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# Introduction to Statistics and Statistical Analysis with SPSS and R

UNIVERSITY OF THE  
WEST of SCOTLAND

UWS

# Introduction to Statistics and Statistical Analysis with SPSS and R

A nighttime photograph of a cityscape. On the left, a large industrial crane stands illuminated. In the center, a modern building with a glass facade is brightly lit. On the right, a large, illuminated arch bridge spans a body of water. The lights from the buildings and bridge are reflected in the water.

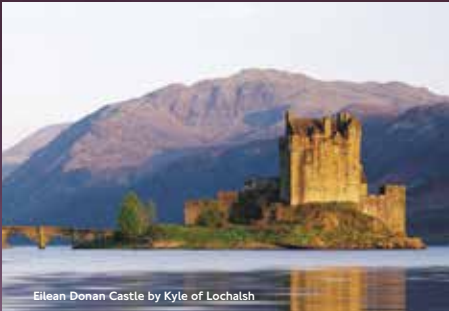
University of the West of Scotland's Statistics Summer School offers you an opportunity to enhance your statistics knowledge with the intention of application in further study, research, or use in the workplace. Taught with industry standard statistical software packages (SPSS, R) and innovative teaching methods from applied statisticians, you can be guaranteed of a unique experience and the chance to enhance your analytical thinking, problem solving, and employability skills.



Loch Lomond & The Trossachs National Park



Inveraray on Loch Fyne



Eilean Donan Castle by Kyle of Lochalsh



Isle of Arran in the Firth of Clyde

Based at our Paisley Campus within close proximity to arguably the most stunning natural scenery in the world, you will make new friends and meet new people, making your time with us unforgettable. This environment will allow you to develop new skills, enjoy a variety of experiences, increase your appeal for admission to undergraduate or postgraduate degrees or even get that new job or promotion you've been looking for.

## Did you know:

Although UWS is a modern enterprising university, its roots span 120 years with a strong tradition of practicality and relevance. Utilising cutting edge facilities, specialist knowledge and world-leading and internationally excellent expertise, our research has real-world impact and we are at the forefront in the search for solutions to some of the world's most pressing problems. Statistics at UWS falls under the umbrella of the Physical and Mathematical Sciences Research Group.

The Group's research is multifaceted, interdisciplinary and highly collaborative, contributing towards pharmaceutical, biomedical, environmental, materials and formulation science, with strong links to engineering, physics and healthcare. Current mathematical and theoretical research includes modelling of physical and biological processes such as liquid crystal devices for displays and sensors, novel ultrasonic devices, heat flow in novel welding techniques, nutrient flow in fish and amphibian egg masses and mathematical ecology.

## What you will do:

You will take part in activities that will introduce the field of statistics and its use in medicine, industry and society, including:

- Exposure to experts and industry-standard computing resources
- Structured sessions and workshops on theory and application
- Opportunity to test your new-found knowledge in a scientific research project
- Display your knowledge by presenting your findings

Outcomes of attending the summer school include:

- Detailed training on the theories of sampling, statistical relationships and hypothesis testing
- Comprehensive introductions into industry standard statistical software packages: SPSS and R
- Certificate of attendance

You will also participate in social events, field trips, excursions and other confidence building activities in which you will make new friends, discuss opportunities for future study with students and staff, experience what it is like to study at UWS, and get an insight into Scottish culture.

Programme Dates: Sunday 15 July 2018 to Saturday 28 July 2018 (Closing date for applications is 25 May 2018). Places limited so book early

**Fees:** £1600 inclusive of tuition, accommodation, meals and visits

**Early Bird:** £1500 (book before 31 March 2018)

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# PROGRAMME

The Statistics Summer School programme is designed to allow everyone to feel comfortable from the start. Social events, field trips and confidence building activities support the academic work with world-class experts, using some of the most advanced and unique resources, preparing you for the opportunities to learn and apply new statistical knowledge.

Sun 15 July	Mon 16 July	Tue 17 July	Wed 18 July	Thu 19 July	Fri 20 July	Sat 21 July
<b>Arrival</b>	<b>AM</b> Welcome, induction to UWS, and campus tour  <b>PM</b> Introduction to the School of Science and Sport and the programmes of study.	<b>AM</b> SPSS: Patterns in Data  <b>PM</b> SPSS: Survey and Random Sampling	<b>AM</b> SPSS: Relationships  <b>PM</b> Excursion	<b>AM</b> SPSS: Presentation Information Session  <b>PM</b> SPSS: Probabilities and introduction to hypothesis testing	<b>AM</b> SPSS: Influencing factors  <b>PM</b> Self-Study / presentation preparation	<b>Excursion</b>
Sun 22 July	Mon 23 July	Tue 24 July	Wed 25 July	Thu 26 July	Fri 27 July	Sat 28 July
<b>Day off</b>	<b>AM</b> R: An Introduction  <b>PM</b> R: Summary Statistics	<b>AM</b> R: Hypothesis Testing  <b>PM</b> R: Correlation and Regression	<b>AM</b> R: Scripts  <b>PM</b> Excursion	<b>AM</b> Presentation Preparation  <b>PM</b> Presentations	<b>All day:</b> Wrap – up, farewell lunch, presentation of certificate.	<b>Departure</b>

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## Eligibility

The Summer School is particularly suitable for home and international students and industry professionals with an interest in statistics.

In order to be eligible for our Introduction to Statistics and Statistical Analysis with SPSS and R Summer School you should meet minimum language requirements. It is preferred, but not essential, that international students should have an IELTS score of 6.5 or above (with no less than 6.0 in each skill). For more information visit [www.uws.ac.uk/international/english-language-requirements/](http://www.uws.ac.uk/international/english-language-requirements/)

## Visas

If you are from outside the European Economic Area (EEA) and Switzerland, you can apply for a short-term study visa. Make sure you check the immigration requirements before applying. Visit [www.gov.uk/study-visit-visa](http://www.gov.uk/study-visit-visa) for more details).



# FAQS

## Where will the Summer School take place?

University of the West of Scotland's Paisley Campus is the main location of the Summer School with activities at our and Hamilton Campus as appropriate (inter-campus travel will be provided). Field trips and events will take place across Scotland but all travel and accommodation will be provided.

## What is included in the price?

The fee includes the tuition fees, accommodation at the University halls of residence, meals (full-board), and all organised travel.

## Do I need a visa?

Yes, if you are from outside the European Economic Area (EEA) and Switzerland, you can apply for a short-term study visa. Make sure you check the immigration requirements before applying (visit [www.gov.uk/study-visit-visa](http://www.gov.uk/study-visit-visa) for more details). You will receive a confirmation of booking and you should carry this confirmation with you when travelling. You can apply for a visa up to 3 months before your date of travel to the UK. You should get a decision on your visa within 3 weeks.

## Do I need a confirmation letter to obtain my visa?

You will need to attach an offer letter to your visa application. The offer letter is a 'Booking Complete' email, which is sent to you once you have booked and made full payment for the Summer School.

## What countries do UWS students come from?

UWS is an international university with students from more than 70 countries worldwide and we make every effort students feel comfortable with us at every stage.

## How do I get to Paisley?

University of the West of Scotland's Paisley Campus is located in the centre of Paisley town, and just a 10 minute train journey from Glasgow city centre. It is well served by public transport links and cycle paths. UWS supports and encourages students to make sustainable travel choices for their journey to Paisley Campus wherever possible. Glasgow International Airport is only a 30-minute walk away (10 minutes by car). More transport details visit [www.uws.ac.uk/paisley](http://www.uws.ac.uk/paisley)

## Who should I contact for further information about the Summer School?

For further information please contact:

Jan Miller -

[Jan.Miller@uws.ac.uk](mailto:Jan.Miller@uws.ac.uk)

## Will I receive a certificate of completion?

Yes, you will receive a Certificate of Attendance that will be issued on completion of the Summer School.



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# APPLY

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