

Liverpool John Moores University

Title: STATISTICS IN THE WORKPLACE
Status: Definitive
Code: **6105STATS** (124203)
Version Start Date: 01-08-2021

Owning School/Faculty: Computer Science and Mathematics
Teaching School/Faculty: Computer Science and Mathematics

Team	Leader
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Academic Level: FHEQ6 **Credit Value:** 20 **Total Delivered Hours:** 55
Total Learning Hours: 200 **Private Study:** 145

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	11
Practical	22
Tutorial	22

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	AS1	Portfolio of reports and/or oral presentations of case studies defined at the start of the module.	100	

Aims

This module aims to give students an experience of campus-based work related learning focusing on the role of a statistician in industry and how statistical methods are applied in both manufacturing and business.

Learning Outcomes

After completing the module the student should be able to:

- 1 Define the many roles of a Statistician in industry. – e.g. Financial Statistician, Risk Analyst, etc.
- 2 Solve work-based problems using any necessary statistical techniques and tools.
- 3 Critically evaluate and analyse problem results in terms of industry requirements.
- 4 Communicate outcomes in a formal scientific manner (either written or verbal).

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Portfolio	1	2	3	4
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Outline Syllabus

It is anticipated that there will be a minimum of two case studies per delivery of the module, but this may vary as case studies are developed. Generally, each project/case study will have the format:

Role of the Statistician in industry; problem definition (including data requirements, knowledge requirements, etc.); importance of the problem within the company; possible solution strategies (vague outline for discussion); report/presentation requirements.

Examples of such projects/case studies include:

Financial Statistics e.g. Actuarial problems.

Risk Analysis.

Medical Statistics in the Drugs industry.

Statistical process control in manufacturing.

Forensic statistics.

Learning Activities

Lectures from staff and/or invited industrial statisticians, tutorials and laboratory sessions.

Notes

Real projects derived from the work setting will be used as case studies to enable students to use their statistical knowledge and skills to solve real-world problems. Actual work-place data and constraints will be used to simulate work problems.

Indicative references will depend specifically on the case studies being developed.