Liverpool John Moores University

Title: STATISTICS IN THE WORKPLACE
Status: Definitive
Code: **6005STATS**   (103333)
Version Start Date: 01-08-2018

Owning School/Faculty: Applied Mathematics
Teaching School/Faculty: Applied Mathematics

Team	Leader
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Academic Level:	FHEQ6	Credit Value:	12	Total Delivered Hours:	36
Total Learning Hours:	120	Private Study:	84		

Delivery Options
Course typically offered: Semester 2

Component	Contact Hours
Lecture	12
Practical	12
Tutorial	12

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. 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.

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:

Case studies   1   2   3   4

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 invited industrial statisticians, practical computing workshops, tutorials and laboratory sessions.

Notes

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learning focusing on the role of a Statistician in industry and how statistical methods are applied in both manufacturing and business. 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.