Topics in the History of Science: Science and Religion in the Seventeenth Century
Course Number: Historical Studies 541
Institution: University of Calgary
Instructor: M. J. Osler
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The purpose of this course is to explore the different ways that science and religion interacted during the seventeenth century. Special attention will be devoted to the theological dimensions of natural philosophy and the role of theological issues in the search for a new philosophy of nature. Reading of primary sources along with relevant interpretative material will provide the basis for class discussions and research papers.
1. Course Requirements
For Undergraduate Students
Take-home mid-term: 15%
Take-home final: 20%
Research paper: 40%
Participation: 25%
For Graduate Students

Annotated bibliography: 25% Research paper: 50% Participation: 25% ALL WRITTEN WORK MUST CONFORM TO THE Department of History Essay Guide, which is available in the bookstore and on the History Department's Home Page. Be sure to read the section on plagiarism carefully and make sure that you give proper credit to the sources of your work. Failure to do so will result in a failing grade and possible disciplinary action. NB: All assignments must be completed in order to pass the course 2. Textbooks Robert Boyle, A Free Enquiry into the Vulgarly Received Notion of Nature, edited by Edward B. Davis and Michael Hunter (Cambridge University Press) Edwin Arthur Burtt, The Metaphysical Foundations of Modern Science Betty Jo Teeter Dobbs and Margaret C. Jacob, Newton and the Culture of Newtonianism (New Jersey: Humanities Press, 1995) 3. Reserve Books David C. Lindberg and Ronald L. Numbers, God and Nature John Hedley Brooke, Science and Religion, Some Historical Perspectives Margaret J. Osler, Divine Will and the Mechanical Philosophy

Henry More, A Collection of Several Philosophical Works, 2 vols. Richard S. Westfall, Science and Religion in Seventeenth-Century England John Brooke and Geoffrey Cantor, Reconstructing Nature: The Engagement of Science and Religion H. G. Alexander, ed., The Leibniz-Clarke Correspondence B. J. T. Dobbs, The Janus Faces of Genius: The Role of Alchemy in Newton's Thought Charles B. Schmitt and Quentin Skinner, editors, The Cambridge History of Renaissance Philosophy Jan Wojcik, Robert Boyle and the Limits of Reason 4. Weekly Assignments Readings for each week must be completed before the class meeting in order to ensure that an informed discussion can take place.

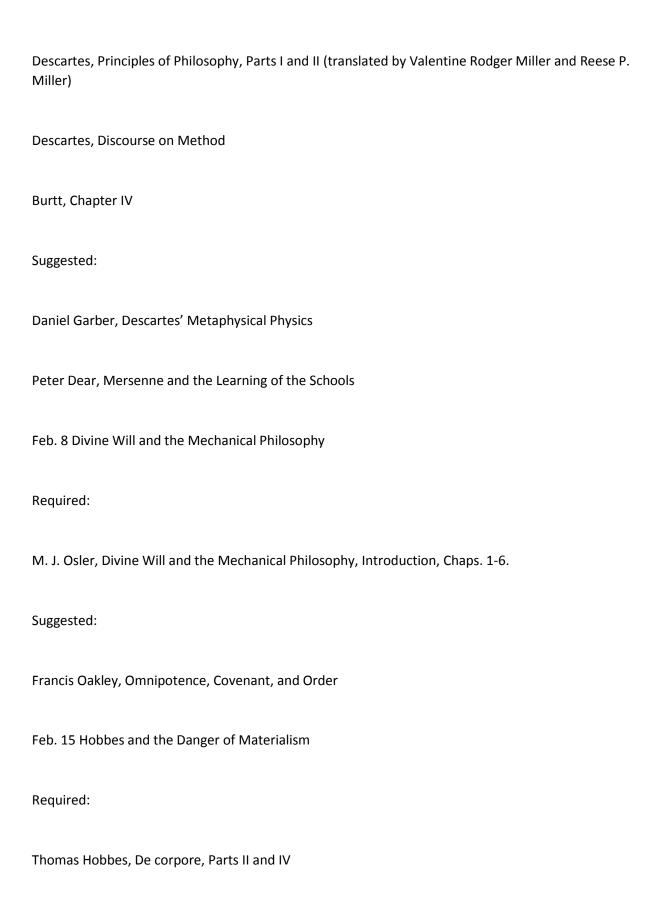
Jan. 11 Introduction

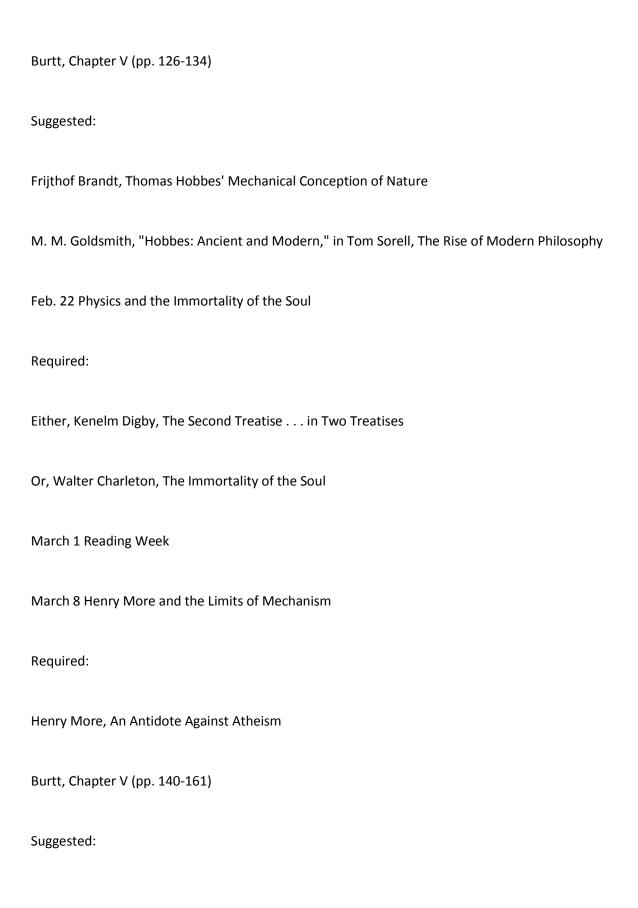
Margaret J. Osler, "Mixing Metaphors: Science and Religion or Natural Philosophy and Theology in Early Modern Europe," History of Science, 1998, 35: 91-113.

Brooke and Cantor, Reconstructing Nature, Section 1

John Hedley Brooke, Science and Religion: Some Historical Perspectives, Chapters 1 and 2.

Jan. 18 The Search for a New Philosophy of Nature
Required:
Paul Oskar Kristeller, "Humanism," in The Cambridge History of Renaissance Philosophy
And the section on "Natural Philosophy"
Burtt, The Metaphysical Foundations of Modern Science, Chapters I-III
Suggested:
Gary B. Deason, "Reformation Theology and the Mechanistic Conception of Nature," in Lindberg and Numbers, God and Nature
Jan 25 The Foundation of the Mechanical Philosophy: The Restoration of Ancient Atomism
Required:
Walter Charleton, Physiologia, Book I, Chaps. III, IV, V; Book II, Chaps. I, III, IV; Book III, Chaps. I, XV, and selected others
Suggested:
Robert Kargon, Atomism in England
Feb. 1 The Foundation of the Mechanical Philosophy: The Cartesian alternative
Required:





Alan Gabbey, "Henry More and the Limits of Mechanism" and
Alison Coudert, "Henry More and Witchcraft," both in Sarah Hutton, ed., Henry More
John Henry, "Occult Qualities and the Experimental Philosophy: Active Principles in Pre-Newtonian Matter Theory," History of Science, 1986, 24: 335-381.
March 15 Boyle and Providential Natural Philosophy, I
Required:
Robert Boyle, A Free Enquiry into the Vulgarly Received Notion of Nature, Introduction and pp. 1-78Suggested:
John Henry, "Henry More versus Robert Boyle: The Spirit of Nature and the Nature of Providence," in Hutton, ed., Henry More
Margaret J. Osler, "The Intellectual Origins of Robert Boyle's Philosophy of Nature: Gassendi's Voluntarism and Boyle's Physico-Theological Project,' in Richard Kroll, Richard Ashcraft, and Perez Zagorin, eds., Philosophy, Science, and Religion in England, 1640-1700.
March 22 Boyle and Providential Natural Philosophy, II
Required:
Robert Boyle, A Free Enquiry into the Vulgarly Received Notion of Nature, pp. 79-165.
Burtt, Chapter VI
Suggested:

Keith Hutchison, "What Happened to Occult Qualities in The Scientific Revolution?" Isis, 1982, 73: 233-253.
March 29 Boyle and the Limits of Natural Philosophy
Required:
Robert Boyle, A Discourse of Things above Reason
Richard S. Westfall, Chapters 5, 6, 7
Suggested:
Jan W. Wojcik, "The Theological Context of Boyle's Things above Reason," in Michael Hunter, ed., Robert Boyle Reconsidered
Jan W. Wojcik, Robert Boyle and the Limits of Reason
April 5 Theology and Alchemy in Newton's Natural Philosophy
Required:
Dobbs and Jacob, Newton and the Culture of Newtonianism, Chapter 1
Burtt, Chapter VII
Suggested:

B. J. T. Dobbs, The Janus Faces of Genius
Richard S. Westfall, Never at Rest
April 12 The Leibniz-Clarke Correspondence
Required:
H. G. Alexander, ed., The Leibniz-Clarke Correspondence
Margaret C. Jacob, "Christianity and the Newtonian Worldview," in Lindberg and Numbers, God and Nature