

STUDENT EXPERIENCE INTERNSHIP (SEI) PROGRAMME

LEARNING THROUGH RESEARCH INTERNSHIP TEMPLATE 2021

Overall Purpose of the Learning Through Research Internships

The SEI internship programme has a number of strands, including the Learning Through Research internships. These internships aim to improve the employability of our students through access to internships and work experience, giving them the opportunity to experience what life as a researcher or an academic would be like.

The Development Programme

During the work experience/internship there will be weekly workshops aimed at developing students' employability skills. The schedule will be provided nearer to the time of the internships starting in June/July 2021.

The Internship – Key Facts

- The internships are to take place during the **summer of 2021**, for a **maximum period of six weeks**.
- It is essential that students are provided with **adequate support and supervision** during that time.
- Where possible, internship proposals should have the **contingency to be delivered/adapted to be delivered remotely** if campus access is limited during Summer 2021.
- Interns will apply and be chosen for each internship through a **fair recruitment process** supported by the Careers Service.
- Only **current, non-final year Undergraduate students** are eligible to undertake an internship.
- Students will be engaged as casual staff by the University at the Living Wage rate*.
- The internship should last a **maximum of six weeks**, funding only being available for this period.

Please provide specific details of the internship project:

Title of the Learning Through Research internship:
The association between daily air quality index and COVID-19 infection in Sub Saharan Africa (SSA)
A summary of the internship or project outlining the key aims and objectives (in no more than 500 words): <i>Please also specify how the project could be adapted to be carried out remotely if required.</i>
Background: The severity of the on-going coronavirus diseases 2019 (COVID-19) in SSA is still not well understood. The perception is that ambient temperature disrupts the transmission and survival of coronaviruses (Xie and Zhu 2020).
AIM: This proposal aims to test this proposition using a rare set of recently acquired primary data from an on-going GCRF-QR funded project (SQUARE).
Objectives: 1) To systematically review existing literature; and 2) To comparative analysis a suite of 6 months primary AQI dataset and a repository of secondary COVID-19 datasets.
Methods: Daily confirmed cases, primary AQI data and meteorological factors in cities with peculiar disease susceptibility would be analysed. The primary AQI data shall be accessed with remote connection to the IoT sensor on SQUARE site. This

makes the data collection analysis and reporting to be easily done remotely. In line with previous studies, a generalised predictive model would be applied to explore nonlinear relationship between critical AQI variables and COVID-19 confirmed cases in SSA.

Working hours are flexible and will be carried out remotely due to the current Covid-19 restrictions. Training will be provided before the commencement of the internship to familiarise you with the tasks and responsibilities.

A list of what the student's key activities and duties will be (in no more than 500 words):

The interns (2-3) will have the opportunity to learn and make valuable contributions to this new exciting initiative that has the potential to substantially help mitigate the effects of COVID-19 and by extension similar future pandemics. The key roles and responsibilities will include:

- Working in collaboration with the project team with specialist skillsets to analyse and develop a predictive model;
- Conducting simulations on the potential impact of new technologies and changes in human behaviour patterns on the transmission and infection rate/risk of COVID-19; and
- Liaising proactively with the principal investigator to assist in the documentation of the analyses and presentation of findings in a seminar.

The essential skills and attributes required to apply:

Please list the skills and attributes you require the successful candidate to possess.

The intern should be:

1. Passionate about the project aim.
2. Incredibly resourceful in completing assigned tasks.
3. Self-motivated to meet project deadlines without constant reminders
4. Adept at working and making decisions with little or no supervision.
5. Efficient with the use of basic statistical tools and an understanding of a programming language will be an advantage.
6. Resilient and versatile while undertaking duties.
7. Excellent in oral and written communication skills.
8. Skilful in handling multiple tasks and prioritizing.
9. Able to establish and maintain a good working relationship.

Please confirm the length of the internship (a maximum of 6 weeks can be funded):

8 weeks

Prospective start date (subject to adjustment):**

1 August 2021

Department/School:

Mechanical, Aerospace and Civil Engineering (MACE)

This internship would particularly suit students from the following Departments/Schools (please indicate all which apply):

FBMH		HUMS		FSE	
Audiology		AMBS		Chemical Engineering	

Biosciences	X	SALC		Computer Science	X
Dentistry		SEED		EEE	X
Medicine	X	SoSS		MACE	X
Nursing, Midwifery and Social Work				Chemistry	X
Optometry and Ophthalmology				Earth and Environmental Sciences	X
Pharmacy				Materials	
Psychology				Mathematics	X
Speech and Language Therapy				Physics	X

Please confirm your contact details:

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Co-Is: Dr Majeed O. Oladokun (Salford); Dr Clara Cheung (Manchester); Dr Olalekan Oshodi (Anglia Ruskin); Bldr Sotunbo Adegboyega (Unilag-ARUA); Prof David Edwards (Birmingham) and Prof. Olumide Adenuga (Unilag-ARUA).

** Students will be fully funded via the Merged Endowment Fund held by the Careers Service who will co-ordinate each student's weekly timesheet and payment.*

***We would recommend that interns start their internships during the **first week of the month** due to the payment deadlines of the casual staff system at The University.*

Please submit your completed **Learning Through Research** Internship template to lewis.howells-2@manchester.ac.uk by **Sunday 7th February 2021** for consideration for funding.