular biology of mycobacteria; Evolution of antibiotic resistance; Genomics of novel respiratory pathogens; Application of molecular biological techniques; Whole genome sequencing in infection practice.

**Professor L Kent** (lsk8@st-andrews.ac.uk)
Molecular genetics of child psychiatric disorders.

**Dr J Cox Singh** (jcs26@st-andrews.ac.uk)
Malaria pathophysiology – *Plasmodium knowlesi*; Functional studies on genetic markers of parasite virulence; Innate immune mediators at the host-parasite interface.

**Dr S Paracchini** (sp58@st-andrews.ac.uk)
The genetics of neurodevelopmental traits (dyslexia and handedness) using GWAS, next generation sequencing, genetic epidemiology and model systems like neuronal cells and zebrafish.

**Professor M Holden** (mtgh@st-andrews.ac.uk)
Bacterial pathogen genomics – emergence and evolution of drug resistance; Functional genomics of virulence; Epidemiology of healthcare-associated infections; MIRSa genetics and evolution.

**Dr D Sloan** (djs26@st-andrews.ac.uk)
Translational therapeutics in tuberculosis and other infections; Clinical trials; Pharmacokinetic-pharmacodynamics; Clinical implementation of new diagnostic and treatment strategies.

*Cell Biology*

**Professor D Harrison** (djh20@st-andrews.ac.uk)
Quantitative and systems pathology, human tissue and translational research.

**Dr G Cramb** (gc@st-andrews.ac.uk)
Characterisation of the expression and functions of a novel family of phospholipase C genes (PLCXDs) on ion, lipid and structure in eukaryotic cells; Mapping signalling lipids and their regulators in health and disease.

**Professor M Holden** (mtgh@st-andrews.ac.uk)
The genetics of neurodevelopmental traits (dyslexia and handedness) using GWAS, next generation sequencing, genetic epidemiology and model systems like neuronal cells and zebrafish.

**Dr J Lucocq** (jml7@st-andrews.ac.uk)
Cell biology of human parasites including giardia, microsporidia and trichomonads; Function and biology of a relict mitochondrion – the mitosome; Biogenesis of the polar tube in microsporidia; Mechanisms of Golgi function in human parasites; Nanoparticle analysis in pathological diagnosis and drug delivery; Nanomorphomics analysis of molecules and structure in eukaryotic cells; Mapping signalling lipids and their regulators in health and disease.

**Dr S Pitt** (sjp24@st-andrews.ac.uk)
Investigating the molecular function of intracellular ion channels involved in control and regulation of Ca2+-release in health and disease, using a combination of electrophysiological and molecular techniques.

**Dr S Powis** (sjp10@st-andrews.ac.uk)
The immune system in health and disease; MHC class I immunobiology; The role of HLA-B27 in ankylosing spondylitis; Immune functions of secretory exosome nanovesicles.

**Dr P Reynolds** (par10@st-andrews.ac.uk)
Systems medicine approaches to novel signalling pathways; Hippo signalling pathway in health and disease; Resistance mechanisms to therapeutic drugs in cancer.

**Professor A Baldacchino** (amb30@st-andrews.ac.uk)
Neuropsychology and associated neuroimaging changes following chronic opioid use; Physical and psychiatric consequences as a result of illicit and licit substance misuse (including alcohol and nicotine dependence); Use of innovative and digital technology to deliver risk reduction programmes to substance users.

**Professor G Humphris** (gjmh4@st-andrews.ac.uk)
Health care professional and patient communication; Online or mobile communication to intervene with health messaging including addiction; Anxiety in cancer survivors and other care settings. Co-Director of World Health Organisation Collaborating Centre for International Child & Adolescent Health Policy.

**Dr D Cecil** (jc100@st-andrews.ac.uk)
Short-term controls of eating behaviour in children and adults; Gene-environment interactions in the development of obesity; Primary care communication on weight.

**Dr A Laidlaw** (ahl1@st-andrews.ac.uk)
Short-term controls of eating behaviour in children and adults; Gene-environment interactions in the development of obesity; Primary care communication on weight.

**Dr M Shearer** (msc6@st-andrews.ac.uk)
Medical ethics and health policy with particular interests in global health and research ethics.

**Dr A Baldacchino** (amb30@st-andrews.ac.uk)
Neuropsychology and associated neuroimaging changes following chronic opioid use; Physical and psychiatric consequences as a result of illicit and licit substance misuse (including alcohol and nicotine dependence); Use of innovative and digital technology to deliver risk reduction programmes to substance users.

**People and Populations**

**Professor A Baldacchino** (amb30@st-andrews.ac.uk)
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Neuropsychology and associated neuroimaging changes following chronic opioid use; Physical and psychiatric consequences as a result of illicit and licit substance misuse (including alcohol and nicotine dependence); Use of innovative and digital technology to deliver risk reduction programmes to substance users.
CAHRU (Child and Adolescent Health Research Unit)

Professor C Currie (cec53@st-andrews.ac.uk)
Dimensions of health and wellbeing in adolescents; Physical activity, sedentariness, diet and weight (obesity/ underweight); Puberty and health; Socioeconomic inequalities and health; International comparisons of adolescent health; Director of World Health Organisation Collaborating Centre for International Child & Adolescent Health Policy.

Medical Education Research

The research carried out within the School can be split into four key areas: Professionalism and inter-professionalism; Assessment and feedback; Clinical communication training; Health professional wellbeing.

Dr A Laidlaw (ahl1@st-andrews.ac.uk) – see page 94

Global Health

Dr B O’Hare (bamo@st-andrews.ac.uk)
Childhood deprivation; Health system strengthening in low income countries; The midstream and upstream causes of poverty; Global economic governance; The influence of illicit financial flows on children.

Finance

Current grant total for the whole School – awarded £2.5 million in 2015-2016.
Modern Languages

• More than 50 full-time research staff.
• A diverse and international student body, with 40 - 50 students from France, Germany, Italy, North America, the Middle East and Africa as well as the UK.
• A very wide range of PhD supervision areas – Arabic and Persian, Comparative Literature, Cultural Identity Studies, French, German, Italian, Linguistics, Medieval Studies, Russian, and Spanish and Latin American Studies, ranging across literature, cultural studies, film and linguistics in periods from the Middle Ages to the present.
• PhD theses may be written in the language of the relevant discipline if this is academically necessary.
• Transferable skills, such as analysis, synthesis and the ability to give public presentations, are systematically developed throughout the programme.
• You will have the opportunity to receive subject-specific training in teaching methods through a dedicated programme delivered by the School of Modern Languages’ Language Development Officer.
• Practical training is provided in aspects of research activity such as writing conference proposals, funding applications and academic job applications.
• There is a series of dedicated talks by permanent and visiting staff – sharing their experiences of a variety of aspects of research, from the theoretical to the practical.
• PhD research seminar programme – run by the postgraduate community in the School.
• Annual School of Modern Languages Postgraduate Conference.

Contact

E: pgs-modlangs@st-andrews.ac.uk
T: +44 (0)1334 463647
www.st-andrews.ac.uk/modlangs/prospectivepostgraduates
The postgraduate community is an integral part of the research culture of the School of Modern Languages, which houses the Departments of Arabic and Persian, Comparative Literature, French, German, Italian, Russian, and Spanish. There are two research institutes – Contemporary and Comparative Literature and Cultural Identity Studies. The Centre for Poetic Innovation (in collaboration with Dundee University) plays a leading role in the St Andrews Institute of Mediaeval Studies and the Centre for Russian, Soviet, Central and East European Studies (CRSCEES).

The School’s longstanding reputation for innovative research in and across its Departments makes it one of the most dynamic groupings of modern languages scholars in the UK. Research students are therefore encouraged proactively to situate their studies within and across its exceptionally broad fields of research interest, ranging from the medieval period to the twenty-first century and engaging with cultures spanning the globe. Students will also engage with the wealth of related disciplines that Modern Languages researchers cover, including cultural geographies, gender and identity studies, transnational movements, world literatures, literatures of science.

There are more than 50 members of academic research staff and a lively international postgraduate community of 40 - 50 students from all over the world. This size promotes a friendly atmosphere with a cross-flow of ideas between the disciplines, while providing the depth and breadth necessary to pursue major research projects at an international level. Staff and research students frequently meet outside of more formal supervision at the many lectures, seminars, and workshops organised by all Departments and Institutes throughout the year (on average two to three events each week). The School also regularly hosts international conferences. These events bring distinguished scholars to St Andrews, whom PhD students are encouraged to meet to discuss their research.

The School’s research staff produce more than 50 research publications per year – books, scholarly editions, articles and translations – and there are strong links with research-led universities in centres such as Paris, Bonn, Madrid, Naples and Mexico City and across a range of subjects. Many members of staff also variously serve their subject communities through editorships of journals and monograph series, as funding council peer reviewers, as conference organisers and as principal/coinvestigators on major research grants. PhD students are therefore encouraged to speak at conferences, to organise research events, and to and publish parts of their research while working on their theses.

Supervision and teaching

Supervision is available in an exceptional variety of areas, covering literature, cultural studies, film and linguistics, in periods from the Middle Ages to the present. Current and recently completed thesis topics include: Women's writing in eighteenth-century France; Italian post-colonial literature; Masculinity in contemporary German Literature; French Caribbean literature; Uruguayan national cinema; Reading Dante and Paul in the fourteenth century; Seventeenth-century French satirical drama; The influence of German Romantic writers on their Russian counterparts; Galician cultural identity; Gender in twenty-first-century French autofiction; An ecocritical approach to eighteenth-century French writing; Post-Civil War Anglophone Lebanese fiction; Twentieth-century Persian poetry. For more information see: www.st-andrews.ac.uk/modlangs/people/currentpostgraduastudents

You will have a principal academic supervisor and a secondary supervisor, the latter providing primarily pastoral care and support as required. You are also encouraged to contact the School's Director of Postgraduate Studies on any matter related to your study in St Andrews. Where expertise in more than one subject area is required, you will be co-supervised (intra- or inter-School). At least five supervisory meetings are held each semester and agreed action points are formally recorded in order to ensure that you are making progress with your research. You are expected to submit a substantial piece of written work at the end of your first year.

Facilities

You will have 24-hour access to individual workstations, with networked computers, storage and printing facilities. There is an annual entitlement to funds for research activities and access to unlimited inter-library loans.

Training

The University's GRADskills Programme (see page 24) is complemented by the School's own in-house Teacher Training Programme run by the Language Development Officer. PhD students who are teaching in the School (from the second year of PhD onwards) attend fortnightly training sessions on practical matters in teaching, for example lesson planning; managing the classroom; creating student-centred activities; marking and assessment; digital technology.

Lunchtime research talks are held in an informal setting, allowing permanent and visiting staff to share their experiences of a variety of aspects of research, from the theoretical to the practical, for example, how to write a good CV, experiences of grant applications and other forms of funding, recent experiences of successfully completing a PhD, methodological issues arising from particular research projects, the idiosyncrasies of different national and university libraries, and getting the most out of field trips.

Student success


Student success

Dr Christie Margrave completed her PhD in September 2014 on the representation of the natural world in the work of eighteenth and nineteenth-century French female novelists. She is now Lecturer in the French Department at the University of Cardiff.

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Research Centres and Institutes

The School of Modern Languages has two research institutes and one research centre and collaborates in two interdisciplinary inter-School research institutes:

- **Centre for Russian, Soviet, Central and East European Studies (CRSCEES)**
  www.st-andrews.ac.uk/crscees
- **Cultural Identity Studies Institute (CISI)**
  www.st-andrews.ac.uk/modlangs/research/centresandinstitutes/cisi
- **Institute for Contemporary and Comparative Literature**
  www.st-andrews.ac.uk/iccl
- **The St Andrews Institute of Mediaeval Studies**
  www.st-andrews.ac.uk/saims
- **The Centre for Poetic Innovation**
  http://poeticinnovation.wp.st-andrews.ac.uk

For full details see www.st-andrews.ac.uk/research/university/centres

Research areas

Arabic and Persian

- **Dr F Caiani** (fc8@st-andrews.ac.uk)
  Modern Arabic literature.
- **Ms C Cobham** (cmc1@st-andrews.ac.uk)
  Modern and contemporary Arabic fiction; Literary criticism; Literary translation.
- **Dr K Dmitriev** (kdk25@st-andrews.ac.uk)
  Early and classical Arabic language and literature; The Arabic philological tradition and Arabic lexicography.
- **Dr O Elmaz** (oe2@st-andrews.ac.uk)
  Arabic linguistics and lexicography; Early Arabic and Qur’anic Studies; Digital humanities.
- **Dr S Talajooy** (st83@st-andrews.ac.uk)
  Translation, postcolonial, performance and film theories; Comparative studies of Persian literature and world literature in English.

French

- **Dr G Bowd** (gpb@st-andrews.ac.uk)
  Communism; British and Romanian exchanges with France in the twentieth century; French colonial and post-colonial geographies; Jean-Joseph Rabearivelo and Madagascar.
- **Dr J Carson** (jsc1@st-andrews.ac.uk)
  Seventeenth-century literature and society; Comedy; Theatre and the state.
- **Dr D Evans** (dee3@st-andrews.ac.uk)
  Nineteenth- and twentieth-century French poetry, from various perspectives, including rhythm, form, music, ecocriticism and masculinity.
- **Dr M Ganofsky** (mq216@st-andrews.ac.uk)
  Eighteenth-century French literature and culture; the Enlightenment; History and representations of the night; Casanova; Libertinage and libertine arts.
- **Dr E Herdman** (eh58@st-andrews.ac.uk)
  Sixteenth-century French literature and culture; Classical influences on early modern writing; Themes of transgression, restraint, obscenity and alcohol; Birds in the Renaissance imagination.
- **Professor N Hitchcott** (nmh2@st-andrews.ac.uk)
  Francophone postcolonial studies, especially African women's writing, migrant writers; Fictional responses to the 1994 genocide in Rwanda.

German

- **Professor S Allan** (sa92@st-andrews.ac.uk)
  Post-war German cinema in its national and transnational contexts; Popular culture under socialism; Constructions of gender and nation in the European Enlightenment; Theories of education, music and the visual arts in the Romantic era.
- **Dr C Beedham** (cb1@st-andrews.ac.uk)
  The linguistics of modern German (also Russian and English); Irregular verbs; The passive; Lexical exceptions; Structuralism.
- **Professor B Bildhauer** (bmeb@st-andrews.ac.uk)
  Medieval German literature and culture; German film.

Student success

Dr Letizia Vettor completed her jointly supervised thesis between Italian and Classics and graduated in June 2016. The title of her thesis was 'Imperii Pretium. Cultural Development and Conceptual Transformation in the myth of Eteokles and Polyneices from Aeschylus to Alfieri'. Her area of research was a reception study focused primarily on the theme of internecine power-struggle in the Italian tragedy of the sixteenth, seventeenth and eighteenth centuries.

For full details see www.st-andrews.ac.uk/research/university/centres
Dr A Cusack (atc4@st-andrews.ac.uk)
Literary anthropology; Nineteenth-century German literature and culture; German Gothic; Nomadism and wandering; Cultural transfer; Popular literature and pre-cinematic media.

Dr C Lawson (llc38@st-andrews.ac.uk)
Post-1945 German literature and film, politics, history and memory; the memorialisation of the Second World War; Discourses of German Victimhood.

Dr M White (mjw8@st-andrews.ac.uk)
Nineteenth-century German literature; Theodor Fontane; Space in literature; The impact of Realism and its place in the European canon; Literary strategies in the Nouveau Roman and German Realism.

Italian

Professor D Duncan (ded3@st-andrews.ac.uk)
Italian literature and film especially in relation to questions of gender, sexuality, and race; Cultures of migration; Colonial and postcolonial Italy; Transnationalising modern languages; Multilingual education.

Dr E Bond (efjb@st-andrews.ac.uk)
Modern and contemporary Italian and comparative literature; Transnational, migration and border writing; Freudian and post-Freudian psychoanalytic literary theory; Body studies.

Dr R Riccobono (rmr8@st-andrews.ac.uk)
Italian modernist and contemporary poetry and prose; Early and contemporary Italian cinema; Medical humanities; The dialogue between the sciences and the humanities (from Italian Enlightenment onwards, in particular Enlightened Milan and Venice) and the development of the concept of the Italian/European Welfare State.

Dr C Rossignoli (cr41@st-andrews.ac.uk)
Medieval and Renaissance literary theory and culture; Humanism, especially its rhetorical and dialectical paradigms; Aristotle’s Poetics and its impact; Renaissance translation; Italian Reformation and scriptural exegesis; Dante, and his critical and literary reception.

Dr R Wilson (rpw@st-andrews.ac.uk)
Medieval Italian literature, especially Dante; Italian detective fiction.

Russian

Dr V Donovan (vsd2@st-andrews.ac.uk)
Cultural and social history of the post-war Soviet Union; The development of the Soviet technical intelligentsia; Social transformation and cultural memory; Oral tradition in Soviet and post-Soviet Russia.

Dr E Finer (ef50@st-andrews.ac.uk)
Comparative literature; Canon formation; Russian twentieth-century literature and culture; The English and Russian novel.

Dr K Holt (kmkh21@st-andrews.ac.uk)
Twentieth- and twenty-first century Russian literature and culture; Orientalism; Postcolonial Theory; Protest Culture.

Dr M Vaysman (mv37@st-andrews.ac.uk)
Metafiction; Gender; Co-authorship; Celebrity studies; Russian eighteenth- and nineteenth-century prose; History of ideas; Narratology.

Dr C Whitehead (cww12@st-andrews.ac.uk)
Detective fiction; The fantastic; Discourse theory and nineteenth-century prose; French-Russian comparisons in literature.

Student success
Dr Carmela Pierini graduated in June 2016. Her thesis was entitled ‘Writing Intersections: A Study of Anna Banti’s Role as Novelist, Literary Essayist and Editor of the Journal Paragone’. The area of research was Anna Banti’s contribution to the Italian cultural scene in the twentieth century by analysing her narrative works and her relationship with the publishing industry as well as her literary criticism. Through Banti’s example, the evolution of the role of the intellectual in Italy during the twentieth century in a modernistic perspective of cross-contaminations of genres and art works.

Dr Catherine Barbour completed a PhD at St Andrews in 2016. Her thesis, entitled ‘Identities Beyond the Canon: Pluralism and Women’s Writing in Galician Fiction, 2000-2010’, explored the competing manifestations of Galician identity in contemporary narrative by women writing in both Galician and Spanish. She became a Teaching Fellow in Spanish at St Andrews in 2016.

Dr E Kefala (ek30@st-andrews.ac.uk)
Contemporary Latin American fiction, especially Borges and the Argentinean avant garde; Postmodernism.

Professor J Larios (jl213@st-andrews.ac.uk)
Twentieth-century poetry in Spanish and Catalan; Catalan literature in general.

Dr J Letrán (js50@st-andrews.ac.uk)
Spanish poetry; Luis Alberto de Cuenca; Film and literature in contemporary Spain.

Dr C O’Leary (cmo4@st-andrews.ac.uk)
Contemporary Spanish theatre; Censorship and cultural history; Gender and identity; Exile and memory.

Professor G San Román (gfsr@st-andrews.ac.uk)
Contemporary Latin American literature; Sexuality and nationalism; Cultural identity studies.

Student success
Dr Richard Wilson was awarded an ‘Anna Banti’ PhD Scholarship for his thesis ‘Dante’s Poetry and the Formation of an Italian Identity’, which he completed in 2011. The main objective of Dr Wilson’s research was to reassess Dante as a poet of national identity, focusing on the evolution of the terms used to define Dante’s poetic legacy and investigating the construction of Dante’s national identity in the context of the Italian Risorgimento, the development of the modern Italian language and the national literary culture that emerged after Dante’s death. The thesis won the Italian Cultural Institute Award for the best PhD thesis written by a student at the University of St Andrews. Dr Wilson is currently a Lecturer in Italian at University College London.

Dr R Fernández completed a PhD on the political interventions in the literary work of Manuel Mejía Vallejo. His thesis was entitled ‘Politics in the Work of Manuel Mejía Vallejo’. Dr Fernández was a JRF in Modern Languages while working on his Doctorate. He is currently a Lecturer in Spanish at the University of York.

Dr Pengfei Jiang was awarded an EPSRC CASE Studentship with the University of Cambridge. His thesis was entitled ‘“All that is dark is a hothouse of life”: Three Chinese Women Novelists, 2000-2010’. He is currently a Research Associate at the University of Cambridge.

Dr R Wilson is currently an Assistant Professor at the School of Business Administration and Law at the University of Texas at Dallas. His thesis was entitled ‘A Creative Critical Method: An Exploration of the Flows of Critical Theory and Literary Form in Modern Italian Fiction’. He completed his PhD in 2011.

Dr Pengfei Jiang is currently an Assistant Professor at the School of Business Administration and Law at the University of Texas at Dallas. His thesis was entitled ‘“All that is dark is a hothouse of life”: Three Chinese Women Novelists, 2000-2010’. He completed his PhD in 2011.

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Financing your research studies in Modern Languages

The School of Modern Languages is offering some or all of the following awards to suitably qualified applicants who will ideally have completed or be near to completing a relevant Masters degree. Deadline for applications is normally 1 June. More information can be found at www.st-andrews.ac.uk/modlangs/prospectivepostgraduates/funding

• One Malcolm E Humble award of about £1,000 to a PhD student in German Studies. Annual competition.

• One L J Woodward Memorial Scholarship award of about £500 to a PhD student in Spanish / Latin American Studies. Annual competition.

Careers

Many of our postgraduates go on to careers in the academic field, as university teachers, researchers or administrators. Others find employment for example as cultural advisers, translators or in the public or civil service. Recent graduates have secured posts such as university teachers and researchers in the UK and abroad, research assistants, a postgraduate recruitment officer, a position in GCHQ, a professional translator, an adviser to the CBI and a subtitler for television.

Please see page 25 for details of the University’s Careers Centre.

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Philosophy

- SASP (St Andrews & Stirling Philosophy Graduate Programme) is an internationally recognised Masters and Doctoral programme in Philosophy.
- In the latest Philosophical Gourmet Report, SASP was ranked the third best Philosophy programme in the UK. See www.philosophicalgourmet.com
- Philosophy at St Andrews was ranked top in Scotland and fifth in the UK in the Research Excellence Framework (REF) 2014. 70% of the work submitted in the research environment category met the standard for 4* world-leading research with the REF panel noting in particular the success of the SASP programme in placing students in academic posts following graduation.
- In Stirling 49% of the overall Philosophy profile in the REF met the standard for the 3* internationally excellent grade and 80% of the work submitted in the research environment category also met the standard for internationally excellent work.
- Between 12 and 15 research postgraduate students are admitted each year drawn from the UK and around the world.
- Over 35 full-time Philosophy staff in the SASP programme work in a broad spectrum of areas, from logic and metaphysics, epistemology, philosophy of mind, philosophy of language, metaphilosophy, and the philosophy of logic, to the history of philosophy, metaethics, moral philosophy, social philosophy, practical philosophy, and aesthetics.
- The SASP programme boasts a staff of authoritative researchers large enough to teach a comprehensive and flexible range of graduate courses, and to supervise a diverse range of research projects.
- Annual professional development workshops on how to get a job in academia and how to publish in philosophy.
- Very strong placement record for graduate students, see: www.st-andrews.ac.uk/sasp/placement
- There is an annual reading party in the Scottish Highlands for all taught and research postgraduates and staff.
- Friendly and supportive atmosphere in which postgraduate students are encouraged to participate actively through, for example, the weekly Graduate Seminar, reading groups and the Philosophy Club.

Contact
E: sasp@st-andrews.ac.uk
T: +44 (0)1334 462487
www.st-andrews.ac.uk/sasp
The St Andrews and Stirling Graduate Programme in Philosophy (SASP) is taught by the Philosophy Departments of the universities of St Andrews and Stirling.

St Andrews and Stirling together form Scotland’s premier centre for philosophy and one of the top philosophy schools in the United Kingdom. The philosophical ambience is intense, friendly and co-operative. The SASP programme provides supervision in a wide range of philosophical areas including the history of philosophy. We strongly encourage you to contact potential supervisors with a research proposal. SASP offers expertise in most areas of philosophy including the philosophy of language, epistemology, ethics, metaethics, aesthetics, political philosophy, mind, metaphysics, logic, the philosophy of logic, social philosophy, practical philosophy, and the history of philosophy.

The research programme is enhanced by a busy programme of conferences, workshops and visiting speakers from universities in the UK and from abroad. The St Andrews Philosophy Club meets several times each semester, usually on Wednesday afternoons, for talks by visiting speakers: www.st-andrews.ac.uk/philosophy/events

The Department of Philosophy at Stirling holds its visiting speaker seminars on Thursday afternoons: www.stir.ac.uk/arts-humanities/about/law-philosophy/philosophy

St Andrews also has a weekly seminar run by and for the research students, meeting on Friday afternoons, to which everyone is welcome. Arché (Philosophical Research Centre for the Philosophy of Logic, Language, Metaphysics and Epistemology) runs a variety of informal seminars and discussion groups, as well as hosting regular international workshops and conferences. The programme also supports and encourages a wide range of student-led reading groups on topics relevant to their degree together with a regular work-in-progress seminar.

The student-led Philosophy Society (PhilSoc) boasts a lively programme of stimulating talks and events throughout the year and attracts a regular following from across the University. https://sites.google.com/site/standrewsphilsoc/home-1

There is a reading party for postgraduate students and staff annually. It provides an opportunity for you to present your work in an informal and relaxed setting. The reading party takes place at a country retreat in beautiful surroundings: a fine opportunity for seeing Scotland, hiking and sampling Scottish food and drink, with the give and take of philosophy in the evenings.

The SASP programme has one of the most diverse postgraduate student populations in the University. In addition to students from the UK, USA, Canada and across Europe, the programme has in recent years attracted students from China, Japan, Hong Kong, the Middle East and South America. This gives a uniquely international, cosmopolitan and welcoming feel to the philosophical community.

While in St Andrews, you are integrated members of SASP where you will have workspace and are encouraged to participate fully in the intellectual activities of this academic community such as seminars and conferences. We are particularly keen for our students to spend up to a semester at a partner institution. In the past, our students have visited Rutgers, CUNY, Chapel Hill, Princeton, UConn, ANU, Oxford, Berkeley, Sydney, Barcelona, Texas, MIT and Yale. SASP is also very keen to promote the future careers of its students.

Our placement record is very strong indeed. We have a Graduate Placement Officer who coordinates mock interviews for job applicants and provides advice and support to any graduate entering the job market.

Location
SASP is primarily based in the Philosophy Department of the University of St Andrews, housed in Edgecliffe, a nineteenth-century building with beautiful views out over St Andrews Bay. The view from the Philosophy Library makes it a lovely place to work.

The Department of Philosophy in Stirling is housed in the Pathfoot Building located at the University’s campus in Stirling. The campus is set in the eighteenth-century landscaped gardens of Airthrey Castle and is widely thought to be one of the most beautiful campuses in Britain.
Entry to the MPhil programme is in the first instance via progression from the SASP MLitt programme. Students must complete 120 credits of 5000-level modules, as required for the MLitt. If you meet the standard progression-to-dissertation requirements on the MLitt, you will have the option to write an MLitt dissertation of 15,000 words and either graduate with an MLitt degree or convert your MLitt dissertation into a 40,000 word MPhil thesis and graduate with an MPhil degree (subject to meeting all the requirements for the award of both qualifications).

A distinctive feature of the SASP MPhil programme is that you will be provided with two academic supervisors to provide regular academic guidance and advice throughout the research project.

Many MPhil students progress to a PhD programme here or elsewhere, including some of the top institutions in the US.

The PhD programme is friendly, intensive and collegial with over 50 PhD theses underway. Many have been attracted to SASP by their wish to be supervised by members of staff who are leading contributors in their field.

You will be provided with two academic supervisors to provide regular academic guidance and advice throughout the research project.

There are two philosophical research centres in St Andrews:

- Arché (Philosophical Research Centre for the Philosophy of Logic, Language, Metaphysics and Epistemology)
- The Centre for Ethics, Philosophy and Public Affairs (CEPPA)

For full details see: www.st-andrews.ac.uk/research/university/centres

One of the most respected international philosophy journals is edited from St Andrews. The Philosophical Quarterly is edited by an editorial board made up of staff of Philosophy at St Andrews, and one or two representatives from each philosophy department at the other Scottish universities. Founded in 1950, it is managed by a committee of representatives of the University Court of St Andrews and of the Scots Philosophical Association, convened by Simon Prosser.

Dr Philip Ebert (p.a.ebert@stir.ac.uk)  
Epistemology; Philosophy of Logic and Mathematics; History of Analytic Philosophy.

Adam Etinson (ae45@st-andrews.ac.uk)  
Human Rights; Social Epistemology; Foundations of Liberalism.

Professor Berys Gaut (bng@st-andrews.ac.uk)  
Aesthetics; Philosophy of Film; Creativity; Ethics.

Dr Ephraim Glick (eg35@st-andrews.ac.uk)  
Philosophy of Language; Metaphysics; Philosophy of Mind; Epistemology.

Dr Patrick Greenough (pmg2@st-andrews.ac.uk)  
Epistemology; Philosophy of Language; Philosophy of Logic.

Dr Adrian Haddock (adrian.haddock@stir.ac.uk)  
Philosophy of Mind; Philosophy of Action; Philosophy of Perception.

Professor John Haldane (jjh1@st-andrews.ac.uk)  
Philosophy of Mind; Philosophy of Value; Philosophy of Religion; Metaphysics; Medieval Philosophy.

Professor James Harris (jah15@st-andrews.ac.uk)  
Early Modern Philosophy; Enlightenment Philosophy (especially Hume and Reid).

Professor Katherine Hawley (kjh5@st-andrews.ac.uk)  
Philosophy of Science; Metaphysics; Epistemology.

Dr Kent Hurtig (kent.hurtig@stir.ac.uk)  
Moral Philosophy; Epistemology; Philosophy of Action; Philosophy of Mind.

Dr Steinvor Toll Arnadottir (steinvor.arnadottir@stir.ac.uk)  
Metaphysics of objects.

Dr Derek Ball (db71@st-andrews.ac.uk)  
Philosophy of Mind; Philosophy of Language.

Dr Elizabeth Ashford (ea10@st-andrews.ac.uk)  
Ethics; Political Philosophy; Ancient Philosophy.

Professor Sarah Broadie (sjb15@st-andrews.ac.uk)  
Classical Philosophy.

Professor Jessica Brown (jab30@st-andrews.ac.uk)  
Philosophical Methodology; Epistemology.

Professor Herman Cappelen (hwc1@st-andrews.ac.uk)  
Philosophy of Language; Philosophical Methodology and related areas in Epistemology, Metaphysics and Philosophy of Mind.

Dr Aaron Cotnoir (ac117@st-andrews.ac.uk)  
Metaphysics; Philosophical Logic; Philosophy of Language.

Dr Rowan Cruft (rowan.cruft@stir.ac.uk)  
Moral Philosophy; Political Philosophy; Ethics.

Dr Alexander Douglas (axd@st-andrews.ac.uk)  
Early Modern Philosophy (especially Spinoza and Descartes); History & Philosophy of Political Economy.
SASP Doctoral Studentship
In 2016-2017, SASP will be awarding three Full Doctoral Studentships, which cover both maintenance at the AHRC rate and a full fee waiver (at Home/EU fee level) for three years. In addition, there will be up to two further Doctoral Studentships, which will provide maintenance of £10,000 each and a full fee waiver (at Home/EU level) for three years. One of these studentships will be funded by The Philosophical Quarterly journal. The Home/EU fee waiver can be awarded to an Overseas fee-paying student, who will then be required to meet the remainder of the tuition fee personally.

AHRC Studentships
If you wish to be considered for an AHRC studentship, please indicate this on your application, which is due by the annual deadline in early January. The Department will nominate five to six of the applicants to the Scottish Graduate School for Arts and Humanities for consideration for an AHRC award.

Application deadline for funding
If you wish to be considered for any SASP funding, please indicate clearly in your application whether you are a Home, EU or Overseas applicant. Only applications received before the annual deadline, normally in early January, will be considered for funding. We try to allocate funding by mid-March each year. www.st-andrews.ac.uk/sasp/funding

Strong international research links
The programme’s strong international research links are evidenced by the stream of visitors to St Andrews (over 70 per year), mostly from overseas; the international nature of our staff, our participation in international conferences, and our international research links including a Marie Curie Initial Training network (linking to Barcelona (LOGOS), Edinburgh, Geneva, Munich, Neuchâtel, Paris (École Normale Supérieure) and Stockholm).

Other PhD scholarship support
The University of St Andrews has various scholarship opportunities for postgraduate students. Please see page 10. Additional information provided by the University of Stirling can be found at: www.stir.ac.uk/scholarships/phd

Tutoring opportunities
The SASP programme provides opportunities for suitably-qualified postgraduate research students, with the consent of their supervisor, to deliver tutorials on sub-honours modules. The allocation of teaching responsibilities is dependent on varying factors and SASP is not in a position to be able to guarantee that all postgraduate research students will be provided with teaching experience during their period of study. It is important to note that it is not possible for a postgraduate research student to fully support themselves by this means.
Physics & Astronomy

- The School of Physics & Astronomy has internationally recognised research programmes in astronomy and astrophysics, condensed matter physics, photonics and optoelectronics, biophysics, and theoretical physics.
- At the start of 2017, the School had 38 academic staff, 6 EPSRC, STFC, SUPA and Royal Society Research Fellows, over 60 postdoctoral research associates, and around 90 research students, working in modern laboratories equipped with state-of-the-art facilities.
- In the UK Research Excellence Framework 2014, PHYESTA (Physics at Edinburgh and St Andrews), the joint School of Physics & Astronomy between the universities of Edinburgh and St Andrews, was ranked third in research quality out of 41 UK submissions, and fourth in the UK as judged by the Research Fortnight Research Power index. 96% of PHYESTA research outputs (from over 100 staff) were measured as 4*/3* (world-leading/internationally excellent).
- Being a member of the Scottish Universities Physics Alliance (SUPA), our PhD students benefit from specialist graduate training through the national SUPA Graduate School. Within SUPA, the School recently received an investment of £12m to expand the astronomy, condensed matter, and photonics research programmes. In particular the School has recently completed building an ultralow vibration laboratory to host a centre for scanning tunnelling microscopy, and the School has expanded and upgraded its cleanroom facilities. A molecular-beam epitaxy facility was opened in 2017, growing designer quantum materials based on reactive oxides, a facility unique within the UK.
- Opportunities for fully funded postgraduate research to PhD level are available in all fields of research within the School. We also participate in two discipline-specific Centres for Doctoral Training in condensed matter physics and in applied photonics.
- Since 2006 our astronomers have discovered over 100 new extrasolar planets that cover the range from hot gas-giant planets on the edge of tidal destruction by their host stars to icy super-Earths.
- At the start of 2017, researchers in experimental physics are part of four major research programmes totalling £15 million; one to overcome current limits in the generation, propagation and penetration of light for biological applications, one to study ultra-parallel communication using LED lighting, another to explore the way in which electrons interact in novel materials, and one to explore hybrid organic-inorganic materials with strong light-matter coupling.
- Our small size leads to a friendly atmosphere in group seminars and meetings.

Contact
E: physics@st-andrews.ac.uk
T: +44 (0)1334 463103

School ranked 3rd in UK
(with Edinburgh)
Research postgraduate programmes

- Applied Photonics (EngD)
- Astronomy and Astrophysics (PhD)
- Physics (PhD)
- Theoretical Physics (PhD)

Research facilities and community

In 2017, the School has a thriving community of nearly 200 research staff and PhD students, all located within the J F Allen building on the University’s North Haugh. The research community benefits from its modern well-equipped laboratories, the largest optical telescope in the UK, a class 10,000 cleanroom, ultralow vibration laboratories, a molecular-beam epitaxy facility, an on-site library and technical services including a helium liquefier, machine shop and electronics workshop. The staff common room meanwhile provides a congenial environment for all research staff and PhD students to meet and exchange ideas. Clusters of research groups organise several series of seminars and discussion groups in theoretical physics, astronomy, condensed matter, photonics and biophotonics, both for discussion of research within the School and to bring in external speakers. There is also a weekly research colloquium, in which research leaders from across the world present their research to a general physics audience.

Researchers here collaborate widely around the University on many interdisciplinary projects. For example, the Centre of Magnetic Resonance brings together physicists, biologists and chemists with a mutual interest in the technological development and application of magnetic resonance techniques. The Biophotonics Platform Grant supports collaboration between physicists, biologists and medical scientists to develop new physical techniques for detecting and treating diseases. The Centre for Exoplanet Science brings together astronomers, earth scientists and philosophers to find out how planets form in different galactic environments, the relation between the history of planets and the emergence of life, and the moral, ethical and technical aspects of detecting existent or extinct extra-terrestrial life. Notable national and international collaborations include in 2017 our leading roles in several multi-million pound EPSRC Programme Grants, in the areas of Structured Light, Strongly-Correlated Electron Systems (TOPNES) and Ultra-Parallel Visible Light Communications (UP-VLC), and hybrid organic-inorganic polariton devices (HYBRID-POLARITONICS) as well as our leadership in UK and European projects on areas including exoplanets and planetary atmospheres, protoplanetary discs and exciton diffusion in organic semiconductors.

SUPA Graduate School

All PhD students in the School are enrolled in the SUPA Graduate School. SUPA (the Scottish Universities Physics Alliance) is a research pooling of eight university physics departments across Scotland. In 2017, SUPA is about to enter its third phase, continuing to support graduate students across Scotland. Collectively, SUPA is the largest group of physics researchers in the UK, and has provided research funding for the Graduate School, new academic appointments and major research infrastructure (for St Andrews this includes an expanded cleanroom facility, ultralow vibration laboratories and arrays of robot telescopes).

The Graduate School provides a broad portfolio of specialist graduate training courses through its suite of interactive videoconference classrooms located in each institution. In doing so, it can make optimal use of the considerable expert knowledge base across SUPA, and achieve a critical mass of students for niche training topics. The Graduate School also delivers training via residential courses, distance learning material, and by enabling distinguished visitors to share their expertise. www.supa.ac.uk

Superfast object

A team from our School created the world’s fastest spinning man-made object, now listed in the Guinness Book of World Records. Laser light was used to levitate and spin a microscopic sphere in vacuum, at a rate of ten million revolutions per second. Laser light passing through a levitating birefringent sphere caused a change of polarisation, exerting a small torque on the sphere. Placing the sphere in vacuum removed the drag allowing the very high rotation rates. The rotation rate is so fast that the acceleration at the sphere surface is one billion times that of gravity on Earth’s surface.

Ultrafast spectroscopy of the excited state physics of organic semiconductors

Return to Contents
Research Centres and Institutes

- Centre for Exoplanet Science (CES)
- Centre of Magnetic Resonance (CMR)
- Institute for Data-Intensive Research (IDIR)
- Organic Semiconductor Centre (OSC)
- Photonics Innovation Centre (PIC)

For full details see:
www.st-andrews.ac.uk/research/university/centres

PhD degrees in Physics & Astronomy

The School provides an outstanding and stimulating environment in which you can pursue postgraduate research in any one of the many exciting and topical areas of research outlined in the following pages. Opportunities for fully-funded postgraduate research to PhD level are available in all fields of research within the School. Successful applicants for PhD study will normally have a first or upper-second class degree in physics, astronomy, or related subject. If you register for a higher degree by research you normally undertake a three-and-a-half year programme leading to the degree of PhD.

As well as the standard PhD programme in each of our main research areas, the School participates in two discipline-specific centres for doctoral training which provide embedded Masters training in the doctoral degree, in areas of condensed matter physics and applied photonics.

The Scottish Doctoral Training Centre in Condensed Matter Physics (CM-CDT)

This Centre provides talented students with a rigorous graduate education in the key field of condensed matter physics. These students are trained in skills essential for success in the workplace, be it industrial or academic, and enjoy a vibrant, diverse environment for their doctoral research projects.

The Centre is a collaboration between three universities: St Andrews, Edinburgh and Heriot-Watt. Their combined research capabilities span the full breadth of condensed matter, ranging from exotic materials relevant to future quantum computers, to the liquid crystals used in every smartphone display. http://cm-cdt.supa.ac.uk

Precursors to life

St Andrews astronomers in the European Research Council funded Life Electricity Atmosphere Planets (LEAP) group led by Christiane Helling have found that dusty clouds in the atmospheres of exoplanets could give rise to the precursors to life. The research found that such electrified dusty environments can lead to the formation of prebiotic molecules – the biological seeds that produce life. Dust particles immersed in plasmas in the atmosphere of exoplanets and brown dwarfs become charged and attract onto their surfaces other charges from the surrounding plasma helping to grow molecules on the dust surface.

Entrepreneurship prize for postgraduate physicists

Former student Dr Alex Ward and Jack Barraclough won a major prize at the entrepreneurial 'Converge Challenge' for a new concept nanopositioner. Their ‘nano-tractor’ is a robust and versatile tool that can move objects around on the nanoscale, with a precision better than one thousandth of the width of a human hair. The nanopositioner has a wide range of applications, including in probing integrated circuits. The concept originated in research at St Andrews in partnership with the Max Planck Institute for Chemical Physics of Solids in Germany. A new company called ‘Razorbill Instruments’ has been formed to take the idea forward.

Simulation of star formation from the collapse of a gas cloud

Part of the University Observatory

Impression of extrasolar planet
Centre for Doctoral Training in Applied Photonics

Both PhDs and Engineering Doctorates (EngD) in Photonics are offered as four-year postgraduate degrees through the centre for doctoral training in applied photonics. An EngD is an alternative to the traditional PhD for students who want a career in industry. The programme combines PhD level research projects with Masters-level technical and MBA courses, consisting of specialist topics in photonics plus business courses. The Applied Photonics CDT is led by Heriot-Watt University, with other partners at the universities of Strathclyde, Dundee and Glasgow. www.cdtphotonics.hw.ac.uk

Centre for Designer Quantum Materials

In January 2017, the minister for Further Education, Higher Education and Science, Shirley-Anne Somerville, opened a state-of-the-art Centre for Designer Quantum Materials. The centre is aimed at the creation of new materials which do not exist in nature, and is based around a molecular-beam epitaxy system. The materials produced can be used for applications from super-efficient energy distribution to high performance computing and sensing. The thin-film materials that are produced can be passed under high vacuum directly to the “Angle Resolved Photo-Emission Spectroscopy” kit, allowing researchers to look in exquisite detail at what the electrons near the surface of the material are doing.

Visualising electron waves in superconductors

Work published in Nature by a recently graduated student, Stephen Edkins, in collaboration with Professor Mackenzie and Professor Davis has for the first time directly imaged oscillations in the density of superconducting electrons in a high temperature superconductor. Using scanning tunnelling microscopy, based in the Cornell laboratory of Professor Davis, they showed that the density of pairs of electrons forming a superconductor oscillates in space. This behaviour had been long hypothesised, but never previously measured, and its observation helps understand what it is that makes superconductivity possible at high temperatures in these materials.

Star bursts

Dr Wild and an international team of astronomers have shown that bursts of star formation have a major impact far beyond the boundaries of their galaxy. Using the Hubble Space Telescope they showed that these energy-packed bursts of star formation can affect galactic dust at distances of up to twenty times greater than the size of the visible galaxy. These effects alter how that galaxy evolves, and how matter and energy is spread through the Universe. The winds accompanying this star formation could ionise gas up to 650,000 light-years from the galactic centre.

Tracking lasing biological cells

A team of PhD students and postdoctoral researchers from the Soft Matter Photonics Group led by Professor Gather have turned living cells into tiny lasers. The researchers found that by ‘swallowing’ an optical micro-resonator, cells gain the ability to produce green laser light. What sounds like science fiction, may soon develop into a useful tool in biomedical optics. The spectrum of the laser light from each cell is different and can be used to distinguish and track large numbers of cells over prolonged periods of time.
Astronomy

www.astronomy.wp.st-andrews.ac.uk

The portfolio of astrophysics research in St Andrews is extremely diverse, spanning the full range of contemporary astrophysics from the largest to the smallest scales. Research areas include theoretical cosmology, the formation and evolution of galaxies, star formation, extrasolar planet detection, physics and chemistry of very cool atmospheres, the formation of planetary systems and their discs, radiative transfer in the interstellar medium, and magnetic fields around solar type stars. Research teams approach these topics from theoretical, numerical and observational perspectives.

Professor Ian Bonnell (iab1@st-andrews.ac.uk)
Dynamics of star formation and of young stellar systems; Star-star collisions; Formation of high mass stars and multiple stellar systems.

Professor Andrew Cameron (acc4@st-andrews.ac.uk)
Discovery and characterisation of extrasolar planets via transit surveys and radial-velocity, photometric follow-up; Characterisation of stellar magnetic activity and its influence on planet characterisation; Stellar rotation surveys; Doppler tomography of starspots and transiting planets; The interactions between close-orbiting planets and their host stars.

Dr Claudia Cyganowski (cc243@st-andrews.ac.uk)
Observational studies of massive star formation; (Proto)stellar feedback; Star formation in clustered environments; Astrochemistry; Cm-(sub)mm wavelength interferometry.

Dr Martin Dominik (md35@st-andrews.ac.uk)
Detection and characterisation of extrasolar planets by means of gravitational microlensing; Determination of abundance of galactic and extra-galactic planets; Modelling of photometric and astrometric microlensing events and development of required numerical algorithms; Intelligent real-time scheduling on robotic telescope networks; Lucky imaging.

Dr Scott Gregory (sg64@st-andrews.ac.uk)
Stellar and planetary magnetism; Protoplanetary disks; Pre main sequence and low mass main sequence stars; Stellar coronae; Stellar rotation; Accretion and outflow models; Star formation; X-ray emission and flares.

Dr Christiane Helling (ch8@st-andrews.ac.uk)
Atmospheres of extrasolar planets and brown dwarfs; Cloud formation and their effects on the atmosphere; Lightning and charge separation in dust environments.

Professor Keith Horne (kdh@st-andrews.ac.uk)
Extrasolar planets; Robotic telescopes; Accretion disks; Cataclysmic variables; Active galactic nuclei; X-ray binaries; Black holes; Magnetic activity; Magnetic accretion; Doppler tomography; Eclipse mapping; Echo mapping; Gravitational lensing; Cosmology; Conformal gravity; Maximum entropy methods; Data analysis techniques; Statistics; Virtual reality.

Professor Moira Jardine (mni@st-andrews.ac.uk)
Theoretical studies of stellar magnetic fields; Early rotational evolution of the solar system; Formation of planetary systems.

Dr Aleks Scholz (as110@st-andrews.ac.uk)
The star-planet connection; Formation and early evolution of stars, brown dwarfs and planets; Star formation in diverse environments; Time-domain studies of young stellar objects; Accretion, outflows, and magnetic activity; Angular momentum regulation in stars; Weather in dusty environments.

Dr Rita Tojeiro (rmfr@st-andrews.ac.uk)
Galaxy evolution; Stellar populations in galaxies; Large-scale structure of the Universe and galaxy clustering; Observational cosmology; Large spectroscopic surveys; Science communication.

Dr Anne-Marie Weijmans (amw23@st-andrews.ac.uk)
Structure and evolution of galaxies; Integral-field spectroscopy and galaxy surveys; Properties of stellar and dark matter haloes.

Dr Vivienne Wild (vw8@st-andrews.ac.uk)
Evolution of galaxies; Observations of recently formed galaxies in high redshift surveys; Stellar population archaeology in low redshift surveys; Multi-wavelength observations using space and ground based telescopes; Galaxy evolution models.

Dr Peter Woitke (pw31@st-andrews.ac.uk)
Computational modelling of low-energy astrophysical objects, such as protoplanetary disks; Atmospheres of brown dwarfs; Simulations of dust-driven AGB star winds.

Dr Kenneth Wood (kw25@st-andrews.ac.uk)
Simulations of transport of light through three-dimensional astrophysical systems comprising dust and gas; Tests theories for the structure, evolution and composition of protostellar clouds and disks that provide the seeds for star and planet formation.

Dr Hongsheng Zhao (hzh2@st-andrews.ac.uk)
Dark matter; Galaxy dynamics and gravitational lensing as probes of dark matter; Alternative theories of gravity e.g. TeVeS.

Condensed Matter Physics

www.st-andrews.ac.uk/physics/condmat

Condensed Matter Physics research in St Andrews covers some of the most important contemporary topics in the field, including theoretical and experimental studies of the physics of correlated electron systems, quantum coherence, superconductivity, magnetism, microcavity polaritons and cold atoms. There is extensive experimental infrastructure to support these areas, including a state-of-the-art angle resolved photoemission facility, low-temperature STM’s, several cryogenic systems including a high-field vector magnet, high field NMR and EPR spectrometers and, in collaboration with the School of Chemistry, a SQUID magnetometer, a high resolution electron microscope and X-ray diffraction facilities. St Andrews is part of the EPSRC funded Scottish Doctoral Training Centre in Condensed Matter Physics as described above.

Dr Bernd Braunecker (bbh@st-andrews.ac.uk)
Theoretical Condensed Matter Physics with focus on many-body effects in systems that are attractive for quantum computation and spintronics; Interacting electrons and (nuclear) magnetism in low-dimensional conductors; Self-emergent many-body systems; Dynamical response; Correlation effects in NMR; Generation and detection of entanglement in nanostructures; Topological states (incl. Majorana states, parafemions).

Dr Donatella Casettari (dc43@st-andrews.ac.uk)
Bose-Einstein condensation in dilute atomic gases; Study of strongly correlated many-body quantum mechanics; Implementation of quantum information processing with neutral atoms.

Dr Chris Hooley (cah19@st-andrews.ac.uk)
Theory of correlated electron systems; Magnetism and superconductivity; Many-body quantum states; Low temperature properties of extremely pure oxide metals; Magnets and superconductors.

Dr Andreas Rost (ar35@st-andrews.ac.uk)
Transport, magnetisation and specific heat measurements of strongly correlated electron systems in form of thin film hetero-structures and microcrystals. Topics of interest include unconventional superconductivity, quantum phase transitions, heavy fermion behaviour, spin liquids as well as bulk correlated systems, Dirac and Weyl semimetals.

Dr Peter Wahl (gpw2@st-andrews.ac.uk)
Transport, magnetisation and specific heat measurements of strongly correlated electron systems in form of thin film hetero-structures and microcrystals. Topics of interest include unconventional superconductivity, quantum phase transitions, heavy fermion behaviour, spin liquids as well as bulk correlated systems.

Dr Phil King (pdk6@st-andrews.ac.uk)
Investigating and manipulating electronic structure and many-body interactions in quantum materials; Topological insulators; Correlated electron systems; Influence of spin-orbit coupling; Angle-resolved photoemission spectroscopy.

Professor Steve Lee (sli@st-andrews.ac.uk)
Microscopic probes (neutrons, muons, Synchrotron radiation) applied to superconducting and magnetic systems; Superconductivity: vortex matter, thin films, multilayer, magnetic-superconducting hybrid systems, mesoscopic systems; Magnetism: magnetic structures of single crystals, multilayers, magnetic-superconductor interface, magnetic recording media, artificial multiferroics, artificial spin-ice systems and other lithographically generated nanostructures.

Dr Brendan Lovett (bw4@st-andrews.ac.uk)
Theoretical studies of quantum coherence in condensed matter systems; Optical control of electron states; Electronic coherence with environmental interactions, quantum computing; Quantum memory; Quantum biology – how quantum coherence can help birds with navigation and the role quantum mechanics plays in photosynthesis.

Professor Andrew Mackenzie (apm9@st-andrews.ac.uk)
The physics of correlated electrons; Magnetism and superconductivity; Many-body quantum states; Low temperature properties of extremely pure oxide metals; Magnets and superconductors.

Dr Andreas Rost (ar35@st-andrews.ac.uk)
Transport, magnetisation and specific heat measurements of strongly correlated electron systems in form of thin film hetero-structures and microcrystals. Topics of interest include unconventional superconductivity, quantum phase transitions, heavy fermion behaviour, spin liquids as well as bulk correlated systems, Dirac and Weyl semimetals.

Dr Peter Wahl (gpw2@st-andrews.ac.uk)
Transport, magnetisation and specific heat measurements of strongly correlated electron systems in form of thin film hetero-structures and microcrystals. Topics of interest include unconventional superconductivity, quantum phase transitions, heavy fermion behaviour, spin liquids as well as bulk correlated systems.
Photonics, Optoelectronics and Biophysics
www.st-andrews.ac.uk/physics/pandaweb/research/photons

St Andrews photonics research covers a wide range of areas from the basic science of the interaction of light and matter, through to the development of photonic devices for particular applications. St Andrews has a long history of international leadership in the field of laser physics, which has now expanded to include the burgeoning fields of biophotonics, nanophotonics and organic electronics. Research in biophysics has a focus on photonic techniques for detection and treatment of disease, and also includes electron spin resonance techniques using world-leading millimetre-wave instrumentation. St Andrews is part of the EPSRC funded Centre for Doctoral Training in Applied Photonics as described above.

- **Dr Tom Brown** (ctab@st-andrews.ac.uk)
  Ultrafast lasers; Development of laser systems based on solid state gain media focusing; Biophotonics.

- **Dr Andrea Di Falco** (adf10@st-andrews.ac.uk)
  Synthetic optics; Flexible metamaterials; Nano-plasmonics; Photonic crystals; Transformation optics; Grayscale lithography. Applications including imaging, sensing, bio-photonicns and nonlinear optics.

- **Professor Kishan Dholakia** (kd1@st-andrews.ac.uk)
  Optical micromanipulation techniques; Investigation of novel light fields; Characterisation of particle dynamics (at the atomic, nano and microm scale) in optical light fields; Optical traps within microfluidic environments; Novel laser techniques for cell biology and medicine.

- **Professor Malcolm Dunn** (mhd@st-andrews.ac.uk)
  Nonlinear optics; Solid-state laser physics; Frequency conversion of coherent laser sources; Optical parametric oscillators; Terahertz generation; Frequency comb generation; Gas imaging.

- **Professor Malte Gather** (mcg6@st-andrews.ac.uk)
  Biophotonics: biological lasers, bio-derived optical structures and devices, optical devices based on fluorescent proteins, cellular biomechanics, nanophotonic biosensors; Organic semiconductors: OLEDs, organic electronics in lab-on-chip systems; Plasmonics: ‘molecular’ plasmonics, organic/inorganic hybrid systems.

- **Dr Friedrich Koenig** (fewk@st-andrews.ac.uk)
  Quantum optics; Hawking radiation; Event horizons; Analog Gravity; Few-cycle pulses in fibres; Fibre-optical black holes; Non-linear fibre optics; Solitons.

- **Dr Natalia Korolikova** (nvk@st-andrews.ac.uk)
  Theoretical quantum optics and quantum information; Continuous variable quantum information; The creation of light-matter interface and quantum memory of light.

- **Dr Janet Lovett** (jel20@st-andrews.ac.uk)
  Electron spin resonance for biomolecular structure determination; Protein structure investigations; Development of new spin labels and methods of spin labelling.

- **Dr Michael Mazilu** (mm17@st-andrews.ac.uk)
  Fundamental and applied photonics; Optical eigenmodes for beating the diffraction limit; Subwavelength focusing; Optimised structured illumination; Compressive imaging; Micromanipulation; Crosstalk free coherent control; Raman imaging.

- **Dr Liam O’Faolain** (jwo1@st-andrews.ac.uk)
  Silicon photonics; Photonic crystals (disorder and loss, photonic crystal cavities); Optical modulators; Silicon photonics compatible lasers; Energy efficient optimal datacommunication.

- **Dr Carlos Penedo-Esteiro** (gpo10@st-andrews.ac.uk)
  Novel biophysical techniques; Single-molecule detection techniques; Biomolecular interactions including proteins; DNA and RNA at the level of individual molecules; Real-time monitoring of the behaviour of individual biological molecules and complexes, in vitro and in live cells.

- **Professor Ilor Samuel** (idws@st-andrews.ac.uk)
  Organic semiconductor materials and devices: OLEDs, solar cells, lasers, photophysics including time resolved luminescence from femtosecond to microsecond timescales; Development of advanced materials; Emerging applications of organic semiconductors such as explosive sensing and skin cancer treatment; Applications of fluorescence in medicine and biology.

- **Dr Graham Smith** (jcp10@st-andrews.ac.uk)
  Novel biophysical techniques; Single-molecule determination; Protein structure investigations; Electron spin resonance for biomolecular structure and quantum memory of light.

- **Dr Natalia Korolikova** (nvk@st-andrews.ac.uk)
  Theoretical quantum optics and quantum information; Continuous variable quantum information; The creation of light-matter interface and quantum memory of light.

- **Dr Janet Lovett** (jel20@st-andrews.ac.uk)
  Electron spin resonance for biomolecular structure determination; Protein structure investigations; Development of new spin labels and methods of spin labelling.

- **Dr Michael Mazilu** (mm17@st-andrews.ac.uk)
  Fundamental and applied photonics; Optical eigenmodes for beating the diffraction limit; Subwavelength focusing; Optimised structured illumination; Compressive imaging; Micromanipulation; Crosstalk free coherent control; Raman imaging.

Financial assistance for PhD degrees

The latest information on studentships and scholarships and other matters can be obtained from our webpages, and those of relevant research groups. Home students typically receive full funding provided from our research council allocation or research grants. The funding level is at the RCUK standard rate (in 2017-2018 this is £14,553 per annum).

While some overseas students can be funded through research grants or University scholarships, others receive support from a combination of sources, including an element of self-funding, scholarships from their home countries, or via cotutelle arrangements with partner universities. Overseas students who wish to apply for studentships should do so by the end of January, through the SUPA prize studentship competition for positions starting the following September. www.supa.ac.uk

Additionally, the University website lists a number of external funding opportunities for overseas students: www.st-andrews.ac.uk/scholarships

Careers

A PhD in physics or astronomy can prepare you for a broad range of careers in science, industry, commerce and education. Many of our PhD graduates find jobs as researchers in universities or national laboratories/observatories. Others begin careers in industrial research (UK Patent Office, Dyson, Fraunhofer UK, Selex, Edinburgh Instruments, Photonics Solutions), sales or marketing, careers in patents law, the financial sector, teaching and the media.

In partnership with the Careers Centre (see page 25) we can help, advise and support you on your career options. The School runs general careers fairs for our students and specific presentations providing advice on how to develop an academic career.
Psychology & Neuroscience

- In 2016-2017, the School of Psychology & Neuroscience has approximately 40 academic staff, 100 postgraduate students, 20 postdoctoral researchers and 16 technicians/support staff.
- We admit in the region of 15 new research postgraduates each year.
- Psychology & Neuroscience in St Andrews has maintained its position as one of the UK’s top groupings in the recent Research Excellence Framework. We are ranked second in Scotland and fifteenth in the UK. Half of our overall research outputs were ranked as world class and 77% of our academic staff were included in the assessment.
- The breadth and variety of psychology and neuroscience taught in the School is a particular strength, with significant opportunities to collaborate and benefit from a range of techniques applied to understanding the behaviour of humans and other animals.
- An emphasis on ‘doing’ not just listening: we equip you to ask and answer psychological and neuroscientific questions.

Our standing as a centre for research excellence is illustrated by the fact that we regularly attract funding from UK research councils, Leverhulme Trust, Royal Society of Edinburgh, the European Research Council, the Wellcome Trust, the Templeton Foundation and industry. Consequently, we have a large and thriving community of research staff and postgraduate students. We believe that good teaching and good research go hand-in-hand and we take pride in our research-based culture of teaching. Up-to-date information about the School can be obtained by visiting our webpages (see below).

Contact

E: pgsecpsych@st-andrews.ac.uk
T: +44 (0)1334 462157
www.st-andrews.ac.uk/psychology/research
Stem cell technology reveals fresh insights into Motor Neuron Disease

Dr Miles’ research group utilises stem cells derived from patient skin samples to investigate mechanisms underlying Motor Neuron Disease (MND). Their recently published work has demonstrated that even before they show any signs of damage, motor neurons affected by MND lose the ability to generate the electrical signals required to make muscles contract due to changes in specialised proteins called ion channels. This work, which highlights ion channels as potential targets for novel MND therapies, has received national and international media coverage and was the subject of a motion in the Scottish Parliament. Further information: http://bit.ly/sta-MND

Evolutionary and Developmental Origins of Inquiring Minds: Studies of Causal Reasoning; Curiosity and Executive Control

Dr Amanda Seed and her group are interested in the evolution of flexible behaviour and abstract thought. In particular, they study the extent to which non-human primates and human children solve problems using object concepts and causal reasoning. The group is also interested in how other cognitive processes (such as inhibition, working memory and attention) affect individual differences in performance on problem-solving tasks.

There is also an active collaboration in neuroscience with Emory University’s Neuroscience and Behavioral Biology program www.nbb.emory.edu

We offer excellent opportunities for fieldwork ranging from primate ethnology in Africa to observations in zoos throughout the UK. For clinical, neuropsychological and developmental research, we have excellent working relationships with a number of hospitals and schools.
The School applies annually to the various UK research councils for research studentships. In this way we have obtained funds for studentships from the MRC, BBSRC, ESRC and EPSRC. This funding is offered to the most promising candidates in any given year. In addition, ‘earmarked’ studentships are often awarded to the School, linked to particular research projects and/or particular supervisors.

In recent years we have been able to offer at least five awards of different kinds each year. Eligibility for research council studentships is restricted to EU applicants. Only UK citizens are eligible to receive the full maintenance grant. Non-UK students, however, are generally eligible for University or School-funded scholarships.

You should also contact the Postgraduate Admissions Officer in the School. Closing dates for funding opportunities will be on the School’s webpages and the University’s postgraduate fees and funding webpages.

We see postgraduate study as part of your long-term career development. Alongside the University’s Careers Centre, we offer advice and support in planning your career. The School provides opportunities to gain experience of working in an academic context, by being involved in tutorials, laboratory classes and other aspects of academic work.

Many of our postgraduates have gained postdoctoral and lecturing positions in universities across the world (lecturer at UCLA, Dean of Students at Yale University, researcher at Stuttgart Media University working on user experience) while others have jobs in healthcare (as researchers and clinicians – lecturer in medical education at Dundee University), wildlife conservation (Nature Publishing), information technology and management services (KPMG).

Please see page 25 for details of the University’s Careers Centre.
Social Anthropology

- Social Anthropology was established in 1979, and is now a constituent department in the University’s School of Philosophical, Anthropological & Film Studies, with a staff of 16.
- In the UK Research Excellence Framework 2014, the Department was ranked second in Scotland for 4*/3* research (i.e. ‘world leading’ or ‘internationally excellent’).
- At any one time around 50 postgraduates are registered in the Department, of whom 40 are research postgraduates.
- Teaching at all levels is informed by the research interests and accomplishments of lecturing staff.
- The Department and Research Centres regularly host international conferences.

**Contact**

E: socanthadmin@st-andrews.ac.uk  
T: +44 (0)1334 462977  
www.st-andrews.ac.uk/anthropology

**Research community**

Our students are from a broad range of backgrounds and are undertaking a varied range of taught courses and research programmes. Those returning from, or preparing to go into, the field form an active community with a wide range of diverse geographical and substantive interests.

You will participate in annual workshops organised by the Department, jointly with the Anthropology departments of the universities of Aberdeen, Edinburgh and Glasgow under the Scottish Training in Anthropological Research (STAR) programme. These workshops provide opportunities for informal presentations of research proposals, discussions relevant to your fieldwork preparations (e.g. ethics, data collection, writing field notes).

The exploration of creative ways of learning is held in a relaxed yet focused environment, together with members of staff and PhD students from each of the universities. The training workshops last for four days and take place in a beautiful countryside location. They act as complementary elements of the postgraduate training programme, and are organised in consultation with postgraduate students themselves, according to their perceived needs and wishes. In addition, there are shorter workshops which take place throughout the year and are designed to develop theoretical perspectives in anthropological research.

As part of your programme you are expected to attend and contribute to a weekly postgraduate seminar, and also to attend the Departmental research seminars at which the speakers are normally outside visitors. These seminars are intended to enrich your intellectual experience, to provide a forum for the discussion of students’ ideas and findings and to help enhance postgraduate solidarity.

Weekly research seminars are organised by both the Department and sometimes also by the Research Centres, and include speakers from outside St Andrews and abroad, thus enriching the intellectual environment. Social anthropologists from other UK departments and beyond visit and contribute to our series of seminars, and to workshops and conferences arranged by staff members and research students. We endeavour to create a warm and friendly atmosphere and this also contributes towards maintaining a high quality of teaching and intellectual exchange.
politics and history, gender and egalitarianism, hierarchy and ritual, conviviality and trust, agency and convention, memory and the past, internet and visual anthropology, embodiment and childbirth, and anthropology as a moral endeavour are also being addressed in Departmental research.

Postgraduate supervision in the Department includes anthropological theory, symbolic systems, ethnohistory, urban anthropology, economic anthropology and ecology, hunting and gathering societies, and development. Regional specialisms are concentrated on Africa, the Amazon, the Andes, the Caribbean, Europe (especially the British Isles, Spain) and Gypsies, Melanesia and the Pacific, and the Middle East. We are especially interested in your substantive and theoretical interest, which is a main criterion for entry, and enquiries are welcomed from prospective postgraduates with regional interests different from the above. We maintain close relations with kindred disciplines, especially Philosophy, Modern Languages, History and Geography & Sustainable Development. The structure of postgraduate studies in the University allows for the possibility of inter-departmental supervision of research projects of an interdisciplinary nature.

Facilities

The Department of Social Anthropology occupies an extensive suite of offices on North Street and in the medieval St Salvator’s College. It is well situated in the centre of town and at the geographical heart of the University. The Centre for Amerindian, Latin American and Caribbean Studies has its own set of rooms within the Department, including a reading room that holds a library for Latin American and Amerindian studies. Postgraduate students also have their own area within the Department, which includes a computer room, and three further rooms reserved for their use. Within Social Anthropology there is also a museum collection of ethnographic objects and a common room, providing a space that is shared by both staff and postgraduates. The Departmental libraries, along with the Main Library, which holds a fine anthropology collection, include materials from all ethnographic regions of the world.

Our research focus

Research here is especially concerned with the scrutiny and creation of qualitative methodology and with its application to comparative analysis. The criticism of sources and testimonies provides a link between the interpretative and historical interests of the Department. One focus is upon indigenous and individual understandings of social reality, and everyday constructions of cultural meaning as embodied in diverse forms of social life, discourse, and practice, and the problems and possibilities of their comprehension and translation by others. This is balanced by attention to problems of social change and to the semantic, sociological and historical contexts from which the active participation of ethnographic subjects in the world can emerge.

More recent developments are philosophical anthropology, anthropology of knowledge, literature and anthropology, the ethnography of aesthetics and emotions, representation in history and anthropology, and phenomenological anthropology. A number of topical themes such as ‘the market’, new religious movements, material culture, peace and violence, the State, colonialism and post-colonialism, identity politics and history, gender and egalitarianism, hierarchy and ritual, conviviality and trust, agency and convention, memory and the past, internet and visual anthropology, embodiment and childbirth, and anthropology as a moral endeavour are also being addressed in Departmental research.

Postgraduate supervision in the Department includes anthropological theory, symbolic systems, ethnohistory, urban anthropology, economic anthropology and ecology, hunting and gathering societies, and development. Regional specialisms are concentrated on Africa, the Amazon, the Andes, the Caribbean, Europe (especially the British Isles, Spain) and Gypsies, Melanesia and the Pacific, and the Middle East. We are especially interested in your substantive and theoretical interest, which is a main criterion for entry, and enquiries are welcomed from prospective postgraduates with regional interests different from the above. We maintain close relations with kindred disciplines, especially Philosophy, Modern Languages, History and Geography & Sustainable Development. The structure of postgraduate studies in the University allows for the possibility of inter-departmental supervision of research projects of an interdisciplinary nature.

International conferences

An important element in fostering the Department’s international reputation has been a series of international conferences, each of which has considered an important contemporary theoretical issue within the discipline. These have dealt with, for example, The Anthropology of Violence; Power and Knowledge; Localising Strategies; The Concept of the Market; The Problem of Context; Kingship; The Anthropology of Love and Anger; Ways of Knowing; An Epistemology of Anthropology; Cosmopolitanism; Imagination; Liberties & Freedoms. The Ladislav Holy Memorial Trust plays an important supportive role for many of these conferences.

From time to time distinguished scholars are appointed to the St Andrews Visiting Professorship in Social Anthropology and each year members of the international academic community join the Department to follow postdoctoral work and other research endeavours. Such visiting scholars greatly enhance the thriving research environment.
Research Centres

Research Centres play an important role in the liveliness of the Department’s research life, and are related to Social Anthropology’s programme of rethinking key aspects of the nature of interpretative and historical anthropology, which constitute the cornerstones of the Department’s theoretical orientation.

- **Centre for Amerindian, Latin American and Caribbean Studies (CAS)**
- **Centre for Cosmopolitan Studies (CCS)**
- **Centre for Pacific Studies (CPS)**

For full details see www.st-andrews.ac.uk/research/university/centres

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**Research areas**

**Dr S Bunn** (sjb20@st-andrews.ac.uk)
Research on pastoral nomadism; Material culture; Human-environment relationships; Learning and skill; Childhood, space and perception; Vernacular architecture. Area speciality: Post-Socialist Eurasia. Attached to the Centre for Cosmopolitan Studies.

**Dr T Crook** (tony.crook@st-andrews.ac.uk)
Research on ritual; Knowledge practices; Embodiment; Kinship; Visualism; Advocacy; Development. Area speciality: New Guinea. Attached to the Centre for Cosmopolitan Studies.

**Professor R Dilley** (rmd@st-andrews.ac.uk)
Research in social theory and Methodology; West African ethnography; Islam; Cosmology and power; Craft practice and apprenticeship; Politics of knowledge and ignorance; French colonialism; Biography.

**Dr S Frankland** (mcf1@st-andrews.ac.uk)
Research in tourism; Development; Mythology; Representation. Area speciality: East Africa.

**Dr M Fumanti** (mf610@st-andrews.ac.uk)
Fieldwork in Rundu; Northern Namibia, among Ru-Kavango speakers, and London. Research interests include: Elites; Associational life; Youth; Masculinities; Morailties, Christianity and migration; Urban anthropology and postcolonialism. Area specialities: Southern Africa and Britain. Attached to the Centre for Cosmopolitan Studies.

**Dr P Gay y Blasco** (pgyb@st-andrews.ac.uk)
Research in feminist theory; Religion; Sex and gender; Kinship; The body. Area specialities: Spain, the Mediterranean. Attached to the Centre for Cosmopolitan Studies.

**Professor P Gow** (pgg2@st-andrews.ac.uk)
Research on myth; History; Kinship; Aesthetics and the anthropology of art. Area speciality: Amazonia. Attached to the Centre for Amerindian, Latin American and Caribbean Studies.

**Dr M Harris** (mh25@st-andrews.ac.uk)
Research on the anthropology of identity; Anthropology of history and anthropology; Peasantries; Experience; Methodological issues in the social sciences. Area specialities: South America, Brazilian Amazon. Attached to the Centre for Amerindian, Latin American and Caribbean Studies and the Centre for Cosmopolitan Studies.

**Dr M High** (mmh20@st-andrews.ac.uk)
Mongolia; USA; Extractive industries; Economic transformations; Wealth and value; Buddhism and cosmology.

**Dr S Hyland** (sph@st-andrews.ac.uk)
Research on Andes, Peru, Inkas; Ethnopoetics; Historical anthropology; Literacy; Writing and politics; Ancient scripts. Attached to the Centre for Amerindian, Latin American and Caribbean Studies.

**Dr D Knight** (dmk3@st-andrews.ac.uk)
Economic anthropology; History and anthropology; European ethnography; Time and temporality; Anthropology of the future; Crisis; Renewable energy; Mediterranean; Greece.

**Dr S Pipyrou** (sp78@st-andrews.ac.uk)
Italy, Greece, Turkey; Linguistic minorities, Mafia and ‘illegal’ organisations; Civil society; Power and governance; Kinship and relatedness; Refugee identity; Anthropology of dance. Attached to the Centre for Cosmopolitan Studies.

**Professor N Rapport** (nj2@st-andrews.ac.uk)
(Director of CCS) Research on individuality; Globalism; Semantics; Literary anthropology; Consciousness and narrative; Medical anthropology. Area specialities: England, Newfoundland, Israel and Scotland. Attached to the Centre for Cosmopolitan Studies.

**Dr A Reed** (ader@st-andrews.ac.uk)
Cultures of punishment; Postcolonial institutions; Literate and literary cultures; Urban anthropology; New media; History of anthropology. Area speciality: Melanesia. Attached to the Centre for Pacific Studies & the Centre for Cosmopolitan Studies.

**Professor C Toren** (ct51@st-andrews.ac.uk)
Exchange processes; Spatio-temporality as a dimension of human being; Sociality, kinship and ideas of the person; The analysis of ritual; Epistemology; Ontogeny as an historical process. Area speciality: Fiji and the Pacific, and Melanesia. Attached to the Centre for Pacific Studies.

**Dr H Wardle** (hobw@st-andrews.ac.uk)
Cosmopolitanism; Diaspora; Comedy; Ethics; Aesthetics. Area specialities: Jamaica, the Caribbean. Attached to the Centre for Amerindian, Latin American and Caribbean Studies & the Centre for Cosmopolitan Studies.
Departmental assistance with funding

For the most current information on funding and scholarships go to: [www.st-andrews.ac.uk/scholarships](http://www.st-andrews.ac.uk/scholarships)

To defray some of the costs of postgraduate study and fieldwork:
- The Department award studentships on a regular basis.
- You may apply to the Department for work as a Teaching Assistant. Such tutorial work is payable at around £15 per hour.

Scholarships and prizes
Social Anthropology PhD candidates continue to win top scholarship awards, including ESRC and Overseas scholarships. Our PhD candidates also regularly win national and international doctoral essay prizes.

New research clusters
As well as hosting three internationally recognised research centres (focused on Amerindian, Latin American & Caribbean Studies, Pacific Studies and Cosmopolitan Studies), the Department of Social Anthropology has emergent new research clusters focused on Collaborative Anthropology and History and Anthropology.

Careers

Social Anthropology graduates have characteristics many employers seek and a Social Anthropology degree provides openings to a wide range of careers.

- **Private organisations**: can use the skills of social anthropologists doing research for urban planning, working with health organisations, doing market research for advertising companies, training employees who will be working in international divisions, or working in human resource departments.
- **Government agencies**: often employ social anthropologists as policy researchers, research analysts, evaluators, managers, planners and policy makers.
- **International organisations**: employ social anthropologists in projects in various countries around the world as researchers and cultural brokers.
- **Non-profit agencies**: can employ social anthropologists as advocates, administrators, evaluators and researchers.
- **Graduate employers**: 70% of graduate jobs are for students from any discipline and social anthropologists successfully move into teaching, law, finance, human resources, marketing or public relations.

Well known St Andrews Social Anthropology graduates:
- **Saba Douglas-Hamilton** – wildlife conservationist and BBC presenter
- **Nicolas Argenti** – anthropologist
- **Alexander Schulenburg** – historian, independent scholar and activist for the British overseas territory of St Helena
- **Nicholas Barker** – journalist: winner of *The Independent* Young Journalist of the Year.

Well known people who studied Social Anthropology:
- **Kurt Vonnegut** – writer
- **Thandie Newton** – film actor
- **Gillian Tett** – financial journalist
- **Steve Riggio** – founder of Barnes and Noble
- **Antony Gormley** – artist
- **Yo-Yo Ma** – musician
- **Mario Vargas Llosa** – writer and politician
- **Tracey Chapman** – musician.

Items in the Social Anthropology museum

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This Prospectus is available in Large Print, Braille, or Audio, on request to Print & Design: +44 (0)1334 463020

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