PL 860* Graduate Seminar in Metaphysics and Epistemology:

**Plato and Philosophy of Mathematics: Mathematical Platonism**

Mondays 5:20–8:10 p.m., fall 2006, on the Okemos campus (see map)
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ANGEL site <angel.msu.edu> Seminar in Metaphysics & Epistemology

**Goals and objectives:** Our seminar will continue a time-honored tradition, emerging from the obscure history of the Pythagoreans and made explicit by Plato, of incorporating the methods of mathematics and revering their results while simultaneously doubting both (a) that the methods yield true (indefeasible, certain, apodictic) results, and (b) that the methods are adequate for philosophy’s metaphysical and epistemological questions. That means we will be seeking to answer such questions as, How reliable is the mathematical paradigm? Are abstract objects such as numbers and formulae real and, if so, in what sense? What is at stake in arguments about Platonic mathematics vs. mathematical Platonism? Where do such questions fit on the grid of contemporary controversies about the interface of metaphysics and epistemology, being and knowing, what there is and human apprehension of what there is? What is truth anyway?

**Required texts:**

Reuben Hersh. 1997. *What is Mathematics, Really?* Oxford: OUP. Note: we will read part 1, but part 2 is an excellent resource for the history of mathematics, and part 3 is an excellent resource (refresher) for mathematics.
——. 2006. *Republic* 5.475e–7.534d excerpts on ANGEL. (Other acceptable translations: Grube; or Grube, rev. Reeve—both available from Hackett; Shorey —Loeb Library.)

Additional primary sources (mostly from Benacerraf and Putnam 1983) will be required, but will be provided either on ANGEL or as handouts for those who do not own the book.

**Recommended texts:**


* Graduate students who want history distribution credit, instead of metaphysics-epistemology credit, for the course are expected to write history-oriented term papers.
Schedule of readings to be completed for class sessions:

28 August: Shapiro 2000, chs. 1–3; Plato Republic 5.475e–7.535a, excerpts on ANGEL.
4 September Labor Day: Brown 1999, chs. 1–2; Matt and Debra will meet at 5 p.m. at Espresso Royale and welcome one and all to join them there to discuss philosophy of mathematics, metaphysics and epistemology.
11 September: Shapiro 2000, chs. 5–7; Brown 1999, chs. 3–8
16 September (Saturday—because we cannot meet on the following Monday): dinner for all by Matt and Debra at Debra’s house. Benacerraf’s two influential papers (handouts or ANGEL):
Benacerraf, Paul. 1965. “What Numbers Could Not Be.” Philosophical Review 74:47–73. This is the article from which contemporary philosophy of mathematics was launched. Numbers are neither sets nor systems of objects, but abstract structures.
——. 1973. “Mathematical Truth.” The Journal of Philosophy 70:661–80. Sets up semantics and epistemology (alternatively, realism and epistemology) as Scylla and Charybdis—if you avoid problems with one, you run into problems with the other; thus, inter alia, mathematical Platonism is incompatible with a naturalistic epistemology.
25 September: Plato, Meno; Shapiro 2000, ch. 8; Brown 1999, ch. 9
2 October:* Shapiro 2000, chs. 9–10
9 October: Shapiro 2000, ch. 4; Brown 1999, ch. 10
16 October: Brown 1999, ch. 11; Hersch 1997, part 1 (pp. 3–87)
23 October: Putnam 2004
30 October: Andy Clark and David Chalmers, “The Extended Mind,” and Plato, Theaetetus
6 November:* Plato, Theaetetus
13 November: Plato, Theaetetus
8 December (Friday) peer review of term papers and dinner by Iron Chef Jim, assisted by Dave the Delicious and galley-slave Debra—same place, same time (5:20 p.m.)
12 December: term papers due by noon: If you want history distribution credit, put two copies in Debra’s mailbox; if you want metaphysics and epistemology credit, put two copies in Matt’s mailbox.

Evaluation: Every student should participate fully in the seminar, and half the grade will be based on that participation: (a) by 3 p.m. before each regular Monday seminar, post at least one question/comment on the ANGEL site. (b) Serve as a presenter (at least) once, and as a commentator (at least) twice: presentations should be <20 minutes; and comments must not exceed 10 minutes. (c) Take an informed and active role in discussion. The other half of the grade will be based on a 3,000-word term paper, for which there will be milestones during the semester (dates by which to commit to a general topic, to consult with us about your approach and your sources, and to submit a title and abstract—see the three dates with asterisks above).