The University of Edinburgh

Institute for Academic Development

Workshops

Statistical literacy course

SCIL 07001 Statistical Literacy is a new course open to students on any Edinburgh undergraduate degree programme.

It carries 20 credits at level 7, or can be taken on a non credit-bearing basis alongside the normal 120 credit load. The only prerequisite is an ability to count to ten.

The skills this course imparts are not only fundamental to logical and critical reflection, but also highly valued by employers as economy and society becomes more 'data driven'.

Dates and time: Lectures are Tuesdays and Thursdays at 1.10pm in George Square Lecture Theatre. The first lecture is on Tuesday 18 September.

To enrol: students must enrol via their Personal Tutor by the end of teaching week 1.

> We all need to be able to use and to make sense of statistics. I strongly encourage all students to seriously consider taking this course. It is a route to confidently evaluating some of the key assertions made by journalists, politicians, doctors and professors
>
> **Professor Sir Timothy O'Shea**
> *Principal*

> EUSA welcomes this innovative course, open to all students. We think it delivers several really useful academic skills that are not only highly valued in the graduate labour market, but help equip everyone to deal critically and confidently with the ever increasing mass of data they encounter in every sphere of their lives.
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> **Andrew Burnie**
> *Vice-President Academic Affairs, EUSA*

Course description

The Daily Mail recently informed readers that drinking a glass of wine increased their 'risk of death' by 20%. Even if this were not logical nonsense (sadly we all face a 100% risk) a moment's reflection suggests it is implausible: a bottle of wine would be lethal!

Not only journalists slip up with numbers. Research finds that doctors rarely interpret positive test result correctly (tests contain a margin of error, so that the likelihood of a 'false positive' must be weighed against that of a 'true' result). Several innocent people have been jailed over the years after trials using faulty statistical reasoning.

These are everyday examples of statistical illiteracy: lack of confidence or skill in handling numerical evidence. Yet Hal Varian, of Google, has declared that because of the digital revolution, statistics will be the sexiest science of the 21st century!

Most people see statistics as a dark art practised by those who have forsaken real life for the world of numbers. This is a pity. It sustains poor decision-making at every level from individual lifestyles to the top of government. It is also untrue. Statistics is less about numbers (which computers now take care of) than rules for logical thinking about evidence and imagination in applying them. These rules are straightforward to learn, but often counter-intuitive. Anyone can use these rules to judge evidence used in anything from newspaper stories to scientific papers.

■ SCIL 07001 Statistical Literacy: further course information in the Degree Regulations & Programmes of Study course catalogue

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