

Scientific Revolutions
REVISED SYLLABUS

Winter Term 2000

<u>Date</u>	<u>Topic</u>	<u>Readings</u>
5 Jan.	Heritage of Renaissance Science vs. the New, Modern Science.	Westfall, ch. VII
12 Jan.	Isaac Newton: The Discovery/Creation of Gravity	Westfall, ch. VIII Baigrie (Newton, Cavendish)
19 Jan.	<i>Film</i> : "Newton's Argument for Universal Gravitation" Newtonian Optics	Cohen, ch. 7 (<i>don't obsess if you do not understand the math</i>)
26 Jan.	Chemistry: Alchemy & Paracelsus	Baigrie (Paracelsus) Westfall, ch. IV
2 Feb.	Chemistry: Phlogiston and Lavoisier	Baigrie (Priestley, Lavoisier)
9 Feb.	Chemistry: Lavoisier and Mendeleev	Baigrie (Gay Lussac, Dalton, Mendeleev)
16 Feb.	READING WEEK	
23 Feb.	Science Applied?: Thermodynamics and Electricity	Baigrie (Volta, Ørsted, Faraday)
1 Mar.	The rise of Geology: Hutton, Lyell, Cuvier	Baigrie (Hutton, Cuvier, Lyell)
8 Mar.	Darwin, Lamarck and Evolution	Baigrie (Linnaeus, Lamarck, Darwin)
15 Mar.	Mendel: the discovery of genetics and their application	Baigrie (Mendel) <i>(and you'll probably want to begin Watson)</i>
22 Mar.	DNA: The Double Helix	Watson (complete)
29 Mar.	Inside the Atom: X-Rays and Radiation	Baigrie (Avogadro, Röntgen, Thomson)
5 Apr.	Outside the Atom: Quantum Physics, Relativity, and the Bomb.	Baigrie (Rutherford)