MODULE SPECIFICATION

**SECTION 1: MODULE SPECIFICATIONS**

1. Title of the module : Foundation Statistics (MA025)
2. School or partner institution which will be responsible for management of the module

School of Mathematics, Statistics and Actuarial Science

1. Start date of the module : September 2004 with current code (revised version start date September 2014)
2. The number of students expected to take the module: 40
3. Modules to be withdrawn on the introduction of this proposed module and consultation with other relevant Schools and Faculties regarding the withdrawal

None – existing module

1. The level of the module (e.g. Certificate [C], Intermediate [I], Honours [H] or Postgraduate [M]): Foundation [F]
2. The number of credits and the ECTS value which the module represents : 15 (ECTS 7.5)
3. Which term(s) the module is to be taught in (or other teaching pattern): Autumn and Spring terms
4. Prerequisite and co-requisite modules:

Co-requisite modules: PH020 (Algebra and Arithmetic), EL021(Calculus), MA022(Graphs, Geometry and Trigonometry, MA026 (Mathematical Workshops).

1. The programmes of study to which the module contributes

BSc (Hons) Mathematics with a Foundation Year

1. The intended subject specific learning outcomes

On successful completion of this module students will have acquired:

1. competence with the basic concepts from probability and statistics, so that when these are needed as tools for the development and exploration of topics encountered in subsequent parts of their programme these same students may engage with confidence and some facility;
2. skills in data collection, summarisation and appraisal;
3. the ability to apply the knowledge gained to elementary problem solving;
4. a proficiency in probability and statistics suitable for Stage 1 entry.
5. The intended generic learning outcomes

On successful completion of this module students will have:

1. progressed in their problem formulating and solving skills;
2. enhanced their capacity to communicate statistical ideas and conclusions, both symbolically and literally;
3. established learning skills requisite for Stage 1 study.
4. A synopsis of the curriculum

Graphical representation of data, including bar diagrams, histograms, and stem-and-leaf diagrams. Statistical methods for summarising and analysing data; numerical data summary measures, mean, median, mean deviation and standard deviation. The combinatorics of sample space and measure of probability. Discrete and continuous distributions. Sampling distributions and confidence intervals.

1. Indicative Reading List

Introductory Statistics, P S Mann, John Wiley & Sons Ltd, ISBN 0471 373532

1. Learning and Teaching Methods, including the nature and number of contact hours and the total study hours which will be expected of students, and how these relate to achievement of the intended module learning outcomes*.*

Number of contact hours: 48, consisting of lectures interspersed with time spent working on examples and exercises.

Number of independent learning hours: 102.Total study hours: 150.

Examples will include genuine data, from a variety of sources, so that as well as acquiring an understanding of basic statistical principles students also gain experience in applying the theory to real data sets. Regular exercise sheets will be set for completion both within and outside contact hours.

Subject specific learning outcomes 11(a)-(d) and generic learning outcomes 12 (a), (b) will be addressed within contact hours. Subject specific learning outcomes 11(a)-(d) and generic learning outcomes 12(a)-(c) will be addressed by exercise sheets.

1. Assessment methods and how these relate to testing achievement of the intended module learning outcomes

The module will be assessed by examination (90%) and coursework (10%). Assessment is designed to test both theoretical knowledge of the curriculum content and also students’ ability with problem solving and data analysis.

Coursework: This will involve regular assignments based around the exercise sheets, assessing subject specific learning outcomes 11(a)-(d) and generic learning outcomes12(a)-(c).

Examination: This will be a two hour written examination that consists of multipart questions requiring a mix of short and long answers that test to varying levels of proficiency the subject specific learning outcomes 11(a)-(d) and generic learning outcomes12(a)-(c).

1. Implications for learning resources, including staff, library, IT and space

There are no extra resource implications because the module is already given.

1. The School recognises and has embedded the expectations of current disability equality legislation, and supports students with a declared disability or special educational need in its teaching. Within this module we will make reasonable adjustments wherever necessary, including additional or substitute materials, teaching modes or assessment methods for students who have declared and discussed their learning support needs. Arrangements for students with declared disabilities will be made on an individual basis, in consultation with the University’s disability/dyslexia support service, and specialist support will be provided where needed.
2. Campus where module will be delivered: Canterbury

**SECTION 2: MODULE IS PART OF A PROGRAMME OF STUDY IN A UNIVERSITY SCHOOL**

**Statement by the School Director of Learning and Teaching/School Director of Graduate Studies (as appropriate):** "I confirm I have been consulted on the above module proposal and have given advice on the correct procedures and required content of module proposals"

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| ................................................................Director of Learning and Teaching/Director of Graduate Studies (delete as applicable)…………………………………………………Print Name | ..............................................Date |

**Statement by the Head of School:** "I confirm that the School has approved the introduction of the module and, where the module is proposed by School staff, will be responsible for its resourcing"

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| .................................................................Head of School…………………………………………………….Print Name | ..............................................Date |

Module Specification Template
Last updated February 2013