

PHIL 280, Part 2: Modal Logic

This half of the course is an introduction to modal propositional and predicate logics. The emphasis is on philosophical questions arising within the semantics of modal logic concerning the existence of possible worlds and the nature of possible and necessary existents. It includes applications of modal logic to provide logics for time, duty, and conditionals.

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Lectures: Thursday 3pm, Friday 10am
Tutorial: Friday 11am.
Consultation: TBA
Texts: Book of readings from the bookshop.
Assessment: Participation (5%)(attendance, discussion), exercises (5%), essay (40%)(2500 – 3000 words, due Monday 19 June).

Course reader

Loux, M. J. (ed.) (1979), *The Possible and The Actual* (Ithaca, NY: Cornell University Press), Introduction.
Plantinga, Alvin (1974), 'Modalities: Basic Concepts and Distinctions', in Jaegwon Kim and Ernest Sosa (eds.), *Metaphysics: An Anthology* (Oxford: Blackwell, 1999), ch. 11.
Lewis, David (1973), 'Possible Worlds', in Loux, ch. 9.
Chisholm, R. M. (1967), 'Identity through Possible Worlds: Some Questions', in Loux, ch. 3.
Plantinga, Alvin (1973), 'Transworld Identity or Worldbound Individuals?', in Loux, ch. 7.
Lewis, David (1986), 'Counterparts or Double Lives?', in Kim and Sosa, ch. 13.
Kripke, Saul (1963), 'Semantical Considerations on Modal Logic', *APF* **16**, pp. 83-94.
Williamson, Timothy (1998), 'Bare Possibilia', *Erkenntnis* **48**, pp. 257-273.
Lycan, W. (1979), 'The Trouble with Possible Worlds', in Loux, ch. 15.
Stalnaker, R. (1976), 'Possible Worlds', in Loux, ch. 12.
Armstrong, David M. (1986), 'The Nature of Possibility', in Kim and Sosa, ch. 15.

Lecture schedule

1. Overview, review of PC

- Loux, M. J. (ed.) (1979), *The Possible and The Actual* (Ithaca, NY: Cornell University Press), Introduction.
- Follow-up: Exercises on PC, due on Thursday 11th May.

2. The syntax and semantics of S5

- Continue with Loux.
- Follow-up: Exercises on S5, due on Thursday 25th May.

3. The languages of K, T, B, and S4

- Plantinga, Alvin (1974), 'Modalities: Basic Concepts and Distinctions', in Jaegwon Kim and Ernest Sosa (eds.), *Metaphysics: An Anthology* (Oxford: Blackwell, 1999), ch. 11.
- Follow-up: Exercises on K, T, B, S4, and S5, due on Thursday 25th May.

4. The nature of possible worlds: Lewis

- Lewis, David (1973), 'Possible Worlds', in Loux, ch. 9.

5. The problem of transworld individuals

- Chisholm, R. M. (1967), 'Identity through Possible Worlds: Some Questions', in Loux, ch. 3.

6. In defense of transworld individuals

- Plantinga, Alvin (1973), 'Transworld Identity or Worldbound Individuals?', in Loux, ch. 7.
- Lewis, David (1986), 'Counterparts or Double Lives?', in Kim and Sosa, ch. 13.

7. Quantified modal logic

- Kripke, Saul (1963), 'Semantical Considerations on Modal Logic', *APF* **16**, pp. 83-94.

8. The Barcan Formula

- Williamson, Timothy (1998), 'Bare Possibilia', *Erkenntnis* **48**, pp. 257-273. (Difficult, but worth the effort.)

9. The problem of Merely possible objects

- Lycan, W. (1979), 'The Trouble with Possible Worlds', in Loux, ch. 15.

10. Actualism

- Stalnaker, R. (1976), 'Possible Worlds', in Loux, ch. 12.
- Armstrong, David M. (1986), 'The Nature of Possibility', in Kim and Sosa, ch. 15.

11. Temporal logic

- Follow-up: Exercises on tense logic, to be discussed in tutorial.

12. Deontic logic

- Follow-up: Exercises on deontic logic, to be discussed in tutorial.

Additional reading

As well as the readings in the course reader, you may also find the following helpful:

Audi, Robert (ed.) (1995), *The Cambridge Dictionary of Philosophy* (Cambridge: Cambridge University Press).

Divers, John (2002), *Possible Worlds* (London: Routledge).

Girle, Rod (2000), *Modal Logics and Philosophy* (Teddington: Acumen).

Hughes, G. E. and Cresswell, M. J. (1968), *A New Introduction to Modal Logic* (London: Routledge).

Konyndyk, Kenneth (1986), *Introductory Modal Logic* (Notre Dame, IN: University of Notre Dame Press).

Lowe, E. J. (2002), *A Survey of Metaphysics* (Oxford: Oxford University Press), ch. 5-7.

Sainsbury, Mark (2001), *Logical Forms* (Oxford: Blackwell), ch. 5.

SEP articles: 'Modal Logic', 'Possible Objects', 'Actualism', 'Temporal Logic', 'Deontic Logic' (long).