**Programme Specification**

<table>
<thead>
<tr>
<th><strong>Programme title:</strong></th>
<th>Statistics and Management for Business</th>
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<tbody>
<tr>
<td><strong>Final award (BSc, MA etc):</strong></td>
<td>BSc</td>
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<tr>
<td><strong>UCAS code:</strong></td>
<td>(where stopping off points exist they should be detailed here and defined later in the document)</td>
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<tr>
<td><strong>Intake cohort(s) to which this programme specification is applicable:</strong></td>
<td>Intakes from 2009</td>
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<tr>
<td><strong>Awarding institution/ body:</strong></td>
<td>University College London, University of London</td>
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<td><strong>Teaching institution:</strong></td>
<td>University College London, University of London</td>
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<tr>
<td><strong>Faculty:</strong></td>
<td>Mathematical and Physical Sciences (MAPS)</td>
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<tr>
<td><strong>Parent Department:</strong></td>
<td>Statistical Science</td>
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<tr>
<td><strong>Web page address:</strong></td>
<td><a href="http://www.ucl.ac.uk/stats">http://www.ucl.ac.uk/stats</a></td>
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<td><strong>Method of study:</strong></td>
<td>Full-time</td>
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<td><strong>Length of the programme:</strong></td>
<td>Three years</td>
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<tr>
<td><strong>Level on Framework for Higher Education Qualifications (FHEQ) (see Guidance notes):</strong></td>
<td>H</td>
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<tr>
<td><strong>Relevant subject benchmark statement (SBS) (see guidance notes on programme specifications):</strong></td>
<td>Mathematics, Statistics and Operational Research (MSOR)</td>
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<tr>
<td><strong>Brief outline of the structure of the programme / its assessment:</strong></td>
<td><a href="http://www.ucl.ac.uk/prosp-students/prospectus/maps/statistical-science/index.shtml">http://www.ucl.ac.uk/prosp-students/prospectus/maps/statistical-science/index.shtml</a></td>
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</table>
| **Board of Examiners:** | i) Name of Board of Examiners: Statistics and Management Science  
ii) Name of External Examiner with overview of entire programme: None |
| **Professional body accreditation (if applicable):** | Sought from Royal Statistical Society; decision to be taken summer 2010  
Date of next scheduled accreditation visit: Able to apply for accreditation visit once course is running |

**Educational Aims of the Programme:**

1 If there is not currently an External with an overview of the entire programme, please leave this section blank.
To provide an intellectually challenging undergraduate degree programme in the theory and practice of Statistical Science, and equip those students who wish to enter industry or commerce with sufficient management skills for the first few years at work. This training should enable students to proceed directly to posts as Statisticians in industry, commerce or public organisations, or by profiting from the general numeracy and reasoning skills acquired during the programme, to take up trainee positions in accountancy, insurance or management. The programme should also provide a preparation for a Master's programme in Statistics, which in turn is a normal requirement for postgraduate research in this area.

**PROGRAMME OUTCOMES:**

**A: Knowledge and understanding**

<table>
<thead>
<tr>
<th>Knowledge and understanding of:</th>
<th>Teaching/ learning methods and strategies:</th>
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<tbody>
<tr>
<td>1. fundamental ideas of probability theory and applied probability;</td>
<td>Delivery is mainly via lectures, which provide all students with a formal knowledge base from which their understanding can be developed.</td>
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<tr>
<td>2. appropriate methods of statistical inference, in a variety of standard situations and over a range of applied areas;</td>
<td>Understanding of lecture material is reinforced by assessed and non-assessed coursework, problem classes, workshops and group tutorials, as well as by self-study. Coursework includes problems designed to fix ideas. Peer assisted learning, discussion with other students and individual discussion with staff also support the learning process. The degree programme does not assume any previous exposure to statistics or management studies. The first year is designed to provide all students with a firm foundation in statistics and management studies, while deepening the knowledge and understanding of those students with some previous exposure. The second and third years build on this foundation through further compulsory courses on core topics. Specialist areas of application, such as in medicine and commerce, are mostly introduced as third year options.</td>
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<tr>
<td>3. mathematical methods associated with 1 and 2 above;</td>
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<td>4. theoretical management concepts and their practical application;</td>
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<td>5. management in different types of organisations including private, public and non-profit organisations;</td>
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<td>6. basic business functions and organisational structures, including a sound understanding of modern business working practices, covering work in the office, at home and on the move;</td>
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<tr>
<td>7. business problems and their analysis through the structuring of the problem, collection of relevant information, consideration of options and making of recommendations;</td>
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<td>8. issues and theories of technology management and innovation.</td>
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**Assessment:**

For each course covering 1 to 8 above (excluding optional project courses), formal testing of the knowledge base is by a combination of written examination and in-course assessment. In-course assessment is designed to encourage students to develop their knowledge and skills as each course proceeds. Many of the management courses include group-projects that contributes towards summative assessment.
### B: Skills and other attributes

**Intellectual (thinking) skills (able to):**
1. explain and use basic concepts in probability theory;
2. recognise the structure of the data in a variety of standard situations and define the problem to be solved in statistical terms;
3. select and apply appropriate statistical methods, and interpret the results;
4. carry out a critical evaluation of an analytical method, recognising both its strengths and its limitations;
5. identify and discuss the impact of cultural, political, social, economic and technological issues on organisations;
6. select and apply various management/organisational theory models to relevant information in order to understand underlying forces and drivers of a particular situation;
7. present arguments and views which demonstrate understanding of the realities of organisation life, particularly relating to technology management and innovation.

**Teaching/learning methods and strategies:**
Whereas lectures provide the primary vehicle for accumulating a knowledge base, intellectual skills are mainly developed outside the lecture theatre – for example, by tackling and discussing problems set on a regular (usually weekly) basis. Some coursework requires students to develop their thinking beyond rote learning, and to link ideas between different courses. Students are encouraged to reason openly through discussion of set problems in tutorials. For some courses, workshops allow students to work on problems individually or in groups, with teaching staff assistants present to give help. Teaching staff also provide individual (one-to-one) feedback and assistance to students on request.

**Assessment:**
Although not all coursework contributes towards formal assessment, students are encouraged to demonstrate their intellectual skills in written responses to problem sheets and in oral responses during tutorials. Formal assessment of intellectual skills is through the compulsory components of assessment described in A.

### C: Skills and other attributes

**Practical skills (able to):**
1. build suitable probability models in standard situations;
2. use appropriate statistical methods of data analysis;
3. interpret numerical information and results of statistical analyses;
4. present the results of an analysis in a clear and informative manner;
5. use a statistical computer package and interpret the output;
6. define, analyse and present recommendations for the solution of given management problems.

**Teaching/learning methods and strategies:**
Practical skills are developed by the provision of opportunities for hands-on experience through regular coursework, workshops and projects. In statistics, the range of problems set is designed to help students develop the practical skills required for basic statistical analyses. Skill 5 is an essential part of modern statistics and is taught in a compulsory first year course, and also plays a role in many projects.
**Assessment:**
Practical skills are assessed through inspection of coursework during a course (with feedback mainly presented through tutorials/problem classes/workshops, and on an individual basis on request), and also through the compulsory components of assessment described in A.

### D: Skills and other attributes

#### Transferable skills (able to):
1. structure and communicate ideas effectively both orally and in writing;
2. interpret numerical information;
3. acquire a structured approach to problem solving;
4. work independently;
5. participate in group discussions;
6. assess the relevance and importance of the ideas of others;
7. find information and use information technology;
8. manage time and meet deadlines;
9. monitor progress by self-assessment.
10. manage human and other resources.

#### Teaching/learning methods and strategies:
Skills 1, 2, 3, 5 and 6 are mainly developed through the problem sheets, workshops and tutorials, and also the optional project courses. Skill 4 arises from the requirement to be individually formally assessed. Skill 7 is developed through individual learning; IT skills are also acquired through management studies courses and optional computing courses. Although skill 8 is not formally taught, students are expected to meet deadlines, particularly for submission of assessed coursework. For skill 9, students are encouraged to monitor their own working practice using a self-assessment questionnaire available on the departmental website, and to monitor their own progress by self-marking of non-assessed coursework.

#### Assessment:
Skills 1, 2 and 3 are formally assessed by in-course assessment and final written examination for each course. Skills 4, 6 and 7 are assessed through some management studies courses and are elements of assessment of optional third year statistical project work. Use of IT is also assessed in optional computing courses. Skills 5, 8 and 9 are not formally assessed.

The following reference points were used in designing the programme:
- the Framework for Higher Education Qualifications [http://www.qaa.ac.uk/crntwork/nqf/ewni2001/contents.htm];
- the relevant Subject Benchmark Statements [http://www.qaa.ac.uk/crntwork/benchmark/index.htm];
- the programme specifications for UCL degree programmes in relevant subjects (where applicable);
- UCL teaching and learning policies;
- staff research.

**Please note:** This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each course unit/module can be found in the Departmental course handbook. The accuracy of the information contained in this document is reviewed by the UCL and may be checked by the Quality Assurance Agency for Higher Education.

**Programme Organiser(s) Name(s):**
Dr Richard Chandler (Department of Statistical Science)
Dr Nina Seppala (Department of Management Science and Innovation)

**Date of production/revision:**
20th November 2009.