

PS.325-201 2012 Spring (4794) Syllabus (Develop.Sci.Thought)

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office hours: MWF 9:30-11:30+3-4:30pm , TR 11:30-12:00+3-4:30pm , and by appointment

PS.325 is : a 4-credit undergrad course of the History and Philosophy of Natural Science, and important social and political interactions (often via economic & technologic routes). Intended for Science Education majors, we'll see how the modern situation developed. We'll use experiments and role-playing to illuminate the methods and natures of science. (For more ties to politics, try Hst.421 or 424 ; for a historical research focus, try Hst.438) (For a modern philosophy focus, try Phl.353; metaphysics and existentialism are 420, 465)

Class meets _T_R_ 12:30 - 14:40, from Jan.10 - Apr.26 in Sci.277 ... final Exam 12:45 May.01

Each meeting will include a lot of discussion - the class is customized for participants.

Absences: if you miss a meeting, you have missed your classmates' discussion that day.

Email me, so that I can provide you with a summary and an extra writing assignment to partially make up for missing the live discussion. If you miss an Exam, schedule with me before the next class to make it up - the make-up exam might be of different difficulty. see "summaries" *via* course web site: www.science.marshall.edu/foltzc/p20312sw.htm

Prerequisites: at least 12 credits of Natural Science courses (with "C" or higher)

The subject of this course includes all the Natural Science disciplines; students with these pre-req's (only 3 courses!) might not know even the key foundations for other disciplines, and might be quite unaware of old (outmoded) ideas from disciplines in their expertise.

Required

textbook: *Making Modern Science*, 1st edition. by Peter J.Bowler & Iwan Rhys Morus, from Chicago Press (2005) ... we'll read nearly all of its roughly 500 pages.

Other readings will be available (free) on the web, or provided as hard-copy handouts.

web browser : for our course web site www.science.marshall.edu/foltzc/p32512sw.htm

and to useful links beyond it (Wikipedia, ncate, nsta, nses, Google, PhysicsForums ...)

time & effort: in class and out, ≈ 10 effective hours/week to read, write, research, ponder

email access: I'll use your Marshall address as the default communication channel.

Grade Components:

Quizzes on weekly readings

Attendance and participation in Discussion

Projects, such as being discussion leader or trying out classroom demos/activities

homework, such as writing arguments or rubrics, or evaluating possible activities

exams (midterm and final)

each component will be equally weighted (20% each).

Statements that are valid for ALL Classes at Marshall:

Academic Dishonesty Policy : honesty is the foundation of science. see pp.66-70 in the catalog : www.marshall.edu/catalog/undergraduate/ug_10-11_published.pdf

Affirmative Action Policy : equal opportunity at Marshall is on pp.63-64 of the catalog

Computing Services' Acceptable Use Policy : don't "lend" your account to others ; don't send spam from it, or solicit from it. see www.marshall.edu/ucs/CS/accptuse.asp

Incomplete Grade Policy: to receive a grade "I", you must have done $\frac{3}{4}$ of the course work, at an acceptable (passing) proficiency (percentage) ; see pp.86-87 in the catalog.

Students with Disability Policy : the student must initiate procedures ... first, see info at www.marshall.edu/disabled/ ... then, contact the Office of Disabled Student Services (in Prichard Hall 117, phone 696-2271) , which will communicate with me.

Inclement Weather Policy: don't overly-risk your safety trying to get to or from class in a blizzard, flood, or tornado. See pg.64 in the catalog.