

# MTH5119 Sampling, Surveys and Simulation

## Course Information: Autumn 2009

**Lecturer/Course organiser:** Dr Roger A. Sugden    **email:** r.sugden@qmul.ac.uk

**Web Page** [www.maths.qmul.ac.uk/~ras/MTH5119](http://www.maths.qmul.ac.uk/~ras/MTH5119)

**Office hours in 312:** Tuesday 09.30-10.30;  
Thursday 13.45-14.45

**Lectures:** Tuesday 2-3 in CS338; Thursday 10-11 in CS446; Friday 12-1 in CS446

**Computer Labs:** Friday 9.30-11.30 in FB115a (starting October 2<sup>nd</sup>). Every student must attend for 1.5 hours within this period (a register will be taken).

**Assessment:** 16% Individual Assignments (inc. Lab reports), 24% Group work and individual presentation on survey research, 10% in-term test, 50% written examination.

If you miss handing in any assignment, or miss taking the test for a good reason you should fill in a copy of the Missed In-Term Assessment report form and give it to the School Office.

**Assignment information:** There will be 8 Computer Labs and as part of each assignment you must hand in a brief report of your results from the Lab (4% for each assignment). During the Labs you will run programs to generate exact or simulated sampling distributions and analyse the results with MINITAB, whose use you should revise (see practicals of first year Statistics) immediately. The later labs will make more use of MINITAB's facilities for simulation.

The test in week 7 will examine Key Objectives 1 to 3.

The survey research part of the assessment will consist of

1. a group survey proposal (5%)
2. a group questionnaire pretest report (5%)
3. the final group questionnaire (5%)
4. group implementation and analysis (5%)
5. short individual presentation (4%)

Deadlines for these will be given as the course progresses in weeks 8-12.

**Books:** The library has been restocked with additional books from Goldsmiths. The main text is by V. Barnett: *Sample Survey Principles and Methods* (Third Edition), Arnold, 2002<sup>1</sup> but the first edition of this book titled *Elements of Sampling Theory*, EUP, 1974 is also useful. Perhaps the most authoritative text on finite population theory sampling theory and a very useful reference is by W.G. Cochran (Fourth Edition), Wiley, 1977, but there are many more recent texts with details of some new approaches. Ask me for details. For the simulation part of the course, the recommended text by B.J.T.Morgan is the best (2 copies in library) and for the questionnaire design part there are two copies of Oppenheim's text in the social sciences section of the library, and the bookshop may also have it. Other texts on questionnaire design and more generally survey research methods are Moser and Kalton's *Survey Methods in Social Investigation* and *Survey Research Practice* by Hoinville, Jowell and Associates

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<sup>1</sup>7 copies are currently available in the QM bookshop at a (20%) reduced price of £19.19!