Data Analysis (CEGE0044)

Description
The course covers statistical principles and techniques for analysing data, with an increasing level of complexity and sophistication as it progresses. You will be introduced to essential tools such as matrix algebra and calculus in the early sessions. The course then proceeds to cover basic ideas on the nature of errors, probability distributions and statistical tests - including tests for outliers, variance ratios, goodness of fit, and so on. You will study the nature and theory of error propagation and the correlation of errors in space and time. The course then covers the least squares treatment of observational data, including both linear and non-linear problems, constrained solutions, reliability and quality control procedures.

The topics covered are mainly applicable to the analysis of observational data acquired in geospatial sciences, and most real-world examples are drawn from this area; but there is some generic applicability to other engineering fields handling observational data.

Key information

<table>
<thead>
<tr>
<th>Year</th>
<th>2019/20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit value</td>
<td>15 (150 study hours)</td>
</tr>
<tr>
<td>Delivery</td>
<td>PGT L7, Campus-based</td>
</tr>
<tr>
<td>Reading List</td>
<td>View on UCL website</td>
</tr>
<tr>
<td>Tutor</td>
<td>Dr Jonathan Iliffe</td>
</tr>
<tr>
<td>Term</td>
<td>Term 1</td>
</tr>
<tr>
<td>Timetable</td>
<td>View on UCL website</td>
</tr>
</tbody>
</table>

Assessment

- Coursework: 10%
- Coursework: 20%
- Coursework: 20%
- Coursework: 25%
- Coursework: 25%

Find out more

For more information about the department, programmes, relevant open days and to browse other modules, visit ucl.ac.uk

Disclaimer: All information correct as of December 2018. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.
Data Analysis (CEGE0044)

Description
The course covers statistical principles and techniques for analysing data, with an increasing level of complexity and sophistication as it progresses. You will be introduced to essential tools such as matrix algebra and calculus in the early sessions. The course then proceeds to cover basic ideas on the nature of errors, probability distributions and statistical tests - including tests for outliers, variance ratios, goodness of fit, and so on. You will study the nature and theory of error propagation and the correlation of errors in space and time. The course then covers the least squares treatment of observational data, including both linear and non-linear problems, constrained solutions, reliability and quality control procedures.

The topics covered are mainly applicable to the analysis of observational data acquired in geospatial sciences, and most real-world examples are drawn from this area; but there is some generic applicability to other engineering fields handling observational data.

Key information

Year 2019/20
Credit value 15 (150 study hours)
Delivery UGM L7, Campus-based
Reading List View on UCL website
Tutor Dr Jonathan Iliffe
Term Term 1
Timetable View on UCL website

Assessment

- Coursework: 10%
- Coursework: 20%
- Coursework: 20%
- Coursework: 25%
- Coursework: 25%

Find out more
For more information about the department, programmes, relevant open days and to browse other modules, visit ucl.ac.uk

Disclaimer: All information correct as of December 2018. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.