Southampton

MSc in Statistics with Applications in Medicine

Student Handbook 2017 - 2018

DISCLAIMER

This information is issued on the condition that it does not form part of any contract between the University of Southampton and any student. The information given has been made as accurate as possible at the time of publication, but the University reserves the right to modify or alter, without any prior notice, any of the contents advertised. It should therefore be noted that it may not be possible to offer all modules or components of a programme in each academic session. This handbook is available in alternative formats on request.

Welcome from the Faculty of Social, Human & Mathematical Sciences Associate Deans

Dear Students.

Welcome to the University of Southampton and good luck on the year to come. As an incoming student on one of our Master's programmes, you've already demonstrated your ability through your undergraduate studies, and we're glad you've decided to continue your education with us at Southampton.

Within the Faculty, you may also like to know that there are numerous staff who have chosen the role of ensuring the quality and innovativeness of your experience at Southampton. My role, as Associate Dean, is to provide leadership to this group of staff, developing educational strategy and ultimately overseeing all matters to do with assessment and quality. I have a commitment to ensuring the best possible student experience and, if it is working well, I will be like the swan's legs underwater – working hard but never seen.

In 2014/15, we were visited by the Quality Assurance Agency, who affirmed that we are providing an experience of quality. In all of our endeavours, we aim to provide a distinctive flavour to our education, both when bringing students from all over the world to Southampton, and when taking Southampton to the world. It is our hope and intention that you too will experience our different and cutting edge way of doing things, and that you will thrive and succeed in your studies and in all that University can offer you outside of your studies. Most of all, we hope that you will be happy during your time with us. This will shine through, and your positivity will be a beacon for friends, for opportunity and for achievements. Our staff are ready and willing to help you on that journey and we will be delighted to hear from you.

For now though, welcome to what we hope will be a 'home from home', and good luck for your year to come.

With best wishes.



Jim Anderson Associate Dean (Education & the Student Experience) Professor of Mathematics J.W.Anderson@soton.ac.uk

Introduction from the Programme Co-ordinator

I would like to wish you a very warm welcome to the MSc Statistics with Applications in Medicine programme. During your time here at Southampton, you will be meeting staff and other students representing a wide spectrum of approaches to scientific research and applications in Medical Statistics. A lot of exciting work goes on at this University and it is our aim to give you the very best education experience and to help you feel part of what we do. As a postgraduate, you have made a significant step-change in your studies. Postgraduate work will be more demanding in a number of ways; it is more than an additional year of undergraduate study. We are confident that you will see this as an amazing opportunity to deepen your knowledge, to develop critical and evaluative thinking and develop your analytical abilities. We are confident that you will become part of a lively postgraduate community that interacts both in the classroom and socially.

A Master's degree is a taught programme, but you will probably find it to be more collaborative and interactive than your previous study. This will be educational in the broadest sense of the word and our ambition is to see each of you graduate with a sense of accomplishment and a feeling that your decision to come to Southampton was definitely the right one. Our postgraduate community includes doctoral researchers and you may find yourself drawn towards a PhD. If so, your MSc is the foundation for success at that level. If your ambitions lie in other directions, the MSc confirms your abilities of analysis, judgement, synthesis and communication. You will be well prepared for success whichever path you choose. Above all, however, I hope you will have an enjoyable time during your studies.

You will be provided with training and education in a variety of techniques, methods and approaches of Statistics, and in their application to practical problems arising in a medical context. The programme structure allows you to select options ranging from the more theoretical aspects of Statistics, including a module on research topics, to those which cover material focussed on practical applications of Statistics in a clinical setting. This is complemented by modules on research skills, a Statistical seminar series providing insight into the role of Medical Statisticians in various different careers (which also gives opportunities for networking with the speakers), and several presentations by the University Careers Destination Team.

This Programme Guide contains a compendium of useful information about studying the MSc Statistics with Applications in Medicine programme at the University of Southampton. If anything in the Guide is unclear or if you have any questions that the Guide does not answer, Faculty staff are here to help. Questions about specific module material should be addressed to the module co-ordinator. Questions of a general academic nature should be addressed to the Programme co-ordinator or the Academic Tutor assigned to you. In addition, staff working in the Student Administration Office in Building 58 can explain and advise on many matters. In short, there is a wealth of support and you should use all that we make available to you.

I look forward to meeting you in Induction week.



Dr Stefanie Biedermann Programme co-ordinator MSc Statistics with Applications in Medicine Associate Professor of Statistics S.Biedermann@soton.ac.uk

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1. General Information

The information contained within your programme handbook is designed to provide key information applicable to you and your programme during the 2017/18 academic year. It will complement the University's Student Portal. You can access the Portal by logging on to <u>SUSSED</u>, using your user name and password, and clicking on the Students tab in the top navigation bar. It is important that you make use of these resources as they support the regulations relating to your obligations and that of the University while you are a student at the University of Southampton. It also provides helpful information on matters such as housing, finance, leisure, healthcare and support facilities.

FSHMS HUB - Student Hub and Academic Information Resource (SHAIR)

The FSHMS Hub is an information resource for undergraduate and postgraduate taught students in the Faculty of Social, Human and Mathematical Sciences. This is designed to be a one-stop shop to direct you to everything you need to navigate your academic journey with us. Containing How To Guides, links to services across the University, copies of all the forms you might need, contact details for academic staff members and your Student Offices, and much, much more, this should be your first port of call for any information you need as a student in the Faculty.

Resource	Weblink				
Academic integrity	http://www.calendar.soton.ac.uk/sectionIV/academic-integrity-regs.html				
Blackboard	tp://blackboard.soton.ac.uk/				
Faculty website	http://www.southampton.ac.uk/about/departments/faculties/faculty-social-human-sciences.page				
Faculty staff information	Mathematical Sciences				
Library	http://www.soton.ac.uk/library/				
Programme and module descriptions	Descriptions relating to your programme can be found via the programme pages on the web, and on Blackboard (see above). Your programme structure (i.e. which modules make up your programme) is available in your programme specification and via the on-line programme catalogue, which is accessible via Banner Self-Service. To find links to broad generic descriptions of the programmes and modules, follow links to your programme starting from: http://www.southampton.ac.uk/maths/				
Programme regulations	The Regulations and Definitions Applying to Progression for all Credit-Bearing Programmes should be read in conjunction with your own programme regulations which detail any supplementary regulations specific to your programme of study.				
Educational support services	<u>Enabling Services</u> provides a wide variety of support for students who have disabilities, mental health problems or specific learning difficulties. Its expert team can provide advice and support relating to your studies throughout your time here.				
Study skills support	http://library.soton.ac.uk/sash				

1.1 Your student office

You should visit the Student Office for all general queries relating to the administration of your programme (which may include coursework submission, feedback and extension requests; examinations; module registration changes; special considerations requests; sickness self-certification forms; studentships; suspension, transfer and withdrawal requests).

Opening Hours: Monday to Friday

9.00am to 5.00pm

Location and contact details: Education, Geography and Psychology programmes and modules

Building 44, room 2003

Maths and Social Sciences programmes and modules

Building 58, room 2127

maths.studentoffice@soton.ac.uk

1.2 How we keep in touch with you

Email

We will use your University email account to contact you when necessary. We will not use any other email accounts nor social networking sites. It is your responsibility to check your University email account regularly and you must not let your inbox exceed your storage limit. Notification that you are due to exceed your storage limit will be sent to your University email account and you should take immediate action as you will be unable to receive further emails once your storage limit has been exceeded.

Written Correspondence

Formal correspondence regarding your programme of study (e.g. suspension, transfer or withdrawal from programme, academic performance (including progression/referral information), issues of academic integrity, student complaints and student appeals) will be sent to your term-time (TT) or permanent (PM) address listed as active on your student record. You are responsible for advising the University if you change your permanent or term-time address. The University will not be held accountable if you do not receive important information because you failed to update your student record.

Use of social networking sites

We understand that students are increasingly using social networking sites to interact with members of their student community. You should note that any behaviour that affects other members of the University community or members of the general public in ways which might damage the standing and reputation of the University may be subject to disciplinary action within the scope of the University's Regulations.

1.3 Confirmation of your student enrolment status

The Faculty Student Office can provide you with a certificate to confirm your status as a student (e.g. for bank account opening purposes). Please ensure that you give at least 48 hours' notice of your requirements (longer at peak times such as at enrolment or during the examination periods). Your award certificate will be produced using the legal name data you have provided within your student record. Please make any necessary amendments to your record immediately a change occurs to ensure that your certificate contains accurate information.

In accordance with policy, a scale of fees exists for the provision of certificates, transcripts and award certificates. Please see point 11 'Transcripts, Certificates and Award Letters' within the fees section of the University Calendar for a list.

Your award certificate will be produced using the legal name data you have provided within your student record. Please make any necessary amendments to your record immediately a change occurs to ensure that your certificate contains accurate information. Changes are made via <u>Banner Self Service</u>.

2. Supporting you through your studies

2.1 The role of your Personal Academic Tutor and other key academic staff

The University operates a tutor system to help support and advise students in their academic study. As a student, you can expect to be allocated a Personal Academic Tutor. Your Personal Academic Tutor may or may not be one of the teaching staff you see in the course of your studies, but their role in this context is to provide advice and support to you throughout your study, and to help review your academic progress. You can expect to see your Personal Academic Tutor at key points through your University career in particular at the start of the academic year and at the end of each semester to discuss your academic progress, and, if you need to, you can contact them more frequently. Sometimes, your Personal Academic Tutor may refer you to other areas for support. They may refer you to individual support services, or to your student office for information, or to a Senior Tutor. The Senior Tutor for MSc programmes is the programme coordinator, i.e. Dr. Stefanie Biedermann for the MSc Statistics with Applications in Medicine. The programme coordinator will have a more specialised understanding of supporting students, and may support you if you have a particular problem. You can also contact the Senior Tutor if you wish to change your allocated Personal Academic Tutor.

The University expects that you will engage with your Personal Academic Tutor, attend the scheduled meetings, respond to messages from your Personal Academic Tutor, and notify your Personal Academic Tutor (or Senior Tutor, if you prefer) if you are experiencing problems which are affecting your performance, attendance or progress in your studies. In particular, you should contact your Personal Academic Tutor if you feel your performance in any forthcoming examinations will be affected by ill health or other special considerations, and check with your Personal Academic Tutor if you plan to cite him/her as a referee for job applications.

2.2 What to do if you are ill

It is important that your doctor (as well as your Personal Academic Tutor) is immediately informed of any illness that is likely to affect your studies. You may wish to ask your GP for written confirmation of your health difficulties if you feel that these may be affecting your academic performance, which you may then wish to pass

on to your Personal Academic Tutor. More information can be found in the <u>General Regulations - Attendance</u> and Completion of Programme Requirements.

2.3 External factors affecting your attendance or performance in your studies

We expect you to take responsibility for your studies to ensure that your full academic potential can be realised. However, sometimes difficulties can arise that can affect you.

If you are absent from an examination or other assessment or have other grounds for believing that your studies have been affected by external factors you must bring this to the attention of your academic tutor or to the Student Office immediately. Whilst we recognise that students can sometimes be reluctant to discuss cultural, sensitive or personal issues, it is essential that you bring problems affecting you to our attention immediately so that we can determine how best to help you.

2.4 Special considerations

If you believe that illness or other circumstances have adversely affected your academic performance, this is known as Special Considerations. If you wish for these circumstances to be considered by the Faculty you must complete a Special Considerations form. It is important that you submit this to your Student Office in a timely manner (normally not more than five working days after any assessment or deadline that may have been affected by the circumstances). All claims must be substantiated by written documentary evidence, eg a medical certificate or GP/consultant letter, self-certification or a statement from your Personal Academic Tutor. The purpose of asking for supporting documentation is for you to be able to corroborate the facts of your submission.

All claims will be reviewed by the Special Considerations Board which meets regularly throughout the year. You will be notified of the outcome of your claim once the Board of Examiners has considered the recommendation of the Special Considerations Board. Full details of the University's policy on Special Considerations can be found here.

2.5 Fitness to study

The <u>Fitness to Study</u> policy applies to enable the University to respond appropriately to situations where visible signs of illness, mental health difficulties, psychological, personality or emotional disorders may have a profoundly disturbing impact on the functioning of an individual student and/or the wellbeing of others around them. The University has a positive attitude towards those with impairments and is committed to maintaining students' wellbeing. The policy identifies the procedure and support available to both students and staff when a student becomes unwell and/or presents a risk to self and/or others.

2.6 Suspending your studies

Should you feel that you need to take some time out from your studies, known as <u>suspending your studies</u>, you should first discuss this with your personal tutor. A Suspension Request form should be obtained, completed and returned to the Student Office. Please note that, if you wish, you can suspend your studies in order to undertake an internship or period of industrial training outside of normal vacation time. Further information can be found in the <u>General Regulations - Transfer</u>, <u>Suspension</u>, <u>Withdrawal and Termination</u>.

2.7 Withdrawing from your studies

If you no longer wish to continue with your studies, a Withdrawal Notification form should be obtained, completed and returned to the Student Office. . Further information can be found in the <u>General Regulations – Transfer, Suspension, Withdrawal and Termination</u>. The Students' Union Advice Centre has developed a <u>Guide</u> for students.

3. Your Safety

Ensuring student health and safety is a major goal of the University. As a new student you will have received information on Personal Safety and H&S/Fire Safety as part of your 'Southampton Welcome'. Both new and existing students should also take a look at the following links for further information:

www.susu.org/support

http://www.southampton.ac.uk/hr/services/health-and-safety/index.page

The University statement of Health and Safety Policy Statement and Management System, which defines commitment, governance, responsibilities and management of health and safety is available here:

The Faculty's Health and Safety Local Arrangements document is available at https://groupsite.soton.ac.uk/Administration/FSHS-Health-and-Safety/Documents/Forms/AllItems.aspx.

3.1 Local arrangements

Key local Health and Safety arrangements are as follows. If you have questions relating to any of the following information please contact a member of the Faculty Health and Safety team, details of which you will find at the end of this section.

3.2 Action in the event of a fire



If you notice or suspect that there is a fire you should immediately raise the alarm by operating the nearest fire alarm call point (one will be located on the wall as you leave the building). The fire alarm is a continuously ringing bell.



On hearing the alarm you should immediately stop what you are doing and make your way out of the building by following the green emergency exit signs to the nearest exit, shutting doors behind you as you leave. Do not stop or return to collect personal belongings. Do not use lifts unless you have a Personal Emergency Evacuation Plan (PEEP).

On leaving the building make your way to the assembly point. Ensure any car parks or roads are kept clear for emergency vehicles. Do not re-enter a building until you are told it is safe to do so by the Fire & Rescue Service, the senior Fire Warden or Security staff.

Fire extinguishers are provided in buildings but should only be used by those trained in their use and only if it is safe to do so.

Evacuation alarms are tested weekly. The times of these tests are detailed near main entrances to buildings. When tests take place the bell will ring for no more than a few seconds.

If you have a permanent or temporary mobility impairment that affects your ability to use stairs to exit a building then you should have been notified to Health and Safety personnel in order for a PEEP to be developed. If this has not been done please contact the Health and Safety team using the details overleaf.

3.3 Assembly points

Building	Assembly point
B32 (Education)	Visitor car park at North end of B32 (Burgess Road end).
B34 (Education)	Area around flag pole in front of University library.
B39 (S3RI)	Car park in front of B54
B44 (Geography / Psychology)	Grassed area in front of University Health Service Building (North end of Physics building).
B44a (Psychology)	Car park in front of B44 (Shackleton)
44 Chamberlain Rd (Psychology)	Car park in front of B44 (Shackleton)
B54 (Mathematics) and B56	Grassed area adjacent to Turner Sims Concert Hall.
B58 (Social Science)	Grassed area in front of University Health Service Building (North end of Physics building).
Other buildings	Check the emergency information that should be displayed on a noticeboard in teaching rooms.

3.4 First Aid



In the event of an accident causing injury, the nearest first-aider should be contacted. Their details are displayed on signs in corridors. Alternatively, contact security on 3311 using an internal phone and they will assist. Following treatment, the incident must be reported to your line manager/supervisor and the Faculty Health and Safety team.

3.5 Incident Reporting



If you are involved in an accident or incident, spot a hazardous situation or are concerned that you are being asked to do something without the necessary information, instruction or training that would ensure your safety, please report this to your supervisor and the Faculty Health and Safety team. The circumstances can then be investigated and measures put in place to minimise future risk.

Incidents can be reported online at: https://www.southampton.ac.uk/healthandsafety/incident-report.page?

3.6 Induction and Training

As a new student you should have the following expectations with regard to Health and Safety:



- To be made aware of local emergency arrangements and H&S contacts on your first day.
- To receive a local induction before using any laboratory or workshop area. This will identify hazards and make you aware of particular procedures in place to help ensure your safety.
- That risk assessments and other written arrangements that maintain good H&S in all your activities will be brought to your attention by your supervisor.

3.7 Building Access

Most University buildings are open to all from 08.00-18.00 Mon-Friday excluding University and public holidays. All undergraduate students must leave buildings by 18.00. Access by ID card may be available to postgraduate students from 06.00-23.00 depending on student status. Buildings are to be clear by 23.00 and remain so until 06.00 (Closure Period) unless you have particular need which must be approved by your Head of Academic Unit.

3.8 Out-of-Hours Policy

The Out-of-Hours Policy covers the Closure Period from 11.00pm through to 6.00am the following day and applies to every day of the year, including weekends and Public Holidays. You must have received approval to work during the closure period from your Head of Academic Unit and this must be documented using Form 1.5 available from the link http://www.southampton.ac.uk/estates/what-we-do/security.page When you are present in the building you should have access to a completed copy of this form, along with your University ID.

3.9 Further information

More detailed information, forms and links to other sources of advice are available on the <u>FSHMS</u> <u>H&S site</u>.

3.10 Contact Information

Your primary contact should be your personal academic tutor. However, the following contacts may be used if necessary:

Faculty Health and Safety Team (Social, Human & Mathematical Sciences)							
Pete Dargie	Faculty Health and Safety Officer	44/3011	023 8059 4513	P.G.Dargie@soton.ac.uk			
Peter Morgan Health and Safety Officer - 44/1017 Geography and Environment		023 8059 4673	P.R.Morgan@soton.ac.uk				
Safety and Occupa	Safety and Occupational Health						
Safety and Occupational Health (SOH)	Please contact SOH if local contacts are not available	26 University Road	023 8059 3277	soh@soton.ac.uk			
Security - Central Control Room (CCR)							
CCR	023 8059 3311 (Emergency)	023 8059 2811 (End	unicc@soton.ac.uk				

4. Your Academic Programme

4.1 The academic year and the programme structure

The structure and modular content provided within the programme specification is specific to your own programme. You can view your programme specification via <u>SUSSED</u>.

The taught components of the programme are delivered in modular form and typically run over two semesters. The teaching weeks are followed by a two to three week examination period. The semesters overlap the traditional three term structure which still determines the pattern of vacations at Christmas and Easter.

For any given programme a module is either core, compulsory, or an option. Definitions of these and of the rules surrounding compensation are provided in the <u>General Regulations - Regulations and Definitions</u>

Applying to Progression for all <u>Credit-Bearing Programmes</u>.

Core Module: A Core Module is a module which must be taken and Passed by all students on a particular programme. Core Modules may not be Passed by Compensation. Where programme regulations specify, a student may be required to select a Module from within a group of Modules, which, once selected, becomes Core.

Compulsory Module: A Compulsory Module is a Module which must be taken by all students on a particular programme. Compulsory Modules may be Passed by Compensation.

Option Module: An Option Module is a Module selected from a group of available Modules which does not become Core or Compulsory on selection. Option Modules may be Passed by Compensation.

Compensation: Pass by Compensation is the award of credit for a Failed Module on the basis that overall performance elsewhere in the Part is sufficient to merit the passing of that Part and the learning outcomes of the programme as a whole will be met.

Non-Compensatable Fail: A Non-Compensatable Fail is a Failed Module which cannot be Passed by Compensation. A Failed Module is Non-Compensatable if the mark achieved for the Module is lower than the Qualifying Mark, or if the Failed Module is a Core Module for the programme.

Pass Mark: The Pass Mark is the minimum mark that must be achieved in order to pass. It may be applied to a Module to an Average Mark or to a Final Average Mark.

The University standard Module Pass Mark for Standalone Masters students taking modules at all levels is 50 (Regulations for Progression, Determination and Classification of Results: Standalone Masters Programmes (section 3).

Qualifying Mark: The Qualifying Mark is the minimum mark that must be achieved in a Module in order for a Pass by Compensation to be awarded.

Unless stated in the programme regulations (and subject to paragraph 3.2 of the <u>Regulations for Progression</u>, <u>Determination and Classification of Results: Standalone Masters Programmes</u>), the University standard Qualifying Mark for Standalone Masters programmes is 35.

Your student record should automatically record core and compulsory modules and these must be completed in accordance with the requirements for progression applicable to your programme. Most programmes will have a number of optional modules. If applicable you will need to select a certain number of optional modules to complete your portfolio of modules and fulfil the credit points as required for the programme.

4.1.1 Aims and Objectives of the Programme

Aims:

- to give students knowledge of applied statistical theory and methods at an advanced level;
- o to train students for careers as applied statisticians, particularly in areas related to medicine;
- o to enable students to develop oral and written communication skills; and
- o to give students experience of applications of statistical methods.

Learning and Assessment Objectives:

By the end of the taught element of the programme students should be able to demonstrate:

- o knowledge and understanding of statistical theory at an advanced level;
- knowledge and understanding of the application of statistical methods to practical problems;
- o the ability to carry out and interpret statistical analyses;
- o the ability to write a statistical report on a data analysis topic;
- o the ability to discuss and communicate statistical ideas orally and in written form;
- o the ability to programme in SAS and R to analyse data sets.

Students who undertake the dissertation should also be able to demonstrate:

- an in-depth knowledge and understanding of an individually researched topic studied as the main project;
 and
- o skill in organising their research work and in presenting their findings by the production of a substantial dissertation on their chosen project topic.

4.1.2 Programme Outline for Full-time Programme

The following gives details of the modules in the programme for 2017/18: more detailed information about the modules is here:

http://www.southampton.ac.uk/maths/postgraduate/taught_courses/diploma_msc_in_statistics_with_applications_in_medicine.page?#modules

Most lecture modules consist of 24 or 12 45-minute lectures. Some are supported by supervised practical sessions.

The University works within a European Credit Transfer System (ECTS), full details of which are in the University Calendar, Section IV. The taught component of the programme consists of modules worth 60 ECTS, with the project for the MSc counting as a further 30 ECTS.

The optional modules listed constitute an indicative list. There will always be choice but the options might vary between years. A list of optional modules will be available to you via the Student Record Self-Service system once you enrol at the University.

Semester 1 Core Modules		ECTS
MATH6152	Statistical Computing (SAS, R)	5
MATH6153	Statistical Theory & Linear Models	10
Compulsory Modules		
MATH6026	Statistical Seminar Series I	
STAT6099	Research Skills (Semester 1 and 2 module)	5
STAT6083	Generalised Linear Models	10
Semester 2		
Compulsory Modules		
MATH6021	Survival Analysis	3.75
MATH6027	Design of Experiments	7.5
MATH6028	Statistical Seminar Series II	
MATH6033	Epidemiological Methods	3.75
STAT6099	Research Skills (Semester 1 and 2 module, 5 ECTS in total)	5
MATH6151	Clinical Trials	3.75

Option Modules	totalling at least 11.25 ECTS from:	
MATH6025	Bayesian Methods	3.75
MATH6068	Statistical Genetics	3.75
MATH6135	Topics in Statistics	7.5
MATH6157	Applied Statistical Modelling	7.5
STAT6108	Modelling Hierarchical (Multi-level and Longitudinal) Data	5
STAT6079	Computer Intensive Statistical Methods	5
STAT6084	Multivariate Analysis	5
STAT6086	Survey Methods I	5

4.1.3 Statistical Seminar Series I and II

The programme of Statistical Seminars, held on selected afternoons, consists of lectures given by invited speakers from within the University and from outside organisations, including pharmaceutical companies and research institutions. The module varies from year to year and is intended to introduce students to all aspects of statistics in practice.

Students are expected to attend as many of these seminars as possible since: although not formally assessed, they form an integral part of the programme.

4.1.4 Programme Outline for Part-time MSc (taken over 2 years)

The taught part of the programme can be taken over a 2-year period (ie part-time in each year). The typical structure is outlined below, but the order in which modules are taken may be changed with the permission of the Programme Co-ordinator.

Year 1:		ECTS
Semester 1: MATH6152 MATH6153	Statistical Computing (SAS, R) Statistical Theory & Linear Models	5 10
Semester 2: MATH6021 MATH6027 MATH6151	Survival Analysis Design of Experiments Clinical Trials	3.75 7.5 3.75
Year 2:		
Semester 1: MATH6026 STAT6099 STAT6083	Statistical Seminar Series I Research Skills (Semester 1 and 2 module, 5 ECTS in total) Generalised Linear Models	5 10
Semester 2: MATH6033 MATH6028 STAT6099	Epidemiological Methods Statistical Seminar Series II Research Skills (Semester 1 and 2 module, 5 ECTS in total)	3.75 5
and at least 11.25 ECTS from MATH6025 MATH6068 MATH6135 MATH6157 STAT6108 STAT6079 STAT6084 STAT6086	Bayesian Methods Statistical Genetics Topics in Statistics Applied Statistical Modelling Modelling Hierarchical (Multi-level and Longitudinal) Data Computer Intensive Statistical Methods Multivariate Analysis Survey Methods	3.75 3.75 7.5 7.5 5 5

4.2 Registering your option modules

When choosing your options, you are strongly advised to ensure that you have a similar total number of modules in Semester 1 and Semester 2, to maintain a balanced work load throughout the year. Once you have registered your options, it is possible for you to make changes but there are restrictions. The substitution of modules is not allowed (i.e. you cannot take an extra module in semester 2 to replace a semester 1 module in which you failed to perform well).

You must select optional modules totalling at least 11.25 ECTS. This may be slightly more depending on your choices, but must be no more than necessary to pass the taught component of the programme. For example, the combination MATH6025, MATH6068 and STAT6084 (3.75+3.75+5=12.5 ECTS) is eligible, whereas the combination MATH6025, MATH6068 and MATH6135 (3.75+3.75+7.5=15 ECTS) is not, since the required 60 ECTS for the taught component can already be achieved if either MATH6025 or MATH6068 is dropped. It is possible to audit extra modules, but you need to seek permission from the module co-ordinator. Auditing students may not normally submit assignments, sit examinations or tests. Your transcript will show the modules you audited.

You may request a change to your option module choice up to the **end of week 2** in each semester. You should complete a Change of Module form to specify your request (forms can be obtained from the Student Office). If your option module choices clash in your timetable, then you will need to amend your option choice accordingly by contacting the Student Office immediately.

You should regularly check your online student record for details of your registered modules. This is particularly important after you have made any changes and will help to maintain the accuracy of your student record. It will also save time and confusion during the examination period.

4.3 Attendance

The University's Attendance Regulations details the general expectations placed upon you as a student.

4.4 Additional Costs

You may incur additional costs as a result of your programme, for example for materials, field trips or books. General programme costs are located in the programme specification. Option modules that are available to select may also include information on module specific costs.

Main Item	Sub-	MODULE SPECIFIC COSTS	PROGRAMME SPECIFIC COSTS
	section		
Approved Calculators			Candidates may use calculators in the examination room only as specified by the University and as permitted by the rubric of individual examination papers. The University approved model is Casio FX-570 This may be purchased from any source and no longer needs to carry the University logo. You will be expected to provide your
Stationery			own day-to-day stationary items, e.g. pens, pencils, notebooks, etc). Any specialist stationery items will be specified under the Additional Costs tab of the relevant module profile.
Textbooks			Where a module specifies core texts these should generally be available on the reserve list in the library. However due to demand, students may prefer to buy their own copies. These can be purchased from any source. Some modules suggest reading texts as optional background reading. The library may hold copies of such texts, or alternatively you may wish to purchase your own copies. Although not essential reading, you may benefit from the additional reading materials for the module.
IT	Computer Discs	N/A	N/A
	Software Licenses		The software required for the programme (SAS, R, Stata) is available on all public workstations on campus, and accessible from your own computer via VPN.
	Hardware	N/A	N/A
Printing and Photocopying Costs		MATH6031 Statistics Project: You will be expected to meet the costs for printing and binding 2 copies of your dissertation. Information on Dissertation binding/costs can be found here: http://www.southampton.ac.u k/assets/imported/transforms /content- block/UsefulDownloads_Downl oad/B2F8F934B5C14D1FA130 913290548B26/2014_Binding FlyerA6_WEB.pdf	In the majority of cases, coursework such as essays; projects; dissertations is likely to be submitted on line. However, there are some items where it is not possible to submit on line and students will be asked to provide a printed copy. A list of the University printing costs can be found here: http://www.southampton.ac.uk/isolutions/students/printing-for-students.page

In some cases you'll be able to choose modules (which may have different costs associated with that module) which will change the overall cost of a programme to you. Please also ensure you read the section on additional costs in the University's Fees, Charges and Expenses Regulations in the University Calendar available at www.calendar.soton.ac.uk.

4.5 Faculty Exchanges / Placement Opportunities

There is usually no placement involved in this programme, but (with the permission of the programme coordinator), you can do your MSc project at a company/external medical research unit. For example, this may be your employer on finishing the MSc, which would give you an excellent opportunity to get acquainted with your future work place and its demands.

5. Faculty Teaching and Learning Skills

5.1 Time management

It is your responsibility to manage your time in order to ensure that you keep up to date with the material presented and with the requirements of the programme. Deadlines for work submission should be adhered to, otherwise marks will be deducted via the imposition of a late submission penalty. However, the framework of when lectures and classes occur and deadlines for submission of work will be made available to you well in advance, but if you are unclear about any aspect of your module you should talk this through with your module co-ordinator or programme director. This knowledge will allow you to plan your life based on how you know you work best. Effective use of your time will allow you to perform well on your course and to enjoy student life. One of the work-place skills you should aim to acquire at University is the ability to manage multiple priorities. If you have problems in this area please discuss them with your academic tutor.

5.2 Lectures

A single lecture slot lasts 45 minutes. It is therefore vital that you arrive promptly in order to gain maximum benefit from the time. Each lecturer will present material using either handouts or require you to make your own notes. Transcribing lectured material into a form that you find most useful is an important part of the learning process. You should ensure that you understand the material and, if you have difficulty in understanding or applying the knowledge, use recommended textbooks or the assistance of teaching staff during tutorials to gain understanding. It is your responsibility to develop your ability in a given subject. How well you have acquired that ability and the associated knowledge is gauged by the examination and coursework assessment process. Lectures are provided for your benefit and you should take full advantage by ensuring you attend all of the lectures in a given course module. If, for any reason, you are unable to attend, ensure that you get hold of a copy of the notes or handouts from your module co-ordinator.

5.3 Use of electronic recording devices or mobile phones in lectures or classes

Out of courtesy to staff and other students, please ensure that mobile phones are switched off in lectures and seminars. You are advised that lectures are the copyright property of the lecturer and permission to audio-record a lecture must be personally sought from the lecturer before proceeding.

If you wish to use an electronic device to take notes in a lecture, you should do so in a way that does not cause disruption to those sitting near you.

If you have a health condition for which additional support is needed, you may, following assessment by the University's educational support services, make appropriate arrangements with staff for recording lectures.

5.4 Tutorials and Problem Classes

Group tutorials/supervisions are timetabled for some modules. These sessions are intended for you to develop your problem solving skills as well as for you to discuss further with an experienced member of staff any particular lecture material you are finding difficult to understand. It is essential that you come well prepared for these sessions. These sessions are one of the most effective ways of reinforcing the lecture material.

5.5 Self learning

Independent study or self-directed learning involves using libraries, data retrieval systems, internet, etc, or in a group working on coursework, reading the lecture material or reading around the subject. This should also develop your investigative and problem solving skills in furthering understanding of the subject, creating links with other modules - past and present - and providing a broadening of your educational experiences and knowledge base.

Self-learning is your personal responsibility and your commitment to the programme. It requires discipline, motivation and focussing on achieving individually set targets. It enables you to reach your full potential academically, develops your personal skills and helps establish a successful professional career.

5.6 Key skills

Key skills are those skills which can be applied to other disciplines and fields of work. Employers are increasingly seeking to employ individuals with well-developed key skills. A conscious effort is made by the Faculty to ensure that every module allows and encourages development of key skills. More information can be found on the <u>Academic Skills</u> pages of the Library website. Further details can be found within individual module specifications.

5.7 Academic Unit policy on referencing

5.7.1 An example of how work could be quoted, commented upon and referenced

"The mathematician's investigations are about things reached by abstraction: ...and he investigates them in relation to nothing else, considering in some cases their relative positions and the facts consequent on these, in other cases their commensurabilities and incommensurabilities, in other cases again their ratios; but nevertheless we lay down that it is one and the same science which deals with all these things, namely geometry."

This seems to be an awfully flowery way of describing Geometry, which many regard as being one of the more practical branches of Mathematics, particularly when we first meet it. The writer is saying that, however practical a subject it is, we still have to think about it in an abstract way. I notice that the author does not appear to believe that there are any female geometers!

References:

[1] "The History of Mathematics - A Reader", John Fauvel & Jeremy Gray, The Open University/Macmillan, 1990, p93.

Good practice

ALWAYS put quotes in inverted commas. Your lecturer would know immediately that the passage, written above in italics, was not written by a modern student.

Label your quote with a number, which is used in your reference section.

It is quite a good idea, if using a computer to write your essay, to use a different font or indent the passage quoted.

Quoting other sources is GOOD, provided you include your own comments about it and reference it clearly. But don't just quote from other people – you will only gain good marks for coursework if your own thoughts and ideas are included. Notice that in the passage above, I have given my own ideas after the quotation has been closed.

Always give precise and clear references.

REMEMBER that, when you hand in your coursework through the Student office, you sign a form to say that the work is all your own except where specific references are made.

5.7.2 Collaboration on Coursework

Mathematics policy on collaboration:

"Students are encouraged to discuss and exchange ideas on their work. However, for a student to read and gain ideas for his own work from another student's finished work on the same topic is clearly unacceptable. Copying and other unfair practices in coursework assessments, including computing assignments, is equivalent to cheating in examinations and is regarded with a similar degree of severity. If this occurs, the student(s) involved will be penalised. A formal procedure may follow any alleged cheating/plagiarism."

5.8 Academic integrity: the University Policy

The University expects that all students will familiarise themselves with the <u>Regulations Governing Academic Integrity</u>. Where professional, statutory and regulatory body requirements apply and for programmes that lead to professional registration, additional reporting requirements may be in place. The Students' Union Advice Centre has developed a <u>Guide</u> for students.

Procedures will be invoked to investigate suspected breaches of academic integrity when concerns are raised during the marking process or in connection with suspected cheating in examinations. We are aware that students may have experienced differing standards at other institutions (including those overseas) but it is essential that you take steps to ensure your full understanding of the standards expected at Southampton as significant penalties can be imposed if these are breached. These penalties will always affect the mark you

receive for the piece of work in question, and the most serious cases could lead to a reduction in degree classification or even termination of programme. There is likely also to be an impact on any future reference we provide.

It is often helpful to discuss ideas and approaches to your work with your peers, and this is a good way to help you think through your own views. However work submitted for assessment should always be entirely your own, except where clearly specified otherwise in the instructions for the assignment. In some instances working in groups will be required, and there may be occasions when work is submitted from the whole group rather than individuals. In these instances the instructions will make it clear how individual contributions to the joint work should be identified and will be assessed. If you are in any doubt, check with the person setting the assignment. If you have worked with others you should make sure that you acknowledge this in any declaration you make.

If you wish to improve your study skills, always seek advice sooner rather than later. Your personal tutor or module convenor will be able to help you identify sources of assistance. It is an important element of independent learning, and a normal part of academic development, to recognise when you need to seek advice, and to learn to benefit from it. This would not necessarily mean that you are 'struggling' with your work - you may feel you need additional advice to reach your personal potential.

If in doubt about what is required in any particular assignment, what referencing styles are appropriate etc, always ask. Your tutor or module co-ordinator will be able to point you in the direction of appropriate sources of advice and information.

You are responsible for your own work and conduct, and for ensuring that you neither fall accidentally into poor academic practice in your written work nor engage in practices which breach academic integrity. Such practices are unacceptable, whether they have been followed deliberately or through a lack of understanding. As well as damaging your own development, failure to work with academic integrity is unfair to other students who complete work honestly and fairly. It can also potentially damage the relationship between staff and students which is at the heart of the University community, and relationships with external partners. Ultimately, your results will not be a true reflection of your performance, which may potentially damage the academic standing of the University's awards.

Furthermore, should you have reason to believe that a fellow student is not working with academic integrity, you should speak in confidence to the module convenor. Your identity will not be revealed as part of any investigation; however no further action would be taken unless additional evidence is identified by the marker or module convenor.

5.9 Study Room, Computing Facilities and Post

A Study room is provided for all the Mathematics taught Masters students on the 3rd floor (3009) of the Mathematics Building (Building 54). The room can be accessed using a keypad and the code will be given out during the introductory talk. This room has computers with external links for email and internet services with the same facilities as provided by the University's iSolutions for any of its workstation areas. Please bear in mind and respect the needs of all occupants when using the room. You are also welcome to use the Undergraduate Student Centre (Building 56).

In general, software cannot be provided for students who have their own PCs. The exception to this is in cases where the University has a site licence for the software which covers use on a student's home PC. Students should contact the University's computing service iSolutions (<u>ServiceLine@soton.ac.uk</u>) for details of the latest situation about site licences, and advice on the purchase of suitable software and hardware.

A library of MSc dissertations is maintained in the Study Room, together with some computer software manuals and a limited collection of books. Students may consult these at any time but are requested to "sign out" any item that is removed from the study room so that there is a record of who has borrowed it. A signing-out list is on the notice-board in the Study Room.

Post can be collected from baskets in the Post Room (Room 5023 - opposite the lift) on Level 5 of the Maths Building (Building 54).

5.10 Research Ethics

The University of Southampton is committed to carrying out its research, teaching, enterprise and other activities within a comprehensive ethical framework (http://www.southampton.ac.uk/ris/policies/ethics.html).

Principles of ethical research include the expectation that studies are undertaken with integrity, quality and transparency. Participants in research must be fully informed about the research and participate voluntarily. They need to know what will happen with the information they provide, and that they can withdraw from the

study subsequently (wherever possible). Risks from participation in research must be explained and minimised. Participants' anonymity and/or confidentiality should be protected, for example by removing information that could be used to identify them and by storing confidential information securely.

All research on human participants, their tissue or data requires ethical approval via the University's Ethics and Research Governance Online (ERGO) system (www.ergo.soton.ac.uk). This includes, but is not limited to, studies of the following kind:

- analysis of existing secondary data at an individual level, even where such data have been anonymised and/or the datasets exist in the public domain:
- collection of data using questionnaires and online surveys;
- collection of data using interviews, observations, focus group discussions or similar qualitative approaches; and
- experiments involving human participants.

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Research on animals is governed by separate procedures.

The University believes that ethical issues should be interpreted broadly and that ethics approval might also be needed for research where other factors could be present including:

- · a risk of damage to the environment;
- · political or social sensitivity; and
- impact on culture and cultural heritage.

If you are in doubt about whether the research for your dissertation requires ethical approval, please contact your divisional 'ethics champion', or a member of the Faculty Ethics Committee via <u>risethic@soton.ac.uk</u>.

To obtain ethical approval for your research, please apply via the ERGO system (www.ergo.soton.ac.uk). Detailed guidance on how to apply and what documents to upload can be found on the Researcher Portal (https://intranet.soton.ac.uk/sites/researcherportal/) and in the Downloads section on the ERGO page.

Please note that the University does not permit mass emailing for the recruitment of research participants.

Your supervisor will need to approve your ethics application before it is reviewed by the Faculty Ethics Committee. There are no submission deadlines; instead applications are reviewed on a rolling basis. You can expect a decision within 10 working days. Please allow extra time in case you are asked for revisions. You must not begin your research before you have obtained approval via ERGO! Retrospective approval is never granted.

Failure to obtain ethics approval or to comply with the University's Ethics Policy will be investigated under the University's regulations governing Academic Integrity (http://www.calendar.soton.ac.uk/sectionIV/academic-integrity-regs.html).

6. Assessment and examinations

6.1 Coursework assessment and submission

A number of modules include coursework assignments as part of the assessment. Coursework can often occupy a large amount of time and balancing your time across your full programme of study is important. Conversely, students who forget or do not bother to hand in work can make it very difficult for themselves to achieve their full academic potential.

Normally, all coursework should be accompanied by a completed Coursework Submission/Feedback form and submitted to the Student Office by not later than the published date and time. If both paper-based and electronic submission is required, you should note that your submission will not be considered complete until both formats have been submitted. If other arrangements are in force for submission of a particular piece of coursework, this will be advised by your module co-ordinator.

The assessments for each module are marked out of 100. The overall assessment for each candidate is produced as a weighted average across all modules taken as part of the MSc, but not audited modules (if applicable), even if, exceptionally, assessment has been taken in these. The overall average is expressed as a percentage.

Grades

In June the Board of Examiners, which consists of the internal examiners and the External Examiner, will determine which (if any) students need to take referral assessment in the summer period and for which (if any) students a repeat year is necessary to demonstrate achievement of the programme learning outcomes.

Pass marks

The pass mark for all modules offered on MSc programmes is 50%, and the qualifying mark is 35%.

Core Modules

Core modules must be passed and cannot be compensated with high marks in other modules.

6.2 Overlength work

Although the types, lengths and styles of assessed written work vary considerably between disciplinary contexts, the production of written work to a specified length is an important transferable skill that you are expected to develop during your studies. The ability to produce concise, clear writing to a determined length is fundamental both to academic work and to professional working life. In response to student demand for greater clarity, a Faculty policy has been developed (available on the FSHMS Hub) to provide a consistent approach towards overlength work across the Faculty. Where relevant and appropriate, written assessments may specify a word limit either as a single figure or as the upper limit of a range. Your work will be overlength if you go even one word over the stipulated length or upper limit. There are no complicated penalties to apply. Instead, overlength work will be addressed through marking solely that proportion of work that falls within the word limit.

Your individual module co-ordinators will provide further details via their Blackboard sites. This approach to overlength work does not apply if a piece of work has no word limit, however, you should attend to any length guidance given by your module co-ordinators.

6.3 Penalties for late coursework submission

When coursework is set a due date for submission will be specified and there will be associated penalties for handing in work late.

The University has a uniform <u>policy</u> for the late submission penalty for a piece of assessed work worth 10% or more of the final module mark.

Work submitted up to 5 days after the deadline should be marked as usual, including moderation or second marking, and feedback prepared and given to the student. The final agreed mark is then reduced by the factors in the following table.

University Working Days late	Mark
1	(final agreed mark) * 0.9
2	(final agreed mark) * 0.8
3	(final agreed mark) * 0.7
4	(final agreed mark) * 0.6
5	(final agreed mark) * 0.5
More than 5	Zero

6.4 Coursework extensions

If you know there will be a valid reason why you cannot submit the work at the given date you must contact the Student Office as soon as possible. You should complete a Special Considerations form, which should provide adequate detail of the reasons why you are seeking an extension. Your completed form should be submitted to the Student Office who will arrange for your request to be reviewed and approved. The Student Office will contact you via your University email account to let you know once approval has been made. *It is your responsibility to request an extension in a timely manner.*

6.5 Examination preparation (also see Appendix A)

You will know yourself how best you prepare for examinations. It is always worth remembering that the sooner you start your preparation the better and that one of the aims of each module is to help you prepare for the examination. Make sure that you have a complete set of notes; that you understand their content; that you can apply the material by solving the example sheet questions; and that you have practiced questions from past papers under examination time constraints. The University's online archive of previously set examination papers is available to assist with your learning and preparation for forthcoming examinations. There is a link to Past Exam Papers from the Students Portal of SUSSED.

Remember that if you get into difficulty during your revision process on a particular subject ask someone to help you. This may be either one of the lecturers or teaching assistants on the module. For helpful hints on revision strategy and examination techniques, please refer to Appendix A.

6.6 Examinations

The dates of University examination periods are published annually on the <u>assessment webpages</u>. You can also find helpful information on policy, process, exam regulations, venues and timetables.

6.7 Illegible exam scripts

If your examination script is considered illegible, the <u>Illegible Examination Scripts Policy</u> will be instigated. You will be asked to come in to dictate your script so that it can be transcribed. The cost of this work will be met by you. If your script is not transcribed then it will receive a mark of zero (0).

6.8 Scaling

Occasionally, systematic issues arise in marking; for example, there may be differences noted among markers that require adjustment to bring them in line with one another, the level of difficulty of different exam questions, or anomalous variations in performance between difference groups of students taking the same module. Each module is subject to a moderation process designed to identify any such issues, and further review by the relevant External Examiner. Where potential issues are identified, the module lead will review the evidence and recommend appropriate action such as re-marking using the same or a different marking scheme, re-weighting components or sub-components, or scaling the assessment component or module marks. Any adjustments to marks will be made according to the principles and practices identified in the University's double-blind marking and moderation and scaling policy/policies, which include discussion with the External Examiner and approval by the responsible Board of Examiners to confirm that the resulting marks conform to University and national standards. As determining appropriate standards is a matter of academic judgement, these decisions are not subject to academic appeal. Where marks are adjusted, affected students will be notified of both the rationale and the process applied.

6.9 Coursework and examination feedback

Feedback comes in many forms and you must learn to recognise the merits of all of these. The <u>Student Feedback policy</u> provides an overview of formal feedback. Formal feedback is well documented and the following paragraphs identify ones that you are officially entitled to.

Informal feedback is just as important and comes in the form of individual chats with your Personal Academic Tutor, module leads or project supervisors, or group meetings with academics after a lecture or practical session. Also tests and quizzes on Blackboard, which are available for several modules, can provide valuable feedback on how you are progressing.

All coursework will be marked and returned to you, accompanied by feedback which will relate to the standard of your work and the reasons for the mark/grade given. You should note that all marks are considered provisional until they have been reviewed and confirmed by the Board of Examiners. This feedback will typically be returned within four weeks following your submission. Large assignments (e.g. your dissertation/project work) may take slightly longer to be returned. Bear in mind that if you hand in work late, your feedback may be delayed.

Where appropriate, for example with smaller problem solving exercises like calculations, the lecturer will decide if feedback should be given individually, or reported back to the whole group. You are, however always free to ask the lecturer personally how you are progressing.

The feedback you receive will be:

- timely allowing you to learn from your work
- related to the learning outcomes for that piece of work
- **constructive** and **honest** allowing you to take the comments on board, learn from your mistakes and understand why you did well.

For the feedback to be effective, it is important that you work with the feedback given and identify how you can improve your work in the future. Should you need further information about your work, get in touch with whoever marked the coursework.

Feedback may be made available online or can be collected from the Student Office. You will be contacted when feedback is ready. For some kinds of assignment, other arrangements will be made and the module lead will explain those to you.

Although individual feedback on examinations is not normally given, feedback on the strengths and weaknesses of the performance of the whole group which took an examination may be available via Blackboard.

6.10 Access to coursework/examination scripts

Students are entitled to view their examination scripts on request to the Faculty (your Student Office can advise on the process to be followed). You are only permitted to view an examination script to enable you to see how you can improve your future performance and no mark or other annotation on the script is negotiable or open to alteration. The absence of annotation on a script does not mean that it has not been marked.

6.11 Release of results

Students will be given, as a matter of course, the marks they obtain in each individual module of study after they have been ratified by the Board of Examiners. More information can be found in the Release of Marks procedure.

These marks will be made available by your Student Office according to the procedures of the Faculty. In certain cases, especially for semester 1 exams, such marks at the time of release may be provisional only and subject to change by a subsequent Board of Examiners. It will be made clear when marks are provisional.

You should note that the official transcript of your marks would normally show the latest mark obtained in each subject with a note, where appropriate, that it was obtained at repeat or referral attempt.

6.12 Prizes

The student with the strongest performance on the MSc will be considered for a prize of £100 sponsored by the Academic Unit (Mathematical Sciences).

6.13 Final assessment

At the end of your programme, your overall performance will be assessed. If you satisfy the academic standards necessary, the examination board will recommend you for award.

6.14 Failure of a Taught Element, Referral and Repeating the Year

Mathematical Sciences adheres to the University progression regulations which can be found at http://www.calendar.soton.ac.uk/sectionIV/progression-regs-standalonemasters.html

6.15 Progression Warning

After the January examinations you will be informed in writing by the Student Office if your progress is not satisfactory and will be advised on the action to be taken. You should seek further advice from your personal academic tutor or the Programme Co-ordinator.

Students, who fail one (both) core module(s) in Semester 1, and whose extent of failure does not trigger a repeat year at the end of Semester 1, will be referred in this module (these modules) in Semester 2.

6.16 Classification of MSc

For students who pass the requirements for the award of the MSc (http://www.calendar.soton.ac.uk/sectionlV/progression-regs-standalonemasters.html), the classification rules are provided below. The average here is calculated over the relevant modules taken by the candidate over the whole of their programme, including the dissertation, but excluding audited modules, weighted by credit.

- If the average is 69.5 or higher (using CAPPED referral marks, where relevant), the candidate is eligible for the MSc with Distinction.
- If the average is 68 69.4 and half or more of the ECTS are in modules with a mark of 70 or higher (using CAPPED referral marks, where relevant), the candidate is eligible for the MSc with Distinction.
- If the average is 68 69.4 and fewer than half of the ECTS are in modules with a mark of 70 or higher (using CAPPED referral marks, where relevant), the candidate is eligible for the MSc with Merit.
- If the average is 59.5 67.9 (using CAPPED referral marks, where relevant), the candidate is eligible for

the MSc with Merit.

- If the average is 58 59.4 and half or more of the ECTS are in modules with a mark of 60 or higher (using CAPPED referral marks, where relevant), the candidate is eligible for the MSc with Merit.
- If none of the above conditions are satisfied, the candidate is eligible for the MSc.

6.17 Exit Awards

Students who study modules worth 60 ECTS and pass at least 45 ECTS (for example students who study the taught element of the programme, but decide not to undertake the project) are eligible for the Postgraduate Diploma (PGDip), A candidate who successfully completes modules totalling 30 ECTS and who does not proceed for any reason to qualify for the PGDip is eligible for the award of the Postgraduate Certificate. More details can be found online at http://www.calendar.soton.ac.uk/sectionIV/progression-regs-standalonemasters.html

6.18 MSc Project

Students may start working on their respective projects directly after the June exam board. The hand-in deadline is usually in the middle of September.

For part-time students different arrangements and timescales might be involved and the Programme Coordinator will discuss details with individual students.

6.19 Project Allocation

In March or April, a list of possible projects is circulated to students. Projects are offered by members of the Statistics Group in Mathematical Sciences, by members of the Medical Statistics Group in the Faculty of Medicine, by members of the Medical Research Council Lifecourse Epidemiology Unit at Southampton General Hospital, and by outside organisations such as pharmaceutical companies and local hospitals.

Students consider the list of projects and discuss details with the proposed supervisors of projects in which they are interested. Each student chooses three projects in rank order and informs the Project Co-ordinator by the deadline given in the project booklet. The Project Co-ordinator then finds a solution which results in the maximum number of students being allocated their first choice or their second choice or, if necessary, their third choice. Any student not satisfied with the resulting allocation of project may choose an alternative from those remaining unallocated at this stage. Each student is allocated a project supervisor who must be internal to the University and a second advisor who must be a member of the Statistics Group in Mathematical Sciences.

For each project, the member of the Mathematics Statistics Group, either as supervisor or advisor, is responsible for ensuring that the dissertation passes through its stages of submission and assessment smoothly and according to the time schedules laid down.

6.20 MSc Project Supervision

The Academic Unit expects, in normal circumstances, that during the project period the student and the supervisor will meet weekly during the first month, and thereafter the frequency of meetings should be adjusted to suit the progress of the project, but should be at least once a month. The supervisor's main role is to provide guidance about the project but the final responsibility for the content of the dissertation is the student's. The supervisor may comment on the structure, content and the depth of discussion of written chapters but such comments, or their absence, should not be taken by the student as an indication of a satisfactory dissertation.

Specific Duties of the Supervisor include:

- (a) giving guidance about the nature and scope of the project, the standard expected and the literature sources;
- (b) suggesting completion dates for successive stages of the project so that the dissertation is submitted on time:
- (c) monitoring the progress of the student and providing feedback;
- (d) being a member of the internal examining panel with at least one other member of staff;

The Responsibilities of the Student include:

- (a) agreeing a schedule of meetings with the supervisor;
- (b) discussing with his/her supervisor the type of guidance s/he finds most helpful;
- (c) acquiring the ability to use statistical packages or write simple programs and any other necessary skills for the project;
- (d) working steadily according to the stages agreed with the supervisor and presenting written material in sufficient time to allow the supervisor to make suggestions;

- (e) taking the initiative in raising any problems and indicating to the Programme Co-ordinator if s/he feels that the guidance provided for him/her is inadequate;
- (f) maintaining responsibility for the content of the dissertation and ensuring that the dissertation is prepared and submitted in accordance with the Faculty Regulations.

Monitoring Student Progress

To ensure that a project is completed on time, the supervisor must continually monitor the student's progress. In particular, it is important that the student has a clear idea and understanding of what s/he is planning to do. To achieve this, Mathematical Sciences requires each student to make a presentation in July on his/her project to an audience consisting of members of staff and fellow students.

6.21 Submission of Dissertation

Two paper copies of a typed and bound dissertation on the work carried out on the project must be submitted by **the middle of September of the year**. The exact deadline can be found in the project booklet Extensions to this deadline will be given only in the most special circumstances.

Details of acceptable bindings for dissertations are provided in the "Production and Submission of Dissertation-Instructions to Candidates" which is issued to students at the time of their summer examination results. The Library has a Bindery able to provide this service normally with six days' notice. The charges for binding dissertations must be met by the student. Please note that only two types of binding are acceptable. Any dissertations submitted in an unacceptable 'soft' binding will be returned to candidates for rebinding. Candidates may submit relevant computer files on disk provided these are properly bound with the dissertation. Advice on what is relevant should be obtained from the project supervisor. This is particularly important if the project includes the development of software and an essential part of the assessment of the project involves ensuring that this works properly.

6.22 Project Assessment

The project is assessed by two internal examiners, normally the first and second supervisor. The internal examiners' reports and recommendations are then sent to the External Examiner who also sees a selection of the dissertations. These will normally include:

- o All those graded as a Fail
- o Those where the two internal examiners disagree about the grade
- o Those of candidates graded 68% 69.4%
- Those of Distinction candidates graded 67.9 or less
- o One representative graded 68% or more and one representative 67.9 or less
- o Any others requested by the External Examiner

Candidates who fail the project have one opportunity to revise the dissertation and resubmit. Resubmission deadlines are agreed with the Programme Co-ordinator.

The assessment criteria for the project can be found in Appendix B.

7. Student feedback: getting your voice heard

7.1 Student representation

Through the <u>Students' Union</u> you will be invited to elect your Faculty representatives (Faculty Officers, Academic Presidents, Academic Vice-Presidents and Course Representatives) who co-ordinate the student voice on Faculty committees to enable your voice to be heard. More information on the Students' Union officers and their roles is available on the Students' Union <u>representation</u> webpages.

Staff-Student liaison committees have representatives from across each programme. These committees have the role of monitoring the organisation and management of the student programmes, to note any difficulties that students may be encountering, and to take advice about ways of improving the programmes.

7.2 Module survey

The Faculty aims to consult with and to provide opportunities for all students and staff to make their views known. You are encouraged to offer your comments/suggestions to members of staff and feedback is requested for each module undertaken. Your module co-ordinators will provide you with details of the process for submitting your views at the end of each module.

7.3 Module reports

Your feedback to module surveys will be reflected upon by the module leader and will be included in the module report. Module reports are available via Sussed under the "programme specific information" tab.

8. Careers and Employability

The <u>Careers and Employability</u> Service provides support to students at all levels of study and has a range of opportunities on offer. Research* shows that graduates with no previous work experience are unlikely to be successful during the selection process and over 30% of positions will be filled by graduates who have already worked for that organisation. The Service provides drop-in advice, 1:1 guidance, workshops, skills sessions, Careers Fairs and employer led events to support your career planning as well as the following opportunities:

*High Fliers 2016

8.1 Excel Southampton Internships

The Excel Southampton Internship Programme offers 4 - 12 weeks paid internships which enhance your CV, expand your network and open graduate recruitment opportunities.

8.2 Business Innovation Programme

The <u>Business Innovation Programme</u> provides an opportunity to develop your business acumen, team working and problem-solving skills by working on an 8 week project put forward by local businesses or not-for-profit organisations.

8.3 Volunteering Bank

<u>Volunteering</u> is a great way to help you gain many of the skills employers are looking for, build your network and develop yourself in new ways. Opportunities vary in duration and the type of role advertised.

8.4 Employability events within the Academic Unit

The Careers and Employability Service work closely with departments and Faculties to provide targeted careers support within and alongside your curriculum. Activities and opportunities may appear within the timetable, or be advertised within your Faculty. Examples include lectures and workshops, online learning options, and events featuring alumni/employers. There are often opportunities to connect with organisations that offer themed events focused on employability. Some companies offer projects linked to dissertations or specific research.

The Statistical seminars, which form part of your programme, provide an excellent opportunity for networking with speakers from different areas and career paths within statistics, for example from the Pharmaceutical Industry, from medical research units or from institutions such as NHS Blood and Transplant.

9. Further Study Opportunities

Perhaps you are considering a postgraduate research degree after your MSc. There is a wide range of topics/programmes leading to various qualifications available to you, and selecting the appropriate topic/programme may not be easy. The first thing to realise is that you need to make a well informed decision and therefore the key is to obtain all the information you need. The Faculty always aims to retain its best and brightest students for research. However when collecting information about postgraduate research, you should cast your net wide. You need to select an area that interests you – a difficult task in itself because you will also seek an area that has good employment prospects.

Further details on the programmes offered by the Faculty of Social, Human & Mathematical Sciences can be found on the Faculty's website.

10. Regulatory Issues

We hope that you will be satisfied with your experience during your time as a student at the University of Southampton but we do recognise that, on occasion, things can go wrong. If you have a concern about any aspect of your experience at the University we encourage you to raise it as soon as the concern arises. It is always better to let us know that you feel there is a problem as soon as possible so that the matter may be resolved guickly. You may alternatively wish to consult with your student academic president if it is an issue in

common with other students. Please be reassured that you will not suffer any disadvantage or recrimination as a result of raising a genuine concern, student complaint or student appeal.

10.1 Academic appeals

Provided you have grounds, you may appeal against any academic decision made by the University. There are some exceptions and you should note you cannot appeal against a decision that has been made in the proper exercise of academic judgment. The Regulations Governing Academic Appeals by Students outlines the regulations and procedure that should be followed should you wish to make an academic appeal. The Students' Union Advice Centre has developed a Guide for students.

10.2 Student complaints

The <u>Regulations Governing Student Complaints</u> sets out the process that should be followed should you wish to raise a complaint about a matter relating to either the facilities and services provided by the University, its academic programmes, and the conduct of University staff, and which has materially affected you.

10.3 Dignity at work and study

The University's <u>Dignity at Work and Study Policy</u> applies to the conduct of staff and students, in the context of their University work of study, or which otherwise affects the working, learning or social environment of the University. Fair criticism of staff or student performance or conduct will not be considered to be bullying or harassment provided that those involved are treated with dignity, courtesy and respect. Any allegation of harassment, bullying or victimisation will be treated seriously, regardless of the seniority of those involved, and anyone found to have behaved unacceptably may be the subject of disciplinary action up to and including dismissal or expulsion.

10.4 Student Discipline

As members of the University community, all students are expected to conduct themselves with due regard for its good name and reputation and are required to comply with the University's Regulations at all times. Any allegation of misconduct will be considered within the <u>Student Discipline Regulations</u>, in accordance with the evidence and circumstances presented. Information for students on discipline is available from the <u>Student Services website</u>.

Appendix A - Revision Strategy and Examination Techniques

A.1 Revision strategy

Revision should be an on-going process which starts very early in your programme. The amount of knowledge to be accumulated and the variety of skills and techniques to be developed are large and they are best assimilated gradually and consolidated as you go along. Regular revision is really a part of the learning process but, of necessity, becomes more concentrated as the examination approaches. "Re-vision" means looking again at things you have already seen – it is not about learning for the first time.

A.1.1 Final revision programme

At the start of your final revision schedule (during the Christmas Vacation for Semester 1 exams, and during the Easter Vacation and at the end of the taught element of the programme for Semester 2 exams) you must get organised, and the best way to do this is to devise a revision timetable. Plan your time carefully, give yourself definite objectives for each session, revise actively, test yourself regularly, make notes, and practise problem solving. Use revision sessions to study topics you have worked on before, as revision is simply the process of reminding you of topics and techniques previously understood. You will appreciate how well-organised notes will help you during your revision. Write out important definitions, proofs, formulae and equations, checking them against your notes. Re-work previously solved problems without looking at your previous solution, then attempt questions that you have not looked at before. Make special revision notes for quick reference on cards to keep in your pocket and charts to hang on the wall of your study room. Practise your examination technique.

A.1.2 Examination practice

You should be familiar with the modules and syllabuses you will be examined in at the end of Semesters 1 and 2. Analyse recent examination papers. Work out how long you have for each question and become familiar with the style of questions.

During your ordinary study periods you will no doubt have attempted many questions but will have seldom given yourself strict time restrictions. In examinations the timing of your answers to questions is vitally important. Practice answering examination questions in mock examination conditions, allowing yourself only the normal available examination time and the equipment you are permitted to take into the examination room. To obtain 'mock examination' practice save one or two complete examination papers so that you can use them as final test papers 'against the clock'.

Examination nerves are common and understandable but will be lessened if you have followed a sensible course of study and revision. You may not do yourself justice if you have a poor examination technique. The hints on the next page should help you to tackle the examination with greater confidence.

A.2 Examination techniques

A.2.1 Before the day

Before the actual day of your examination, make sure you know:

- the date, day, time and venue of each paper for your course;
- how to get to the examination venue if it is not well known to you;
- · your candidate number;
- the telephone number of the Student Office.

Prepare any equipment you will need for your particular examination:

- pens which are comfortable to use;
- · sharp pencils, a pencil sharpener and rubber;
- drawing instruments such as a ruler, compasses, protractor, set squares;
- University approved calculator (if allowed) and spare batteries (check that you know how to replace them quickly);
- an accurate watch or small clock.

A.2.2 On the Day

Before the examination:

Check that you have all the equipment you will need before setting off for your examination with plenty of time to spare. If you are delayed, contact the Student Office (have the telephone number with you) to explain what

has happened. Arrive at the examination room early; a late start to an examination cannot be a good start and you will not be permitted to enter the examination room later than 30 minutes after its scheduled start time.

lust before the start:

Listen carefully to the invigilator. There may be some changes or special instructions which you were not expecting or some errors in the paper. Fill in any details, such as your candidate number, when the invigilator instructs you to do so.

Reading the instructions

When the invigilator says that you may begin, read the instructions on your examination paper very carefully. Make sure that it is the correct examination paper and, in particular, note:

- the number of sections and questions you have to do;
- how much time you have to do them in;
- · which questions (if any) are compulsory;
- · what choice of questions (if any) you have;
- how to present your answers.

Planning your time

Quickly calculate the length of time you should spend on each question. You will have practised doing this for past papers but make sure that you use the instructions on your actual examination paper, rather than making any assumptions. Try to allow about 10 minutes at the end for checking your paper.

Choosing the questions

Read through the whole examination paper carefully, checking that you have read each page. If you have a choice of questions:

- · cross out the ones you can't do;
- tick those you can definitely do;
- · choose the correct number to do;
- mark the order in which you are going to attempt them, attempting your best question(s) first.

Answering the question

Before you attempt to answer a question, read it all again carefully, jotting down points such as formulae and information relating to that question. These hints should help you when writing an answer.

- · Plan before you write the stress of working under time constraints in the exam room can make all your good study intentions disappear. However, this is when it is more important than ever. Take a few minutes to think and plan.
- Think about what the question is actually *asking*. What are you expected to include in your answer. What material will be *relevant*?
 - Underline the key words in the question; identify the main topic and discussion areas; choose a few points/arguments about which you can write; make a mini plan which puts them in order before you start writing. You can cross it through afterwards.
- Make sure that your writing is legible.
- Present your answer in a neat, logical and concise way.
- Show all your working; marks are often given for methodology as well as your answers.
 - You should be able to refer by name to the main theorists/researchers in your topic, giving the year of their major works. You do not need to give page numbers of lengthy quotes, except in an open book exam. You do not need a reference list.
- Do not do things you are not asked for.
- \cdot If relevant, state any principles, results or formulae used and indicate your reasons for using them.
- · Check any formulae you use with the formula sheet, if provided.
- · Always do a rough estimate of any calculation to check that your answer is sensible.
- When using a calculator, make sure that each calculation is shown clearly in your answer and give your final answer to the required degree of accuracy.
- · If you get 'stuck', re-read the question carefully to check that you have not missed any important information or hints given in the question itself.
- · When you have completed your answer, re-read the question to check that you have answered all parts.

Examination discipline

It is important that you try to keep to the times you have allocated to answering a question or section and that you answer the correct number of questions. If you answer less than the number of questions required you are limiting the number of marks available to you.

At the end

Before handing in your examination script check that:

- any 'front sheet' is completed according to the instructions;
- every loose page is clearly marked with your candidate number, etc;
- · every answer is numbered correctly;
- · pages are numbered clearly and in order.

Appendix B - Common Assessment Scale

Mark		Description			
	Scale				
80- 100	OUTSTANDING	Presents novel models/methods and quantitative/qualitative analysis logically and			
	Distinction	coherently; contains original/critical thoughts; shows			
	Distinction	outstanding modelling/analytical skills, shows			
		evidence of extensive literature review. Presents			
		material that adds a new perspective or new			
		knowledge or a significant practical value. Draws an			
		appropriate conclusion from modelling and analysis.			
		The writing style is excellent.			
70 - 79	VERY GOOD	Presents appropriate models/methods and			
		quantitative/qualitative analysis logically and			
	Distinction	coherently; contains original/critical thoughts; shows			
		a thorough grasp of concepts, and uses			
		numerical/simulation/statistical results or examples			
		which are much beyond the references to illustrate			
		points and justify arguments. Draws an appropriate conclusion from modelling and analysis. The writing			
		is clear and grammatically correct.			
60 - 69	GOOD	Presents correct models/methods and			
00 - 09	GOOD	quantitative/qualitative analysis; shows good use of			
	Merit	references and additional reading; shows appropriate			
	l merit	and interesting use of examples, with material			
		competently organised and presented; draws a			
		correct conclusion from the modelling and analysis.			
		The writing is reasonably clear and does not contain			
		serious grammatical errors.			
50 - 59	PASS	Models and analysis are mostly correct but contain			
		some minor errors which do not affect the conclusion;			
		uses reading material and references correctly but			
		there is a tendency of presenting facts without critique			
		or logical structure and without development of the			
		argument. The writing is basic but mostly clear, it			
		contains grammatical errors but not seriously affect			
0 40	FAIL	the reading.			
0 - 49	FAIL	Models or analysis contains serious errors. Work lacks cohesion and flow. Demonstrates some knowledge of			
		modelling/statistics but concepts and techniques are			
		not explained sufficiently well to convince assessor			
		that there is full understanding. Some attempt at			
		tackling the question or topic but seriously lacking in			
		content and/or ability to organise thought. Writing is			
		unclear and ungrammatical.			
	1	and any any any			

Content (65%)	Outstanding	Very Good	Good	Pass	Fail
(To assess the student's academic qualities)					
Modelling approach to the problem					
Survey of past work					
Level of conceptual/technical difficulty					
Originality of research					
Scope of project					
Data collection/analysis/computer program					
Applicability of results					
Understanding and use of different sources					
Suggestions of how work could be extended					

Exposition (35%)	Outstanding	Very Good	Good	Pass	Fail
(To assess the student's ability to					
communicate through report writing)					
Quality of layout and clarity of structure					
Appropriate academic style					
Standard of English					
Mathematical and statistical accuracy					
Relevance of the material included					
Expression of own ideas					
Description of the problem and the					
methodology					
Explanation of results					