After great pain, a formal feeling comes.
    -- Emily Dickinson

A man may write at any time, if he will set himself doggedly to it.
    -- Samuel Johnson

Keep right on to the end of the road.
    -- Harry Lauder

EC3400 Students Must Read This Document!!!
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1. INTRODUCTION

The 3rd year Economics Dissertation, EC3400, is an optional course for all Economics Honours, Economics Major, and Economics and Maths (‘Joint Honours’) BSc and (Econ) Financial and Business Economics and students on other Joint Honours (Economics and Management).

- The dissertation is a full-fledged unit with no separate exam. The dissertation is your exam. Once it’s out of the way, you need prepare for only three units of exams.
- Please note the key stages and deadlines you must honour (See section 1.2)
- Dissertations are expected to use econometric or statistical techniques. You will be expected to use your knowledge and skills from QM1 and QM2 (see page 6, Methodology). Correspondingly you will find it advantageous to study third year econometrics as the techniques taught in these courses will make researching your dissertation more straightforward. Notwithstanding this general principle if you wish to write a dissertation which does not use econometric or statistical techniques then it is your responsibility to make sure this is possible in conjunction with your allocated supervisor.

The Dissertation is a chance for you to do serious research. It provides you with an opportunity to undertake a piece of individual research work and really examine an aspect of the subject you are studying closely. You could consider it as an extended essay or assignment. However, although a dissertation can be seen as a difficult piece of work, it is a good idea to think of it as providing a real opportunity to explore something that you are really interested in within your course. Working on it should be a very exciting time for you.

You will work under supervision of a member of the department’s staff, perhaps even contributing to research that the person is actually carrying out. Most dissertations involve the spectrum of activities common to research: conceptualization and planning, literature review, theoretical modelling, data collection, statistical and econometric analysis, and writing. You may be wondering what a completed dissertation looks like. There are plenty in the library for you to peruse. When you examine them, notice how varied they are. There is no single ‘recipe’ for a dissertation.

1.1 Learning Outcomes

Upon completion of the dissertation students should:

- Understand in depth key previous research in the focused subject of the dissertation.
- Be able to apply methodical approaches to real research problems. Methods include planning of projected research steps, recording of progress and ideas, literature review, and data collection and econometric analysis.
- Be able to present research findings in an organized, compelling, concise form.
- Be aware of the policy implications of their work and be able to relate it to any existing body of economic literature.
1.2 Deadlines

The following are deadlines for successive stages:

1. **Proposal**: by Thursday the 15th of October 2015, 12 noon
2. **Preliminary Report + MOODLE**: Thursday the 10th of December 2015, 12 noon
3. **Final Dissertation + MOODLE**: Thursday the 3rd of March 2016, 12 noon

2. MOTIVATIONS AND EXPECTATIONS

2.1 Should I Opt for EC3400 and Write a Dissertation?

This is a very difficult question to answer because the appropriate answer depends on the individual student. A questionnaire designed to help you perform the necessary self appraisal is attached at the end of this document. At the outset it should be pointed out that in past years the average mark on dissertations is not statistically different from the average mark on other third year courses. What should condition your decision is a realistic assessment of your own study strengths and weaknesses and your personality. The dissertation is not an easy option and will take around the same amount of time (or even more) as other courses.

The main disadvantages of doing a dissertation are:
- It is a lot of hard work.
- It requires good writing skills
- It requires good econometric skills
- It requires a lot of self discipline.
- It cannot all be left to the end of the year.
- It will take up valuable time in holidays and Reading Weeks.

The main advantages of doing a dissertation are:
- It’s one exam less
- Employers like it
- It’s your chance to do research in the degree
- It will give you valuable research skills.
- It will help you if you want to do postgraduate research.

If you now find that writing a dissertation is not for you, you can change your mind and opt out of EC3400 by Week 3 in the Autumn Term of your third year by simply picking up another course from the beginning of the Autumn Term.

If you fail to meet the course requirements of timely submission of both a satisfactory Proposal and a satisfactory Preliminary Report (as judged by your supervisor in conjunction with the course coordinator) then you can be taken off the course - in which case you will be required to pick up 2 half units in the Spring Term of your third year.
2.2. What Topic should I choose?

Your choice of topic should be something that you are interested in and which is within your capabilities. It needs to be feasible in the sense that data exists for your analysis and it can be completed in 5 months. It might help your dissertation if you choose cognate courses in the third year.

2.3 How Much Time will it take?

Your dissertation will involve a huge effort. It can be a rewarding chance to do some practical work and learn from the process. You will be expected to enter the autumn term of your 3rd year having done preliminary reading and data search in the summer vacation between your 2nd and 3rd year. Expect to allocate more than a full day every week in term, plus more time in the vacation.

3. YOUR DISSERTATION AND YOUR ADVISOR

3.1. Choosing a Topic and Advisor Matchups

You will be required to submit your Dissertation Preference Form by the 30th of May. The allocation of students to supervisors should be done by the 6th of June and all details of this allocation will appear on the student notice board by this date. Allocation will take account of student preferences as far as this is possible and most students will be given one of their preferences. However no guarantees are made about this allocation as inevitably some titles/supervisors are more in demand than others.

The final assignment of students to supervisors is liable to change as a result of varying staff availability. The course coordinator reserves the right to make changes of supervisor conditional on supervisor availability.

At any stage if you decide not to continue with your dissertation you must email: Jo.Hible@rhul.ac.uk

The Dissertation is a chance for you to do serious research, interacting with a supervisor who is an expert in a field of research. Therefore, in choosing your dissertation topic, it is important to take into account that a close match between your research topic and the field of expertise of your advisor will allow you to obtain the best guidance in the dissertation process.
To improve job prospects, you may want to narrow your topic to relate it to the kind of job you hope to get. Discuss this with your supervisor. The dissertation also provides a means to demonstrate your writing, mathematical skills, and econometric abilities. This background can help when you apply for jobs or for MSc or PhD programs. A good dissertation also
enables your lecturers to write you a more informed reference when applying for jobs at the end of your degree!

The deadline for expressing your preferences on titles is the 30th of May. This gives you time for advance planning, and enables you begin literature and data searches over the summer. Literature reviews and data collection are a lengthy process. They often involve long delays, because of interlibrary loans and other logistics, so be wise: start early. After allocation to your supervisor only minor adjustments to titles are permitted at the discretion and with the approval of your personal supervisor. Such changes should be agreed and sanctioned by your supervisor prior to your submission of the Proposal at the beginning of the Autumn Term.

3.2. Your Dissertation and Your Advisor

It is an unusual chance for you to learn and accomplish in a detailed research area of your choice, under the supervision of a well-established scholar. You may eventually know more than your supervisor about your specific topic and should be able to give a seminar on it. Your advisor is available to help you get started, and to provide feedback after you accomplish substantial pieces of work. Speak or email to your advisor by the end of the Summer Term of your Second year to indicate what your plans are, and discuss an appropriate direction to take. Talk to your advisor early, both because it's the sensible thing to do and because some advisors may call group meetings for students with related topics.

You will probably find that maintaining a notebook or folder dedicated to EC3400 is a good idea. Never visit your supervisor without it. As you continue with the dissertation and accomplish major steps, return to the supervisor for feedback and direction. It’s a good idea to get their views on what your next major step(s) should be. Of course, don’t expect advice without doing your work.

It is your responsibility to arrange meetings, and the advisor is expected to make him/herself reasonably available for the purpose. You will receive standardized feedback on your proposal and preliminary report.

What is the best way to start dissertation research? There is no one answer to this question, but here’s a good approach to adopt, side by side with supervisory meetings:

- Find a relevant article that you admire in a leading economics journal, and then try to emulate the article. This can in fact be taken to the limit where you get the data of an existing study and replicate (or attempt to replicate) the findings of the author. In some cases this can itself be a dissertation in itself.
- Imitate its approach, but apply it to a new country or a new sample of data or a new industry. Or, use a similar sort of approach to go beyond the original study, addressing questions or problems that it (and other studies) did not answer.
- Make sure that you accomplish something that you and other economists will find an interesting, worthwhile contribution.
3.3. Face-to-face, telephone and e-mail contact.

- It is the student’s responsibility to initiate face to face contact by attending the supervisor’s office hours or seeking a separate appointment at a mutually convenient time if the student has a good reason why s/he cannot attend office hours.

- It is expected that supervisions take place during the supervisor’s office hours and therefore that a student will have to share their supervisor’s time with other students. Supervisors may use their discretion and schedule group meetings to cover generic issues with several students at once.

- A student is free to email their supervisor but it is impossible for supervisors to respond to all emails and supervisors reserve the right not to give detailed guidance via email.

3.4. Arrangements for Reading and Commenting on Drafts.

It is not the responsibility of the supervisor to read and comment on the entire dissertation just prior to submission. However, at the discretion of the supervisor he/she may be prepared to read extracts of the dissertation to help the student with clarity or technical issues up to one month prior to the submission deadline but not after that.

3.5. Provision of Data and Computer Work

The default position is that it is the responsibility of the student to get their own data for their dissertation. The student must expect to do all their own computer work. It is not the responsibility of the supervisor to provide detailed Stata programming advice. Notwithstanding this guideline the supervisor may provide computer code to clean complex datasets if they deem this appropriate.

4. RESOURCES AND REFERENCES.

4.1. Required Sessions and Readings

There are two components of the course: a short central training component that applies to all students and your actual own work. The former gives advice on essential skills of how to approach a dissertation, how to conduct a literature review, how to find data. Sessions also remind you how to of use STATA in applied econometric work. You have already used the library for coursework, analysed data with Stata in QM I and II, and written essays – so some of this material should not be new to you. Since students write very diverse dissertations the lectures focus only on the skills which are generic and hence, training
consists only of a few sessions to get you started. **Watch your noticeboards and email for confirmation.**

To support your dissertation there will be 4 Lectures during the autumn term

**Lecture 1. How Do I Write a Dissertation?**
- What we like (and hate), deadlines, structure etc
- Planning and Documenting Ongoing Research

After this session and readings, you should:
- a. Know key steps in research and be able to prepare your own timetable.
- b. Know relevant methods to document your ongoing research and ideas.
- c. Know relevant methods for literature review.
- d. Have decided a tentative way to organize your dissertation.

**Lecture 2. Data Sources**
This lecture will:
- Introduce the major UK and US data sources
- Give leads to the major websites via hyperlink

After this session and following the leads on the hyperlinks, you should:
- a. Know about general sources of Economic data.
- b. Know the kind and sources of data you might need.
- c. Know about sources for replication studies.

**Lecture 3. Basic Stata**
- STATA, StatTransfer
- Revise in advance: Your notes on QM1, QM2, and Stata.

After this session and readings, you should:
- a. Understand the basic commands of STATA.
- b. Know the role of empirical analysis in your dissertation.
- c. Understand how to produce basic regression results and basic graphs.
- d. Know how to convert your data from one format to another.

**Lecture 4. Applied econometrics in Stata.**
- This lecture aims to introduce more advanced topics in Stata
- Tips and tricks of Stata
- Sample sizes
- The Main pitfalls of applied econometric work.
- Evaluation methods, panel, selectivity, endogeneity
4.2. Library Resources

First of all the RHUL library might be able to help you in your search of data and references. Dissertations of course require articles and books on specialized topics. Undoubtedly you will not find them in any one library, but fortunately the University of London library system, together with other major libraries in London, provide some of the world’s best library resources. Libraries likely to be particularly useful include those at the London School of Economics, School of Oriental and African Studies, Senate House, and the British Library. Remember, some of these hold official statistics in specialized collections. You could also try the Economic or Commerce departments of foreign embassies in London, as some of these hold useful official documents.

As a Royal Holloway student, you can use the other University of London libraries (including LSE, Senate House, UCL, Imperial, Birkbeck, SOAS, etc.). Before travelling to another library, ask at the Bedford Library inquiries desk; in some cases they need to fill out a form for you for entrance and/or borrowing privileges. For the British Library, you need to have a special need to use the library – find out what books (etc.) you need that are available there and not at other libraries, and have your dissertation advisor write a letter asking British Library staff to let you use the library. You may be asked to apply for a card. This is a simple procedure, and will allow you to order documents from the BL stacks in Woolwich: these are normally fetched overnight.

If you cannot find some important resource in London libraries, you may be able to obtain it by interlibrary loan. The Department Office has interlibrary loan certificates available by special request. These are free to you, but their use is limited since loans are costly to college, and take up library staff time. Your dissertation advisor must sign the loan form. Books and articles may take weeks to arrive, so plan ahead if possible!

Library information and catalogues on the internet are accessible via the Royal Holloway library web page. The LSE library catalogue is at

http://www2.lse.ac.uk/library/eresources/Home.aspx or http://catalogue.lse.ac.uk/

LSE library information is at http://www.lse.ac.uk/library.

The British Library catalogue is at http://www.bl.uk/

The SOAS catalogue is on http://lib.soas.ac.uk.

Key resources are bibliographic search sources available via the library’s web page at Royal Holloway. EconLit lets you search for literature in economics. The Social Science Citation Index includes not only economics but also related literatures in other social sciences, and it enables you find out who cited a work after it was published. Three large databases of journal articles include many important economics journals whose articles can be downloaded, and which can be searched. If you haven’t taken the library introduction to MetaLib, do so now. You may wish to repeat the library tour you took in your 1st year. It’s a half-hour well spent.
The Computer Centre runs courses which teach you to use databases. Refer to the yellow booklet “On Course”, and register in the usual way (once you know the timetable, fill out their form or email ITBookings@rhul.ac.uk).

4.3. References on Writing Style

The following will help you:

- Strunk, W and E.B. White (1959-) *The Elements of Style*. £5. Various publishers. This slim guide distils essential writing skills. 808.02 STR
- Turabian, K. (1996) and other years. *A Manual for Writers of Term Papers, Theses and Dissertations*. £10. Particularly good on presentation. 808.02 TUR

4.4. Books on Doing Research Dissertations

You may also wish to look at books on research skills. Some general books on dissertation writing and research are:

4.5. Books on Stata

A short guide to common Stata commands and some basic tips are included as a course resource on the Moodle Course website. The library holds readings for Stata, e.g., at the following classmarks:

- Manuals for Stata (multiple volumes). The full manuals for Stata. The slim “Getting Started” guide is a good introduction. **Restricted loan 001.6425 STA**

4.6. Research Methodology in Economics


4.7. References on Econometrics

There are literally hundreds of books on Econometrics. Good places to start are the books you should have used last year like:
More advanced books are:

- Wooldridge, J Introductory Econometrics, 4th Ed, South Western College Press, 2009. (330.01 WOO)
- Cameron, C and Trivedi, P (2005) 'Microeconometrics: Methods and Applications', Cambridge University Press,

But basic ‘wordy’ guides, which cut out much of the notation are:


4.8. References on Econometrics Projects

Specific references which have guides to writing an econometrics project are:

- Wooldridge ‘Introductory Econometrics’ -> talks about Posing a question, deciding on an appropriate dataset, entering and storing data, cleaning data, writing an empirical paper, style hints, Sample empirical projects.
- Appendix A in Intriligator ‘Econometric Models, Techniques and Applications’ has similar advice but also section guidance on contents of project.

A very useful book which has excellent chapters on many different areas of economics with data and exercises for you to test yourself is:

- E. Berndt ‘The Practice of Econometrics: Classic and Contemporary’ (1991) Guided exercises are the best around to practice a topic and see if it suits you.

4.9. Economics References

Obviously the references for each dissertation will be different. Your advisor will help you find appropriate references. Since your dissertations should be modelled on the style of papers in quality economics journals then it is appropriate to seek out the article closest to your chosen topic and try to imitate it.

Appropriate journals to consult include: American Economic Review, Journal of Development Economics, Journal of Political Economy, Quarterly Journal of Economics, Economic Journal, Review of Economic and Statistics (lots of articles have tables reporting econometric analyses), For some dissertations, articles in the Journal of Economic Literature or the Journal of Economic Perspectives, Economic Policy and The Oxford Review of Economic Policy could also be suitable models. It is also a good idea to scan current or recent copies of journals to review what the ‘hot’ topics in economics are.
A good place to start with any literature review is the North Holland Handbook series chapters which provide up-to-date reviews of literature and usually huge numbers of references. There are Handbooks in most areas of economics- including labour economics, health economics, public economics, econometrics etc etc.

Replication Studies – quite a few journals (e.g. Journal of Human Resources, Journal of Applied Econometrics) have a data replication policy which means that they require authors to allow their data to be accessed by others for checking but potential for further work. This can be a good source of data.

4.10. Methodology

The methods you use should be appropriate to the topics you analyze in your research. You must work out (or be advised of) appropriate methods in conjunction with your advisor. You are required to incorporate econometric / statistical analysis of data as a core component of the dissertation, unless you obtain permission from your dissertation advisor using the attached “waiver-of-econometrics” form. There may not be an absolute need to use mathematics or econometric analysis in a dissertation, but for many research topics econometric analysis is necessary for good research and the default is that the EC3400 dissertation is a piece of applied econometric research. If constructing mathematical theories or using econometrics is appropriate to your research topic, you are expected to gain whatever skills are necessary to carry out the work properly. Some advice on statistical analysis methods will be available, for students who need to refresh their skills with regression or to become aware of other approaches for statistical analysis. Dissertations using economic history methods, survey work, anthropological work, theoretical model building, or other approaches are just as appropriate as those using econometrics. But you must absorb and use well the methods appropriate to your work.

If you wish to discuss the quantitative analysis in your dissertation you should discuss what methods are appropriate with your dissertation advisor. Choosing how and why to carry out statistical analyses requires knowledge of the specific topic, hence, is a matter for you to take up with the individual dissertation advisor.

5. EARLY STAGES

5.1. Steps to Getting it Done

Step 1: Establish Priorities

The dissertation will require a substantial investment of time which you have previously devoted to other activities. Thus, it is necessary for you to decide what sacrifices you are willing to make in order to finish the dissertation. The dissertation is rarely the first priority. Many of you will list family, friends, research, teaching, and/or searching for jobs as higher priorities. This is okay. If the dissertation is low on your priority list, however, you will allocate less time per week to work on it, and it will take a longer time to finish it. If you rank the dissertation high on your priority list, but it is actually a low priority, you will probably
feel discouraged with the slow pace of progress. An honest assessment of the priorities can help you avoid month or years of frustration and guilt.

**Step 2: Develop a Strategic Plan**

The dissertation can seem like such a long, complex and unpredictable project that it seems to lack beginning, middle and end stages. A strategic plan imposes a structure on the project and prevents you from drifting aimlessly for long periods of time. A plan should include a timeframe for finishing the dissertation and plans for accomplishing this goal. The foundation for your strategic plan will be a contract you develop with yourself that specifies the time commitment you are making to the dissertation. The contract will help motivate you to work during tedious or difficult phases and provides the incentive to make sacrifices (e.g., "I need to work 15 hours per week in order to finish the dissertation in 5 months") After you have set a timeframe for completion, subdivide the dissertation into smaller project and develop goals for each step.

**Step 3: Manage Time Efficiently**

A time management plan will incorporate the priorities and strategic plans you have already made and provide you with a weekly schedule to meet your goals. The dissertation will require a substantial investment of time which you may have previously devoted to family, friends, work, leisure, recreation, etc. But, these sacrifices don't have to overwhelm your entire life. In fact, you shouldn't plan to work on the dissertation all day, every day. Many people have observed the tendency of a project to take up the time allotted for it. Therefore, rather than allowing the dissertation to fit into whatever time you happen to have leftover in your schedule, it is more productive to decide when and how often you want to work on it. Allocate specific times during the week e.g. Fridays and Sunday - that will be dissertation time and remain faithful to these commitments. You should leave enough flexibility in your schedule that you can occasionally skip dissertation work times and make them up later in the week. The more your dissertation is like a job responsibility, the more likely you are to make consistent, steady progress.

**Step 4: Organize the Work Space**

A dissertation usually requires the full 5 months to complete, so it will be helpful to find a work space which is conducive to your work habits. You will want to consider what physical resources you need to write a dissertation, including a desk, computer, lamp, chair, books, shelves, files etc. The more organized your space, the less time you will spend searching for materials, journal articles, gathering books, etc. Ideally, the work space will be organized so that you can begin work immediately whenever you have scheduled dissertation time. There are two other considerations related to the work space. First, print out early drafts of the dissertation and arrange them by section in a folder. This will make your progress more tangible and real. You will also feel a sense of accomplishment as you finish draft sections and see them printed in a folder. Second, back-up your computer hard drive and store the disks in a safe place so that you don't risk losing valuable work. (You would not believe the number of students who lose all their files in the week of handing in of the dissertation!!!
Step 5: Maintain a Healthy Balance

The search for balance between the dissertation requirements and other life responsibilities is a difficult one. The dissertation is such a time-consuming project that it can seem impossible to find enough time for other activities in your life. If you begin to feel angry, resentful, frustrated, overwhelmed, and/or depressed on a consistent basis, you may want to consider whether your life has become unbalanced while writing the dissertation. In order to maintain a healthy balance, it is often helpful to devote time every day and/or week to your physical, social, intellectual, emotional and spiritual well-being.

5.2. The Proposal

Your proposal should explain precisely what you will study, and how you will go about your research. Of course, plans may change over time, so what you write in the proposal is not binding. Typically, proposals should be 3-5 pages long. Proposals are not merely choice-of-topic forms. They will vary depending on the topic chosen, but unless your advisor suggests otherwise, your proposal should cover these topics:

**Statement of research problem**
- What is the dissertation about?
- Why is this topic worth studying?

**Research Objectives**
- What question or (few) questions are you answering?

**Related Literature**
- How has been your research question tackled in the existing literature? (Be specific and cite relevant literature)
- How is your approach related to the existing literature and what is the original contribution you are expecting to make to such literature?

**Formulate hypotheses**
- Which theory is appropriate, and how am I using it in the empirical analysis?
- To carry out your empirical investigation, what information do you need to collect, and where will you get the information? (Be specific about List of variables and data sources)

**Methodology**
- How will you analyze the data? What approach will you take for any theoretical work / modelling?

**Chronology**
- Show a `timeline' or timetable for your project. Allow for completion of the preliminary report by the end of January, and for one or two interim versions to give to your advisor in February.
Organization of the final dissertation
- Write a preliminary list of the sections in the final dissertation. Consult some articles (see the ‘The Final Dissertation’ section below) before doing this. Remember, these are section headings, not chapter titles.

Possible Concerns
- What are critics of your dissertation likely to say? How can you address the main criticisms from the start?

Specifics
- Specific Goals/Needs? If so, include them in your proposal to discuss with your advisor. Note: Normally only an advisor reads your proposal, so do not expect feedback from other staff.

• In essence the 3-5 pages of the Proposal should set out:
  – Statement of research problem, question and motivation
  – Research Objectives
  – Hypotheses and Methodology
  – Available data source – list of variables
  – Econometric strategy
  – Contents page
  – Key References in Literature

If you fail to meet the course requirements of timely submission of a satisfactory Proposal (as judged by your supervisor in conjunction with the course coordinator) then you can be taken off the course - in which case you will be required to pick up 2 half units in the Spring Term of your third year.

5.3. Preliminary Report

Your preliminary report briefly describes where you are, and where you are going. It demonstrates that you have completed a substantial amount of the research and writing. Indeed, it may be a draft or piece of the final dissertation. In any case, it should be a significant advance over the proposal. The report should reflect that you are only two months away from a final version. It should, therefore, be reasonably close to a finished product. Remember to allow time to revise and make changes once you’ve created a first version of the dissertation.

In your report, besides including any draft sections of your dissertation that have been finished to date, you should also succinctly describe what you have been doing: What kinds of activities has your research involved? What problems have you encountered, and what are you doing or have you done to surmount the problems? Are you finding what you expected, or have you been surprised? Hence, your preliminary report should read like a dissertation-in-progress, with your own experience and comments clearly signposted.

• Ideally would be a draft of your Dissertation
• But can be a report of where you are up to.
• **It is NOT a Proposal** – You should have done a TERM’S worth of work and you are only 2.5 months away from having to hand in the complete report.
• All data work should be complete and econometric work should have begun
• You should be trying to identify your econometric problems.

If you fail to meet the course requirements of timely submission of a satisfactory Preliminary Report (as judged by your supervisor in conjunction with the course coordinator) then you can be taken off the course - in which case you will be required to pick up 2 half units in the Spring Term of your third year.

6. THE FINAL DISSERTATION

Your final dissertation should be stimulating for you and for readers. It should make a good case why the research was worth pursuing. It should clearly explain the methods you used, why you used them, and why you drew the conclusions you made.

To repeat, dissertations should be modeled on the style of papers in quality economics journals – see above for appropriate journals.

Dissertations can be a maximum of 10,000 words in length. This word count applies to all the text in the body of your dissertation. It does NOT include References and any Appendices or pages of figures and tables of econometric results. Such Tables and Figures should not exceed 10 pages in total. You may submit Appendices with your dissertation - for example - to clarify or enable us to check your data sources or provide other material necessary to understand the research you have done - but we are not obliged to read it in the course of our assessment.

The first page of your dissertation should clearly label it as your EC3400 Third Year Economics Dissertation, the dissertation title, your student number, an abstract, a footnote located after your name for acknowledgements.

Please use the following format for the title page:

EC3400 Third Year Economics Dissertation
(Your Dissertation Title)
(Your Student ID)

Abstract:
(Write your abstract here.)

Acknowledgements:
(Write your acknowledgements here.)

The second page should be the beginning of the manuscript, without repeating information that has been provided on page 1.
Cross-Referencing
It is vital that you give full references to the literature that you have consulted. This is appropriate in an academic paper and you risk accusations of plagiarism if you do not! Use the Harvard System or other form of referencing. To indicate a reference in the body of the text, the name of the author, page and date should be given, say (Smith, W; 1984 pp. 321). Explicit reference should be given for both quoted text, which must be distinguished by quotation marks, and any paraphrased text. You may choose to further distinguish quotations by indentation, change of type face, etc. Where you have abbreviated quoted text, the cuts should be indicated by three dots (...), called ellipsis.

Any source referred to must appear in the bibliography section, giving; the name/s of the author/s, the title, the date of publication, in the case of a journal paper - the name of the journal, in the case of a book - the publisher.

Examples:
- Spengler [1978, p. 20] stated in his article that
- This analysis has received attention in the literature [Spengler & Spengler, 1986a, b].
- This analysis has received attention in the literature [Spengler, 1986; Spengler et al., 1985].
- This analysis has received attention in the literature [Abizadeh & Benarroch, 1996].

Submitting Your Final Dissertation
Your final dissertation should be submitted by the deadline (see Section 1.2) in both paper and electronic formats:

1. Your dissertation should be bound. Binding can be done in the Computer Centre but you are free to get it bound by any suitable method. Hand in two items to the Department Office:
   (a) two bound copies of your dissertation.
   (b) a printout of the title page.

2. Upload the following 3 items to MOODLE using your student ID as login name:
   (a) a PDF version of your dissertation (YourStudentIDnumber.pdf),
   (b) a copy of your data (YourStudentIDNumber.dta),
   (c) your STATA do file program (YourStudentIDNumber.do)

The paper copies you hand in will not be returned. Do keep a copy yourself. A checklist for your final dissertation is attached at the end of this document.

Failure to submit a dissertation on time will carry serious consequences for your entire degree. Non-submission is tantamount to missing a core exam.

6.1. The Structure of Your Dissertation

This section offers you a model on how to lay out and structure your dissertation. As a general guide, dissertations very often contain abstract and 6 main sections.
Abstract
This is the whole paper condensed to a paragraph. (It could be longer, but one paragraph is usually most appropriate.) It is important to include three things; the main problem addressed, an outline of the solution offered, and any conclusions reached. Do not hold back on any of these - you are writing an academic paper, not a thriller, so giving the game away before the conclusion does not matter!

1. Introduction (10%)
'The context'. Why do this study? Why now? The aims of the study.

The introduction is very important and is possibly best compiled by answering a series of questions as follows.

- What is the central question? Why is it important?
- Is there a problem? What is it? Why does it need to be solved?
- What is your hypothesis?
- Who will benefit from your investigation? In what sense will they benefit?
- Are there policy implications?
- In what sense will my contribution add to what is already known?
- How in general terms are you going to solve the problem, e.g., what data and what econometric estimation?
- What are the constraints, challenges or limitations of the study?

A good way to end the introduction is to state the dissertation objectives.

2. Literature Review (20%)
This is a review of what is already known and of the main themes or issues. It covers past research from relevant journals articles and books. It is a summary of what other people have written and published around the theme of your research. It is very important that you acknowledge the authorship of other people's work.

The literature section can, and should be drafted very early. As you find the literature, read it, and write about it. Think of the literature review as a patchwork quilt - made up of paragraphs you have written about individual texts. Highlight the findings that are relevant to your theses. Be selective and focused in your literature review – don’t let it get too long or stray off your main question. Be critical of the literature - don’t just report it.

3. Economic Theory and Econometric Model (20%)

What does economic theory tell us about your central question – what is the model framework? What is the corresponding econometric model and what are the central empirical modelling problems?
4. Data (10%)

Where did you get your data from? What are its features and limitations? You should provide summary descriptive statistics. This is a presentation of the data - not a discussion in this section. It may involve the creation of tables, charts, histograms, etc., each of which should have an appropriate title or heading.

5. Analysis, Presentation, Interpretation of Results (30%)

This is the main body of the dissertation. It is where you explore the question that you have posed and give a chain of reasoning that will justify the conclusions that you present.

It should not be written as one block of text, but should be broken up into relevant sections. You may wish to draw attention to these sub-sections by giving them individual headings, but more often, this becomes cumbersome and they are better left simply as paragraphs.

Footnotes should be used sparingly, if at all. Generally, all points should be made in the text of the discussion - and if they can not, then you must ask if they need to be made at all.

This section should cover:
(a) Interpretation of findings. What patterns have emerged?
(b) The difference between your findings and those of other people. The difference between the views of various other authors.
(c) How do the main points you are making change the way you think about the topic?

6. Conclusion/ Summary / Policy Implications (10%)

(a) Summary of main findings as a series of statements.
(b) Conclusions and directions for further research.
(c) Recommendations.

References
References to books, journal articles, articles in collections and conference or workshop proceedings, and technical reports should be listed at the end of the article in alphabetical order (see examples below). Articles in preparation or articles submitted for publication, unpublished observations, personal communications, and so forth should not be included in the reference list but should only be mentioned in the article's text (e.g., T. Moore, personal communication). Note that the journal titles should not be abbreviated. References to articles in periodicals should include the author's name; year of publication; article title; full title of periodical; volume number (issue number where appropriate); first and last page numbers, in the order given in the example below:

References to articles in an edited collection should include the author's name; year of publication; article title; editor's name; title of collection; first and last page numbers; publisher; place of publication, in the order given in the example below:


References to books should include the author's name; year of publication; title; edition; publisher; place of publication; page numbers where appropriate, in the order given in the example below:


**Figures and Tables**

Each figure and table should be numbered, titled, and referred to in the text. The title should describe the content of the table or figure in as few words as possible using the following format:

```
TABLE 1
Title of Table

(Table content)
```

Note: (Describe the data source or other information about the table)

**Acknowledgements**

An acknowledgement of people, grants, and funds should be placed only on the first page.

**Permissions**

It is the responsibility of the author to obtain written permission for a quotation from unpublished material, or for all quotations in excess of 250 words in one extract or 500 words in total from any work still in copyright, and for the reprinting figures, tables, or poems from unpublished or copyrighted material.

**6.2. Marking of Your Final Dissertation.**

Here is what we reward:

- A WELL MOTIVATED economic question
- A BRIEF and CRITICAL review
– For a narrow question the existing literature will be small
– CRITICALLY EVALUATE what others have done.

• A SUCCINCT statement of what you are offering that others have not.
• CLARITY
  – work that is candid and easy to follow.
• IT IS REALLY IMPORTANT that you show that you understand your data.
• You MUST explain what might be wrong with the estimation method used
  – You DO NOT HAVE TO USE SOPHISTICATED TECHNIQUES.

Here is what we penalize:
• Vague rambling descriptions of the previous literature.
• Work that is not explained
• Data that is not defined or adequately described (we REALLY hate this one)
• Econometric tests that are not applicable
• Econometric work that is clearly crazy (another pet hate).
• Dropping important variables that are not significant.
• Causal inferences based simply on correlations
• Unwarranted conclusions
• Incomplete bibliography
• No page numbers.

7. OTHER IMPORTANT MATTERS

7.1. Ethics and Data Protection Act

As in all dealings with people, if you are doing a survey or an experiment, or your study involves the collection of primary data then this requires the researcher to be sensitive. Whether the population you study is in the UK or overseas, you must be respectful as you collect and interpret your data. Remember to take special care when communicating with a culture or society different from your own.

If your research topic does involve surveys or experiments with human subjects, or if other ethical questions arise about your work, you (the student) are responsible for ensuring that the research is ethically sound. Discuss your plans with your advisor and, if necessary, revise the planned research to ensure it is ethical. It is the responsibility of the student to make sure that any data they collect or use complies with the provisions of the Data Protection Act 1998.

7.2. Plagiarism

READ THIS CAREFULLY

Ethics aren’t confined to your dealings with the ‘outside’ world, but must be a key ingredient of your academic conduct. Please review the section in your undergraduate handbook headed Plagiarism, and be sure not to plagiarize any part of your dissertation. Any
data, writing, or illustrative material you use must be suitably and fully referenced to enable a reader to look up the source. The work on the dissertation must be your own. Most of you will have done the Workshop essay, EC1103. Dissertation EC3400 is an extended and superior form, now based on your own econometric work.

Any case of plagiarism will be dealt with severely. If your dissertation is deemed plagiarised, you’re gambling with more than a course. A plagiarized dissertation will mean not that you’ve failed a course but not taken it at all… a core course. You could lose an entire year or even your degree. This is true for Single and Joint Honours students.

Remember, plagiarism is cheating. You would expect severe penalties for cheating in the exam hall, and must expect the same costs and disgrace if you cheat on your dissertation. There are cases of plagiarism being discovered after a degree has been awarded, and the degree withdrawn. Please do not suffer a similar fate.

*The temptation to cheat may be strong, but you should be stronger.*

### 7.3. Over-reliance on Specific Sources and Turnitin

All dissertations will need to go through the Turnitin software prior to submission. Details of this process will be given nearer the time of hand-in. This is a plagiarism detecting software produces a report which gives the examiner a precise account of how much of the dissertation has been taken from other sources and tells us exactly what those sources are. It produces an overall Similarity Index of your dissertation.

Over and above the disciplinary matter of plagiarism (see section 7.2. above) there is clearly a grey area in which a dissertation may judged to be too little of the student's own work. Therefore students need to be warned that they may be penalised in their assessment of their dissertation if they:

- rely too heavily on relatively few sources
- or
- do not carefully and correctly reference and cite the published (or unpublished) work they use in writing their dissertation.

The examiners may make use of the Turnitin reports in making these assessments.

### 7.4. Use of Research Results

In some cases dissertation research could form part of research staff members are actually carrying out. In a few cases, your work may even contribute to their publications. The norm is that your assistance will be acknowledged appropriately according to the contribution you make, as is generally true in research. No official guarantees can be made, because staff would not involve students in their own research if it jeopardized their ability to publish. If you are concerned about intellectual property rights, you can develop your own project and find a member of staff willing to supervise you.

Some students (but very few) may develop their research to the point where it is suitable for journal submission as a joint publication (subject to approval from your dissertation advisor). Journal publication is only possible and worth contemplating if you do a thorough and careful job in consultation with your dissertation advisor. Some journal
papers have been co-authored or authored by people finishing their undergraduate degrees, when they have sufficient interest and commitment.

8. SOME GENERAL ADVICE

1. Two important adjectives used to describe a dissertation are "original" and "substantial." The research performed to support a dissertation should be both, and the dissertation must show it to be so. In particular, a dissertation highlights original contributions.

2. The scientific method means starting with a hypothesis and then collecting evidence to support or deny it. Before one can write a dissertation defending a particular thesis, one must collect evidence that supports it. Thus, the most difficult aspect of writing a dissertation consists of organizing the evidence and associated discussions into a coherent form.

3. The essence of a dissertation is critical thinking – analysis and concepts form the heart of the work.

4. A dissertation concentrates on principles: it states the lessons learned, and not merely the facts behind them.

5. In general, every statement in a dissertation must be supported either by a reference to published scientific literature or by original work. Moreover, a dissertation does not merely repeat the details of critical thinking and analysis found in published sources; it uses the results as fact and refers the reader to the source for further details.

6. Each sentence in a dissertation must be complete and correct in a grammatical sense. Moreover, a dissertation must satisfy the stringent rules of formal grammar (e.g., no contractions, no colloquialisms, no slurs, no undefined technical jargon, no hidden jokes, and no slang, even when such terms or phrases are in common use in the spoken language). Indeed, the writing in a dissertation must be crystal clear. Shades of meaning matter; the terminology and prose must make fine distinctions. The words must convey exactly the meaning intended, nothing more and nothing less.

7. Each statement in a dissertation must be correct and defensible in a logical and scientific sense. Moreover, the discussions in a dissertation should satisfy the rules of economic and econometric logic applied.

8. Good writing is essential in a dissertation. However, good writing cannot compensate for a paucity of ideas or concepts. Quite the contrary, a clear presentation always exposes weaknesses.

8.1 Definitions and Terminology

1. Each technical term used in a dissertation must be defined either by a reference to a previously published definition (for standard terms with their usual meaning) or by a precise, unambiguous definition that appears before the term is used (for a new term or a standard term used in an unusual way).

2. Each term should be used in one and only one way throughout the dissertation.

3. The easiest way to avoid a long series of definitions is to include a statement: "the terminology used throughout this document follows that given in [CITATION]." Then, only define exceptions.
4. The introductory section can give the intuition (i.e., informal definitions) of terms provided they are defined more precisely later.

8.2. Terms and Phrases to Avoid

- adverbs

  Mostly, they are very often overly used. Use strong words instead. For example, one could say, "Writers abuse adverbs."

- jokes or puns

  They have no place in a formal document.

- ``bad'', ``good'', ``nice'', ``terrible'', ``stupid''

  An economics dissertation does not make moral judgements. Use ``incorrect/correct'' to refer to factual correctness or errors. Use precise words or phrases to assess quality (e.g., ``estimation method A requires less computation than method B''). In general, one should avoid all qualitative judgements.

- ``true'', ``pure'',

  In the sense of ``good'' (it is judgemental).

- ``perfect''

  Nothing is.

- ``an ideal solution''

  You're judging again.

- ``today'', ``modern times''

  Today is tomorrow's yesterday.

- ``soon''

  How soon? Later tonight? Next decade?

- ``we were surprised to learn...''

  Even if you were, so what?
• "seems", "seemingly".
  It doesn't matter how something appears;

• "would seem to show"
  all that matters are the facts.

• "in terms of"
  usually vague

• "based on", "as the basis of"
  careful; can be vague

• "different"
  Does not mean "various"; different than what?

• "in light of"
  colloquial

• "lots of"
  vague & colloquial

• "kind of"
  vague & colloquial

• "type of"
  vague & colloquial

• "something like"
  vague & colloquial

• "just about"
  vague & colloquial

• "number of"
  vague; do you mean "some", "many", or "most"? A quantitative statement is preferable.
``due to''

colloquial

``probably''

only if you know the statistical probability (if you do, state it quantitatively)

``obviously, clearly''

be careful: obvious/clear to everyone?

``simple''

Can have a negative connotation, as in ```simpleton''

``along with''

Just use ```with''

``actually, really''

define terms precisely to eliminate the need to clarify

``the fact that''

makes it a meta-sentence; rephrase

``You will read about...''

The second person has no place in a formal dissertation.

``I will describe...''

The first person has no place in a formal dissertation. If self-reference is essential, phrase it as ```Section 10 describes...''

``we'' as in ```we see that''

A trap to avoid. Reason: almost any sentence can be written to begin with ```we'' because ```we'' can refer to: the reader and author, the author and advisor, or some other unspecified group.

``...a famous researcher...''

It doesn't matter who said it or who did it. In fact, such statements prejudice the reader.
• Be Careful When Using "few, most, all, any, every".

A dissertation is precise. If a sentence says "Most computer systems contain X", you must be able to defend it. Are you sure you really know the facts?

How many computers were built and sold yesterday?

• "must", "always"

Absolutely?

• "should"

Who says so?

• "proof", "prove"

Would a mathematician agree that it's a proof?

• "show"

Used in the sense of "prove". To "show" something, you need to provide a formal proof.

• "can/may"

Your mother probably told you the difference.

Tense:

Write in the present tense. For example, say "The estimates suggest ....." instead of "The estimates suggested..."

Focus On Results and not Circumstances in Which They Were Obtained:

"After working eight hours on the computer that night, I realized..." has no place in the dissertation. It doesn't matter when you realized it or how long you worked to obtain the answer. Stick to the plain facts. Describe the results without dwelling on your reactions or events that helped you achieve them.
Avoid Self-Assessment (both praise and criticism):

Both of the following examples are incorrect: "The method outlined in Section 2 represents a major breakthrough in the analysis of active labour market policy because..." "Although the technique in the next section is not earth shattering,..."

9. CHECKLIST FOR FINAL DISSERTATION WRITING

☐ **Thesis statement clear and well-defined?**
  ☐ It must summarize a conclusion you’ve reached.
  ☐ Your conclusion should be stated. Don’t expect it to be “obvious” to readers.
  ☐ It must say something interesting about your topic.

☐ **Do the arguments used in the text, and any theoretical or econometric work, support the thesis statement?**
  ☐ When combined, they provide a strong argument in favour of your case. That is, your data and discussion should clearly help you to reach your conclusion.
  ☐ To the extent possible and practical, you should address major counter-arguments that critics might make, and show why your thesis statement is right despite their counterarguments.

☐ **Have you presented objective evidence to prove the point for the arguments in the text?**
  ☐ Ideally, you use quantitative evidence that pertains to the whole population you are analyzing, or to a sample appropriate to the arguments you make.
  ☐ You clearly identify the sources from which you got your evidence (both qualitative and quantitative evidence). In general, if a reader wants to look up any specific bit of information in your report, she should know where to find it, including the relevant page number.
  ☐ For quantitative evidence that you collected, you state specifically the procedure you used to collect the information, and why you used that approach.

☐ **Data Work**
  ☐ Have you clearly described and documented your sources
  ☐ Have you made the limitations of the data clear.
  ☐ Have you explained your data recoding (and if necessary included your .do files on your disc?)
  ☐ Have you taken care of missing value codes properly.
  ☐ If you are using time series data do you have more than 40 (T) observations?
  ☐ If you are using cross series data do you have more than 200 (N) observations?
  ☐ If you are using panel data do you have more than NxT big enough to merit panel data estimation techniques?
**Econometric Work**
- Are the estimation techniques used appropriate?
- Have you interpreted the size and sign of the coefficients correctly?
- Have you reported the relevant and only the relevant diagnostic statistics?
- Are you sure your model is not misspecified?
- If yours is time series data have you tested for stationarity?
- If yours is cross section data what conditions the identification of your model and how restrictive are the necessary assumptions?
- Have you carried out the relevant robustness checks?

**For dissertations with theoretical work: Are your theoretical models relevant to the topic at hand, and clearly presented?**
- You should clearly distinguish between assumptions and implications.
- You must show proofs, concisely as in leading journals.
- You must re-read your text to ensure no errors remain.
- You must use standard symbols, to the extent they exist and within your dissertation your notation should be consistent.
- You must relate your work to others’ work, to the extent appropriate to your topic.

**Are citations and references done properly?**
- Use a standard format for citations and references. For a style guide, use a major economics journal.
- All items that you cite must appear in your bibliography.
- Citations must include relevant page numbers. E.g., “Whomever and Whoever (1997, p. 82).”
- Underneath each table and figure, you must state the source(s). The full citation must then appear in the bibliography.
- You state where you got the information, not where someone else got it.

**Have you edited well?**
- Correct any remaining grammatical or spelling errors.
- Give the text a final reading: is it clear and understandable?
- Edit out information that is irrelevant to your thesis. Remove any repetition or redundant information.
- You may wish to consult a writing guidebook, such as those listed above.

**Have you included, at the very beginning, a 100-150 word abstract?**
- The abstract should concisely summarize your research method and key conclusions. Write it last.