

SOCIAL STATISTICS COURSE UNIT GUIDE 2017-18

SOST30031 Modelling Social Inequality

Semester: 1

Credits: 20

Convenor: Kitty Lymperopoulou

Contents

- 1. Essential Information
- 2. Course Content
 - A. Aims & Outcomes
 - B. Lectures & Reading List
 - C. Tutorial Guide
 - D. Assignments & Assessments
- 3. Feedback
- 4. Your Commitment
- 5. Referencing & Plagiarism
- 6. Assessment Criteria
- 7. Essay Tips & Reading Strategies

Please read this guide and bring any questions with you to the lecture.

Note: This course guide should be read in conjunction with the Blackboard website for the course and the Degree Handbook for your degree programme. Degree Handbooks for social science programmes are available here:

http://www.socialsciences.manchester.ac.uk/student-intranet/undergraduate/course-information/

If your degree is based in another school, please contact your Programme Administrator for your handbook.

1. ESSENTIAL INFORMATION

Contacts

Lecturer(s): Kitty Lymperopoulou, Nick Shryane, TBC (TA)

Room: Humanities Bridgeford Street G.14

Telephone: Ext. [51381]

Email: <u>kitty.lymperopoulou@manchester.ac.uk</u>

nick.shryane@manchester.ac.uk

Office Hours: Kitty, Thursdays 9am-11pm.

Nick, Wednesdays 1pm-2pm.

During term time. Book in advance by email

Tutors: Tutorials will be taken by relevant lecturers / Tutor

Administrator: Chantel Riley

UG Office G.001 Arthur Lewis Building; (0161) 2753953;

chantel.riley@manchester.ac.uk

Times and Dates

Lectures: Thursdays 11am to 1pm in Mansfield Cooper 1.02

Tutorials: Thursdays 1pm to 2pm in Humanities Bridgeford Street 2.1

Reading week: Monday 30th October – Friday 3rd November 2017

Feedback half-day: Tuesday 5th December

Assessed Coursework

Submission:

Tuesday 14th November (week 8)

Examination Period: 15th January – 26th January 2018

Resit Examination Period: 20th August -31st August 2018

Assignments and Assessments

- One compulsory non-assessed essay plan (5% penalty for non-submission)
- One assessed essay/report worth 40% of the total mark
- One student presentation (5% penalty for non-submission)
- One two-hour unseen examination to be taken at the end of the course worth 60% of the total mark

Review the following pages for full details of the assignments and assessments required on this course.

Communication

Students must read their University e-mails regularly, as important information will be communicated in this way. It is sometimes necessary to make changes such as seminar rooms and assessment details and such changes will be communicated by email. Failing to check your emails will not be an acceptable excuse for non-attendance or missed deadlines.

2. COURSE CONTENT

Course Aims

This course will introduce students to:

- (i) Looking at the current state of social inequalities in education, health, employment and other measures: primarily in the UK, but also to some extent worldwide.
- (ii) Exploring some valuable web-based resources of secondary quantitative data, primarily for the UK but also to some extent worldwide.
- (iii) Explaining how linear regression may be used to test hypotheses regarding social inequalities when the response variable has an interval scale, and how logistic regression may be used when the response variable has two categories.

Get Organised

Use this guide to find out:

- Where and when to attend classes.
- What to read before lectures and tutorials.
- Where to start your reading for assessments.
- How your progress will be assessed.

Read on to ensure that you know how to get the most out of your degree.

- (iv) Demonstrating how statistical software like SPSS may be used to carry out such analyses.
- (v) Giving details of assessing the statistical quality of linear and logistic regression model fit, and communicate the substantive interpretation of the results.
- (vi) Interpreting the substantive output of linear and logistic regression models in relation to hypotheses related to social inequality

Learning Outcomes

On completion of this unit successful students will:

- Have gained a deeper understanding of when linear or logistic regression analysis might be appropriate to analyse quantitative social data given substantive hypotheses on social inequality.
- Be able to discern and apply linear or logistic regression depending on the outcome.
- Be able to formulate hypotheses to investigate social inequality with linear and regression models.
- Be able to decide which variables to include on a substantive basis.
- Be able to fit linear regression models in standard statistical software such as SPSS.
- Be able to think critically and systematically about a research problem and how to address it.
- Be able to test underlying model assumptions.

Be able to substantially interpret a model in light of the research question posed.

General Course Readings

Some required readings may be made available electronically via the course website. All other readings should be available from the University Main Library. Most reading is specific to particular topics as described in the reading list below. The following more general textbooks are helpful and recommended:

Warwick-Booth, L. (2013). *Social Inequality: A student's guide*. SAGE Publications Limited. [Required chapters will be made available on Blackboard].

Field, A. (2013). *Discovering statistics using IBM SPSS statistics (4th Edition)*. Sage. (Note that the previous editions of this book cover largely the same material as this one, although the chapter numbers might be different.)

Lectures and Reading List

Lecture 1: What is social inequality, and how can we study it?

This lecture will provide an overview of social inequality, including the definition and different types. Then, using ethnicity and health as an example, we will go over how one can examine inequality. We will starting by formulating hypotheses, and looking at an example of how can these be analysed. This will provide an example of the types of data analysis and interpretation we'll learn during the course.

Required reading

Chapter 1 from Warwick-Booth, L. (2013). *Social Inequality: A student's guide*. SAGE Publications Limited [PDF available on Blackboard].

Additional reading

Chapter 1 from Nazroo, J Y. (2001) *Ethnicity, class and health.* London: Policy Studies Institute [PDF available on Blackboard].

Lecture 2: Existent data on Social Inequality

In this lecture we consider secondary data and other useful resources for modelling social inequality. We also consider other aspects of data, such as individual and aggregate data. Sources of secondary data discussed will be mostly from the UK, with some examples from international sources.

Information for the formative assessment will be given during this lecture.

Required reading

Familiarise yourself with these data resources:

The UK data service: http://ukdataservice.ac.uk

2011 UK Census: http://www.ons.gov.uk/ons/guide-method/census/2011/index.html

Additional reading

Go over these case studies that have used UK secondary data to examine different aspects of inequality.

http://ukdataservice.ac.uk/use-data/data-in-use/case-study/?id=161

http://ukdataservice.ac.uk/use-data/data-in-use/case-study/?id=158

http://ukdataservice.ac.uk/use-data/data-in-use/case-study/?id=126

http://ukdataservice.ac.uk/use-data/data-in-use/case-study/?id=134

Lecture 3: Descriptive statistics, correlation and simple linear regression.

In the previous two weeks, we have reviewed the current state of social inequality and found some useful secondary data resources for investigating social inequalities in the UK. Now we will turn our attention to statistical models that may be used in this context. We start with data types, descriptive statistics and plots, correlation and simple linear regression. Testing the model assumptions. We base our examples on secondary data that has been used to investigate social inequality in the UK.

Required reading

Field: Chapters 2 ("Everything you never wanted..."), 4 ("Exploring data with graphs"), 7 ("Correlation") and some of 8 ("Regression", but only the sections on simple regression; leave the multiple regression bits for next week).

Lecture 4: Multiple regression I

We extend the simple linear regression model to one with more than one explanatory variables. We consider different kinds of explanatory variables and dummy variables. We consider other aspects of models with multiple explanatory variables such as multicollinearity, and model selection based on substantive and statistical criteria. We base our examples on secondary data that has been used to investigate social inequality in the UK.

Required reading

The rest of Field chapter 8 (the bits on multiple regression, bearing in mind that Field obsesses over model assumptions and diagnostics a bit too much).

Lecture 5: Multiple regression II

We further extend the multiple linear regression model to handle interactions between predictor variables, and non-linear relationships between the predictors and the outcomes. We further practice interpreting the model output and evaluating what the results of the regression model allow us to infer about the population from which the sample was drawn.

Lecture 6: Logistic regression I

Often in the social sciences the dependent variable (y variable, response variable) has two categories, or can be recoded to have two categories. For example, amongst the economically active: y=1=unemployed, y=0=not unemployed. We take a look at methods to model the relative chance of y=1 vs y=0 in the context of social inequalities and find out how we can use SPSS to do such analyses.

Required reading

Some of Field chapter 18 ("Categorical Data", but not the bits on log-linear analysis). Field chapter 19 ("Logistic Regression").

Supporting material for week 9 presentations to be distributed this week.

Lecture 7: Logistic regression (Part II)

This week we explore further topics in logistic regression are explored, including interpreting results when adjusting for other variables, and substantive interpretation of the results.

Written assessment to be submitted at 2pm on Monday 14th.

Required reading

Field chapter 19 ("Logistic Regression").

Lecture 8: General overview of linear and logistic regressions

In this lecture we will go over the full process of the research method - starting from the beginning (formulating hypotheses) and finishing with the substantive interpretation of results. We will look at examples of studies that have applied linear and logistic regression, and critically analyse their methodological approaches and limitations.

Required reading

Field chapter 19 ("Logistic Regression").

Lecture 9: Student Presentations

Groups of students will briefly present the main findings of a piece of research using logistic regression on social inequalities. Students must select research question, obtain appropriate data to examine their research questions, justify the use of their chosen dataset, manage and analyse data, and present technical and substantive findings.

Detailed instructions and allocation to groups will be given in Week 6.

Lecture 10: Overall Review

We will go over the notes from weeks 1-9. Please let us know of anything you would like us to go over again.

Required reading

Please review all material from weeks 1-9.

Tutorial / Workshop Guide

Tutorial 1: The Research Method 1, Developing Hypotheses based on literature

Tutorial Tasks

In this tutorial we will practice the first step of the Research Method, focusing on how to search for literature and critically evaluate and interpret results of published articles.

Tutorial 2: The Research Method, Finding data to test hypotheses

Tutorial Tasks

In this tutorial we will practice the second step of the Research Method by searching available data and finding the most appropriate dataset to test your hypotheses.

Tutorial 3: Exploratory Data Analysis

Tutorial Tasks

This is the first tutorial where we use SPSS to analyse data. We will provide the dataset and will guide you through the steps to some exploratory data analysis, Simple Regression, and Correlation.

Tutorial 4: Multiple Regression I

Tutorial Tasks

In this tutorial where continue using SPSS to do multiple regression, including checking the model assumptions, and model selection.

Tutorial 5: Multiple Regression II

Tutorial Tasks

In this tutorial you will be given a dataset and a social research question, and you must use multiple regression to analyse the data and answer the research question.

Tutorial 6: Logistic Regression I

Tutorial Tasks

In this tutorial we will go over setting up the model, and understanding the output when fitting simple logistic regression models in SPSS.

Tutorial 7: Logistic Regression II

Tutorial Tasks

In this tutorial we will fit more sophisticated logistic regression models in SPSS and will go over understanding the output.

Tutorial 8: Exploring a social inequality research question I

Tutorial Tasks

In this tutorial you will put to use all you've learnt in class and in the tutorials. You will be given data and a social research question, and you must use logistic regression to analyse the data and answer the research question.

Tutorial 9: Exploring a social inequality research question II

Tutorial Tasks

More practice in putting all you've learnt in class and in the tutorials to use. You will be given data and a social research question, and you must use linear and logistic regression to analyse the data and answer the research question.

Tutorial 10: Summary and review

Tutorial Tasks

In this tutorial we will summarise what we have learnt, and go through examples. We will go over any questions you may have.

Assignments and Assessments

Non-Assessed Assignment Details

An 2,000 word essay on some aspects of the background literature on social inequality and secondary data sources to study it. To be handed out in week 2 and submitted in week 4.

Note: Marks for compulsory non-assessed essays or plans should not be considered a 'predicted grade' for the course overall. The feedback and any grade provided are to allow you to judge your understanding of the course material.

In addition to the non-assessed essay, you will be required to work in groups on a presentation on how to address a social inequality research question. This won't be graded, but there is a 5% penalty if you don't participate.

Assessed Coursework Details

A 2,000 word report on using linear regression to model social inequality.

Note: You must include an accurate word count on the front page of your essay. Failure to do so will lead to an automatic 2 mark deduction. Your word count should include all text in the essay (including any footnotes, tables and so on) but does not include the bibliography.

Coursework Submission

Coursework must be typed, double-spaced in a reasonable font (eg. 12 point in Times New Roman or Arial). You must submit your essay by 2pm on the deadline day given on p.2 above unless given course specific instructions by email.

Essays should be **submitted online** via Blackboard by 2pm on the deadline day given on p.2 above unless given course specific instructions by email. Full details of how to submit online are available in the 'Submission of Coursework' folder in the relevant section on the course Blackboard website. Ensure you have familiarised yourself with the system and give yourself plenty of time for submission as technology problems will not be an acceptable reason for late or non-submission of work. If you have serious problems submitting on the day please contact the SoSS Undergraduate Office in the Arthur Lewis Building urgently. When you have successfully submitted your essay you will be able to download and print a receipt. You must **keep a copy of your submission receipt** until all work on this course is complete and you have received your final grades.

Note that our online submission system includes TurnItIn plagiarism detection software. Be sure that you fully understand what plagiarism is; links for further details are included in section 5 below. If, after reading the guidance, you are at all unsure about what counts as plagiarism then you should contact your Academic Advisor to discuss it.

If your essay is submitted late your grade will be reduced by 10 marks per day for 5 days, after which it will receive a mark of zero. For clarity a 'day' is 24 hours, beginning immediately after the published deadline. *Deadlines will be strictly enforced in all cases*. The mark published through TurnItIn will show your mark *before* the late penalty is applied. The final mark, with the late penalty applied, will be recorded on the student system and used to calculate your overall course unit mark.

Mitigating Circumstances

Extensions may be granted to students where there are exceptional mitigating circumstances (e.g. strong medical reasons). In such cases a Mitigating Circumstances Form must be completed and

submitted to the Undergraduate Office, Ground Floor, Arthur Lewis Building. Full guidance on mitigating circumstances is available here:

http://www.socialsciences.manchester.ac.uk/student-intranet/undergraduate/help-and-support/mitigating-circumstances/

Examination Details

This course includes a 2 hour examination in which you will be required to answer several questions on modelling social inequality.

Examination past papers are available online via My Manchester. Go to the 'Exam Information' portlet and click 'Past Papers' where you will be able to search for papers by the course code.

Examination timetables are released later in the semester and you will be notified with instructions by email from the Undergraduate Administrator.

If you miss an examination you will not be allowed to resit it except in the case of serious mitigating circumstances. If you miss an examination through illness or another serious reason you should contact the SoSS Undergraduate Office as soon as possible. You will need to submit a Mitigating Circumstances Form (see link above) along with relevant evidence.

3. FEEDBACK

All Social Statistics courses include both formative feedback – which lets you know how you're getting on and what you could do to improve – and summative feedback – which gives you a mark for your assessed work. This course uses the following mechanisms for feedback:

- Informal verbal feedback will be given during lectures and tutorials for individual and group work. (You'll need to contribute regularly to group discussions to make the best use of this.)
- Written formative feedback will be given on your non-assessed assignment and made available via grademark (or whatever it is on blackboard).
- Written formative and summative feedback will be given on your assessed coursework, available via grademark (or whatever it is on blackboard).

Save Your Feedback

Feedback via
TurnItIn/GradeMark on the
Blackboard system is only
accessible while you are
studying this particular module.
Download a pdf version of your
feedback to refer to later by
using the print icon in the



bottom left corner of the feedback screen.

• Exam results are published only as a grade. If you wish to discuss your exam performance with your lecturer please book an office hour slot by email and let your lecturer know in advance that this is what you want to do.

Additional Office Hours will be provided to discuss planning for coursework assessments. See p.2 above for times.

KNOW HOW

Feedback Half Day will be provided to allow in-depth discussion of feedback on your coursework assessments. A sign-up sheet will be circulated during lectures for you to allocate yourself to a slot. See p. 2 above for times.

Your Feedback to Us

We're continually working to improve our teaching practices – for that we need your feedback. Towards the end of the semester you'll be asked to fill out a Unit Survey for each of your modules – please do! The survey is designed to be very short and easy to fill out but the results are really valuable for our monitoring of teaching quality. We want to hear from you whether your opinion on the course was good, bad or indifferent.

All of your Unit Surveys are available via Blackboard – simply go to 'Unit Evaluation' on the left hand menu of the Blackboard website to begin. Alternatively, you can download a smartphone app called EvaluationKit to fill out Unit Surveys for all of your course units.

4. YOUR COMMITMENT

Study Schedule

Each 20 credit module requires that you study for a minimum of 12 hours per week. This is comprised of teaching and independent study in these proportions:

- 3 hours lectures and tutorials (2.5 in the first year);
- At least 3 hours reading the Key Reading;
- At least 3 hours reading an additional text from the reading list;
- At least 3 hours written work for assessed and non-assessed assignments.

This leaves 80 hours study time remaining to be used in independent study over the duration of the course. For 10 credit courses these distributions will be proportionally reduced but should be slightly higher than half the commitment for a 20 credit course.

Tutorial Preparation

Tutorials are a central part of the course module structure. They provide you with an opportunity to discuss, apply and enhance your knowledge, and to build confidence in your skills of analysis, comprehension and presentation. What you will gain from tutorials is dependent upon your preparation and willingness to participate. It is thus essential that you familiarise yourself with the Tutorial Guide for each course, undertake the required tutorial preparation, and bring all relevant materials (hardcopies of the Key Reading, notes on the Key Reading, preparation exercises etc.) to every tutorial. It is not acceptable to attend a tutorial without being fully prepared.

Attendance

You are expected to attend all lectures, tutorials, and workshops that are part of your programme. It is also expected that you arrive on time. Absence and late arrival are recorded on your University record. Inappropriate amounts of absence or late arrival at class, without extenuating circumstances, will be treated seriously and may result in exclusion from the course. In addition, you should be aware that prospective employers almost always ask for information about attendance and punctuality, as well as matters such as your record on completing work to deadlines.

Absences

If you are unable to attend a tutorial because of illness or other good reason you should notify the course lecturer/tutor and your Programme Administrator in advance if possible (William.Start@manchester.ac.uk or telephone 0161 275 3953). This is especially important if you are due to make a presentation to the class. Absences of more than a few days should be backed up by medical or other evidence.

All absences will be reported to the relevant Tutor, who will then monitor your performance. A record of indifferent attendance will be held against you if your examination results are marginal; you should not expect to be shown sympathy by the Board of Examiners in such circumstances.

If you have missed a class, you should be sure to catch up on what you have missed by further independent reading of materials on the reading list and/or consulting any available lecture notes or PowerPoint slides if these are provided or asking other students whether they might allow you to consult theirs.

Email and Blackboard

Your commitment is also to **check your University email and Blackboard at least every other day** in order to make sure that you are informed of any communications from tutors or administrative staff. These might, for example, concern important meetings with staff, changes of room; notification of course options registration, or course-relevant information from your lecturer. Being unaware of arrangements because you have not checked your email or Blackboard is not an acceptable excuse.

The lack of a proper bibliography and appropriate reference in assessed essays will potentially greatly affect the mark for the work and may be considered plagiarism, which is a serious offence.

All essays must employ the scholarly apparatus of references and a bibliography. There are different acceptable referencing styles. In Social Statistics we recommend use of the Harvard system of referencing, which is described in detail here:

http://subjects.library.manchester.ac.uk/referencing

In short, Harvard referencing means that you refer to the author and date of publication in brackets within the text, wherever you are referring to the ideas of another writer. Where you quote an author you must always include quotation marks and a

page number in the reference.

All essays must include a References List which lists your sources in alphabetical order by author's surname. This should include all (and only) the sources you have directly referenced in the text. Whatever your source is, you need to provide a full set of publication details as described in the guide linked above. All academic texts you read will include bibliographies and these should give you plenty of examples of what information to include.

Cite it Right

You can learn how to reference properly in 15 minutes – head to the online tutorial, *Citing it right*, at:



http://libassets.ma nchester.ac.uk/mle /introducing-

referencing/

Plagiarism

KNOW HOW

Avoiding Plagiarism

You can learn how to avoid plagiarism in 20 minutes – head to the online tutorial, *Original Thinking Allowed*, at:

http://libassets.manc hester.ac.uk/mle/avo iding-plagiarism



The University

defines plagiarism as 'presenting the ideas, work or words of other people without proper, clear and unambiguous acknowledgement.' It is an example of academic malpractice and can lead to very serious penalties up to exclusion from the University. You should read the University's guidelines here:

http://documents.manchester.ac.uk/display.aspx?DocID =2870

There is additional useful guidance on plagiarism and

referencing in the Crucial Guide:

 $\underline{\text{http://www.studentnet.manchester.ac.uk/crucial-guide/academic-life/support/referencing-and-plagiarism/}$

WOH WON

6. ASSESSMENT CRITERIA

Student's work in Social Statistics is assessed into different class categories by using the criteria shown in the following rubric. Please note this is a qualitative indicator of strengths and weaknesses related to these different class categories. The precise marking criteria will vary between assignments so this rubric cannot be used as a direct guide to any specific mark received on an Assignment.

Criteria	> 80%	70 – 80%	60 – 69 %	50 – 59%	40 – 49%	<40%
	High First	First	2.1	2.2	3rd	(Fail)
Relevance to	Excellent	Very good	Good	Fair answer	Basic	Partial
question/co	answer	answer	coverage of	to question,	answer to	answer to
mpleteness	with no	with no	question,	with some	question,	question,
of answer	significant	significant	but may	omissions.	with	with major
	omissions.	omissions.	have some	Lacks	significant	omissions.
	Excellent	Very good	omissions.	breadth	omissions.	Weak
	breadth	understandi	Broad	and depth	Superficial	understandi
	and depth	ng of	understandi	of	understandi	ng of the
	of	context for	ng of	understandi	ng of the	issues and
	understand	the	context for	ng of the	issues and	considerabl
	ing of	question,	the	issues,	some	e
	context for	key issues	question,	perhaps	confusion/i	confusion/i
	the	and	key issues	with some	naccuracies	naccuracies
	question,	interrelatio	and	confusion/i		
	key issues	nships.	interrelatio	naccuracies	Regurgitate	Regurgitate
	and	Shows good	nships.	. Mainly	s taught or	s taught or
	interrelatio	independen	Shows	derivative	given	given
	nships.	t thinking	some	from	material	material
	Shows	or use of	independen	module	with no	with no
	some	very good	t thinking	material,	evidence of	evidence of
	innovation	methods.	and an	lacks	independen	independen
	in methods		appreciatio	evidence of	t	t
	and		n of	independen	thought/res	thought/res
	thinking.		application	t	earch.	earch.
			of	thought/res		
			methods.	earch.		
Structure	Excellent.	Very good.	Good.	Moderate.	Poor. Little	Flawed. No
	Clear and	Logical	Mostly	Progression	logical	clear
	logical	progression	logical	through	progression	progression
	progression	through	progression	and	through	at all
	through	and	through	between	and	through
	and	between	and	sections	between	and
	between	sections.	between	uneven or	each	between

	sections. All aims and outcomes of the project are very clear.	All aims and outcomes clear.	sections. Main aims and outcomes of the project are clear.	unclear at times. Main aims and outcomes of the project moderately clear.	section. Some sections not appropriate to the project as carried out. The main aims and outcomes	sections. The report does not have any clear aims or outcome. No scientific focus.
					of the project lack clarity.	
Research design and/or methods	Excellent. Design and method totally in alignment with objectives.	Very good. Design and method aligned well with objectives.	Good. Any faults are minor and do not detract from the overall quality of the project.	Moderate. Minor faults which detract from the overall quality of the research, but most of the methods used are sound.	Poor. Some major faults which detract from the overall quality of the project. Methods used are partially appropriate or correct.	Extremely poor. Methods inappropria te or incorrect for the project. The project lacks validity due to these flaws.
Results and analysis or substantive analysis	Excellently presented. Results analysed & interpreted at a level suitable for publication.	Presented to a high standard, with no major flaws. With minor changes results and analysis suitable for publication.	Well presented, with occasional flaws and minor errors only. Analysis & interpretati on mostly sound.	Moderately presented, but with some major flaws or several minor errors. Analysis & interpretati on moderate.	Poorly presented, several major flaws and/or many minor errors. Analysis & interpretati on contains significant deficiencies	Extremely poorly presented, with many major flaws and many minor errors. Analysis & interpretati on very poor or absent.

Overall presentation	Excellent throughout. All figures and tables clear with suitable	Very good throughout, with only minor shortcomin gs	Good throughou t, with no major flaws but occasional	A few major flaws and/ or several minor errors.	Some major flaws and/or frequent minor errors.	Many major flaws and many minor errors. Overall
	legends/ca ptions		minor errors. Some figures/tab les unclear.	figures or tables of poor quality	Many poor quality figures/tabl es.	poor presentatio n of figures and tables
Use of literature and references	Complete: fully and correctly cited, up to date and appropriate . Extensive literature resources used to provide balance and an informed view. Interpretati on of literature provides basis for project objectives.	Complete and correctly cited, up to date and appropriate . Literature clearly links to project objectives.	Mostly complete and correctly cited, with minor omissions or errors only. Some link between literature and project objectives.	Moderately complete and cited, with occasional major flaws or some minor omissions or errors. Little interpretati on of literature and link to project objectives.	Incomplete or incorrectly cited, with some major omissions or errors. Some failures to cite sources. Difficulty in interpreting literature and using it as basis for project objectives.	Material used is frequently not cited and referencing is flawed throughout. No evidence of a link between literature and the project.





SOCIAL STATISTICS COURSE UNIT GUIDE 2017-2018

SOST30012: Theory and Method in Demography

Semester: 2

Credits: 20

Convenor: Dr Mark Brown

Version date: 05/01/2018

Note: This course guide should be read in conjunction with the Blackboard website for the course and the Degree Handbook for your degree programme. Degree Handbooks for social science programmes are available here:

www.socialsciences.manchester.ac.uk/student-intranet/undergraduate/handbooks/

If your degree is based in another school, please contact your Programme Administrator for your handbook.

1. ESSENTIAL INFORMATION

Contacts

Lecturer(s): Dr Mark Brown (Course Convenor):

G24 Humanities Bridgeford Street Building,

Tel: Ext. 54780

mark.brown@manchester.ac.uk
Office Hours: Tuesday, 2-4pm

Dr Patricio Troncoso Ruis

XXXXXXXXXXXX Tel: Ext. XXXXX

patricio.troncoso@manchester.ac.uk

Dr Arkadiusz Wiśniowski

G16, Humanities Bridgeford Street

Tel: Ext. 54738

a.wisniowski@manchester.ac.uk

Tutors: Joseph Watson, Rihab Dihab and Ji Hye Kim

Administrator: Chantel Riley

UG Office G.001 Arthur Lewis Building; (0161) 2753953;

chantel.riley@manchester.ac.uk

Times and Dates

Lectures: Fridays 10:00 – 12:00, Samuel Alexander LG12
Workshops: Fridays, 1300-1400 OR 1400-1500 OR 1500-1600.

All workshops in HBS 2.2. Please select one using self-service. This is compulsory and on a first-come-first-served basis.

Feedback office hours: Additional office hours for discussing Coursework feedback: Date

TBC.

Assessed Coursework

Submission:

2pm Tuesday 17th April 2018

Submission is via Turnitin on Blackboard.

See further details in section 2 below.

Examination Period: 14 May – 10 June 2018

Assignments and Assessments

Coursework Assignment worth 30% of the total mark.

- One two-hour unseen examination at the end of the course worth 70% of the total mark.
- Demography Quizzes and Practice Exam Questions (non-assessed assignments via Blackboard).

Review the following pages for full details of the assignments and assessments required on this course.

Communication

Students must read their University e-mails regularly, as important information will be communicated in this way. It is sometimes necessary to make changes such as seminar rooms and assessment details and such changes will be communicated by email. Failing to check your emails will not be an acceptable excuse for non-attendance or missed deadlines.

The Teaching Team and Getting Support

The course has a large teaching team of 3 lecturers and 3 Graduate Teaching Assistants. As well as the core teaching provided through lectures and workshops, there are various ways to get additional support for your learning, including meeting us in Office Hours and through Blackboard (where there is a forum, practice exam questions, quizzes and past exam papers).

If you have a query about the course:

- In the first instance, consult this Course Outline and the materials on Blackboard.
- If you have a question about course administration, registration, timetabling, attendance etc. that is not answered in the course guide, contact the School of Social Sciences Undergraduate Administrator, Chantel Riley (see above for contact details).
- You can make office hour appointments with members of the teaching team and the weekly workshops are a good opportunity to ask questions and discuss the material.
- As this is a very large class we ask you to restrict email questions to short and specific queries (longer queries are better discussed in person).
- To reduce email traffic and avoid duplication of queries (especially in relation to the assignment) we encourage you to post your questions on the Forum provided on

Blackboard and to look at the Q and As provided there. You may often find these will provide you with an answer to your query.

2. COURSE CONTENT

Course Aims

Set within the framework of the demographic equation (population change = births - deaths +/- net migration) the course unpacks the demographer's tool kit. We consider the derivation, use and interpretation of key measures used in the study of population structure and the components of population (fertility, mortality and migration) concluding with a look at population projection. Throughout the course there is an emphasis on hands-on learning of demographic method with application using real data from UK and overseas. We consider how the study of demographic pattern and process relates to many of the great social policy challenges of the 21st Century.

Get Organised

Use this guide to find out:

- Where and when to attend classes.
- What to read before lectures and tutorials.
- Where to start your reading for assessments.
- How your progress will be assessed.

Read on to ensure that you know how to get the most out of your degree.

Learning Outcomes

On completion of this unit successful students will demonstrate:

- understanding of the way demographic pattern and process influence our understanding of changing populations and of related social issues
- a basic knowledge and understanding of the key theory and principles underlying demographic analysis
- ability to calculate and interpret a range of measures for demographic analysis
- the ability to access and use appropriate data sources for demographic analysis
- an ability to select and use data sources and demographic method intelligently in a range of real world applications

Prerequisite

No previous experience of demography is required. Students should have good basic quantitative skills. Most of the practical work involves working with Microsoft Excel, so a basic familiarity with this software would be beneficial. Links to resources on how to use Excel are provided on Blackboard.

General Course Readings

Students should complement the lectures with directed reading. The recommended key text covering most of the methods taught in the course is:

Rowland, D. T. (2003) Demographic Concepts and Methods Oxford: OUP

Other recommended useful texts covering demographic theory and methods include:

Preston, S., Heuveline, P. and Guillot M. (2000) *Demography: Measuring and Modeling Population Processes*, Wiley-Blackwell [A thorough mathematical but accessible text]

Champion T. and Falkinghm J. (2016) Population Change in the UK. Rowman & Littlefield, London.

Holdsworth, C., Finney, N., Marshall, A. and Norman, P. (2013) *Population and Society* Sage [This undergraduate text does not focus on methods but gives a useful introduction to population topics and theories]

Newell, C. (1994) *Methods and Models in Demography* Wiley [Good for those new to the subject]

Weeks, J.R. (1999) *Population: An Introduction to Concepts and Issues* Wadsworth, Belmont [A very readable text]

Hinde, A. (1998) *Demographic Methods*. Arnold, London [Fairly mathematical approach]

For those wishing to find out more about Excel in advance, a good resource is available at: http://www.gcflearnfree.org/excel2010

Alternatively you can download a short training course in Excel from our Blackboard site

Guidance on Directed Reading

There is an increasing amount of good and relevant reading material available on-line, notably from the web site of the **Office of National Statistics (ONS)** http://www.ons.gov.uk/ons/index.html. This material will be identified, along with other sources, in course lectures, with links provided from the course Blackboard site.

Please note that the textbooks mentioned above include method that goes beyond that required for this course. So, be guided by what we cover in the lectures and workshops which provide instruction on all the essential methods required for the module assessment (Coursework and Exam). Also note that there is often more than one way to carry out calculation of a demographic measure so do not be put off if on occasions the suggested method in text books differs from that presented in lectures (I aim to provide the most straightforward method). Finally, note that one of the best ways to understand measures is to read about their real world application (i.e. not just how to calculate them but how they are used and interpreted) – the recommended articles and reading (most available as electronic copy on Blackboard), will help with this.

The listed suggestions for reading by weekly topic may be added to over the duration of the semester. Please see the Blackboard site for the most up to date copy. This will include relevant articles that appear in the media

Lectures and Workshops

Course overview

Date	Week	Lecture	Workshop	Staff lead
2 nd Feb	1	The Demographic Equation	1	Mark
9 th Feb	2	About Demographic Data	2	Mark
16 th Feb	3	Fertility 1	3	Mark
23 rd Feb	4	Fertility 2	4	Mark
2 nd March	5	Mortality 1	5	Patricio
9 th March	6	Mortality 2	6	Patricio
16 th March	7	Migration	7	Patricio
23 rd March	8	Population Projections	8	Patricio
EASTER				_
BREAK				
20 th April	9	Demographic Transition	Drop in	Mark
27 th April	10	Demographic Case Study	Drop in	Mark
4 th May	11	Exam revision	Drop in	Mark

Week 1: The Demographic Equation (2nd February)

Lecture (Mark Brown): This session introduces the basic demographic equation and discusses the crucial relationship between population structure and demographic events.

Workshop 1: Population structure: constructing population pyramids, sex-ratios and dependency ratios (data sourced from the International Population Database).

In this practical session you will use population data sourced over the internet (International Population Database) to calculate measures of age and sex structure and crude rates for a country of your choice.

This will include construction of age-sex pyramids, the calculation and graphing of age-specific sex ratios, and dependency ratios. You will also source crude rates of birth and death to derive the rate of natural increase.

The measures you calculate for your chosen country can then be compared to the same measures for the UK (UK measures are provided for you).

Recommended Reading:

(BB) indicates an electronic copy is available from the Blackboard site

- 1. Rowland (2003) chapter 1 (Population change) & chapter 3 (Age-sex composition **BB**)
- 2. National Statistician's Annual Article on the UK population (for 2007, 2008, 2009 and 2010, all published in the journal 'Population Trends') (BB)

There have been 4 of these articles from the National Statistician. Each of the reports give an excellent and detailed up to date demographic overview of the UK population – looking at population structure and the various components of change using many measures we cover on the module. Good to read at the start of the course, though note that some of the measures covered will be better understood once we have covered them in class. Note each annual report provides an overview and so there is a lot of overlapping content but each has a slightly different focus so it is worth looking at all at some stage.

The 4 reports are:

 Matheson J (2010) The UK population: how does it compare? National Statistician's Annual Article on the Population Trends No 142 (Winter 2010) (note this year's article had an extended focus on comparing the UK with other countries) (BB)

- Matheson J (2009) The Changing Demographic Picture of the UK: National Statistician's Annual Article on the Population. Population Trends No 138 (Winter 2009) (note this year's article had an extended focus on migration) (BB)
- Dunnel, K (2008) Ageing and Mortality in the UK National Statistician's Annual Article on the Population Population Trends No 134 (Winter 2008) (note this year's article had an extended focus mortality and ageing) (BB)
- Dunnel, K (2007) The Changing Demographic Picture of the UK: National Statistician's Annual Article on the Population. Population Trends No 130 (Winter 2007) (note this year's article had an extended focus on fertility) (BB)
- 3. Office of National Statistics 2010' Pension Trends: Chapter 2 Population Change' a clear and concise article looking at current and projected demographic trends with a focus on ageing and dependency. (**BB**)
- 4. Scotland's Population 2014 The Registrar General's Annual Review of Demographic Trends (chapter 1) (BB)

 This is another excellent resource very clearly written with lots of detail this report uses many of the measures covered in the course will help you with understanding the way measures are used and interpreted. The report is broken down into chapters that correspond well to our weekly topics
- 5. Pearce D and Bovagnet, F.C (2005) The demographic situation in the European Union, Population Trends No. 119, (Spring 2005) *(BB)*

Week 2: About Demographic Data (9th February)

Lecture (Mark Brown): Having introduced the demographic equation we move to consider data sources that underpin demographic analysis. This includes an overview of the Census and systems of vital registration. The concept of demographic rates is also introduced.

Workshop 2: Sub-national variation in population structure: comparing areas of the UK with data sourced on-line via NOMIS.

Having looked last week at how population structures differ between countries, we turn now to consider sub-national differences in population structure for areas within the UK For today's exercise we will use Nomis, a web-based service of the Office of National Statistics. Nomis can be used to access a range of statistics including the most recent population estimates for the UK and for Sub-national populations within the UK. It will be used here to access recent population data for Manchester (for 2011). This data will be used to construct a population pyramid. The procedure will be repeated for one other local area of interest and the resulting outputs compared (with each other and with the UK pyramid from last week).

Recommended Reading:

(BB) indicates an electronic copy is available from the Blackboard site

- 1. Rowland (2003) chapter 1.3 (Sources of data) & 4.1 (comparing rates)
- 2. <u>An Overview of ONS's Population Statistics</u> (web page of the Office of National Statistics, 2015) (this is linked from the Blackboard site)
- **3.** Office of National Statistics (2004) Population Estimates: A Short Guide to Population Estimates (revised November 2004) **(BB)**
- 4. Office of National Statistics (2016) Annual Mid-year population estimates, 2015. ONS Statistical Bulletin
 - (https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/latest)

Week 3: Fertility (I): Period and Cohort Approaches (16th February)

Lecture (Mark Brown): The lecture gives an introduction to the main methods for measuring fertility, distinguishing between 'period' and 'cohort' measures.

Workshop 3: Using birth registration data to analyse fertility change in the UK. In this exercise you will calculate a series of period measures of fertility for England and Wales from 1961 onwards:

- General Fertility Rates (GFRs)
- Age-Specific Fertility Rates (ASFRs)
- Total Fertility Rates (TFRs)
- Gross Reproduction Rate (GRR) and Net Reproduction Rates (GRR)

Recommended Reading:

(BB) indicates an electronic copy can be accessed from the Blackboard site

- 1. Rowland (2003) chapter 7 (Fertility and the family) & chapter 4.4. (Period and cohort analysis)
- 2. Holdsworth, C; Finney, N; Marshall A and Norman.P (2013) Population and society (chapter 4 Analysing fertility and mortality)
- 3. Scotland's Population 2013 The Registrar General's Annual Review of Demographic Trends (chapter 2: Births): available **(BB)**
- 4. Office of National Statistics (2014) Statistical bulletin: Births in England and Wales, 2015 https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebi rths/bulletins/birthsummarvtablesenglandandwales/2015
- 5. Office of National Statistics (2011) Frequently Asked Questions: births & fertility 2010: available (BB)
- 6. Office of National Statistics (2013) Why has the fertility rate risen over the last decade in England and Wales? **(BB)** http://www.ons.gov.uk/ons/rel/vsob1/birth-summary-tables-england-and-wales/2011--final-/sty-fertility.html
- 7. Dunnel, K (2007) The Changing Demographic Picture of the UK: National Statistician's Annual Article on the Population. Population Trends No 130 (Winter 2007) (ALSO LISTED IN WEEK 1 READING note this article covers all aspects of UK demography but has an extended focus on fertility) (**BB**)
- 8. Office of National Statistics (2011) Cohort Fertility England and Wales 2012. ONS Statistical Bulletin (BB) http://www.ons.gov.uk/ons/rel/fertility-analysis/cohort-fertility-england-and-wales/2012/cohort-fertility-2012.html
- 9. Smallwood S and Chamberlain J (2005) Replacement fertility, what has it been and what does it mean?, Population Trends No. 119, (Spring 2005) **(BB)**

Week 4: Fertility (II): Explaining fertility differences: a proximate determinants approach (23rd February)

Lecture (Mark Brown): Further consideration of measures of fertility and a look at how fertility varies between populations over space and time. This is discussed in the context of the Proximate Determinants Model of Fertility.

Workshop: Using Period and Cohort measures to look at fertility variation over space and time.

For this week's exercises we will be using data from the Demographic Health Surveys (DHS) Programme, which has become one of the major sources of contemporary demographic data for developing world countries. The DHS web-site (www.measuredhs.com/) has a wealth of information about the survey programme and instructions for accessing and

downloading datasets. For this exercise we will use 'STATcompiler' (an on-line data tabulation service) to generate data for the following fertility measures for a country of your choice at TWO different time points:

- Period measures: Age Specific Fertility Rates (ASFRs) and the Period Total Fertility Rate (PTFR)
- Cohort measures: Cohort Parity Progression Ratios (CPPRs) and a Cohort Total Fertility Rate (CTFR).

Recommended Reading:

(See also readings for week 3)

(BB) indicates an electronic copy can be accessed from the Blackboard site

- 1. Rowland (2003) chapter 7 (Fertility and the Family)
- 2. Hinde, A. (1998). Demographic Methods. *Arnold, London (Chapter 10: The determinants of fertility)* (**BB)**
- 3. International Union for the Scientific Study of Population (IUSSP) The Proximate Determinants of Fertility (on-line teaching resource) (BB)

Week 5: Mortality (I): Measuring Mortality (2nd March)

Lecture (Patricio Troncoso): The lecture considers the measurement of mortality, and covers the techniques used to compare mortality experience between populations.

Workshop 5: Comparing mortality for areas within the UK: an exercise in standardisation using death registration data.

In this exercise you will source and compile the data required to generate the following mortality measures for England and Wales, Manchester and one other Local Authority District of your choice

- Crude death rates for England and Wales, Manchester and the LA of your choice
- Indirectly Standardised Mortality Ratios (SMRs) for Manchester and your chosen area (using England and Wales as the 'standard')
- Indirectly standardised death rates for Manchester and your chosen area

Recommended Reading:

(BB) indicates an electronic copy is available from the Blackboard site

- 1. Rowland (2003) chapters 6 (Mortality and Health) & chapter 4.2-4.3 (Direct and indirect standardisation).
- 2. Scotland's Population 2014 The Registrar General's Annual Review of Demographic Trends (Chapter 3: Deaths) (*BB*)
- 3. Office of National Statistics (2011) Summary: Socio-economic inequalities in mortality podcast (**BB**: Podcast available from the Blackboard site)

Week 6: Mortality (II): The Life Table (9th March)

Lecture (Patricio Troncoso): The lecture introduces one of demography's most important tools, the period life table. All the key stages of constructing a period life table from a set of age specific mortality rates are presented.

Workshop 6: Generating a period life table for England and Wales, and using life table functions to compare the mortality experience of different countries using WHO data. In the first exercise you will carry out the computations to complete male and female life tables from a set of age specific mortality rates for England and Wales.

Completed period life tables for different populations (contemporary and historical) are ready available on-line. For the second exercise you will access life tables from the World Health Organisation's (WHO) Statistical Information System (WHOSIS) for a country of your choice, which can then be compared to the life table you produced for England and Wales.

Recommended Reading:

(BB) indicates an electronic copy is available from the Blackboard site

- 1. Rowland (2003) chapter 8 (Life Tables).
- 2. Office of National Statistics (2015) Life expectancy at birth and at age 65 by local areas in the United Kingdom, 2012-14. ONS Statistical Bulletin (BB)
- **3.** Scotland's Population 2014 The Registrar General's Annual Review of Demographic Trends (Chapter 4: Life Expectency) *(BB)*
- 4. Gjonça A, Tomassini, C, Toson B and Smallwood S,(2005) Sex differences in mortality, a comparison of the United Kingdom and other developed countries. Health Statistics Quarterly No 26 (Summer 2005) (*BB*)

Week 7: Migration (16th March)

Lecture (Patricio Troncoso): An introduction to the study of migration completes our look at the components of population change. The session considers conceptual, measurement and data issues relating to the study of international and internal migration, as well as questions of interpretation.

Workshop 7: Making sense of migration statistics: measuring migration flows in and out of and within the UK.

In this week's practical we will look at three different measures of migration, each using different datasets.

- 1. International migration into and out of the UK (1991-2011) (Data source: ONS *Long-Term International Migration* estimates: Table 1.01)
- 2. Internal migration between Regions in England and Wales from administrative datasets (Data source: National Health Service Central Register, Patient Register Data System, Higher Education Statistical Agency)
- 3. An indirect measure of net migration (internal and international migration combined) for districts of Greater Manchester (Data source: 2001 and 2011 Census; Vital Registrations for births and deaths).

Recommended Reading:

(BB) indicates an electronic copy is available from the Blackboard site

- 1. Rowland (2003) chapter 11 (Migration)
- 2. Bijak, Disney, Lubman, Wiśniowski (2016) International Migration and Asylum Seekers. In: Champion & Falkingham (eds) Population Change in the UK. Rowman & Littlefield, London
- 3. Scotland's Population 2014 The Registrar General's Annual Review of Demographic Trends (Chapter 5: Migration) *(BB)*
- 4. Office for National Statistics (2011) Internal Migration Estimates (Methodology Document) (*BB*)
- Office of National Statistics (2015) Long-Term International Migration Estimates (1991 onwards): Methodology Document (BB)
- 6. Office for National Statistics (2012) Internal Migration by Local Authorities in England and Wales, Year Ending June 2011: Statistical Bulletin (BB)

Week 8: Population Projections (23rd March)

Lecture (Patricio Troncoso): One of the most important areas of demography is the projection of populations over time. We return to the demographic equation to consider

population change as the function of changes in the components of fertility, mortality and migration previously studied. A standard cohort projection model is described.

Workshop 8: Running a cohort population projection: A look at the inputs and procedures required to set up a simple cohort projection in Excel, and how to run projections under different scenarios of fertility, mortality and migration

This exercise involves running a simple cohort projection for the population of Aberfield (a fictitious medium size district). The projection is run from 2010 and initially involves projecting the population forward to 2015. A second projection is then made from 2015 to 2020, incorporating different assumptions about future components of change (births deaths and migration).

Recommended Reading:

(BB) indicates an electronic copy is available from the Blackboard site

- 1. Rowland (2003) chapter 12.3 -12.5 (Projection projections and estimates)
- 2. Office of National Statistics (2011) 1. Background and methodology: 2010-based national population projections (BB)
- 3. Office of National Statistics (2011) 2010-based national population projections principal projection and key variants (**BB**)

4.

EASTER BREAK (March 24th to April 15th)

Week 9: Demographic Transition (20th April)

Lecture (Mark Brown): To what extent does demographic behaviour in a population change over time in a predictable way? This lecture considers a famous model of population change, The Demographic Transition Model.

Recommended Reading:

(BB) indicates an electronic copy is available from the Blackboard site

- 1. Rowland (2003) chapter 1.2 (Demographic Transition) & chapter 7.2 (Second Demographic Transition)
- 2. Montgomery K, The Demographic Transition a teaching web-resource which has a clear and simple summary of the Demographic Transition Model, illustrated with some good real world data (though a little out of date) (link to website on Blackboard)
- 3. Kirk, D (1996) Demographic Transition Theory in Population Studies, 50 (BB)

NO WORKSHOP

Week 10: Demographic Case Study (28th April)

Lecture (Mark Brown): In this lecture we will use a country case study to review the derivation, meaning and interpretation of a number of demographic measures taught on the course. This is a useful revision of key concepts and measures from the course.

NO WORKSHOP

Week 11: Exam Revision Session (4th May)

Lecture (Mark Brown): This final session will be used to go through some past exam questions, and give general guidance on the approach to the exam

NO WORKSHOP

3. ASSIGNMENTS AND ASSESSMENTS

Assessed Coursework (30% of total mark):

This Assignment draws on material covered in lectures and practical workshops from the first 8 weeks of the course. It takes the form of a demographic analysis of a country of your choice, written up as short report with graphs and tables and a strict 1500 word limit (the word count is an absolute maximum but excludes tables, figures and the bibliography).

The deadline for coursework submission is 2pm Tuesday 17th April 2018.

Full details of the coursework will be released in a separate document

Coursework Submission

Coursework must be typed, double-spaced in a reasonable font (eg. 12 point in Times New Roman or Arial). Note: You must include an accurate word count on the front page of each of your coursework reports. Failure to do so will lead to an automatic 2 mark deduction.

Assignments should be **submitted online** via Blackboard by 2pm on the deadline day given. Full details of how to submit online are available in the 'Submission of Coursework' folder in the relevant section on the course Blackboard website. Ensure you have familiarised yourself with the system and give yourself plenty of time for submission as technology problems will not be an acceptable reason for late or non-submission of work. If you have serious problems submitting on the day please contact the SoSS Undergraduate Office in the Arthur Lewis Building urgently. When you have successfully submitted your essay you will be able to download and print a receipt. You must **keep a copy of your submission receipt** until all work on this course is complete and you have received your final grades.

Note that our online submission system includes TurnItIn plagiarism detection software. Be sure that you fully understand what plagiarism is; links for further details are included in section 5 below. If, after reading the guidance, you are at all unsure about what counts as plagiarism then you should contact your Academic Advisor to discuss it.

Mitigating Circumstances

Extensions may be granted to students where there are exceptional mitigating circumstances (e.g. strong medical reasons). In such cases a Mitigating Circumstances Form must be completed and submitted to the Undergraduate Office, Ground Floor, Arthur Lewis Building. Full guidance on mitigating circumstances is available here:

www.socialsciences.manchester.ac.uk/student-intranet/undergraduate/useful-documents/

Examination Details (70% of total mark):

70% of the grade for this course comes from assessment via a 2 hour unseen examination. The exam will be in two parts, consisting of:

Part A: 4 short questions from a choice of 5 covering all aspects of the course

Part B: 1 longer structured question from a choice of 2

Examination past papers are available online via My Manchester. Go to the 'Exam Information' portlet and click 'Past Papers' where you will be able to search for papers by the course code.

Examination timetables are released later in the semester and you will be notified with instructions by email from the Undergraduate Administrator.

If you miss an examination you will not be allowed to resit it except in the case of serious mitigating circumstances. If you miss an examination through illness or another serious

reason you should contact the SoSS Undergraduate Office as soon as possible. You will need to submit a Mitigating Circumstances Form (see link above) along with relevant evidence.

Assessed assignments are different in nature to exam questions. Similar topics may be covered but to answer the set assignments adequately you will have to cover those topics in a significantly different way.

Non Assessed Assignments (not compulsory)

To provide practice in answering exam questions and a form of ongoing formative assessment, past exam questions will be set for the course topics. Answers submitted within the stated deadline (usually a week after being set) will be marked and returned within two weeks. Example answers will also be provided on Blackboard.

Students will also be able to self-test their understanding on each of the main topics with a series of quizzes made available within the Blackboard course site. The quizzes are completed and submitted on-line and students will get an immediate mark and feedback.

4. FEEDBACK

All Social Statistics courses include both formative feedback – which lets you know how you're getting on and what you could do to improve – and summative feedback – which gives you a mark for your assessed work. This course uses the following mechanisms for feedback:

- Informal verbal feedback on work will be given during lectures and workshops.
- Written formative feedback will be given on any completed practice exam questions you submit.
- You will receive immediate automated feedback from the Demography Quizzes on Blackboard which cover all key aspects of the course.
- Written summative feedback will be given on your assessed coursework, available via TurnItIn/Grademark.
- Following the return of marks and summative feedback for Coursework

Save Your Feedback

Feedback via
TurnItIn/GradeMark on the
Blackboard system is only
accessible while you are
studying this particular
module. Download a pdf
version of your feedback to
refer to later by using the
print icon in the bottom left



corner of the feedback screen.

you will have opportunity to receive verbal feedback in additional feedback office hours.

Your Feedback to Us

We're continually working to improve our teaching practices – for that we need your feedback. Towards the end of the semester you'll be asked to fill out a Unit Survey for each of your modules – please do! The survey is designed to be very short and easy to fill out but

KNOW HOW

the results are really valuable for our monitoring of teaching quality. We want to hear from you whether your opinion on the course was good, bad or indifferent.

All of your Unit Surveys are available via Blackboard – simply go to 'Unit Evaluation' on the left hand menu of the Blackboard website to begin. Alternatively, you can download a smartphone app called EvaluationKit to fill out Unit Surveys for all of your course units.

5. YOUR COMMITMENT

Study Schedule

Each 20 credit module requires that you study for a minimum of 12 hours per week. This is comprised of teaching and independent study in these proportions:

- 3 hours lectures and tutorials (2.5 in the first year);
- At least 3 hours reading the Key Reading;
- At least 3 hours reading an additional text from the reading list;
- At least 3 hours written work for assessed and non-assessed assignments.

This leaves 80 hours study time remaining to be used in independent study over the duration of the course. For 10 credit courses these distributions will be proportionally reduced but should be slightly higher than half the commitment for a 20 credit course.

Workshop Preparation

Workshops are a central part of the course module structure. They provide you with an opportunity to discuss, apply and enhance your knowledge, and to build confidence in your skills of analysis, comprehension and presentation. What you will gain from workshops is dependent upon your preparation and willingness to participate. It is thus essential that you familiarise yourself with the Workshop Guide for each course, undertake the required preparation, and bring all relevant materials (hardcopies of the Key Reading, notes on the Key Reading, preparation exercises etc.) to every workshops. It is not acceptable to attend a workshop without being fully prepared.

Attendance

You are expected to attend all lectures, tutorials, and workshops that are part of your programme. It is also expected that you arrive on time. Absence and late arrival are recorded on your University record. Inappropriate amounts of absence or late arrival at class, without extenuating circumstances, will be treated seriously and may result in exclusion from the course. In addition, you should be aware that prospective employers almost always ask for information about attendance and punctuality, as well as matters such as your record on completing work to deadlines.

Absences

If you are unable to attend a tutorial because of illness or other good reason you should notify the course lecturer/tutor and your Programme Administrator in advance if possible (contact details above). This is especially important if you are due to make a presentation to the class. Absences of more than a few days should be backed up by medical or other evidence.

All absences will be reported to the relevant Tutor, who will then monitor your performance. A record of indifferent attendance will be held against you if your examination results are marginal; you should not expect to be shown sympathy by the Board of Examiners in such circumstances.

If you have missed a class, you should be sure to catch up on what you have missed by further independent reading of materials on the reading list and/or consulting any available lecture notes or PowerPoint slides if these are provided or asking other students whether they might allow you to consult theirs.

Email and Blackboard

Your commitment is also to check your University email and Blackboard at least every other day in order to make sure that you are informed of any communications from tutors or administrative staff. These might, for example, concern important meetings with staff, changes of room; notification of course options registration, or course-relevant information from your lecturer. Being unaware of arrangements because you have not checked your email or Blackboard is not an acceptable excuse.

6. REFERENCING & PLAGIARISM

The lack of a proper bibliography and appropriate reference in assessed essays will potentially greatly affect the mark for the work and may be considered plagiarism, which is a serious offence.

All essays must employ the scholarly apparatus of references and a bibliography. There are different acceptable referencing styles. In Social Statistics we recommend use of the Harvard system of referencing, which is described in detail here: http://subjects.library.manchester.ac.uk/referencing-harvard

In short, Harvard referencing means that you refer to the author and date of publication in brackets within the text, wherever you are referring to the ideas of another writer. Where you quote an author you must always include quotation marks and a page number in the reference.

All essays must include a References List which lists your sources in alphabetical order by author's surname. This should include all (and only) the sources you have directly referenced in the text. Whatever your source is, you need to provide a full set of publication details as described in the guide linked above. All academic texts you read will include bibliographies and these should give you plenty of examples of what information to include.

Cite it Right

You can learn how to reference properly in 15 minutes – head to the online tutorial, *Citing it right*, at:



http://libassets.m anchester.ac.uk/ mle/introducingreferencing/

Plagiarism

MOM HOW

Avoiding Plagiarism

You can learn how to avoid plagiarism in 20 minutes – head to the online tutorial, *Original Thinking Allowed*, at:

http://libassets.man chester.ac.uk/mle/a voiding-plagiarism



guidelines here:
http://documents.manchester.ac.uk/display.aspx?D
ocID=2870

The University defines plagiarism as 'presenting the

ideas, work or words of other people without proper, clear and unambiguous acknowledgement.' It is an

example of academic malpractice and can lead to

very serious penalties up to exclusion from the

University. You should read the University's

There is additional useful guidance on plagiarism

and referencing in the Crucial Guide:

http://www.studentnet.manchester.ac.uk/crucial-guide/academic-life/support/referencing-and-plagiarism/

7. ASSESSMENT CRITERIA

Please note this is a qualitative indicator of strengths and weaknesses related to these different class categories. The precise marking criteria will vary between assignments so this rubric cannot be used as a direct guide to any specific mark received on an Assignment.

Criteria	> 80% High First	70 – 80% First	60 – 69 % 2.1	50 – 59% 2.2	40 – 49% 3rd	<40% (Fail)
Relevance to	Excellent answer	Very good answer	Good coverage of	Fair answer to	Basic answer to	Partial answer to
question/completeness	with no significant	with no significant	question, but may	question, with some	question, with	question, with major
of answer	omissions. Excellent	omissions. Very good	have some	omissions. Lacks	significant omissions.	omissions. Weak
	breadth and depth of	understanding of	omissions. Broad	breadth and depth of	Superficial	understanding of the
	understanding of	context for the	understanding of	understanding of the	understanding of the	issues and
	context for the	question, key issues	context for the	issues, perhaps with	issues and some	considerable
	question, key issues	and	question, key issues	some	confusion/inaccuraci	confusion/inaccuraci
	and	interrelationships.	and	confusion/inaccuraci	es. Regurgitates	es. Regurgitates
	interrelationships.	Shows good	interrelationships.	es. Mainly derivative	taught or given	taught or given
	Shows some	independent thinking	Shows some	from module	material with no	material with no
	innovation in	or use of very good	independent thinking	material, lacks	evidence of	evidence of
	methods and	methods.	and an appreciation	evidence of	independent	independent
	thinking.		of application of	independent	thought/research.	thought/research.
			methods.	thought/research.		
Structure	Excellent. Clear and	Very good. Logical	Good. Mostly logical	Moderate.	Poor. Little logical	Flawed. No clear
	logical progression	progression through	progression through	Progression through	progression through	progression at all
	through and between	and between	and between	and between	and between each	through and between
	sections. All aims	sections. All aims	sections. Main aims	sections uneven or	section. Some	sections. The report
	and outcomes of the	and outcomes clear.	and outcomes of the	unclear at times.	sections not	does not have any
	project are very		project are clear.	Main aims and	appropriate to the	clear aims or
	clear.			outcomes of the	project as carried	outcome. No
				project moderately	out. The main aims	scientific focus.
				clear.	and outcomes of the	
L						

					project lack clarity.	
Research design and/or methods	Excellent. Design and method totally in alignment with objectives.	Very good. Design and method aligned well with objectives.	Good. Any faults are minor and do not detract from the overall quality of the project.	Moderate. Minor faults which detract from the overall quality of the research, but most of the methods used are sound.	Poor. Some major faults which detract from the overall quality of the project. Methods used are partially appropriate or correct.	Extremely poor. Methods inappropriate or incorrect for the project. The project lacks validity due to these flaws.
Results and analysis or substantive analysis	Excellently presented. Results analysed & interpreted at a level suitable for publication.	Presented to a high standard, with no major flaws. With minor changes results and analysis suitable for publication.	Well presented, with occasional flaws and minor errors only. Analysis & interpretation mostly sound.	Moderately presented, but with some major flaws or several minor errors. Analysis & interpretation moderate.	Poorly presented, several major flaws and/or many minor errors. Analysis & interpretation contains significant deficiencies	Extremely poorly presented, with many major flaws and many minor errors. Analysis & interpretation very poor or absent.
Overall presentation	Excellent throughout. All figures and tables clear with suitable legends/captions	Very good throughout, with only minor shortcomings	Good throughout, with no major flaws but occasional minor errors. Some figures/tables unclear.	A few major flaws and/ or several minor errors. Several figures or tables of poor quality	Some major flaws and/or frequent minor errors. Many poor quality figures/tables.	Many major flaws and many minor errors. Overall poor presentation of figures and tables

Use of literature and	Complete: fully and	Complete and	Mostly complete and	Moderately complete	Incomplete or	Material used is
references	correctly cited, up to	correctly cited, up to	correctly cited, with	and cited, with	incorrectly cited,	frequently not cited
	date and	date and	minor omissions or errors only. Some link	occasional major	with some major	and referencing is
	appropriate.	appropriate.	between literature	flaws or some minor	omissions or errors.	flawed throughout.
	Extensive literature	Literature clearly	and project	omissions or errors.	Some failures to cite	No evidence of a link
	resources used to	links to project	objectives.	Little interpretation	sources. Difficulty in	between literature
	provide balance and	objectives.		of literature and link	interpreting	and the project.
	an informed view.			to project objectives.	literature and using it	
	Interpretation of				as basis for project	
	literature provides				objectives.	
	basis for project					
	objectives.					



SOCIAL STATISTICS COURSE UNIT GUIDE 2017-18

SOST30022 Advanced Social Network Analysis

Semester: 2

Credits: 20

Convenor: Johan Koskinen

Contents

- 1. Essential Information
- 2. Course Content
 - A. Aims & Outcomes
 - B. Lectures & Reading List
 - C. Tutorial Guide
 - D. Assignments & Assessments
- 3. Feedback
- 4. Your Commitment
- 5. Referencing & Plagiarism
- 6. Assessment Criteria

Please read this guide and bring any questions with you to the lecture.

Note: This course guide should be read in conjunction with the Blackboard website for the course and the Degree Handbook for your degree programme. Degree Handbooks for social science programmes are available here:

www.socialsciences.manchester.ac.uk/student-intranet/undergraduate/handbooks/

If your degree is based in another school, please contact your Programme Administrator for your handbook.

1. ESSENTIAL INFORMATION

Contacts

Lecturer(s): Johan Koskinen

Room: G13

Telephone: Ext. . 6953

Email: johan.koskinen@manchester.ac.uk

Office Hours: Wednesday 2-3pm & Thursday 12-1pm

Tutors: N/A

Administrator: Chantel Riley, UG Office G.001 Arthur Lewis Building

(0161) 2753953; chantel.riley@manchester.ac.uk

Times and Dates

Lectures: Uni Place_3.205, Thursdays 9am-11am

Tutorials: To follow lectures at 11am-12pm in Mansfield

Cooper_2.01

Reading week: None

Additional office hours: Additional office hours for discussing course-work will

be advertised when assignments have been posed

Feedback half-day: Dedicated office hours for discussing assignment

feedback will be available

Assessed Coursework

Submission:

assignment 1: March 29

assignment 2: May 8

Examination period: 15.05.2017 - 09.06.2017

Re-sit Examination period: 21.08.2017 - 01.09.2017

Assignments and Assessments

- First non-assessed formative assignment to be submitted Tuesday 6th Feb
- First non-assessed formative assignment (presented in class)
- Two assessed essay worth 50% of the total mark

Review the following pages for full details of the assignments and assessments required on this course.

Communication

Students must read their University e-mails regularly, as important information will be communicated in this way. It is sometimes necessary to make changes such as seminar rooms and assessment details and such changes will be communicated by email. Failing to check your emails will not be an acceptable excuse for non-attendance or missed deadlines.

KNOW HOW

2. COURSE CONTENT

Course Aims

- (i) Introduce a toolbox for empirical investigation of theories on social interaction and complexity.
- (ii) Introduce the practical issues involved in managing and analysing network data.
- (iii) Provide a theory and research driven perspective on everyday observables while also providing the students with the skills, confidence and knowledge to solve analytical puzzles in a wide array of applied contexts, from organisations to the spread of infectious diseases.
- (iv) Give the students a working handle on basic analysis tools.
- (v) Foster a familiarity with an extensive list of more advanced analysis tools and

methods at a level that enables the student to further their skills in relevant areas.

(v) Provide the analytical framework for critically appraisal of quantitative statements in social networks and related areas.

Learning Outcomes

On completion of this unit successful students will have acquired the following skills:

Knowledge and Understanding: An understanding of the empirical requirements and evidence needed for drawing conclusions about complex social processes. A broad knowledge of fundamental concepts in social network analysis, both theoretical and technical.

Intellectual skills: relate concepts such as micro-macro, self organisation and emergence to specific predictions and hypothesis for observables. Be able to choose approapriate approach for a particular set of research questions. A detailed appreciation of the appropriateness of methods used in studies and a keen, critical eye to potential sources of error.

Practical skills: Skills in using social network datasets and practical experience of data analysis including using software (sna, network, pnet, RSiena). Visualising, describing, and reporting results for social network analysis and drawing conclusions about social processes. Basic skills in using and applying essential mathematical concepts such as density and clustering coefficients. One assignment will involve data analysis in the program package R.

Transferable skills and personal qualities: Data handling, interpretation and reporting of quantitative analysis. The course provides a toolbox whose acquired skills will make the student a network analyst with unique skills on the labour market. The well trained network analyst is a scarce resource and is uniquely equipped to answer questions in a wide array of areas, from organisational problems in business

Get Organised

Use this guide to find out:

- Where and when to attend classes.
- What to read before lectures and tutorials.
- Where to start your reading for assessments.
- How your progress will be assessed.

Read on to ensure that you know how to get the most out of your degree.

to disease spread in populations as well as being able to provide unique solutions to address concerns about information flow from a government or business perspective.

General Course Readings

Some required readings may be made available electronically via the course website. All other readings should be available from the University Main Library. Most reading is specific to particular topics as described in the reading list below. The following more general textbooks are helpful and recommended:

Borgatti, S.P., Everett, M.G., Johnson, J.C. (2013). Analyzing Social Networks. Sage. Borgatti, S.P., Mehra, A., Brass, D.J., Labianca, . (2009). Network Analysis in the Social Sciences. Science 323(5916): 892-895. DOI: 10.1126/science.1165821

Granovetter, Mark. 1973. "The Strength of Weak Ties." American Journal of Sociology 78(6):1360-80.

Hanneman, R.A. and Riddle. M. (2005) Introduction to social network methods. Riverside, CA: University of California, Riverside (also available online at: http://faculty.ucr.edu/~hanneman/)

Lusher, D., Koskinen, J., & Robins, G. (2013). Exponential random graph models for social networks: Theory, methods and applications. Cambridge University Press.

Robins, G. (2015). Doing Social Networks Research: Network Research Design for Social Scientists. Sage

Lectures and Reading List

Teaching occasions will be combinations of seminars in lecture and discussion form as well as practical computer labs. Exact structure TBA depending on room allocation.

Course at a glance

Week starting	Thursday lecture	Tutorial	Important deadlines
29 th Jan	Introduction: the network object and specific theories for why it is important	Introduction to R and formative assessment	First formative assessment distributed
5 th Feb	Describing a network	Reading in and describing network data into R (1)	Submit first formative assessment by Tuesday 6 th Feb noon.
12 th Feb	Key concepts and how they relate to network structure – cohesion, embeddedness, homophily, transitivity, the Mathew effect, structural holes, influence, selection	Reading in and describing network data into R (2)	Submit one-page descriptive of network from Tutorial 2
19 th Feb	Degree-based effects – in network and by network	Drawing random networks in R	
26 th Feb	Closure and connectivity	Comparing	

		observed and random networks in R					
5 th Mar	Cohesion and embeddedness.	Comparing observed networks to a "world of networks". Introducing homophily.					
12 th Mar	The social mechanisms of balance, homophily and transitivity (cross sectional)	Introduction to ERGM – simulating networks with given properties					
19 th Mar	The social mechanisms of balance, homophily and transitivity (longitudinal)	Continue with random networks from ERGM	Submission deadline 1 st Assessed coursework: 29 th March				
<u>EASTER</u>							
16 th April	Diffusion of innovations, diseases and other bad things	Using SAOM to generate longitudinal random networks	Feedback on 1st Assessed coursework.				
23 rd April	Do these methods answer out theoretical questions? Futher topics and developments	Using SAOM to investigate influence and selection	Additional office hours for discussing Assessed coursework number 2				
Submission deadline 2 nd Assessed coursework: 8 th May							

Week 1: Introduction: the network object and specific theories for why it is important.

Lecture: (Feb. 1st 2018). This lecture introduces basic graph theoretic concepts and the history of network analysis. We also introduce a number of key studies whose research questions hinge on the network paradigm.

Required reading: Chapters 1 and 2 in Borgatti et al. (2013). Borgatti et al (2009).

Additional reading: Freeman (http://moreno.ss.uci.edu/91.pdf). Granovetter (1973). In addition to the two links to videos that I posted, we will discuss issues brought up in the Keynote Lecture by Garry Robins: http://youtu.be/QxpnjhAH5IE

Workshop: Introduction to the assessed coursework. Introduction to the program R which *will* be required for Assignment number 2. Discussion of how to creatively apply the concept of a network with the aim to generate a data that could be conceived in network terms. Contrast with social media (now ubiquitous but vacuous?)

Litterature

Borgatti, S.P., Everett, M.G., Johnson, J.C. (2013). Analyzing Social Networks. Sage. Borgatti, S.P., Mehra, A., Brass, D.J., Labianca, . (2009). Network Analysis in the Social Sciences. Science 323(5916): 892-895. DOI: 10.1126/science.1165821

Fernandez, Roberto M., and Roger V. Gould. 1994. "A Dilemma of State Power: Brokerage and Influence in the National Health Policy Domain." The American Journal of Sociology 99(6):1455-1491.

Granovetter, Mark. 1973. "The Strength of Weak Ties." American Journal of Sociology 78(6):1360-80.

Hanneman, R.A. and Riddle. M. (2005) Introduction to social network methods. Riverside, CA: University of California, Riverside

Week 2 Describing a network.

Lecture: (Feb. 8th 2018). The first lecture serves to demonstrate the usefulness of the network conceptualisation for addressing theoretical issues. In the second lecture we address how we may understand a particular network data set. We are introduced to the fundamentals of network visualisation and summaries.

Background reading: Chapters 3-7 in Borgatti et al. (2013). Hanneman, R.A. and Riddle. M. (2005) Introduction to social network methods. Riverside, CA: University of California, Riverside (available online: http://faculty.ucr.edu/~hanneman/). Ignore the UCINet applications.

Additional reading: Garry Robins: http://youtu.be/QxpnjhAH5IE. The first and seminar study on diffusion of innovations: Coleman, J. S., E. Katz, and H. Menzel. 1957. "The Diffusion of an Innovation Among Physicians." Sociometry 20:253-270.

Workshop: We will go through an exercise on describing an example data set. We will use the contributed R-packages 'sna', 'network', and 'igraph'.

Week 3: Key concepts and how they relate to network structure – cohesion, embeddedness, homophily, transitivity, the Mathew effect, structural holes, influence, selection.

Lecture: (Feb. 15th 2018). The lecture will explain the key concepts of cohesion, embeddedness, homophily, transitivity, degree-related effects, and position. The related theoretical concepts will be developed with reference to influential studies and empirical manifestations will be suggested. The latter serve as motivation for lecture 4 through 9 that will be devoted to the empirical analysis of these. We will also introduce the concepts of 'influence' and 'selection'. We will continue to explore some fundamental concepts in social network analysis but also introduce some terms and concepts that are central to theoretical constructs:

- o cohesion, embeddedness
 - o The clustering and degree to which nodes are embedded in cliques
- Homophily
 - Birds of a feather...
- Transitivity
 - Open and closed triads
- o the Mathew effect
 - The rich get richer and other degree-based effects
- o structural holes
 - o Do nodes bridge clustered regions?
- o influence, selection

 Are people in a particular position because of their 'behaviour' or the other way around?

Background reading: Moody and White (2003); McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). "Birds of a Feather: Homophily in Social Networks". Annual Review of Sociology. 27:415–444; Burt (1998) http://faculty.chicagobooth.edu/ronald.burt/research/files/98SN.pdf; White et al (1971) **Workshop:** Continue on reading in and describing network data. At the end of the workshop (at the latest 21st Feb noon) you are expected to submit a one-page summary of a network that includes counting the number of ties, providing the density, as well as a plot of the network.

Week 4 Degree-based effects – in network and by network

Lecture: (Feb. 22nd 2018). What does the degree tell us about actors in a network? What does degree tell us about the opportunities of individuals in a network. Following on from last weeks lecture, we shall also investigate sugraphs – the theory behind them and methods for investigating them.

Background reading: Chapters 1-5 in Lusher et al. (2013); Robins, G. L., Pattison, P. E. & Koskinen, J. H. Technical report: Network Degree Distributions. (http://sna.unimelb.edu.au/data/assets/pdf file/0005/668318/degree distributions. pdf); Davis (1970).

Workshop: We will look at some example data sets and analyse the degree distributions. Furthermore we will simulate some simple network data sets using R to ascertain exactly how much of the structure depends on the degrees.

Week 5 Closure and connectivity.

Lecture: (March 1st 2018). Brokerage and the myth of six degrees of separation.

Background reading: Burt (1998)

http://faculty.chicagobooth.edu/ronald.burt/research/files/98SN.pdf

Additional reading: Garry Robins: http://youtu.be/QxpnjhAH5IE. The first and seminar study on diffusion of innovations: Coleman, J. S., E. Katz, and H. Menzel. 1957. "The Diffusion of an Innovation Among Physicians." Sociometry 20:253-270. Stanley Milgram, "The Small World Problem", Psychology Today, 1967, Vol. 2, 60–67. Watts and Strogatz (1998: Nature 393, 440-442)

Workshop: Focus on comparing different network summaries for observed networks and random networks.

Week 6 Cohesion and embeddedness.

Lecture: (March 8th 2018). Polanyi and then Granovetter, from dissembeddedness to embeddedness – a success story of terminology. Cohesion is a topical concept in social medicine and elsewhere but what do we really mean by cohesion?

Background reading: Moody and White (2013)

Workshop: We extend the practical from week 5 by generating a distribution of random networks

Week 7 The social mechanisms of balance, homophily and transitivity (cross sectional)

Lecture: (March 15th 2018). Define what we mean by balance, homophily and transitivity, both in terms of theory and empirics. Discuss behavioural and sociological underpinnings. How are these concepts related? Confounding each other. In empirical analysis we talk about he selection effect and reverse causality. We will introduce a simple model formulation for investigating these mechanisms in the ERGM framework with a view to focus on interpreting output.

Background reading: Chapters 2-5 of Lusher, Koskinen, and Robins (2013) (in case you do not have a copy of the book an excerpt from an early draft is uploaded in the forlder - please do not redistribute) http://www.bmj.com/content/337/bmj.a2533

Workshop: We are going to focus on how to generate networks with specific properties. This will be an introduction to using ERGM.

Week 8 The social mechanisms of balance, homophily and transitivity (longitudinal).

Lecture: (March 22nd 2018). Time means we can look at change. We will have a simple and intuitive introduction to stochastic actor-oriented models (SAOM). The focus will be on interpreting output. Adding a temporal dimension means that we can look at change. We will have a simple and intuitive introduction to stochastic actor-oriented models (SAOM) for longitudinal analysis of social networks. We will try to understand these from the perspective of a simulation model where we define a social process that 'evolves' the network from a first observation to a second observation. We will only touch briefly on estimation and place most of the focus on interpreting output.

Having introduced the SAOM for the evolution of a network we shall see how this straightforwardly extends to the joint analysis of network ties and actor attributes. This means that we may address the chicken or egg question: 'do you change your behaviour to become more like your friends or do you change your friends to people more similar to you'?

After this lecture we should have sufficient grasp of the basic assumptions of the SAOM to criticise them from a behavioural and theoretical perspective:

- are actors in complete control of their ties?
- do actors lack memory?
- Are actors 'myopic'?
- Are actors rational?
- Are actors even actors?

Relevant to the assignment is the way 'influence' is construed in order to fit into the SAOM framework. What restrictions does

- a choice model introduce?
- A black box for when things change?

Workshop: We will continue and explore ERGM in R

Background reading: Social Networks introduction to SABMs

Week 9: Diffusion of innovations, diseases and other bad things.

Lecture: (April 19th 2018). Change in behaviour and attitudes. Some examples in the literature. Transmission and repeatedly changing behaviours. The key differences to think of. A gentle introcution to co-evolution models. SAOM: Focus on interpreting output

Background reading: to be provided in week 8.

Workshop: Simulating longitudinal random networks using SAOM

Week 10: Do these methods answer out theoretical questions? Futher topics and developments.

Lecture: (April 26th 2018). We will reflect on what we have gone through in the module and discuss on the one hand, what theoretical insights this might have provided us with and, on the other hand, the extent to which these tools and concepts have practical implications.

Background reading: please review all material from weeks 1-9; think about anything you want me to go over again.

Workshop: Further exploring influence and selection using SAOM.

Assignments and Assessments

Non-Assessed Assignment Details

Part 1: An in-class diagnostic test will be provided at the end of the first lecture that the student will be given the opportunity of submitting for feedback.

Part 2: This will be researching a network concept from two perspectives: (a) theoretical and (b) methodological perspective. You shall be prepared to presenting this in class. This may involve merely reporting the main conclusions as a basis for discussion or, if you like, preparing a hand-out or a couple of slides. Anything you feel is necessary for getting your main points across. Details of the topics and literature tips will follow in the next couple of days.

In addition to formative assessments 1 and 2, you will be given the opportunity to have your basic work in R appraised. You will not be able to complete the coursework satisfactorily if you do not attend and actively participate in the lab classes.

Note: Marks for compulsory non-assessed essays or plans should not be considered a 'predicted grade' for the course overall. The feedback and any grade provided are to allow you to judge your understanding of the course material.

Assessed Coursework Details

Example format (Note that this is only an example and this years coursework will differ)

Assignment 1

Write a 3000 word (upper limit) report discussing two theoretical constructs (TBA) with reference to an empirical study reported in any of the texts in the literature list (provided with assignment; if you find another relative study in a different text, please feel free to use that). Make use of two or more concepts out of the listed ones. For your chosen concepts: - Define them - Contrast them - And appraise the applicability of them in the study chosen For the appraisal, make sure to answer - what social mechanisms may fit with the claims of the study? - what alternative explanations (if any) may account for their results?

Assignment 2

Write a 3000 word (upper limit) report that addresses a particular topic from the perspectives of

- relevant network-related theory
- use of an empirical Data set
- appraisal of how theory, research questions and data fit together and support each other You a meant to demonstrate that you can tie together some substantive theories with an empirical analysis, where the theories have been expressed in appropriate research questions, and subsequently draw conclusions about the extent to which data supports your research questions. The report MUST include an empirical analysis. This does not have to be very advanced but you must employ some manner of quantitative evaluation.

Assignment 2 will require elements of practical data analysis in the program R. In order to successfully complete assignment 2 **you must take part** in at least 4 of the lab sessions where *you will receive training in using the program R*.

Note: You must include an accurate word count on the front page of your essay. Failure to do so will lead to an automatic 2 mark deduction. Your word count should include all text in the essay (including any footnotes, tables and so on) but does not include the bibliography.

The assessment criteria follow Section 6 below. For each assignment there is a specific weighting of marks awarded for different tasks that will be clearly advertised in the assignment instructions.

Coursework Submission

Coursework must be typed, double-spaced in a reasonable font (eg. 12 point in Times New Roman or Arial). You must submit your essay by 2pm on the deadline day given on p.2 above unless given course specific instructions by email.

Essays should be **submitted online** via Blackboard by 2pm on the deadline day given on p.2 above unless given course specific instructions by email. Full details of how to submit online are available in the 'Submission of Coursework' folder in the relevant section on the course Blackboard website. Ensure you have familiarised yourself with the system and give yourself plenty of time for submission as technology problems will not be an acceptable reason for late or non-submission of work. If you have serious problems submitting on the day please contact the SoSS Undergraduate Office in the Arthur Lewis Building urgently. When you have successfully submitted your essay you will be able to download and print a receipt. You must **keep a copy of your submission receipt** until all work on this course is complete and you have received your final grades.

Note that our online submission system includes TurnItIn plagiarism detection software. Be sure that you fully understand what plagiarism is; links for further details are included in section 5 below. If, after reading the guidance, you are at all unsure about what counts as plagiarism then you should contact your Academic Advisor to discuss it.

Mitigating Circumstances

Extensions may be granted to students where there are exceptional mitigating circumstances (e.g. strong medical reasons). In such cases a Mitigating Circumstances Form must be completed and submitted to the Undergraduate Office, Ground Floor, Arthur Lewis Building. Full guidance on mitigating circumstances is available here:

<u>www.socialsciences.manchester.ac.uk/student-intranet/undergraduate/useful-documents/</u>

Examination Details

N/A

3. FEEDBACK

All Social Statistics courses include both formative feedback – which lets you know how you're getting on and what you could do to improve – and summative feedback – which gives you a mark for your assessed work. This course uses the following mechanisms for feedback:

- Informal verbal feedback will be given during lectures and tutorials.
- Written formative feedback will be given on you're your 1st nonassessed assignment.
- Verbal formative feedback will be given on you're your 2nd nonassessed assignment.
- Written formative and summative feedback will be given on your assessed coursework, available via blackboard.
- please book an office hour slot by email and let your lecturer know in advance that this is what you want to do.

Save Your Feedback

Feedback via
TurnItIn/GradeMark on the
Blackboard system is only
accessible while you are
studying this particular
module. Download a pdf
version of your feedback
to refer to later by using



the print icon in the bottom left corner of the

feedback screen.

Additional Office Hours will be provided to discuss planning for coursework assessments. See p.2 above for times.

Feedback Half Day will be provided to allow in-depth discussion of feedback on your coursework assessments. A sign-up sheet will be circulated during lectures for you to allocate yourself to a slot. See p. 2 above for times.

Your Feedback to Us

We're continually working to improve our teaching practices – for that we need your feedback. Towards the end of the semester you'll be asked to fill out a Unit Survey for each of your modules – please do! The survey is designed to be very short and easy to fill out but the results are really valuable for our monitoring of teaching quality. We want to hear from you whether your opinion on the course was good, bad or indifferent.

All of your Unit Surveys are available via Blackboard – simply go to 'Unit Evaluation' on the left hand menu of the Blackboard website to begin. Alternatively, you can download a smartphone app called EvaluationKit to fill out Unit Surveys for all of your course units.

4. YOUR COMMITMENT

Study Schedule

Each 20 credit module requires that you study for a minimum of 12 hours per week. This is comprised of teaching and independent study in these proportions:

- 3 hours lectures and tutorials (2.5 in the first year);
- At least 3 hours reading the Key Reading;
- At least 3 hours reading an additional text from the reading list;
- At least 3 hours written work for assessed and non-assessed assignments.

This leaves 80 hours study time remaining to be used in independent study over the duration of the course. For 10 credit courses these distributions will be proportionally reduced but should be slightly higher than half the commitment for a 20 credit course.

Tutorial Preparation

Tutorials are a central part of the course module structure. They provide you with an opportunity to discuss, apply and enhance your knowledge, and to build confidence in your skills of analysis, comprehension and presentation. What you will gain from tutorials is dependent upon your preparation and willingness to participate. It is thus essential that you familiarise yourself with the Tutorial Guide for each course, undertake the required tutorial preparation, and bring all relevant materials (hardcopies of the Key Reading, notes on the Key Reading, preparation exercises etc.) to every tutorial. It is not acceptable to attend a tutorial without being fully prepared.

Attendance

You are expected to attend all lectures, tutorials, and workshops that are part of your programme. It is also expected that you arrive on time. Absence and late arrival are recorded on your University record. Inappropriate amounts of absence or late arrival at class, without extenuating circumstances, will be treated seriously and may result in exclusion from the course. In addition, you should be aware that prospective employers almost always ask for information about attendance and punctuality, as well as matters such as your record on completing work to deadlines.

Absences

If you are unable to attend a tutorial because of illness or other good reason you should notify the course lecturer/tutor and your Programme Administrator in advance if possible (William.Start@manchester.ac.uk or telephone 0161 275 3953). This is especially important if you are due to make a presentation to the class. Absences of more than a few days should be backed up by medical or other evidence.

All absences will be reported to the relevant Tutor, who will then monitor your performance. A record of indifferent attendance will be held against you if your

examination results are marginal; you should not expect to be shown sympathy by the Board of Examiners in such circumstances.

If you have missed a class, you should be sure to catch up on what you have missed by further independent reading of materials on the reading list and/or consulting any available lecture notes or PowerPoint slides if these are provided or asking other students whether they might allow you to consult theirs.

Email and Blackboard

Your commitment is also to **check your University email and Blackboard at least every other day** in order to make sure that you are informed of any communications from tutors or administrative staff. These might, for example, concern important meetings with staff, changes of room; notification of course options registration, or course-relevant information from your lecturer. Being unaware of arrangements because you have not checked your email or Blackboard is not an acceptable excuse.

KNOW HOV

5. REFERENCING & PLAGIARISM

The lack of a proper bibliography and appropriate reference in assessed essays will potentially greatly affect the mark for the work and may be considered plagiarism, which is a serious offence.

All essays must employ the scholarly apparatus of references and a bibliography. There are different acceptable referencing styles. In Social Statistics we recommend use of the Harvard system of referencing, which is described in detail here: http://subjects.library.manchester.ac.uk/referencing-harvard

In short, Harvard referencing means that you refer to the author and date of publication in brackets within the text, wherever you are referring to the ideas of another writer. Where you quote an author you must always include quotation marks and a page number in the reference.

All essays must include a References List which lists your sources in alphabetical order by author's surname. This should include all (and only) the sources you have directly referenced in the text. Whatever your source is, you need to provide a full set of publication details as described in the guide linked above. All academic texts you read will include bibliographies and these should give you plenty of examples of what information to include.

Cite it Right

You can learn how to reference properly in 15 minutes – head to the online tutorial, *Citing it right*, at:



http://libassets.m anchester.ac.uk/ mle/introducingreferencing/

Plagiarism

KNOW HOW

Avoiding Plagiarism

You can learn how to avoid plagiarism in 20 minutes – head to the online tutorial, *Original Thinking Allowed*, at:

http://libassets.ma nchester.ac.uk/ml e/avoiding-plagiarism



The University defines plagiarism as 'presenting the ideas, work or words of other people without proper, clear and unambiguous acknowledgement.' It is an example of academic malpractice and can lead to very serious penalties up to exclusion from the University. You should read the University's guidelines here:

http://documents.manchester.ac.uk/display.asp
x?DocID=2870

There is additional useful guidance on plagiarism and referencing in the Crucial Guide:

http://www.studentnet.manchester.ac.uk/crucial-guide/academic-life/support/referencing-and-plagiarism/

6. ASSESSMENT CRITERIA

Student's work in Social Statistics is assessed into different class categories by using the criteria shown in the following rubric. Please note this is a qualitative indicator of strengths and weaknesses related to these different class categories. The precise marking criteria will vary between assignments so this rubric cannot be used as a direct guide to any specific mark received on an Assignment.

Criteria	> 80% High First	70 – 80% First	60 – 69 % 2.1	50 – 59% 2.2	40 – 49% 3rd	<40% (Fail)
Relevance to	Excellent answer	Very good answer	Good coverage of	Fair answer to	Basic answer to	Partial answer to
question/completeness	with no significant	with no significant	question, but may	question, with some	question, with	question, with major
of answer	omissions. Excellent	omissions. Very good	have some	omissions. Lacks	significant omissions.	omissions. Weak
	breadth and depth of	understanding of	omissions. Broad	breadth and depth of	Superficial	understanding of the
	understanding of	context for the	understanding of	understanding of the	understanding of the	issues and
	context for the	question, key issues	context for the	issues, perhaps with	issues and some	considerable
	question, key issues	and	question, key issues	some	confusion/inaccuraci	confusion/inaccuraci
	and	interrelationships.	and	confusion/inaccuraci	es. Regurgitates	es. Regurgitates
	interrelationships.	Shows good	interrelationships.	es. Mainly derivative	taught or given	taught or given
	Shows some	independent thinking	Shows some	from module	material with no	material with no
	innovation in	or use of very good	independent thinking	material, lacks	evidence of	evidence of
	methods and	methods.	and an appreciation	evidence of	independent	independent
	thinking.		of application of	independent	thought/research.	thought/research.
			methods.	thought/research.		

Structure	Excellent. Clear and	Very good. Logical	Good. Mostly logical	Moderate.	Poor. Little logical	Flawed. No clear
Structure	logical progression	progression through	progression through	Progression through	progression through	progression at all
	through and between	and between	and between	and between	and between each	through and between
	sections. All aims	sections. All aims	sections. Main aims	sections uneven or	section. Some	sections. The report
	and outcomes of the	and outcomes clear.	and outcomes of the	unclear at times.	sections not	does not have any
		and outcomes clear.	project are clear.	_	appropriate to the	
	project are very clear.		project are clear.		project as carried	clear aims or outcome. No
	cieai.					scientific focus.
				project moderately	out. The main aims and outcomes of the	scientific focus.
				clear.		
					project lack clarity.	
Research design and/or	Excellent. Design and	Very good. Design	Good. Any faults are	Moderate. Minor	Poor. Some major	Extremely poor.
methods	method totally in	and method aligned	minor and do not	faults which detract	faults which detract	Methods
	alignment with	well with objectives.	detract from the	from the overall	from the overall	inappropriate or
	objectives.		overall quality of the	quality of the	quality of the project.	incorrect for the
			project.	research, but most of	Methods used are	project. The project
				the methods used	partially appropriate	lacks validity due to
				are sound.	or correct.	these flaws.
Results and analysis or	Excellently	Presented to a high	Well presented, with	Moderately	Poorly presented,	Extremely poorly
substantive analysis	presented. Results	standard, with no	occasional flaws and	presented, but with	several major flaws	presented, with
	analysed &	major flaws. With	minor errors only.	some major flaws or	and/or many minor	many major flaws
	interpreted at a level	minor changes	Analysis &	several minor errors.	errors. Analysis &	and many minor
	suitable for	results and analysis	interpretation mostly	Analysis &	interpretation	errors. Analysis &
	publication.	suitable for	sound.	interpretation	contains significant	interpretation very
		publication.		moderate.	deficiencies	poor or absent.
Overall presentation	Excellent throughout.	Very good	Good throughout,	A few major flaws	Some major flaws	Many major flaws
	All figures and tables	throughout, with	with no major flaws	and/ or several minor	and/or frequent	and many minor
	clear with suitable	only minor	but occasional	errors. Several	minor errors. Many	errors. Overall poor
	legends/captions	shortcomings	minor errors. Some	figures or tables of	poor quality	presentation of
			figures/tables	poor quality	figures/tables.	figures and tables
			unclear.			

Use of literature and	Complete: fully and	Complete and	Mostly complete and	Moderately complete	Incomplete or	Material used is
references	Complete: fully and correctly cited, up to date and appropriate. Extensive literature resources used to provide balance and an informed view. Interpretation of literature provides basis for project objectives.	Complete and correctly cited, up to date and appropriate. Literature clearly links to project objectives.	Mostly complete and correctly cited, with minor omissions or errors only. Some link between literature and project objectives.	Moderately complete and cited, with occasional major flaws or some minor omissions or errors. Little interpretation of literature and link to project objectives.	Incomplete or incorrectly cited, with some major omissions or errors. Some failures to cite sources. Difficulty in interpreting literature and using it as basis for project objectives.	Material used is frequently not cited and referencing is flawed throughout. No evidence of a link between literature and the project.