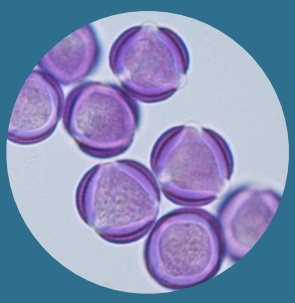
University of Worcester

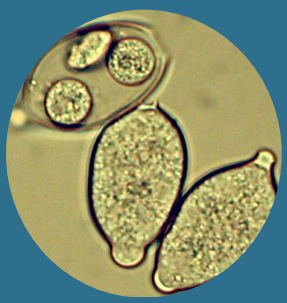
National Pollen and Aerobiology Research Unit

Airborne Infectious Agents and Allergens

MSc, Diploma and Certificate

www.worc.ac.uk




AIRBORNE INFECTIOUS AGENTS AND ALLERGENS: TRANSLATING NEGATIVE IMPACT INTO POSITIVE OUTCOME

Infectious diseases have a huge impact on the health of humans, animals and plants. The emergence of old and new pathogens, together with increasing spread of allergens originating from pollen and spores that trigger hay fever and asthma demonstrates why research is imperative. This unique programme meets the demands of curious minds of young scientists, nurses and clinicians in this field.

In our theoretical and translational scientific research programmes, experts of international standing work together at the frontiers of plant and human health to translate negative impacts of the airborne infectious agents and allergens into positive outcomes. They address dispersal mechanisms and forecasting of airborne particles, host-microbe interactions, allergens, and new molecular and immunological diagnostic platforms for the prevention and cure of infections and allergies.

Why choose to study at Worcester?

This MSc introduces exciting new themes that reflect the research excellence within the NPARU Division of Institute of Science and the Environment at University of Worcester.

★ Students will benefit from working in the first-class teaching facilities, molecular, immunological, microbial, forensics and imaging laboratories.

★ Affiliated staff are the UK's best in theoretical and translational research

★ You will have contact with first-class teaching staff who will challenge you to consider the impact of all the elements of infectious agents and allergens.

★ You will be in a professional dynamic environment

★ Strong links with agricultural and biotech industry, clinical trials and international centres.

★ The National Pollen and Aerobiology Research Unit (NPARU) is a designated research centre of the University of Worcester (UW) involved with Health, Science, Environment and Forensics. NPARU primarily conducts research and consultancy on topics related to infectious agents and allergens, including air quality and health, pollen monitoring and forecasts for the UK media and Met Office, detection and diagnostics of infectious agents, respiratory allergies, forensic palynology and testing appliances for allergen removal/ reduction. NPARU is unique in the UK and has earned a national and international reputation for its combination of expertise in allergens, aerobiology, indoor air quality and medical knowledge.

Method of Study

The programme leads to an MSc in Airborne Infectious Agents and Allergens. Dispersal of airborne particles, forecasting and modeling, detection and diagnostics, forensics, palynology, allergy, host-pathogen interactions and immunology are the specialized subjects. The programme will taught by the Institute of Science and the Environment with the affiliated department, National Pollen and Aerobiology Research Unit.

Full-time and part-time study will be available.

★ MSc: one calendar year full-time, two calendar years part-time (6 x 20 credit modules and a 3-month research project).

★ Postgraduate Diploma: 9 calendar months full time, two calendar years part-time (6 x 20 credit modules without the 3-month research project).

★ Postgraduate Certificate: up to 12 weeks full-time, up to two academic years part-time (3 x 20 credit modules).

What does the programme offer?

Six modules spread across eight months with more than 200 hours of contact time. There are six modules containing exciting themes including airborne allergenic particles, pollen biology and biotechnology, forecasting at national level, allergen carriers and allergy management, virulence factors of pathogens, modulation of the immune system by microbial elicitors and inflammation of tissues.

The last three months are spent on a practical research project that can be undertaken within ISE/NPARU at Worcester or in a related company or another institute at the UK. Strong links exist with several biotech companies or universities. The modules are as follows:

Modules

★ Fundamental and translational aerobiology

★ Detection and identification of microorganisms

★ Impacts of infectious agents on humans, animals and plants

★ Airborne allergens and allergen carriers

★ Allergy diagnostics and management

★ Research methods

Research projects leading to a dissertation will be offered in the areas of:

★ Microbiology

★ Environmental biology

★ Pollen biology and biotechnology

★ Immunology

★ Host-pathogen interactions

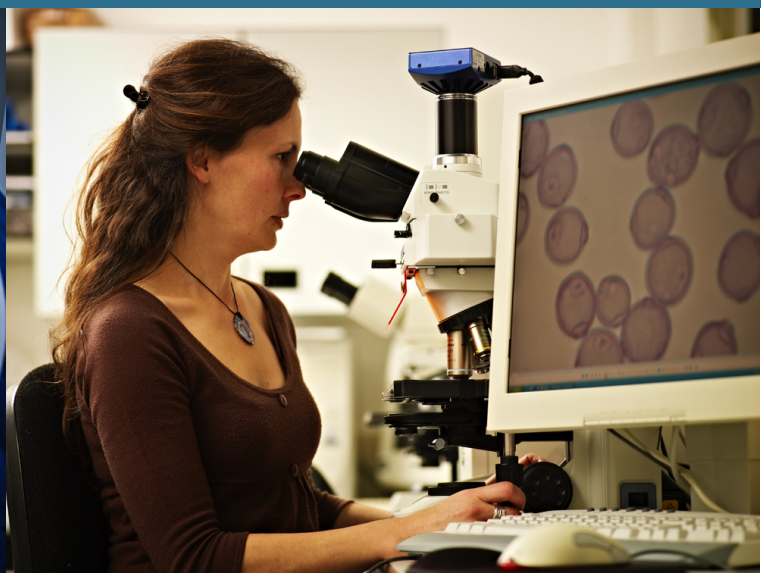
★ Allergy

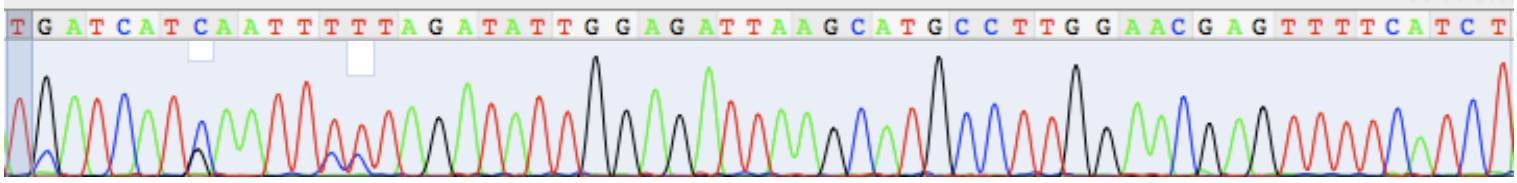
★ Forensics

★ Diagnostics

★ Forecasting and modeling

★ Agro- and medical biotechnology





Timetable

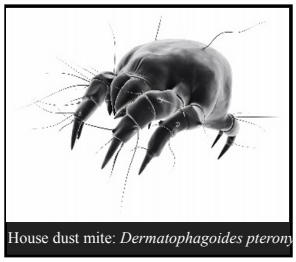
The Airborne Infectious Agents and Allergens programme will launch in September 2011 and a new cohort will start each year thereafter. Applications for the programme start in September 2011 should be received no later than 31st August 2011.

Entry Requirements

Candidates will be expected to hold a minimum lower second-class honours (2:2) degree from a UK university or an equivalent qualification if obtained outside the UK. Relevant experience will also be taken into account during the assessment of the applications.

English Language Proficiency

In line with the University of Worcester policy, students whose native language is not English and who did not undertake their undergraduate degree in English will be expected to pass the British Council IELTS test at grade 6.5 or above including a score of 6.0 or better in the written and spoken English elements of the academic test. An acceptable alternative is a TOEFL qualification with a score of not less than 90 overall in the internet-based test (iBT), to include 24 in Writing and 20 in Speaking; or 600 in the paper-based test (PBT), or 250 in the computer-based test (CBT), both to include a minimum score of 4.5 in the written English. For further details, please refer to http://www.worcester.ac.uk/international/14641.html



House dust mite: *Dermatophagoides pteron*

Short-listed candidates will be assessed through references and interviewed, either in person or if overseas, by telephone. This ensures maximum take-up of offers and further control on aptitude and language ability. Suitable applicants will be identified on the basis of academic excellence and demonstrable interest in life sciences.

Careers

Certainly the career progression prospects will be greatly enhanced by achieving our MSc. Our graduates will be able to pursue a career either in academia or in industry relating to microbiology and allergy. The training our students receive will provide a springboard for vocational careers in plant/animal science within the agricultural, medical and pharmaceutical industry, government and industrial research, and education. Our emphasis on high level academic attainment and the development of transferable skills will generate job opportunities in other aspects of natural sciences and other areas of employment.

Further information

For more information and an application form please contact:

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