UCL CENTRE FOR ADVANCED SPATIAL ANALYSIS

**2020-21 Senior Postgraduate Teaching Assistant Vacancies**

**Job Description and Person Specification**

**Job title:** SeniorPostgraduate Teaching Assistant (PGTA)

**Grade:** 6

**Reporting to**: Module Leaders

**Salary:** Appointments will be made on the Grade 6 payscale which ranges from £15.28 to £17.91 per hour (including London Allowance). Appointments are normally made at the start of the scale, with incremental progression following reappointment in subsequent years.

**Duration:** These appointments will be made on a fixed term basis. Applicants will be required to reapply to the scheme in future academic years.

**Hours per week**: Hours of work vary across modules. PGTAs will be paid for training, preparation time, attending lectures and meetings, office hours and marking. The estimated total teaching hours across each module is listed below. Payments will be spread evenly for the duration of each module and a separate record of hours worked will need to be kept and reviewed by the module leader on a monthly basis. All applicants will need to show evidence of their right to work before starting any work. Tier 4 visa must work within the guidelines specified in the terms set by The Home Office.

**Background:**

The Centre for Advanced Spatial Analysis is offering a range of teaching opportunities for postgraduate research students to assist on its Masters’ level courses as Senior Post Graduate Teaching Assistants.

Both full and part time students are eligible to apply. Each shortlisted candidate’s research supervisor will be asked to provide a short reference outlining the student’s research progress and his/her suitability to take on this extra commitment.

Students may apply to assist on any of the modules, and only one application is required. Please complete the attached application form and send it along with your CV to [casa-teaching@ucl.ac.uk](mailto:casa-teaching@ucl.ac.uk) by **20th August 2020**. Unfilled vacancies will continue to be advertised thereafter.

The appointments will be made on UCL’s salary structure at grade 6. Post holders will be paid for teaching preparation time and three hours of mandatory training, UCL Arena One Gateway Workshop. More information is available at:

<https://www.ucl.ac.uk/teaching-learning/professional-development/arena-one>

Vacancies are available in the following modules, which may be delivered fully or partially online.

**Term 1**

**CASA0001 – Urban Systems Theory (3 vacancies: 136 hours each)**

* Good knowledge of urban or human geography
* Competence in academic writing and interest in helping students learn this from diverse backgrounds
* Interest in assessing students’ essays and providing high quality feedback (under guidance)

**CASA0013 - Introduction to Programming (4 vacancies: 88 hours each)**

* Experience in Programming in Python and Javascript

**CASA0005 – Geographical Information Systems and Science (6 vacancies: 4 x 132 hours | 2 x 36.5 hours)**

* Familiarity with R (or a desire to learn it), familiarity with spatial data and other GIS software such as ArcGIS or QGIS
* General knowledge of spatial data
* Basic statistical knowledge
* Ability to troubleshoot problems

**CASA0007 – Quantitative Methods (3 vacancies: 51.5 hours each)**

* Good understanding of statistics
* Experience with Python (desirable)

**BPLN0077 – GIS for Planners (1 vacancy: 84.5 hours)**

* Good understanding of GIS and spatial analysis methods
* Experience of QGIS software
* Understanding of common urban spatial data
* Basic statistics knowledge

**Term 2**

**CASA0002 – Urban Simulation (3 vacancies: 110 hours each)**

* Knowledge of ABM and CA
* Familiarity with Netlogo

OR

* Understanding of Spatial Interaction models: retail and Lowry models

OR

* Use of iGraph in R

**CASA0011 – Agent Based Modelling (2 vacancies: 101 hours each)**

* Some knowledge of / familiarity with the concepts of agent-based modelling
* Experience working with NetLogo (desirable, but not essential 10 hours are allocated to gaining familiarity with NetLogo)

**CASA0009 – Spatial Data Capture, Storage and Analysis (2 vacancies: 109 hours each)**

* Experience with Python and/or JavaScript
* Good statistical knowledge
* Knowledge of modern data science methods

**CASA0003 – Digital Visualisation (1 vacancy: 108 hours)**

* Experience of coding tools for spatial visualisation (e.g. p5.js, Processing...)
* Some 3D urban visualisation experience with software like Unity
* Some understanding of design concepts for digital visualisation

**CASA0006 – Data Science for Spatial Systems (2 vacancies: 109 hours each)**

* Experience with Python
* Good statistical knowledge
* Knowledge of modern data science methods

**CASA0008 – Smart Cities: Context, Policy & Government (3 vacancies: 128 hours each)**

* Good knowledge of urban or human geography and/or interest in the smart city discourse
* Interest and competence in leading seminar discussions
* Interest in assessing students’ work and providing high quality feedback (under guidance)

**CASA0018 - Deep Learning for Sensor Networks (1 vacancy: 86 hours)**

Aim: To give the students the understanding and practical experience of applying deep learning to sensor data (video, time series), and develop the skill set to design and implement deep learning systems for IoT devices.

**CASA0017 – Web Architecture (2 vacancies: 43 hours each)**

Aim: To give the student an exposure and understanding of what makes a good web application, and developing a skill set to design and build a web interfaces and applications that interact with the physical as well as the digital interfaces.

**Job Description**

**Generic Duties and Responsibilities**

Post holders can be expected to take on some or all of the following duties:

* To cooperate with the Director of School in the unit where candidates are allocated.
* To assist teaching fellows, module coordinators, and programme directors in delivering and developing course material as designated by the Director of School in the unit/module where candidates are allocated.
* To mentor students in designated areas of the candidate’s expertise.
* Regular meetings with the module coordinator or programme director to discuss any issues and problems arising.
* To uphold confidentiality in regards to student records, marks and extenuating circumstances and any other personally sensitive issues such as medical or other referrals.
* As duties and responsibilities change, the job description will be reviewed and amended in consultation with the post holder.
* The post holder will carry out any other duties that are within the scope, spirit and purpose of the job as requested by the line manager or Director of School.
* The post holder will actively follow UCL policies including Equal Opportunities and Race Equality policies.
* The post holder will maintain an awareness and observation of Fire and Health & Safety Regulations.

Each post is unique and the duties will vary depending on arrangements of teaching in each module. Additional duties, in the spirit of the PGTA post, may include:

* Leading a student seminar or workshop
* Essay or coursework marking
* Offering students formative verbal or written feedback
* Holding office hours
* Offering administrative support
* Accompanying teaching staff and students on field trips

**Person Specification**

Essential

* Working towards a postgraduate research degree (PhD/EngD.)
* A desire to gain teaching experience in a built environment discipline.
* Disciplinary knowledge and, if applicable, specialist skills of the subject area of the programme/unit/module.
* Ability to communicate clearly, both orally and in writing, with students and staff.
* Excellent organisational and time-management skills.
* Ability to be flexible in terms of research workload and other commitments.
* Ability to work independently for short periods and as part of a team, recognising when advice / input needs to be sought.
* Available for the three hour mandatory UCL Arena One Gateway Workshop, if not previously attended.
* Commitment to UCL’s policy of equal opportunities and the ability to work harmoniously with colleagues and students of all cultures and backgrounds.
* The ability to meet deadlines

Desirable

* Knowledge and experience of Moodle (virtual learning environment).

**Additional Information**

* Postgraduate Teaching Assistantships offer students a valuable introduction to university teaching. For postgraduate research students, teaching is considered as part of the skills audit within the research student log and training credit should be recorded for each duty undertaken.
* Since the number of students on some courses is not known until after the start of term, the department reserves the right to make last-minute adjustments to teaching loads or timetables.
* PGTAs are expected to follow directions and report directly to the unit/module instructor and/or programme coordinator.