1. **Title of the module**

FOUN0013 (LZ013) Mathematics and Statistics for University Study

1. **School or partner institution which will be responsible for management of the module**

Centre for English and World Languages

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 3

1. **The number of credits and the ECTS value which the module represents**

30 credits (15 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

**Spring Start:** Spring (starting week 16) and Summer Terms plus Summer Vacation (4 weeks)

**Autumn Start:** Autumn, Spring and Summer Terms

1. **Prerequisite and co-requisite modules**

**Autumn Start Programme:**

Co-requisite modules include: FOUN0036 Academic Skills Development (15 credits) and either FOUN0035 Foundation Project (15 credits) OR FOUN0037 English for Academic Study (15 credits),

**Spring Start Accelerated Programme:**

Co-requisite modules include: FOUN0036 Academic Skills Development (15 credits) and FOUN0035 Foundation Project (15 credits) OR FOUN0037 English for Academic Study (15 credits)

**JYA English Plus Programme Students:**

There are no co-requisite modules for JYA English Plus students

1. **The programmes of study to which the module contributes**

International Foundation Programme (autumn and spring entry) and JYA English Plus (autumn only)

1. **The intended subject specific learning outcomes.  
   On successfully completing the module students will be able to:**
   1. Demonstrate their existing mathematical and quantitative skills, independent of their entry level.
   2. Demonstrate their knowledge of basic algebraic manipulations.
   3. Understand the fundamentals of differential calculus.
   4. Understand the nature of matrices and apply them to numerical examples.
   5. Sketch graphs of simple functions and understand the meaning and application of simple ideas in probability.
   6. Use descriptive statistical measures to interpret real-life data.
   7. Understand and apply statistical inference to simple examples.
   8. Demonstrate their reinforced mathematical and quantitative skills.
   9. Understand various mathematical techniques for future study at a UK university.
   10. Demonstrate logical thinking and independent study skills.
2. **The intended generic learning outcomes.  
   On successfully completing the module students will be able to:**
   1. Demonstrate analytical abilities in problem solving, systematic work and study skills sufficiently to be able to deal effectively with the demands of a first-year undergraduate study at a UK university.
   2. Demonstrate critical awareness and critical-thinking skills and be able to apply these to all areas of study.
   3. Interact with and benefit from the international classroom and learning environment in a UK higher-education context.
   4. Comply with methods of assessment, deadlines, homework, seminars and tutorials.
   5. Make use of the University’s support services and independent study
   6. Work and study independently.
3. **A synopsis of the curriculum**

Through this module, students will develop their analytical and problem solving skills to successfully complete other related modules on the IFP. The programme of study will be divided into lectures in calculus, algebra and statistics.

As part of the orientation process, students will take a pre-course test which, along with other factors, will determine whether they go into the upper or lower band. This will involve an in class test in the first week. Students will then be grouped according to their mathematical ability and academic focus. The teaching in the upper bands will be geared more towards systematically working towards a solution while that in the lower bands will deal with mathematical techniques.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

* Anderson, D., Sweeney, D. & Williams, T. (2005), *Statistics for Business and Economics*, London: South-Western.
* Budnick, F.S. (1993), *Applied Mathematics for Business, Economics and the Social Sciences*, (4th edition). London: McGraw-Hill International Editions.
* Clegg, F. (1990), *Simple Statistics – A Course Book for the Social Sciences*. Cambridge: Cambridge University Press.

1. **Learning and teaching methods**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Autumn Term** | |  | **Spring Term** | |
| Total contact hours: | *96* |  | Total contact hours: | *100* |
| Private study hours: | *204* |  | Private study hours: | *200* |
| Total Study hours: | *300* |  | Total Study hours: | *300* |

1. **Assessment methods**
   1. Main assessment methods

Cumulative Online Test 1 (15%)

Cumulative Online Test 2 (15%)

In Course Test (45 minutes) 20%

Examination, (2 hours) 50%

JYA English Plus alternative assessment in lieu of exam:

Online Test (10%)

In-Course Test 1 (45 minutes) (20%)

In Course Test 2 (45 minutes) (20%)

13.2 Reassessment methods

Reassessment Instrument: 100% exam

1. ***Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)***

| **Module learning outcome** | *8.1* | *8.2* | *8.3* | *8.4* | *8.5* | *8.6* | *8.7* | *8.8* | *8.9* | *8.10* | *9.1* | *9.2* | *9.3* | *9.4* | *9.5* | *9.6* |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lectures | **x** | **x** | **x** | **x** | **x** | **x** |  | **x** | **x** |  |  |  | **x** |  |  |  |
| Seminars | **x** | **x** |  |  | **x** | **x** | **x** | **x** |  | **x** | **x** | **x** | **x** | **x** |  |  |
| Workshops | **x** | **x** |  |  | **x** | **x** | **x** | **x** |  | **x** | **x** | **x** | **x** | **x** |  |  |
| Private Study |  |  | **x** | **x** | **x** | **x** | **x** |  |  | **x** | **x** |  |  |  | **x** | **x** |
| Assessment method |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| online tests | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  | **x** |  | **x** | **x** |  | **x** | **x** |
| JYA extra online test | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  | **x** |  | **x** | **x** |  | **x** | **x** |
| In-course Test 1 | **x** |  | **x** |  |  |  |  |  | **x** |  | **x** |  |  | **x** | **x** | **x** |
| Final Exam  JYA 2 x ICTs | **x** | **x** | **x** | **x** |  | **x** |  | **x** | **x** |  | **x** |  |  | **x** | **x** | **x** |

1. **Inclusive module design**

The Centre recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Canterbury

1. **Internationalisation**

Mathematics and statistics are subjects that transcend international boundaries. Students are equipped with the transferable skills required for developing and implementing theories and analysing data. Discussion and assessment using a variety of mathematical techniques will help students to explore and understand the subject in a UK Higher Education environment whilst reflecting on its conduct in their home countries and that of their peers

**FACULTIES SUPPORT OFFICE USE ONLY**

**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
| 28/07/17 | Minor | September 2017 | 12, 13 | No |
|  |  |  |  |  |

Revised FSO Jan 2018