

College of Public Health & Health Professions

PHC-6937 Systems Thinking for Public Health

Summer A, 2008

Monday, Tuesday, Thursday 1:00-3:30 pm, HPNP)

**Course Website Location**

### **Instructor Information**

Ralph E. Horky  
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HPNP

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Office Hours Tuesday 10:00 am – Noon, Thursday 3:30 pm -5:00 pm

### **Course Overview or Purpose**

The purpose of the course will be to teach conceptual and empirical tools for understanding and managing complex organizations and interacting with other large systems that impact public health. Students will learn “big picture” approaches to interrelated systems and subsystems and will participate in exercises and simulated work experiences that are designed to show the types of intended and unintended consequences that may result from interventions in complex systems.

### **Course Objectives and/or Goals**

Upon successful completion of the course students should be able to effectively describe interrelationships within a complex system and relate them empirically and through narrative to the financial political, social and scientific, environment. This skill is important in managing organizational change and for developing position papers, making business and scientific presentations, creating business plans, and in developing other proposals and grant applications.

### **Course Materials**

Text: “The Fifth Discipline”  
Peter M. Senge  
Doubleday, Revised Edition, 2006

The simulation portion of the exercise will require the use of a personal computer with Microsoft Access version 2004 or later. Knowledge of Access programming is not required.

## **Course Requirements/Evaluation/Grading**

Student progress will be graded on:

Series of short (1 to 2 page) narratives (30%)  
Performance on the closed system simulation (20%)  
Classroom case presentation – open systems (30%)  
Attendance and general class participation (20%)

## **Topical Outline**

- Session 1. Contemplating Complex Systems  
Combining Narratives with Numbers
- Session 2. Types of Variables (Part 1 of the Narrative Exercise)  
The Elemental Calculus of Systems, Mental Models
- Session 3. Identifying Scenarios (Part 2 of the Narrative Exercise)  
Interrelating Multiple Subsystems , Team Learning
- Session 4. Systems (Part 3 of the Narrative Exercise)  
Working with the “Big Picture”
- Session 5. Open Systems – Guest Speaker(s)
- Session 6. Common Subsystems – Finance and Funding
- Session 7. Common Subsystems – Teams, Guilds and Stakeholders
- Session 8. Open Systems – Guest Speaker(s)
- Session 9. Common Subsystems – Political Influence and Pressures
- Session 10. Feedback in Systems
- Session 11. Open Systems – Guest Speaker(s)
- Session 12 – Review – Discussions “The Fifth Discipline”
- Session 13. Closed System Simulation 1: Assessment, Quantification, Measurement
- Session 14. Closed System Simulation 2: Intervention
- Session 15. Closed System Simulation 3: Iterative Business Cycles
- Session 16. Closed System Simulation 4: Measuring Progress in Closed Systems
- Session 17. Class Presentations – Interventions and Feedback Mechanisms
- Session 18. Class Presentations - Interventions and Feedback Mechanisms

Note that the sequence of sessions is subject to change depending on presenter availability.

## **Statement of University's Honesty Policy (cheating and use of copyrighted materials)**

*Academic Integrity* – Students are expected to act in accordance with the University of Florida policy on academic integrity (see Student Conduct Code, the Graduate Student Handbook or this web site for more details: [www.dso.ufl.edu/judicial/procedures/academicguide.php](http://www.dso.ufl.edu/judicial/procedures/academicguide.php)).

Cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

*We, the members of the University of Florida community,  
pledge to hold ourselves and our peers to the  
highest standards of honesty and integrity.*

## **Policy Related to Class Attendance**

*Attendance and Make-up Work* – Students are expected to attend and participate in all class sessions and will be graded on the quality of their participation. Material will not be repeated. Unusual personal issues with respect to class attendance or fulfillment of course requirements will be handled on an individual basis but, after two excused absences students should generally expect a pro-rata reduction in their grade for each additional absence.

## **Statement Related to Accommodations for Students with Disabilities**

### **Accommodations for Students with Disabilities**

If you require classroom accommodation because of a disability, you must first register with the Dean of Students Office (<http://oss.ufl.edu/>). The Dean of Students Office will provide documentation to you, which you then give to the instructor when requesting accommodation. The College is committed to providing reasonable accommodations to assist students in their coursework.

## **Counseling and Student Health**

Students may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the University of Florida Counseling Center, 352-392-1575, or Student Mental Health Services, 352-392-1171. Visit their web sites for more information: <http://www.counsel.ufl.edu/> or <http://www.health.ufl.edu/shcc/smhs/index.htm#urgent>

The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services, including primary care, women's health care, immunizations, mental health care, and pharmacy services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: [www.health.ufl.edu/shcc](http://www.health.ufl.edu/shcc)

Crisis intervention is always available 24/7 from:  
Alachua County Crisis Center: (352) 264-6789.

*BUT – Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.*