Introductory Logic

Stephen Wright

Jesus College, Oxford

Trinity College, Oxford

`stephen.wright@jesus.ox.ac.uk`

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The *Introduction to Logic* course will help you become familiar with some of the formal techniques that appear in philosophy. Logic has a twofold role in philosophy. Firstly, it will help you get an idea of the kind of formal techniques and vocabulary that appear in all kinds of other areas of philosophy. Without a basic grounding in logic (which is what this course will give you) it's really difficult to make much progress in pretty much any other area of philosophy. Secondly, logic is an interesting area of philosophical investigation in and of itself. In the course of the tutorials, we'll come across a good many interesting and controversial topics. Some things will be hard to get your heads around and some things will be downright odd at first sight. This is the same as it would be with any other type of philosophy course.

The main difference between the logic course and the other philosophy papers that you'll be taking is the mechanics of the course. You won't be writing essays for this course. Again, that's not to say that there aren't essays to be written on the material that's covered here. There are, and if you progress onto FHS study in philosophy, you'll get the chance to write essays on areas of logic and do some real philosophy concerning these areas. But for the purpose of this course, which aims to acquaint and familiarise you with the concepts behind logical analysis, there are problem sets, replacing essays. You'll have tutorials in classes (rather than pairs) and have homework problem sets, rather than essays. Aside from that, treat it as any other philosophy paper, with problems to be explored and difficult stuff to be understood.

One last observation to get you going is that, in a lot of cases (compared to other parts of the prelim philosophy paper) the people who do well in prelim philosophy are the ones who do well in logic. That's partly because, in the case of the logic part of the paper, it's more common for the marks to go really high. That's not because that part of the paper is easier. It's probably harder, actually. But it is because, if you get logic, there's a chance to really show your stuff in an organised and regimented way and force more marks out of the examiners. So logic is tough, make no mistake about it. But the fact that it's tough also brings with it the potential for really great rewards.

Anything you're not clear on in this guide, or in the course more generally, you're very welcome to email me any time. My address is at the top of the document. The course is tough and it'll take some serious determination and organisation, as well as no small amount of skill. But I'll help you through it as we go and if you need anything, then don't

hesitate to get in touch.

2 Course Admin

2.1 Website

I'll post the materials for these tutorials on my website as we go along. They can be downloaded at:

www.stephenwrightphilosophy.com on the right-hand side of the page under the 'Introductory Logic' link.

2.2 A Note on the Reading List

Another(!) thing that makes the logic class distinctive is the reading list. For the logic course, the book you absolutely <u>must</u> get hold of is the following:

Volker Halbach (2010). *The Logic Manual* Oxford: Oxford University Press.

Getting hold of your own copy of this is <u>non-negotiable</u>. You will need it and you can't get away with using anything else instead.

That being said, the Logic Manual is also the <u>only</u> book that you'll need for the course. There are lots of logic books on the market. Some of them are very good, some of them are less good. But for the purposes of this course, you don't need to read any of them. Indeed, reading different logic textbooks can be wildly counterproductive. Different logic books use different systems and different definitions and different approaches. They aren't wrong, they're just different, but they will get in the way of you understanding what's going on in the Logic Manual. So the logic course isn't one where you'll have to do loads of reading. In fact, you would be very badly advised to do loads of reading. It'll waste your time and more likely make you go backwards, rather than forwards, in terms of progress. But that point only serves to reinforce the point that reading and understanding the Logic Manual is indispensable to the course.

2.3 Problem Sets and Assessment

This course is assessed either as part of the Prelims *Introduction to Philosophy* paper, if you're one of the Philosophy joint schools, or as a Mods paper, if you're a Classics student. Both of these are unseen examinations and both are taken along with the rest of your first set of examinations. Exactly when these take place depends on which kind of course you're enrolled in. During the course, there are weekly problem sets that must be completed. These <u>must</u> be completed before each tutorial. Our tutorials for Michaelmas 2015 will be on <u>Thursdays at 2-4.</u> Your problem sets will need to be completed AND RETURNED TO MY PIGEON HOLE 24 hours before the start of the tutorial. No excuses. This gives me a chance to get them marked before the tutorial each week. I'll give them back to you in class.

Your problem sets can be got at online. They are available from the Logic Manual website: http://logicmanual.philosophy.ox.ac.uk/exercises/exercises.pdf. I've set up the tutorials so that they neatly correspond to a set of exercises for each week. This means that, each week, you'll need to do the exercises associated with that week. Be warned. Some of these exercises are hard. They're supposed to be. That said, everything you need to get 100% on them is contained within the Logic Manual and/or the lecture for that week. With that in mind, you should be aiming at getting 100% on the exercises before you come to class.

Normally, in philosophy, a big part of your working time will be discussing the material from the course with your classmates. Obviously, in the case of logic problem sets, that can look like cheating. And I'm sympathetic to the idea that it can be hard to see where the line for discussion (which is good) and collusion (which is very very bad) is, particularly if you're new to this kind of thing, which you all are. Discussing the stuff from the lecture is clearly not cheating, copying answers clearly is. So obviously there's a line in the middle somewhere. To help you along, here's a guideline:

Firstly, make sure that you sit down and do your problem sets yourselves, individually, each week. The problem sets are the best opportunity you will get to simulate the kind of questions that you'll face in the exam. So doing them yourself is the best preparation you can get. Once you talk about the questions with someone else, that opportunity is gone and it won't come back. Make sure you get that experience in the bank. You can use whatever books you have and whatever notes you've made. But do the problems yourself in the first instance.

After that, you're welcome to discuss whatever you like. You're even welcome to change answers on your problem sets before you hand them in (I won't know) in the light of your discussion. All of that is totally fine. But when you do come to discuss stuff, bear in mind that the point of your discusssions are to help you understand stuff. They're not to get marks in tutorials. Simply swapping answers to problem sets doesn't help you understand anything. Discussing stuff does. Whatever you ultimately write on the problem set page, make sure it's something you understand. If you write something that you don't understand, I will find you out.

2.4 Classes

The course has two types of classes associated with it. The first are lectures. These will be given by Volker Halbach (the author of the Logic Manual) as part of the Faculty's core lecture series on the subject. The second are the classes that will be taken by me in college. Neither of these is optional.

In classes, we'll mainly be talking about three types of things:

(1)   The questions from the exercises you've been doing.

(2)   Further questions testing similar things.

(3)   The and issues behind the questions you've been doing.

(4)   Anything else from the week's reading/lecture that you'd like to talk about.

Different classes might balance these different things in different ways. Much depends on how you get on with the week's questions. If they go badly, we're going to have to spend more time working on them. If they go well, we can push on to trying to get you a deeper understanding of what's going on in the issues you've been reading about. Obviously, if there's anything that you're not clear on that you'd like to raise, then the class is absolutely the right time to do this. The point of the classes is to help you learn. I can take charge of that, to some extent, but if there's something you're not getting and you can see this, then it's really helpful if you can bring that up. If you're not getting something, chances are that someone else isn't either.

In some of your other courses, you'll work on 4-8 tutorials on various different areas and by the end of it, you'll have looked at 4-8 topics, some of which you'll presumably like more than others. That's the normal thing. Logic is (yet again) different. The logic course builds on itself week by week. If you get lost in Week 3 of a conventional course, you can write it off and work on the other 3-7 areas that you've got a better grip on. If you get lost in Week 3 of logic, this won't happen. You won't understand anything that comes afterwards. Worse yet, you might think you do, but you won't. To understand the material from any particular week, you will need everything that came before it.

This might sound scary, but it shouldn't be. It means that you have to be really organised and really focused in your logic work. But to support this the classes are 2 hours long plus a 1 hour lecture. There's loads of support for this and I'll do everything I can to help you get anything you're not confident on. So will your classmates. With the right approach to classes, you'll get everything you need to get out of it. I'll make sure of it. And when you do, as described above, there are <u>big</u> marks to be got from this.

3 Class Schedule

3.1 Tutorial 1 – Sets, Relations, and Arguments

Reading
Logic Manual Chapter 1.

Problem Set
Logic Manual Exercises Set 1.

3.2 Tutorial 2 – Syntax and Semantics of $\mathcal{L}_1$

Reading
Logic Manual Chapter 2.

Problem Set
Logic Manual Exercises Set 2.

3.3 Tutorial 3 – Formalisation in $\mathcal{L}_1$

Reading
Logic Manual Chapter 3.

Problem Set
Logic Manual Exercises Set 3.

3.4 Tutorial 4 – $\mathcal{L}_2$ Syntax

Reading
Logic Manual Chapter 4.

Problem Set
Logic Manual Exercises Set 4.

3.5 Tutorial 5 – $\mathcal{L}_2$ Semantics

Reading
Logic Manual Chapter 5.

Problem Set
Logic Manual Exercises Set 5.

3.6 Tutorial 6 – Natural Deduction

Reading
Logic Manual Chapter 6.

Problem Set
Logic Manual Exercises Set 6.

3.7 Tutorial 7 – $\mathcal{L}_2$ Formalization

Reading
Logic Manual Chapter 7.

Problem Set
Logic Manual Exercises Set 7.

3.8 Tutorial 8 – Identity and Definite Descriptions

Reading
Logic Manual Chapter 8.

Problem Set
Logic Manual Exercises Set 8.