

**THE UNIVERSITY OF WESTERN ONTARIO
DEPARTMENT OF PHILOSOPHY
Undergraduate Course Outline 2015-2016**

Philosophy 3320F: Philosophical Foundations of Quantum Mechanics

Fall Term 2015

W 1:30–3:30, F 1:30–2:30

SH 3305

Instructor: Wayne C. Myrvold

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Office: Stevenson Hall 4143

Office Hours: MW 11:30–12:30, or by appointment

DESCRIPTION

Quantum physics is different from classical physics, and the physics that governs our world is quantum. But what are we saying when we say this? What, if anything, does the empirical success of quantum mechanics tell us about the physical world? It is, to me, a fascinating fact that, though quantum mechanics is at this point more than 80 years old, and interpretive discussions have been going on all that time, there is still no consensus on what lessons we should draw from quantum physics. This course is intended as an introduction to the conceptual problems raised by quantum mechanics, and to the chief approaches to dealing with them.

No prior background in physics or philosophy is assumed.

REQUIREMENTS

Attendance and active participation in class discussions; 3 short writing assignments; two tests; term paper.

Writing assignment 1 (2-3 pp), due Oct. 2	10%
Writing assignment 2 (2-3 pp), due Nov. 6	10%
Writing assignment 3 (2-3 pp), due Nov. 20	10%
Test 1 in class, Oct. 23	20%
Test 2 date TBA, during exam period	20%
Term paper (7-10 pp), due Dec. 9	<u>30%</u>
	100%

Assignments are to be handed in by 3:45