

Notes for guidance for Data Analyst applicants

Data Analyst is a registered grade of professional membership of the Society. It provides formal recognition of a member's statistical training.

The modular criteria for Data Analyst are the same as the academic criteria for both the Graduate Statistician (GradStat) status and the standard route to Chartered Statistician (CStat) status.

Criteria for Data Analyst status

A data analyst has good knowledge and training in entry level statistics in **one or more** of the following:

- **the frequentist and Bayesian methods for conducting data analyses**
 - Programmes are free to concentrate on either approach, so long as students are given a secure grounding in both.
- **their logical foundations, including relevant probability theory**
 - Programmes must give students a secure knowledge of the mathematical foundations of statistics. However, this should always be within some context of application: proficiency in mathematics without a good understanding of its implications is insufficient. Similarly, proficiency in the practical application of statistics must be underpinned by a robust knowledge of the mathematical foundations.
- **the principles of systematic data collection, management and curation**
 - Data now has many different sources. 'Found' administrative or transactional data is increasingly important, as well as data that is the product of a specific research design. This means that as

well as knowledge of the principles and practice of experimental research design, and sampling, graduates require some experience in the preparation of data for analysis, including matching data from different sources and also require an understanding of the implications of data quality for subsequent analysis, and the need where appropriate to produce reproducible knowledge.

They can use this knowledge, together with software and programming skills, to

- **build, assess and refine models appropriate for describing and understanding a wide variety of processes or problems**
 - Students should be able to marry their knowledge of the logical foundations of statistics with proficiency in using software to put statistical theory into practice. They should be able to evaluate the strengths and weaknesses of alternative approaches and appreciate that there may not always be one single 'best' solution. This includes being able to identify how statistics may address problems posed in non-statistical terms.
- **draw appropriate inferences from them**
 - Students should be able to use their statistical expertise both to draw conclusions and describe the degree of uncertainty associated with these conclusions, and the assumptions made in reaching them.
- **effectively communicate both substantive results and the nature of the uncertainty inherent in them, to expert or lay audiences.**
 - Statistical expertise that cannot be effectively communicated to others is of limited value. Students should be able to match the degree of technical complexity in the presentation of results to the level of understanding of their target audience. They should also be aware of, and able to communicate, the limitations of the conclusions they reach.

They are aware of the implications of their work for the rights of individuals, are trustworthy, maintain the highest ethical standards and work for the public good.

Ethics encompasses more than data security and protection. As the volume and complexity of data collected on individuals grows, students must be aware of the importance and nature of informed consent. They should understand the importance of the integrity of their work not only for the reputation of the statistics profession but for public trust in the value of evidence, and its use for their benefit.

To fulfil the requirements for Data Analysts candidates are required to:

1. Have at least 1 year of work experience: any relevant practical professional analytical experience will be considered
2. Have completed at least 30 hours of continued professional development (CPD) in the last 12 months evidenced by submitting a completed RSS CPD Activity Summary document
3. Successfully completed qualifying training which must meet at least one of the following criteria:
 - a. Be an RSS accredited Quality Mark module or training course
 - b. If the module or training course is not accredited by the RSS, then you must be able to evidence how it meets the criteria by providing additional information about the module/course. See our accreditation pages on our website for more details about the specific requirements.

Please note that for overseas modules/training, a broad equivalence with UK requirements as set out above is required. The Society is normally guided by UK NARIC (the National Recognition Information Centre for the United Kingdom) in assessing the level of overseas degrees. In some cases, the level of BSc/MSc a module may sit within is a necessary requirement.

If you are not sure whether your qualifications fulfil any of the criteria, we would advise you to complete a mapping grid that allows you to provide detail as to how you feel the modules taken meet the full criteria listed below:

Assessment process for Data Analyst applications

All applications are considered by members of the Professional Affairs Committee (PAC). The Committee may defer the case, pending receipt of additional information and the RSS office will contact the applicant to request this. Applicants who do not fulfil the criteria but appear to have suitable professional training and experience may be advised to apply for either GradStat or CStat status via the competence based routes.

The RSS office is happy to liaise with applicants individually to help them determine which route is most suitable based on their individual circumstances.

March 2023