



Measurements Matter

Find out how to ensure your data are fit for purpose – free 1-day ‘Fundamentals of Metrology’ course

31 August 2023

Delivered as part of the UKRI BBSRC-funded project on Standards and Metrology Training for Engineering Biology

What is metrology and why do you need to know about it?

Metrology is simply the science of measurement. It is relevant to all measurements, regardless of their application or associated uncertainty. Every day, millions of measurements are made globally and their applications are many and varied. Measurement results underpin international trade, support manufacturing, enable effective medical treatments, are crucial to research and development, and protect consumers and the environment. To enable sound decisions to be taken, these results need to be reliable.

Obtaining reliable measurement results doesn't happen by accident. There are many issues that scientists need to consider to ensure that their results are fit for purpose. After all, the consequences of getting it wrong can be significant! For emerging sectors such as engineering biology to reach their full potential, it is essential that the principles of metrology are understood and implemented. Only with reliable data can new technologies transition from the laboratory to the market place.

Join us on this free 1-day course to learn about the key concepts of measurement science and to understand some of the issues laboratories need to address to ensure the reliability of measurement data.

REGISTER NOW

Register at <https://bit.ly/metrologyfundamentals>
For further information email training@lgcgroup.com



Venue
University of Bristol
Wills Memorial Building
Old Council Chamber
Bristol
BS8 1RL

Fundamentals of Metrology

Learning outcomes

- Understand what is (and isn't) a measurement
- Understand what metrology is and why we should care about it
- Know where measurement units come from
- Understand the principles of metrological traceability
- Be aware of activities laboratories should undertake to ensure their results are fit for purpose
- Understand the importance of standards/standardisation

Outline programme (10:00-16:00)

Registration and refreshments from 09:30

- What is metrology?
- Quantities, units and standards
- Fundamentals of metrological traceability
- Measurement approaches and challenges in bioanalysis
- Introduction to laboratory quality assurance
- Ensuring reliable data – method validation and quality control
- Introduction to international metrology
- The importance of standardisation & standards

Who should attend

While primarily aimed at Masters and PhD level students, and other early career scientists, this course will be of interest to anyone working in the engineering biology field who wants to learn more about ensuring the quality and comparability of measurement data.

About the UKRI BBSRC Standards and Metrology Training for Engineering Biology project

This training course is being organised by the National Measurement Laboratory for Chemical and Bio-measurement (hosted at LGC) and the University of Bristol as part of the UKRI BBSRC-funded project on Standards and Metrology Training for Engineering Biology. The project aims to upskill the community and equip a new generation of researchers with the knowledge to deliver more robust reproducible science in engineering biology.