

**SySc 513: Systems Approach** (4 cr hr)

Fall Quarter, 2009, TuTh 4:40-6:30pm, 458 NH

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Course Web Site: <http://www.pdx.edu/syssc/courses-fall-2009> -- select Systems Approach**SYSTEMS APPROACH: Course Schedule**

Week	Tuesday	Thursday
1 (9/29) (10/1)	Student "inventory". Course overview. Definition of SYSTEMS and related concepts.	Lendaris, <i>IEEE, Vol. SMC-16, No.4</i> , "On Systemness and the Problem Solver: Tutorial Comments." Hall, <i>IEEE, Vol. SSC-5, No. 2</i> , "Three-Dimensional Morphology of Systems Engineering." [pdf files on class Web site]
2 (10/6) (10/8)	<b>Proactively changing our "mind set", a la Senge</b> Senge, <i>The Fifth Discipline</i> : Ch 1-5. ALSO, read Rabow, et al, <i>Learning Through Discussion</i>	<b>Proactively changing our "mind set", a la Linstone</b> Linstone, <i>Decision Making for Technology Executives</i> , Ch. 1-3.
3 (10/13) (10/15)	<b>Meta-level look at how we acquire knowledge, based on Churchman's <i>Inquiring Systems</i>.</b> Mitroff & Turoff: "Technology forecasting....." Turoff & Mitroff: "A case study....." [pdf files on class Web site] <b>Systems Methodology and the Scientific Method</b> Hall, <i>Metasystems Methodology</i> : Chapter 4	Linstone, (MP = Multiple Perspectives) Ch 4: Public Sector Examples of MP Ch 5: Private Sector Examples of MP
4 (10/20) (10/22)	<b>Preview of systemic patterns.</b> Senge, Ch 6: Nature's Templates App. 2: Systems Archetypes	Senge, Ch 7: Self-Limiting or Self-Sustaining Growth. Ch 8: Personal mastery
5 (10/27) (10/29)	<b>Create personal example of MP</b> ("thought expt.") Linstone, Ch 9: Guidelines for Users of MP App A.5: Guidelines for Implementation of MP	Senge, Ch 9: Mental models Ch 10: Shared Vision
6 (11/3) (11/5)	Hall, <i>Metasystems Methodology</i> Ch 1: Overview of systems methodology	Hall, <i>Metasystems Methodology</i> Ch 2: Basic Percepts, Concept, & Precepts.
7 (11/10) (11/12)	Senge, Ch 11: Team Learning Warfield, <i>Societal Systems</i> [pdf file on Web site] Ch 3: The Organized Conduct of Inquiry	Lendaris [pdf file on class Web site] "On Human Aspects of Structural Modeling" Hall, Ch 5: Problem Finding & Problem Definition
8 (11/17) (11/19)	Hall, Ch 6: Building the Normative Scenario Senge: Microworlds (Ch 17 from first edition - on Web site)	Hall, Ch 8: Basis of Systems Methods in Casuistry Ch 10: Systems Synthesis, Analysis & Optim.
9 (11/24) (11/26)	Delp, <i>Systems Tools for Project Planning</i> Ch III, IV, V, VI, IX (selections) [at SmartCopy] Structural Modeling: ISM, etc. [pdf files on class Web site]	THANKSGIVING HOLIDAY
10 (12/1) (12/3)	Senge - Reflections from Practice: Ch 12 - 15 (pp. 255-340)	Senge wrap-up: Ch 16-18 (pp. 341-382) ISM Session

GGL

9/2/09