

"MEDIEVAL SCIENCE: NATURAL PHILOSOPHY IN ISLAM AND CHRISTIANITY"

Daniel Newsome Presiding



Hans Holbein- ca. 1520s . . . 40

Books:

- Ibn Tufayl, Abu Bakr (ca. 1100-1184). *Ibn Tufayl's Hayy ibn Yaqzān: a Philosophical Tale*. Translated and with notes by Lenn Evan Goodman. New York: Twayne Publishers, 1972 (or similar).
- Lucretius Carus, Titus (ca. 100-55 B.C.). *On the Nature of the Universe (De rerum natura)*. Translated by R. E. Latham. New York: Penguin, 1978 (or similar).
- The Course Anthology contains the rest of the readings. Additional readings will be supplied as needed.

This class will be conducted as a seminar. Most of the readings are primary sources (translated into English). I will distribute more detailed weekly assignments each week. This syllabus is just a rough draft and will be fine-tuned as we go.

In addition to short weekly written assignments, there will be 2 smallish papers and a longer final paper. All written assignments will be turned in. There may be an occasional quiz on some of the readings. Grades will be based on these written assignments (60%) and class participation (including quizzes) (40%).

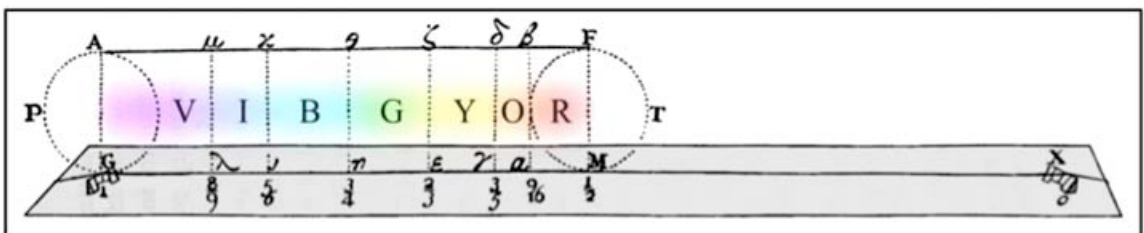
Week #	Instructions
Week 1	Discussion and descriptions. Read like a historian and a scientist.
Week 2	<p>ANCIENT/CLASSICAL BACKGROUND. Read the following:</p> <ul style="list-style-type: none"> - Alter, Robert. <i>The Five Books of Moses: a Translation with Commentary</i>. [sources written sometime between 1200 and 700 BC] 1st ed. New York: W.W. Norton & Co., 2004. Read pp. ix and 9-28. Be sure to read the foot notes too. [20pp] Suggestions: Try to imagine how this excerpt would be done as a scientific movie. Map it out if you want to and/or figure out the day-by-day chronology. -Plato (427-348 BC). <i>The Republic of Plato</i>. Translated with Introduction and Notes by Francis Macdonald Cornford. New York: Oxford University Press, 1945. Read these selections from Plato's <i>Republic</i>: The Allegory of the Cave, Higher Education, and The Myth of Er. Pp. 227-250 and 348-359. [ca. 34pp] Pay particular attention to the "Allegory of the Cave" and the "Myth of Er." How might these be presented in a film or a comic book or similar? Maybe try a drawing. -Aristotle (384-322 BC) –<i>Meteorology</i> - Webster Trans. Read the following sections. [ca. 40pp] This is a difficult reading. It is the foundation of much of the science of the Middle Ages. Book I, parts 1-4, 7, 14; Book II, parts 1, 3, 5, 9; Book III, parts 1, 2; Book IV, all of it. <p>Write up some comments on the readings for this week. These should be about a page long, give or take. Try to comment on each of the readings and try to connect them together when you can. Feel free to discuss ideas inspired by the readings with other students in the class and write up these dialogues if they are interesting. Feel free to draw diagrams or illustrate the readings too. A lot of this material is really strange. Don't be put off by it. You will understand some parts and they might even seem familiar, but other parts may confuse you. Don't let it bother you. These readings will introduce you to a new [old] world. It takes some time to become accustomed to it (much like the "Allegory of the Cave"). Think of them as science fiction.</p>

<p>Week 3</p> <p>For Class on Sept. 20.</p>	<p>More Ancient/Classical Background and Late Antique and early Islamic thoughts.</p> <ul style="list-style-type: none"> - Plato's <i>Timaeus</i>. (Plato, 427-348 BC) Read pp. 56-75. Most of this reading is Cornford's more-or-less useful commentary. Plato's text is the indented parts. Read both, but focus on Plato's words and use Cornford's commentary when you are confused. This connects to the "Myth of Er," but it is not very clear exactly how. [19pp] -Maas' section on Plotinus, found in Plotinus, <i>Readings in Late Antiquity: A Sourcebook</i>, pp. 264-269. [5pp] -Plotinus (fl. 3rd c. AD. Born in Egypt and died in Italy.), the founder of what would later be called Neoplatonism, synthesizes Plato and Aristotle, among other innovations. His synthesis became a major influence on the three major monotheistic religions of the region (Judaism, Christianity, and Islam). In the Middle Ages much of his <i>Six Enneads</i> (largely from Tractates IV-VI) were thought to have been written by Aristotle. They were referred to as the <i>Theology of Aristotle</i>. As such, they had the added intellectual impact of having been supposedly written by the greatest philosopher of all time. Their influence was immense. <p>Plotinus- Neoplatonic cosmos. Read the following sections: [ca. 28pp]</p> <ul style="list-style-type: none"> I.4.10- On True Happiness (Well Being) [on mirrors] – PDF pp. 6-7. II.1-3- On Heaven - On the Movement of Heaven -Whether the Stars are Causes – PDF pp. 7-21. III.8.9-10 – On Nature and the Contemplation of the One - PDF pp. 21-23. IV.7 – On the Immortality of the Soul – PDF pp. 31-39. V.2.1-2 – On the Origin and Order of the Beings following the First – PDF pp. 39-40. <ul style="list-style-type: none"> -Claudius Ptolemy [fl. 2nd century AD. Egyptian.] Ptolemy's <i>Tetrabiblos</i>. pp. 3-19. [ca. 7pp of actual reading... the rest is front-matter, symbol key, and the Greek original.] The <i>Tetrabiblos</i> is one of the most popular books of all time. -Alfarabi (died ca. 950 AD. Possibly born in Afghanistan or Kazakhstan but lived mostly in Baghdad.) Alfarabi- selected passages - in <i>Philosophy in the Middle Ages; the Christian, Islamic, and Jewish Traditions</i>. pp. 211-221. [10pp] <div style="text-align: center; margin-top: 20px;"> <p>The celestial body</p> </div>
---	---

<p>Week 4</p> <p>Due for Class on Sept. 27th</p>	<p style="text-align: center;">Quadrivium: Arithmetic, Music, Geometry, Astro-nomy-logy</p> <p style="text-align: center;">This week will focus on arithmetic, algorism, and a little music theory....</p> <p>-Boethius, Anicius Manlius Severinus (ca. 480-525/6). <i>Boethian Number Theory: a Translation of the De institutione arithmetica</i>. Edited, translated, with introduction and notes by Michael Masi. Amsterdam: Rodopi, 1983. [9pp, pp. 71-79] This was one of the primary texts for number theory in the Middle Ages. It is a veritable translation from Greek to Latin of a Neopythagorean book on arithmetic by Nicomachus of Gerasa (fl. ca. 100 AD).</p> <p>-Capella, Martianus (fl. 410-439). <i>Martianus Capella and the Seven Liberal Arts: The Marriage of Philology and Mercury [De nuptiis Philologiae et Mercurii]</i>. Translated by William Harris Stahl and Richard Johnson with E. L. Burge. Vol. 2. 2 vols. New York: Columbia University Press, 1977. [15pp on Arithmetic and Numerology (pp. 273-287)]</p> <p>-Burnett, Charles. "The Semantics of Indian Numerals in Arabic, Greek and Latin." <i>Journal of Indian Philosophy</i> 34, no. 1-2 (2006): 15-30. [16pp]</p> <p>-Sacrobosco, Johannes de (fl. early 13th century). "Arabic Numerals and Arithmetic Operations from Sacrobosco's <i>Algorism</i>." In <i>A Source Book in Medieval Science</i>, edited by Edward Grant. Cambridge, MA: Harvard University Press, 1974. [6pp, pp. 92-98 and look over the rest of the arithmetical material that continues up to p. 101.] This text was derived from Arabic sources, namely Al-Khowarizmi's <i>Algorism</i>.</p> <p>-Al-Khowarizmi (ca. 780-ca. 850), Muhammad ibn Musá, Robert of Chester, and Louis Charles Karpinski. <i>Robert of Chester's Latin Translation of the Algebra of al-Khowarizmi</i>. University of Michigan Studies. Humanistic Series. New York: Macmillan, 1915. [5pp] This is the more complicated mathematics of Al-Khowarizmi and the basis of modern algebra.</p> <p>-Boethius, Anicius Manlius Severinus (ca. 480-525/6). <i>Fundamentals of Music [De institutione musica]</i>. Translated, with introduction and notes by Calvin M. Bower. Edited by Claud V. Palisca. New Haven, CT: Yale University Press, 1989. [20pp] This was arguably the most important text for music theory in the Middle Ages. Like Boethius' book on arithmetic, this book is a mash-up, translation, and riff of a book of music theory by Nicomachus of Gerasa (fl. ca. 100 AD) and another book of music theory by Ptolemy (fl. ca. 150 AD).</p> <p>As always, write about a page of comments or reactions or whatever on this week's readings.</p> <hr/> <p>Optional: Newsome, Daniel. "The Math, Music, Metaphysics, and Mysticism of the Quadrivium: The Four Paths to a Theory of Structure." In <i>Science, Technology, and the Humanities: A New Synthesis</i>, edited by Lisa M. Dolling. Greenfield, MA: Jensen/Daniels Publishers, 2011. [21pp] This is an overview of the quadrivial philosophical structure.</p>
---	--

DATES	SOURCES	1	2	3	4	5	6	7	8	9	0
XIIth C	Toledo (Spain): Astronomical Tables. Munich, Bayerische Staatsbibliothek, Clm 18927, f° 1r, 1v	1	2	3	4	5	6	7	8	9	0
XIIth C	Algorism. Munich, Bayerische Staatsbibliothek, Clm 13021, f° 27r.	1	2	3	4	5	6	7	8	9	0
XIIth C	Algorism. Paris, BN, Ms. lat. 15461, f° 1	1	2	3	4	5	6	7	8	9	0
XIIth C	Algorism. Paris, BN, Ms. lat. 16208, f° 3	1	2	3	4	5	6	7	8	9	0
XIIth C	Algorism. Paris, BN, Ms. lat. 16208, f° 67	1	2	3	4	5	6	7	8	9	0
XIIth C	Algorism. Vienna Nat. Library, Cod. Vin. 275, f° 33	1	2	3	4	5	6	7	8	9	0
Late XIIth C	France: Astronomical Tables. Berlin, Cod. lat. Fol. 307, ff. 6, 9, 10, 28.	1	2	3	4	5	6	7	8	9	0
After 1264	England: Algorism. London, BM Ms. Add. 27589, f° 28	1	2	3	4	5	6	7	8	9	0
1256	Paris, BN, Ms. lat. 16334	1	2	3	4	5	6	7	8	9	0
Late XIIIth C	Paris, BN, Ms. lat. 7359, f° 50v	1	2	3	4	5	6	7	8	9	0
Around 1300	London, BM Ms. Add. 35179	1	2	3	4	5	6	7	8	9	0
Mid-XIVth C	London, BM Ms. Harl. 2316, ff. 2v-11v	1	2	3	4	5	6	7	8	9	0
Mid-XIVth C	London, BM Ms. Harl. 80, f° 46r	1	2	3	4	5	6	7	8	9	0
Around 1429	London, BM Ms. Add. 7096, f° 71	1	2	3	4	5	6	7	8	9	0
XVth C	Italian manuscript. London, BM Ms. Add. 8784, f° 50r-51	1	2	3	4	5	6	7	8	9	0
Around 1524	<i>Quodlibetarius</i> . Erlangen, Ms. n° 1463	1	2	3	4	5	6	7	8	9	0

FIG. 26.10. The second form of European numerals (algorisms). For more details, see Hill, 1915



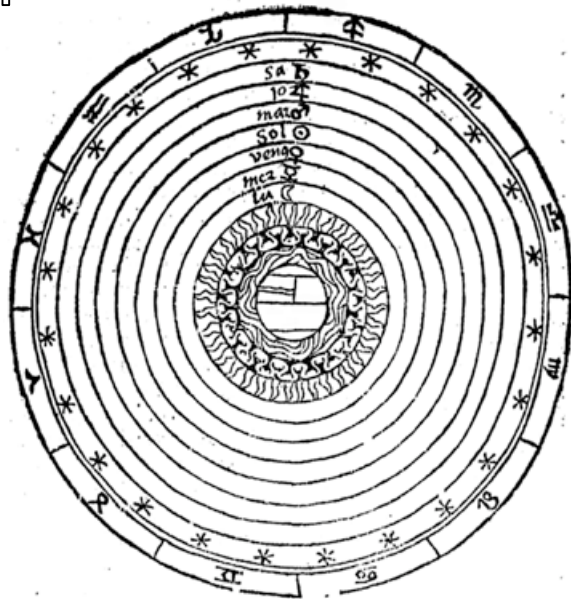
Newton's Spectral Monochord

The rainbow's colors, ROYGBIV, are shown in relation to a diatonic scale on a monochord. This is a composite image based on an illustration from Newton's *Opticks* (1704).

Week 5

Due for the class on Oct. 4rd.

This week we will focus on astronomy and the switch from geocentric to heliocentric theory.



-The image at the left is the Cosmos... from a printed edition of Sacrobosco's *Sphere* (1508).

Readings for this week:

- Aristotle's *De caelo*. Read I.3-5, 8-9, and II.1 and II.14. [Book I, parts 3-5, and parts 8-9, and Book II, parts 1 and 14], pp. 4-9, pp. 15-20, and pp. 28-33.... on the ether, infinite issues, gravity, centrality, and other stuff... [15pp]

-Sacrobosco, Johannes de (fl. early 13th century). Parts of his astronomy called, "Sphere." In *A Source Book in Medieval Science*, edited by Edward Grant. Cambridge, MA: Harvard University Press, 1974. [12pp] I'll be handing out pp. 442-443, which somehow didn't get into our book. Look at the diagrams I put at the end of this reading too.

- Prodocimo- Excerpt from his Commentary on Sacrobosco, translated by Newsome. [1p] Look at pictures that follow this short reading. What are they of?

-Oresme, Nicole. "The Compatibility of the Earth's Diurnal Rotation With Astronomical Phenomena and Terrestrial Physics," from Grant, Edward, ed. *A Source Book in Medieval Science*. Source Books in the History of the Sciences. Cambridge, Mass.: Harvard University Press, 1974. pp. 503-510. 7pp. Is he serious?

-Copernicus, Nicholas, and Noel M. Swerdlow. "The Derivation and First Draft of Copernicus's Planetary Theory: A Translation of the Commentariolus with Commentary." *Proceedings of the American Philosophical Society* 117, no. 6 (1973): 423-512. Read just pp. 433-439. 6pp. This is the first draft of Copernicus' revolutionary book on astronomy.

-Tūsī, Naṣīr 'al-Dīn Muḥammad ibn Muḥammad. *Naṣīr al-Dīn al-Tūsī's Memoir on astronomy = : al-tadhkira fī 'ilm al-hay'a*. Translated by F. J. Ragep. New York: Springer-Verlag, 1993. pp. 194-222 (even). ca. 13pp. This excerpt is about how to get linear motion from circular motion, which was a useful mathematical tool for modeling certain planetary motions. Much of this reading is very technical. Figure it out as best as you can.

- [Tusi-] Copernicus, Nicholas. "[Tusi Couple] Book III, Chapter 4 - How an Oscillating Motion or Motion in Libration Is Constructed Out of Circular [Motions]." Translated by Edward Rosen. In *On the Revolutions of the Heavenly Spheres - De revolutionibus...*, 125-126, 1978. 2pp. This short passage shows how Tusi's clever mathematical model found its way into Copernicus' revolutionary book on astronomy.

The first paper will be due next week. Make it 5pp, double spaced, with a normal specifications and all that. If you cite anything, and I imagine you will, make a footnote or endnote. Write on anything you like that relates to our class and the readings. It can be anything from fiction to a comic book to a standard scholarly paper. Feel free to expand on previous comments or class discussions or whatever you want. Make it interesting. I have to read it.

Optional: excerpts from Lindberg, David C. *The Beginnings of Western Science: the European Scientific Tradition in Philosophical, Religious, and Institutional Context, 600 B.C. to A.D. 1450*. Chicago: University of Chicago Press, 1992. This is in the Ancient volume. pp. 21-68. Read whatever you want from this excerpt.

Week 7

HEALTH, DISEASE, IN-BETWEEN, AND MEDICINE

Due for
the class
on Oct.
18th.

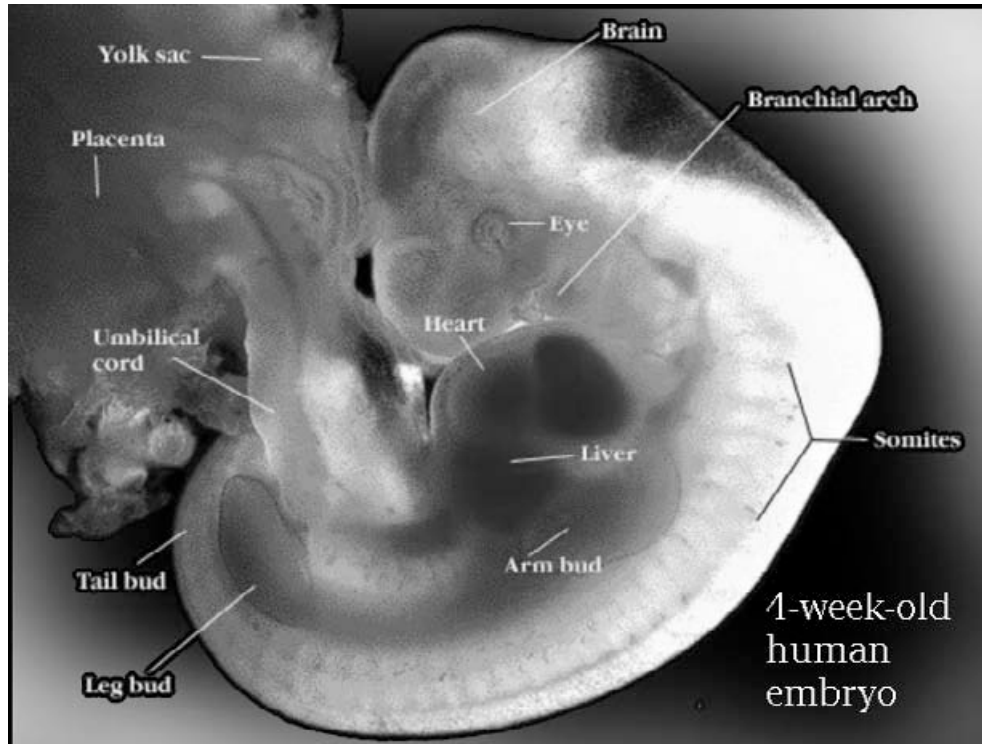
Please read the following...

-Hippocrates (b. 460 BC, roughly a contemporary of Socrates). Selected Readings. Filed under "Hippocrates" in the Ancient volume.

-From *On Ancient Medicine* read pp. 75-83 and 101-109. [10pp]

-From *Airs, Waters, and Places* read Parts 1-4. ca. [4pp]

-From *Aphorisms* read Section I and part of Section 2. [2pp]



-Galen (129-201 AD). "The Art of Medicine." Translated by P. N. Singer. In *Selected works*. Read pp. vii-viii, 345-359, 361-362, and 367-369. In Ancient volume filed under Galen. [ca. 20pp] **Next time, vii-viii, 345-359, 361, and 367-369**

-Galen. "The Construction of the Embryo." Translated by P. N. Singer. In *Selected Works*, 176-201. New York: Oxford University Press, 1997. In Ancient volume filed under Galen. [23pp]

-Avicenna, Constantine the African, and Bernard of Grodon. "*Canon* [excerpt]," "How to Combat Spells...", and "Mathematical Pharmacy." These three short readings are found in Edward Grant's *A Source Book in Medieval Science*, which can be found in Medieval Vol. 1, filed under "A" for "Avicenna." [ca. 9pp]

-Avicenna (d. 1037): pp. 715-720,

-Constantine the African (d. 1087): pp. 767-769.

-Bernard of Gordon (d. 1308): pp. 789-791.

-Baghdadi- Al-Baghdadi, 'Abd al-Latif ibn Yuṣuf. *Kitab al-ifadah wa'l-i'tibar : The Eastern Key*. This reading can be found in Medieval Volume 1, filed under "B" for "Baghdadi." Read pp. 273-279 and look at the pictures that follow. [4pp] These are his observations of bodies and skeletons that were piled up in Egypt after a horrible famine ca. 1200 AD.

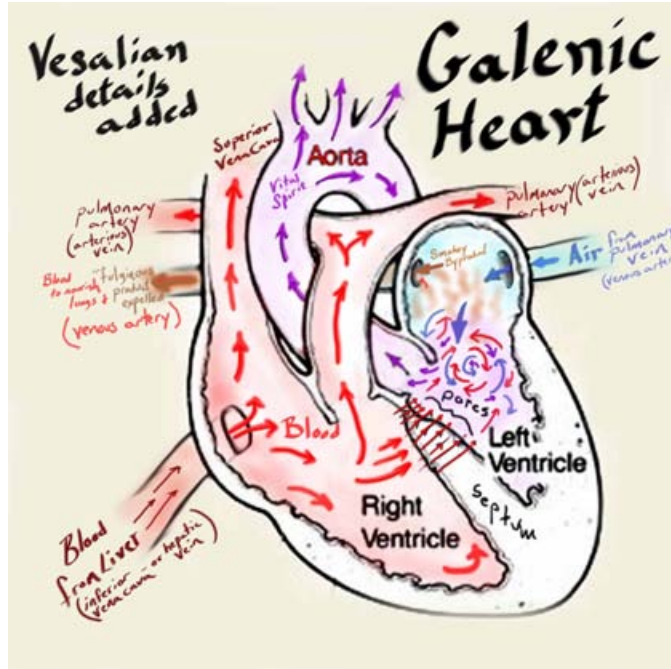
... and write about 1 page of comments or similar....

Week 8

The Heart and the Witch

Due for the class on Oct. 25th.

Halloween is on the 31st.




- Ibn An-Nafis, and Max Meyerhof. "Ibn An-Nafis (XIIIth Cent.) and His Theory of the Lesser Circulation." *Isis* 23, no. 1 (1935): 100-120. Read the whole article. Pp. 115-117 are the actual sections written by Ibn an-Nafis. 20pp
- Servetus- [not in anthology- I'll hand this out in class]- Servetus, Michael, and Charles Donald O'Malley. *Michael Servetus, a Translation of His Geographical, Medical, and Astrological writings*. Philadelphia,: American Philosophical Society, 1953. 12pp
- Vesalius, Andreas, and L. R. Lind. *The Epitome of Andreas Vesalius. Translated ... with preface and introduction by L. R. Lind, with anatomical notes by C. W. Asling, and Foreword by Logan Clendening [With a photographic reproduction of the Basle edition of 1542.]*. Cambridge, Mass.: M.I.T. Press, 1969. Read pp. 57-63 on the heart. 6pp. Filed under Vesalius in Medieval, Vol. 2. As you read about the heart, refer to the drawing of the heart labeled "Galenic Heart: Vesalian details added" [see above... also found about 1/8" further on in Vol. 2. This illustration is found right after the mostly black title page of ON THE FABRIC OF THE HUMAN BODY: Book VI: The Heart.... along with a photograph of an actual dissection of a heart.]
- Vesalius, Andreas. *On the fabric of the human body: a translation of De humani corporis fabrica libri septem*. Book I: Bones and Cartilages. First published 1543. Read pp. xlvii-lxii [16pp] and look over the illustrations that are from this huge, multi-volume text.
- Look at all the pictures from various publications by Vesalius.
- Vesalius, Andreas. *On the fabric of the human body: a translation of De humani corporis fabrica libri septem*. Book VI: The Heart and Associated Organs... Read pp. 23-24. 2pp.

And for Halloween... read...

-Stephens, Walter. "Witches Who Steal: Impotence and Illusion in *Malleus maleficarum*." *Journal Of Medieval & Early Modern Studies* 28, no. 3 (1998): 495. 22pp. [Handout]

And... as usual, write a 1-pager.

<p>Week 9</p> <p>Due for the class on Nov. 1st.</p>	<p>Circulation and Atoms</p> <p>- Harvey, William. "Excerpt from <i>De motu cordis</i>." In <i>Nature and Nature's Laws: Documents of the Scientific Revolution</i>, edited by Marie Boas Hall, 136-159. New York: Harper & Row, 1970. 12pp. Next time, different translation and selection of parts.</p> <p>-Avicenna- Flying Man Argument</p> <p>-Start reading <i>On the Nature of the Universe</i> by Lucretius. Read books I and II. Leucippus- Born early 400s BC. Very early atomist. Greek. Socrates- died 399 BC. Hated the idea of atoms, as did Plato and Aristotle. Democritus- ca. 460- ca. 370 BC- atomist. Democritus:Leucippus as Plato:Socrates. Greek. Epicurus of Samos (also where Pythagoras was from): ca. 341-270 BC. ...about a generation after Aristotle. Greek. Lucretius ca. 100- ca. 55 BC. Roman. A popular, but probably inaccurate description of Lucretius written by Saint Jerome ca. 370 AD, "He was driven mad by a love potion, and when, during the intervals of his insanity, he had written a number of books, ..., he killed himself by his own hand in the 44th year of his life."</p> <p>Optional: -Vesalius, Andreas. <i>On the fabric of the human body: a translation of De humani corporis fabrica libri septem</i>. Book VI: The Heart and Associated Organs... read pp. 92-103.</p>
<p>Week 10</p> <p>Due for the class on Nov. 8th.</p>	<p>Atomism part II</p> <p>Read <i>On the Nature of the Universe</i> by Lucretius. Read books III, and IV.</p> <p>trivia: Lucretius' book was, for all practical purposes, lost for more than 1000 years. It was re-discovered in 1417 in a monastic library in Italy by Poggio Bracciolini who scoured monastic libraries looking for lost ancient texts. Machiavelli, Molière, Galileo, and innumerable early modern scholars and natural philosophers were intensely interested in this book, but few actually refer to it, probably due to its atheistic themes.</p> <p>Read Meinel's essay "Early Seventeenth-Century Atomism." This is in Medieval Vol. II, under "M" for Meinel. [I'm bored with this rather poorly written essay on a good topic. Maybe quit using it for a while.]</p> <p>1-pager...</p>
<p>Week 11</p> <p>Due for the class on Nov. 15th.</p>	<p>Finishing up atoms and moving into optics.</p> <p>Lucretius excerpts from Books V and VI. -Read from Book V, lines 925-1240. -Read from Book VI lines 451-535 and 906-1288</p> <p>Aristotle's <i>De anima</i>, [<i>On the Soul</i>]: Read pp. 155-164, 168-top-of-176. 183-191. [24pp] Some translations call this book <i>Psychology</i>. As you read about vision, be aware that the translations of various terms are very inconsistent. E.g. the diaphanus, the transparent (as a noun), visual species, form, soul, potential/potency, actual/actuality, agent, agency, etc.</p> <p>Read pp. 175-190 from Averroes' <i>Long Commentary on the De Anima of Aristotle</i>. This is in Medieval Vol. 1, right before Avicenna's "Flying Man" argument. Read pp. 281-287 from Thomas Aquinas' <i>Commentary on Aristotle's De anima</i>. (This is located right before the Averroes reading.) [Next time, include a section that duplicates the Averroes reading. This one is on II.12, not II.6-7.]</p> <p>Write 1-pager.</p>

<p>Week 12 Due for the class on Nov. 22nd.</p>	<p>Optics- Plotinus, Alhazen, Bacon, et al., [and Kepler in class]</p> <ul style="list-style-type: none"> - Plotinus (fl. 3rd c. AD. Born in Egypt and died in Italy.) Read IV.5 – “On Problems of the Soul [also known as “On Sight”] – pp. 23-28. In the Ancient Volume, filed under “P” for Plotinus. [5pp] <u>Optionally</u> read IV.6 – “On Sense-Perception and Memory” if you want to. -Read Alhazen, Bacon, Witelo, and Pecham on issues of light and vision. Read the following selections (found in Medieval Vol. 1 filed under “Alhazen.” It’s the reading that begins next to the picture with all the candles, about ¼” in.) Read pp. 392-397 and 400-405. [10pp] [get rid of the repetitive Bacon readings from this one. See note below.] -Read in Lindberg: Chapter 4: Alhazen and the New Intromission Theory of Vision, pp. 58-85. This reading is found in the Medieval Vol. II., immediately before Macrobius. [27pp] -Read from Bacon’s <i>Opus maius</i>: read pp. 130-139 and 576-582. In Medieval Vol. I. [15pp] [segments from this reading are also in the one above from the SourceBook. Overall the reading is good...] <hr/> <p>Della Porta, Giambattista. <i>Natural magick</i>. English Edition, Printed for Thomas Young and Samuel Speed, 1658. [First Latin ed. 1558]</p> <ul style="list-style-type: none"> -Book VIII, Ch. XII of <i>Natural Magick</i> [pp. 228-229]- "The Weapon Salve." Given heretofore to <i>Maximilian the Emperor</i>, by <i>Paracelsus</i>, experimented by him, and was always very much accounted of by him while he lived. It was given to me by a noble man of his court. If the weapon that wounded him, or any stick dipped in his blood be brought, it will cure the wound, though the patient be never so far off. Take of the <i>Moss</i> growing upon a dead mans skull, which has laid unburied, two ounces. As much of the fat of a man. Half an ounce of <i>Mummy</i>, and man his blood. Of <i>Linseed Oil</i>, <i>Turpentine</i>, and <i>Bole-armenick</i>, an ounce. <i>Bray</i> them all together in a <i>Mortar</i>, and keep them in a long straight glass. Dip the weapon into the ointment, and so leave it. Let the patient in the morning, wash the wound with his own water. And without adding anything else, tie it up close, and he shall be cured without any pain. <hr/> <div style="display: flex; align-items: flex-start;">  <p>Bacon notes that both Aristotle and Boethius say that the sight of a lynx penetrates walls. This myth is probably from a mistranslation of the name Lynceus, an Argonaut from Greek myth who had legendary powers of sight. The sources actually suggest that Lynceus could see through walls... not that lynxes could. This is an interesting example of a Latin-based scholar misreading Greek, and the error infiltrating subsequent texts.</p> </div>
<p>Nov. 29th</p>	<p>Thanksgiving Recess.</p>
<p>Week 13 Due for the class on Dec. 6th.</p>	<p>Science and Religion</p> <ul style="list-style-type: none"> -Read pp. 95-128 [to the point when Hayy turns age 28] from Ibn Tufayl’s <i>Hayy ibn Yaqzan</i>. -Read the handout by Averroes. Could be edited a bit to the core message. -Read pp. 1-17 from Biruni’s Tahid, “The Determination of the Coordinates of Positions for the Correction of Distances between Cities.” Found in Medieval Vol. II, under Biruni.
<p>Week 14 Due for the class on Dec. 13th.</p>	<p>Ibn Tufayl’s <i>Hayy ibn Yaqzan</i>: Pt. II</p> <ul style="list-style-type: none"> -Read pp. 128-166, the end of the story.

<p>Week 15 Due for the class on Dec. 20th.</p>	<p>Ghazali</p> <p>Read Mamura on Ghazali. Read Al-Ghazali- pp. 164-181 Final paper.</p> <p>While reading al-Ghazali's arguments, think about Russell's Paradox formulated in the early 20th century.</p> <p>Al-Ghazali's arguments concerning the pre-eternity of the world are structurally reminiscent of Russell's Paradox</p> <p>The set of all sets that are not members of themselves. Such a set appears to be a member of itself if and only if it is not a member of itself, hence the paradox.</p>
---	--