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| Last updated: | 20/11/2019 |

**JOB DESCRIPTION**

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| Post title: | **Associate Professor in Computational Environmental Science and Data Analytics** | | |
| School/Department: | Ocean and Earth Science | | |
| Faculty: | Environmental and Life Sciences | | |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 6 |
| \*ERE category: | Balanced portfolio | | |
| Posts responsible to: | Head of School | | |
| Posts responsible for: | Research staff and postgraduate students within own research programme | | |
| Post base: | Non Office-based (see job hazard analysis) | | |

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| Job purpose |
| * To conduct a successful research programme complements and augments the School’s existing research strengths, and to generate and efficiently administer external funding for research; * To supervise staff and postgraduate research students within that programme; * To participate in the development and delivery of undergraduate and postgraduate education programmes; * To contribute as required to administration and management. |

| Key accountabilities/primary responsibilities | | % Time |
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|  | Research and Enterprise:   * To develop and sustain an innovative research programme in an area aligned with the research strategy of the School. * To obtain external long-term funding through the submission of internationally-competitive research applications in order to sustain a research programme. To manage projects and research budgets efficiently in line with University and funding body regulations and agreed timelines. To provide accurate and timely formal reports to sponsors. * To publish research results in quality peer-reviewed journals and to disseminate research findings through national and international learned conferences. * To contribute to the overall activity of the research community by attendance at, and presentations to, internal seminar programmes and workshops, and to host visiting speakers. * To establish productive collaborations with researchers within and outside the School and University to enhance research profile and encourage interdisciplinary projects. * To develop links with industry and seek commercially-funded collaborative research; to exploit research through direct commercialisation and contract work as appropriate. * To promote individual and corporate research reputation by involvement in external bodies that determine research funding and set research agenda (membership of national science committees, conference speaker invitations, editorial boards). * To recruit and supervise research staff and postgraduate students. * As academic supervisor to be responsible for adherence of staff and students to School, University and statutory health and safety policies and regulations. To ensure observance of good laboratory practice, including the completion of accurate records of experimental data in accordance with the Research Conduct and Academic Integrity guidance of the School. | 40 % |
|  | Education:   * To contribute to undergraduate and postgraduate teaching programmes and assessment and development of the undergraduate curriculum (including lectures, tutorials, practicals, supervisions and fieldwork according to the area of subject specialism). * To undertake postgraduate supervision and training. | 40 % |
|  | Service to the Centre:   * To participate actively in administration and management as requested by the Head of School. To be a member of relevant governance bodies (e.g. Exams Board). * To promote the image and reputation of the University, the School and Faculty and to participate in student recruitment, outreach and enterprise activities. * To act as a mentor to junior colleagues. | 20 % |

| Internal and external relationships |
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| Member of the School Examination Board and of such School committees relevant to their administrative duties.  The post holder will explore interdisciplinary research opportunities afforded by the University.  Teaching and administrative duties will be allocated by the Head of School, within the context of the teaching programmes agreed by the School Learning and Teaching Committee. |

| Special Requirements |
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| To be willing to attend national and international conferences to disseminate research results, foster collaborations and enhance the reputation of the University and the School.  To undertake continuing personal and career development, including completion of Postgraduate Certificate in Academic Practice, probation procedures and performance review as appropriate.  To be available to participate in residential fieldwork, in the UK or overseas, according to own area of subject specialism. A normal expectation would be of one such course per annum. |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | PhD or equivalent professional qualifications and experience in a relevant subject.  Research experience and evidence of significant achievement in subject area(s) that are related to the School’s research strategy (through published papers, positions of responsibility, invited lectures, etc.)  Knowledge and skills to support research in the discipline areas  Experience in appropriate technologies and skills for a research programme that is consistent with the School’s research strategy  Ability to obtain peer-reviewed funding in their research area  Able to supervise postgraduate students  Enthusiasm for and proven competency at undergraduate teaching  Experience in developing and delivering teaching programmes associated with the degree programmes offered by the School | Teaching qualification (PCAP or equivalent)  Experience of some aspects of Higher Education institution administration  Evidence of collaborative research with related disciplines in life sciences, physical sciences and engineering  Evidence of successful achievements in research enterprise | Qualifications, Quality of Application, CV, Record of outputs, Track record, Interview, References |
| Planning and organising | Ability and initiative to plan and implement research and teaching programmes  To be well-organised to oversee financial, staffing, technical and administrative aspects of research and education activities | Past evidence of achievement in planning and organising own research and teaching programme | Application, CV, interview, references |
| Problem solving and initiative | Ability to advise staff and students to deal with analytical problems  Initiative to be at forefront of identifying and solving research problems and to make innovations in teaching |  | Application, Past evidence, Interview, References |
| Management and teamwork | Able to mentor, manage, motivate and coordinate teaching/research teams, delegating effectively. Able to resolve performance issues and formulate staff development plans, where appropriate, to ensure team aims are met  Proven ability to manage and deliver own course units and team-taught course units  Proven ability to coach, advise and support others (staff and students) on learning and teaching issues.  Able to foster and develop good relationships between own School and the rest of the university. Able to work proactively with senior colleagues to develop cross-School and institution cooperation and effectiveness  Able to contribute to the running of the School by managing significant School processes  Able to monitor and manage resources and budgets  Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development  Able to work in a collegiate manner as part of multi-disciplinary teams involved in education and research activities  Willingness and aptitude to contribute to the School’s business activities and participate as member of task groups  Be willing to undertake activities to enhance individual, School, Faculty and University reputation and success |  | CV, interview, references |
| Communicating and influencing | Able to effectively communicate research findings at conferences, seminars and other forums  Able to communicate complex ideas to all levels of audiences using innovative, up-to-date and varied aids  Ability to inspire, enthuse and support students |  | Application, CV, track record, interview, references |
| Other skills and behaviours | A desire to promote cross-disciplinary links with other disciplines and areas in the University of Southampton |  | Interview |
| Special requirements | To be willing to attend national and international conferences to disseminate research results, foster collaborations and enhance the reputation of the School and University.  To undertake continuing personal and career development, including completion of Postgraduate Certificate in Academic Practice , probation procedures and performance review, as appropriate.  Able to contribute to residential fieldwork programs in the UK or overseas. A normal expectation would be of one such course per annum. |  | Past record, interview |

**JOB HAZARD ANALYSIS**

**Is this an office-based post?**

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| Yes | If this post is an office-based job with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete the section below. |
| No | If this post is not office-based or has some hazards other than routine office (eg: more than use of VDU) please complete the analysis below.  Hiring managers are asked to complete this section as accurately as possible to ensure the safety of the post-holder. |

## - HR will send a full PEHQ to all applicants for this position. Please note, if full health clearance is required for a role, this will apply to all individuals, including existing members of staff.

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| **ENVIRONMENTAL EXPOSURES** | **Occasionally**  (<30% of time) | **Frequently**  (30-60% of time) | **Constantly**  (> 60% of time) |
| Outside work |  |  |  |
| Extremes of temperature (eg: fridge/ furnace) |  |  |  |
| ## Potential for exposure to body fluids |  |  |  |
| ## Noise (greater than 80 dba - 8 hrs twa) |  |  |  |
| ## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below: |  |  |  |
| Frequent hand washing |  |  |  |
| Ionising radiation |  |  |  |
| **EQUIPMENT/TOOLS/MACHINES USED** | | | |
| ## Food handling |  |  |  |
| ## Driving university vehicles(eg: car/van/LGV/PCV) |  |  |  |
| ## Use of latex gloves (prohibited unless specific clinical necessity) |  |  |  |
| ## Vibrating tools (eg: strimmers, hammer drill, lawnmowers) |  |  |  |
| **PHYSICAL ABILITIES** | | | |
| Load manual handling |  |  |  |
| Repetitive crouching/kneeling/stooping |  |  |  |
| Repetitive pulling/pushing |  |  |  |
| Repetitive lifting |  |  |  |
| Standing for prolonged periods |  |  |  |
| Repetitive climbing (ie: steps, stools, ladders, stairs) |  |  |  |
| Fine motor grips (eg: pipetting) |  |  |  |
| Gross motor grips |  |  |  |
| Repetitive reaching below shoulder height |  |  |  |
| Repetitive reaching at shoulder height |  |  |  |
| Repetitive reaching above shoulder height |  |  |  |
| **PSYCHOSOCIAL ISSUES** | | | |
| Face to face contact with public | Yes |  |  |
| Lone working | Yes |  |  |
| ## Shift work/night work/on call duties |  |  |  |