

**JOB DESCRIPTION**

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| **Job Title:** Senior Research Associate | **Present Grade:** 7 |
| **Department/College:** Mathematics and Statistics | |
| **Directly responsible to:** Dr Chris Jewell | |
| **Supervisory responsibility for:** Some supervision of postgraduate students | |
| **Other contacts** | |
| **Internal:**  Dr. Chris Jewell; academic staff and PDRA in the department | |
| **External:**  Dr Mike Tildesley, University of Warwick; Dr Matt Ferrari, Penn State University; EuFMD, Rome; Department of Animal Health, Turkey. | |
| **Major Duties:**   1. Developing Bayesian statistical methodology to extend current approaches to epidemic model fitting and prediction, particularly in terms of exploration of model structure uncertainty. 2. Development of high quality software to implement these methods, making use of modern computational tools such as machine learning libraries and accelerated hardware platforms. 3. Develop and facilitate our collaborations within the ASCEE project, particularly between Lancaster, Warwick, and Penn State Universities, but also with our external partners in Rome and Turkey. This will also involve travel between the constituent locations within the collaboration. 4. Preparation of progress reports for ASCEE describing the results of the project. 5. Participation in national and international conferences and workshops to present the results of the project to a wider audience and to learn about current advances in the field. 6. Preparation of journal papers for publication of project findings. 7. Participation in (and ultimately taking the lead in) writing new research proposals that build on the expertise in meteorology/transport interactions developed in this project. | |