

## PH133 Logic Exercises

*Weekly exercises for the logic part of PH133.*

### When are they due?

2pm on the day before the seminar (unless otherwise instructed by the seminar group leader). This includes work submitted with Grade Grinder.

### Who to submit the exercises to?

Submit all exercises to your seminar group leader.

### \*Not sure who your seminar leader is?

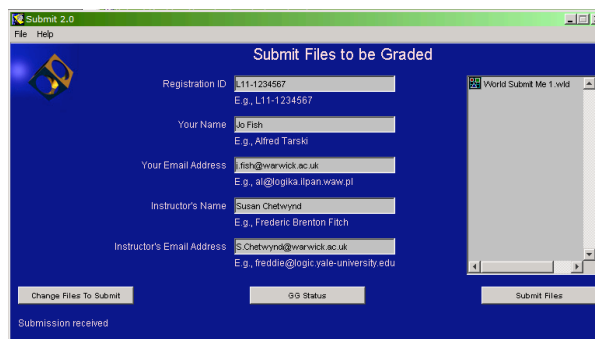
First sign up for a seminar group (<http://reporttool.warwick.ac.uk/philosophy>), then click on the name of your seminar group and select the 'details' tab.

### How to submit?

You need to submit some of these exercises using 'grade grinder' (see below); other exercises need to be submitted on paper or by email. For these other exercises, you can put them in your seminar group leader's\* pigeon hole in the Philosophy Department. Or you can email them to your seminar group leader.

### Using Grade Grinder

When using Grade Grinder, be sure to enter your seminar leader's\* name and email address in the 'instructor's name' and 'instructor's email address' sections. E.g.:



Students are encouraged to submit work electronically using Grade Grinder. However, individuals may exceptionally submit any or all exercises on paper if they have reason to do so.

### Reading

Always read the associated sections of the textbook (Barwise & Etchemendy, *Language, Proof and Logic*) before attempting the exercises. E.g. read section §3.4 before attempting exercise 3.11.

### What do the numbers below refer to?

They are exercises in the textbook for this course, Barwise & Etchemendy's *Language, Proof and Logic*.

## Exercises 01

*For your first seminar*

- 1.1–1.5, 1.9–1.10
- 2.3, 2.4 (arguments and validity)
- 2.10, 2.12, 2.21 (counterexamples)
- 3.1–2 (negation)
- 3.5, 3.7 (conjunction)
- 4.1–2 (truth tables)

## Exercises 02

*For your second seminar*

- 3.8, 3.12–13
- 3.20, 3.21, 3.22
- 4.4–7 (truth tables)
- 4.12–4.14 (truth tables)
- 5.1–4 (validity)
- 6.1–6 (proofs)
- 6.7, 6.9–10 (proofs and counterexamples)

## Exercises 03

- 4.17–18 (truth tables)
- 9.1 (quantifiers)
- 9.2 (quantifiers)
- 9.4–5 (quantifiers)
- 9.15–17, (translation)

**Exercises 04**

9.4–5, 9.8–10, 9.12 (quantifiers)

EITHER 6.17–20 (proof)

OR 6.33, 6.40 (proofs)

9.18, 9.20 (trans)

10.9 part 1 only (trans)

10.20

10.24–7

DO NOT USE TAUT CON. EVER.

**Further Exercises**

11.2, 11.4, 11.8, 11.9 (multiple quantifiers)

13.1–4 (quantifier proofs/counterex)

13.10–15 (quantifier proofs/counterex)