

**Integrated Studies 002, Spring 2012, Coursemap**

INTRO WEEK					
		Prof. Smith: The Politics of Rational Human Dominion			Peter Harrison, "Subduing the Earth: Genesis I, Early Modern Science, and the Exploitation of Nature;" Francis Bacon, "Prometheus: Or the State of Man," Ruiping Fan, "A Reconstructionist Confucian Account of Environmentalism: Toward a Human Sagely Dominion Over Nature."
Wed.	11-Jan				
Thurs	12-Jan	Lunch Seminar, McClelland Hall, The Quad, noon-1.30			COMMON TEXT: Isaac Asimov, <i>Foundations</i> , parts 1-3
Fri.	13-Jan	Synthesis Seminar			

<b>Political Science, Prof. Smith, Mondays Cohen 402, 2-3.30</b>	<b>Physics, Prof. Balasubramanian, Tuesdays Cohen 402, 12-1.30</b>	<b>Literature, Prof. Wilson, Wednesdays Cohen 402, 2-3.30</b>	<b>READINGS</b>
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WEEK 1: The Classical Universe						
	Mon.	16-Jan	MLK Day, class does not meet			
	Tues.	17-Jan		Determinism: The universe as a machine		Feynman, "Ch1. The Law of Gravitation" from <i>The Character of Physical Law</i> . First four pages of the Scientific American article on "Chaos" by Crutchfield et al.
	Wed.	18-Jan			Introduction to Milton: Biography, Poetic form, Milton and science	Paradise Lost, introduction to Kerrigan edition; The Book of Genesis, Illustrated by R. Crumb
	Thurs.	19-Jan	Lunch Seminar, McClelland Hall, The Quad, noon-1.30			COMMON TEXT: Isaac Asimov, <i>Foundations</i> , parts 4-5; <b>SYNTHESIS ESSAY 1</b>
	Fri.	20-Jan	Synthesis Seminar			

WEEK 2: Order and Disorder						
	Mon.	23-Jan	Postmodernist Democracy			William E. Connolly, "Pluralism and the Universe;" Frederick Dallmayr, "Integral Pluralism: Holism and Difference."
	Tues.	24-Jan		Indeterminism: A Universe that Plays Dice?		Feynman, "Ch. 6: Probability and uncertainty: the quantum mechanical view of nature" from <i>The Character of Physical Law</i> . <i>Scientific American</i> article on "Living in Quantum World" by Vedral.
	Wed.	25-Jan			Intersecting Topics and Issues, <b>FIRST CLOSE READING DUE</b>	Reading: Paradise Lost book 1
	Thurs.	26-Jan	Lunch Seminar, McClelland Hall, The Quad, noon-1.30			COMMON TEXT: Jorges Luis Borges, "The Garden of Forking Paths"
	Fri.	27-Jan	Synthesis Seminar			

WEEK 3: Control						
	Mon.	30-Jan	Politics of Domination			Machiavelli, <i>The Prince</i> ; Nietzsche, <i>Beyond Good and Evil</i> ; Thus Spake Zarathustra; Bernd Magnus, "Nietzsche's Philosophy in 1888: The Will to Power and the Übermensch"
	Tues.	31-Jan		Measurement, Objective reality and interpretations of quantum indeterminism, <b>FIRST PSET DUE</b>		<i>Scientific American</i> articles on Quantum Computation (Nielsen), Quantum Teleportation (Zeilinger), and Schrodinger's cat (Philip Yam)
	Wed.	1-Feb			The Debate in Hell, Chaos, and remaking past literary orders	Reading: Paradise Lost book 2
	Thurs.	2-Feb	Lunch Seminar, McClelland Hall, The Quad, noon-1.30			COMMON LISTENING: Richard Strauss, "Also sprach Zarathustra, Op. 30" ; <b>SYNTHESIS ESSAY 2</b>
	Fri.	3-Feb	Synthesis Seminar			

**WEEK 4: Authority and Free Will**

			The Politics of Unplanned Natural Evolution			William Graham Sumner, <i>What the Social Classes Owe Each Other</i> ; H.L. Mencken, <i>Men versus the Man</i> ; F. A. Hayek, "Material Conditions and Ideal Ends."
	Mon.	6-Feb				<i>Scientific American</i> articles by Quigg on "The coming revolutions in particle physics"; Kane on "The dawn of physics beyond the Standard Model"; and Weinberg on the Standard Model of Particle Physics and going beyond it.
	Tues.	7-Feb		Reductionism: the elementary constituents of the universe		
	Wed.	8-Feb			God's authority, Problems of free will, the telescope <b>SECOND CLOSE READING DUE</b>	Reading: Paradise Lost book 3
	Thurs.	9-Feb	Lunch Seminar, McClelland Hall, The Quad, noon-1.30			COMMON LISTENING: The Grey Album, Brian Joseph Burton
	Fri.	10-Feb	Synthesis Seminar			

**WEEK 5: Altered States**

			Rational Teleological Evolution I: The Politics of Idealism			Immanuel Kant, "Idea for a Universal History from a Cosmopolitan Point of View;" Francis Fukuyama, "An Idea for a Universal History."
	Mon.	13-Feb				
	Tues.	14-Feb		Emergence: Macroscopic phenomena vs. microscopic interactions. <b>SECOND PSET DUE.</b>		<i>Scientific American</i> articles on "Self-Organized Criticality" by Bak and Chen; "How water freezes" by Chalmers; "Liquid Crystals" by Fergasen
	Wed.	15-Feb			Satan's great soliloquy; Adam, Eve, and Sex	Reading: Paradise Lost book 4
	Thurs.	16-Feb	Lunch Seminar, McClelland Hall, The Quad, noon-1.30			COMMON TEXT: Franz Kafka, "The Metamorphosis"; <b>SYNTHESIS ESSAY 3</b>
	Fri.	17-Feb	Synthesis Seminar			

**WEEK 6: Conflicting Viewpoints**

			Rational Teleological Evolution II: The Politics of Materialism			Karl Marx and Friedrich Engels, <i>Manifesto of the Communist Party</i> ; Francis Fukuyama, <i>The End of History and the Last Man</i>
	Mon.	20-Feb				
	Tues.	21-Feb		Relativity: The observer dependence of space-time		Hawley & Holcomb Ch. 7
	Wed.	22-Feb			Eve's dream; Angels, humans, and Galileo; War in heaven <b>THIRD CLOSE READING DUE</b>	Reading: Paradise Lost book 5
	Thurs.	23-Feb	Lunch Seminar, McClelland Hall, The Quad, noon-1.30			COMMON TEXT: Descartes, <i>Meditations</i> 1-3
	Fri.	24-Feb	Synthesis Seminar			

**WEEK 7: Shaping Time**

			Humanly Guided Social Evolution <b>MIDTERM PAPER DUE</b>			Lester Ward, "The Efficacy of Effort;" David E. Liellenthal, "Selection from TVA: Democracy on the March;" Rexford G. Tugwell, "The Principle of Planning and the Institution of Laissez-Faire."
	Mon.	27-Feb				
	Tues.	28-Feb		General relativity: The warping of space time. <b>THIRD PSET DUE.</b>		Hawley & Holcomb Ch. 8
	Wed.	29-Feb			War and violence; morals; science invents gunpowder	Reading: Paradise Lost book 6
	Thurs.	1-Mar	Lunch Seminar, McClelland Hall, The Quad, noon-1.30			COMMON TEXT: The Bhagavad Gita
	Fri.	2-Mar	Synthesis Seminar			<b>SYNTHESIS ESSAY 4</b>

SPRING BREAK		
Mon.	5-Mar	SPRING BREAK: CLASS DOES NOT MEET
Tues.	6-Mar	
Wed.	7-Mar	
Thurs.	8-Mar	
Fri.	9-Mar	

WEEK 8: Origins and Destinies			
Mon.	12-Mar	Humanly Guided Species Evolution	Bela H. Banathy, "Self-Guided/Conscious Evolution;" Eric Chaisson, <i>The Life Era: Cosmic Selection and Conscious Evolution</i>
Tues.	13-Mar		Hawley & Holcomb Ch. 12; <i>Scientific American</i> article by Michael Turner on "The origin of the universe"
Wed.	14-Mar		Creation of the world Reading: Paradise Lost book 7
Thurs.	15-Mar	Lunch Seminar, McClelland Hall, The Quad, noon-1.30	
Fri.	16-Mar	Snythesis Seminar COMMON VIEWING: "Monkey Goes Wild about Heaven," "Monkey Turns Nursemaid"; SYNTHESIS ESSAY 5 -- <a href="#">SPECIAL ASSIGNMENT ON COSMOGONY</a>	

WEEK 9: Mysteries			
Mon.	19-Mar	The Politics of Cosmic Stewardship	Kay Read, "Sacred Commoners: The Motion of Cosmic Powers in Mexica Rulership;" Mark L. Lupisella, "Cosmocultural Evolution,"
Tues.	20-Mar		From the void to galaxies and organic molecules - and two great puzzles <a href="#">FOURTH PSET DUE</a> Hawley & Holcomb Ch. 13. <i>Scientific American</i> article on "Dark Worlds" by Feng & Trodden.
Wed.	21-Mar		Limits on Adam and Eve's knowledge of the cosmos <a href="#">FOURTH CLOSE READING DUE</a> Reading: Paradise Lost book 8
Thurs.	22-Mar	Lunch Seminar, McClelland Hall, The Quad, noon-1.30	
Fri.	23-Mar	Snythesis Seminar COMMON TEXT: Jorge Luis Borges, "Tlön, Uqbar, Orbis Tertius"	

WEEK 10: Reason and Desire			
Mon.	26-Mar	The Classical Politics of Natural Purposes	Larry Arnhart, "The Darwinian Biology of Aristotle's Political Animals;" Hannah Arendt, <i>The Human Condition</i>
Tues.	27-Mar		Nelson, Biological Physics, Ch. 2; <i>Scientific American</i> article on Synthetic Biology by Baker et al.
Wed.	28-Mar		The Fall Reading: Paradise Lost book 9
Thurs.	29-Mar	Lunch Seminar, McClelland Hall, The Quad, noon-1.30	
Fri.	30-Mar	Snythesis Seminar COMMON TEXT: Milton, <i>Areopagitica</i> ; <a href="#">SYNTHESIS ESSAY 6</a>	

WEEK 11: Are Humans Different?			
Mon.	2-Apr	The Politics of Cosmic Co-Existence	Peter Singer, "Speciesism Today;" Jane Bennett, "Vitality and Self-Interest;" Bill McKibben, "The Path of More Resistance"
Tues.	3-Apr		Principles of Neural Science, p. 5-35; <i>Scientific American</i> article on "Optogenetics" by Diesseroth.
Wed.	4-Apr		The interconnectedness of human and non-human worlds <a href="#">FIFTH CLOSE READING DUE</a>
Thurs.	5-Apr	Lunch Seminar, McClelland Hall, The Quad, noon-1.30	
Fri.	6-Apr	Snythesis Seminar COMMON VIEWING: <i>The Tempest</i> (Julie Taymor, director)	

WEEK 12: Providence						
	Mon.	9-Apr	The Great Chain of Being and Political Providentialism <b>FINAL PAPER FIRST DRAFT DUE</b>		Arthur O. Lovejoy, "The Great Chain of Being in Eighteenth Century Thought, and Man's Place and Role in Nature;" Robert P. Hay, "Providence and the American Past."	
	Tues.	10-Apr		Cognition as a physical process	<i>Scientific American</i> articles on Perception (Freeman), Memory (LeDoux), on the Sense of place (Knierim), and on Dreams (Winson).	
	Wed.	11-Apr			Expulsion from Eden; bleakness of post-laparian life	
	Thurs.	12-Apr	Lunch Seminar, McClelland Hall, The Quad, noon-1.30			COMMON TEXTS: Stanislaw Lem, "Mymosh and the Self-begotten," Robert Browning, "Caliban upon Setebos"; <b>SYNTHESIS ESSAY 7</b>
	Fri.	13-Apr	Snythesis Seminar			

WEEK 13: Enlightenment						
	Mon.	16-Apr	The Politics of Cosmic Unity		Nicola Pende, "The Oriental Sense of Cosmic Human-Divine Unity versus the Mechanical Super-Rationalism of the West;" Joseph M. Kitagawa, "Buddhism and Asian Politics;" Wes Nisker, <i>Buddha's Nature: Evolution as a Practical Guide to Enlightenment</i> .	
	Tues.	17-Apr		Unknowability: Theories of everything and the limits of scientific inference. <b>SIXTH PSET DUE</b>	Wigner's essay on "The unreasonable effectiveness of mathematics in the natural sciences"; Feynman on "The relation of mathematics to physics" from <i>The Character of Physical Law</i> ; Weinberg on "Beautiful Theories".	
	Wed.	18-Apr			Connections between human action, cosmic structure, and poetic order	
	Thurs.	19-Apr	Lunch Seminar, McClelland Hall, The Quad, noon-1.30			COMMON TEXT: Hermann Hesse, <i>Siddhartha</i>
	Fri.	20-Apr	Snythesis Seminar			

CLOSING WEEK					
	Mon.	23-Apr	End of Year Group Presentations		
	Tues.	24-Apr	End of Year Group Presentations		

**PHYSICS TAKE HOME FINAL DUE Monday, Apr 30, NOON**

**POLITICAL SCIENCE FINAL PAPER, FINAL DRAFT DUE Wednesday, May 2, NOON**

**LITERATURE FINAL EXAM Friday, May 4, 9-11am**