Managing Complexity (MIS 382N.5)
Fall 2012 Syllabus and Course Schedule

Unique number: #04050
Meeting time: Mondays and Wednesdays 12:30 – 2 pm
Meeting location: CBA 4.344

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Description:

Modern organizations can be understood as complex adaptive systems. This understanding leads us to new insights about managing these systems, particularly the role of information and information systems in this task. The purpose of this course is to explore these new insights. We will discuss salient management implications of complex adaptive system theories.

Because organizations are complex adaptive systems, managers must accept the fundamental unknowability and unpredictability of the world, the importance of nonlinear relationships in defining reality, and the role of self-organization, emergence, and co-evolution in organizational dynamics. We will emphasize sensemaking, learning, improvising, thinking about the future, and designing and managing relationships as substitutes for traditional activities of command, control, prediction and planning when managing complex adaptive systems. We will also discuss the role of leadership in complex adaptive systems. Managerial strategies that depend on a fairly detailed knowledge of the present situation as well as the ability to make reasonable forecasts of a future situation are less useful than in the past. Fortunately, complexity science offers some ways of better understanding these uncertain situations.

The course is designed for advanced MBA students, particularly those interested in consulting and/or problem solving roles in complex organizations and for Ph.D. students who are exploring new frameworks for investigation of organizational phenomenon. There are no prerequisites other than graduate standing but this course is not recommended for first year master’s degree students.
Course Expectations:

The primary source documents are a set of readings that enable us to explore basic concepts of complex adaptive systems theories and their usefulness in understanding organizations. Readings explore key managerial approaches suggested by these theories. Course readings are available from the University Duplicating Service in the GSB Distribution Center. Additional readings may be distributed during the semester.

Each student is required to complete a major paper. The paper may be on any topic of the student’s choosing; however, it must demonstrate to the instructor that the student understands the material of the course. Class discussion and readings through the material on organizational design (on Wednesday November 28) should be covered in the final paper. In order to receive an A on this assignment, it should include some ideas about complex adaptive systems and their management that extend beyond the material covered in the course. The length of the paper is dependent upon the topic chosen and the student’s writing skill. In the past, papers have ranged from 20 - 50 pages in length. The paper is due at the beginning of class on Wednesday, December 5, 2012. The major paper will count for 40% of the final grade.

Each student is required to prepare two Discussion Papers (written discussions of two articles): one from the first section of the course and one from the second. The papers should not summarize the article. Rather, they should show how the article relates to other articles assigned for this course and to other scholarly material the student may be familiar with. You may use information from your previous life experiences to enhance the discussion. The purpose of the discussion is to put the chosen article in a rich framework and to facilitate the understanding of the article. These discussion papers should be no more than 7 pages in length (doubled spaced) and should be emailed to the class and the instructor, using Blackboard, 24 hours before the class period that the chosen article is assigned. The papers are graded on a scale of 14 – 20. 1 point will be deducted from papers that are late. Discussion papers together will count for 40% of the final grade.

Students will be assigned the two readings upon which to base their Discussion Papers from the readings listed in the syllabus - one from the set of readings marked “A” and one from the set of readings marked “B”. In order to facilitate the assignment of readings, each student is asked to submit to the course TA a choice of two “A” papers and two “B” papers that they would like to review. Email these choices to the TA before midnight on Tuesday September 4. Every effort will be made to accommodate your choices. We plan to email assignments by the end of the day on Wednesday September 5.

Class discussions will be based on the assigned readings and on the issues that students raise in written discussions of the readings. Attendance is required and you are expected to read all required readings before the class in which they are to be discussed. If you must miss a class, please be sure to notify the TA and instructor by email before the class
that you miss. Remember, when you miss a class, assigned work must be turned in before the class missed and your participation expectations for that day must be made up in subsequent classes. *Class participation will count for 20% of the final grade.*

**McCombs Classroom Professionalism Policy**

The highest professional standards are expected of all members of the McCombs community. The collective class reputation and the value of the Texas MBA experience hinges on this.

Faculty are expected to be professional and prepared to deliver value for each and every class session. Students are expected to be professional in all respects.

The Texas MBA classroom experience is enhanced when:

- **Students arrive on time.** On time arrival ensures that classes are able to start and finish at the scheduled time. On time arrival shows respect for both fellow students and faculty and it enhances learning by reducing avoidable distractions.

- **Students display their name cards.** This permits fellow students and faculty to learn names, enhancing opportunities for community building and evaluation of in-class contributions.

- **Students minimize unscheduled personal breaks.** The learning environment improves when disruptions are limited.

- **Students are fully prepared for each class.** Much of the learning in the Texas MBA program takes place during classroom discussions. When students are not prepared they cannot contribute to the overall learning process. This affects not only the individual, but their peers who count on them, as well.

- **Students respect the views and opinions of their colleagues.** Disagreement and debate are encouraged. Intolerance for the views of others is unacceptable.

- **Laptops are closed and put away.** When students are surfing the web, responding to e-mail, instant messaging each other, and otherwise not devoting their full attention to the topic at hand they are doing themselves and their peers a major disservice.

- **Phones and wireless devices are turned off.** We’ve all heard the annoying ringing in the middle of a meeting. Not only is it not professional, it cuts off the flow of discussion when the search for the offender begins. When a true need to communicate with someone outside of class exists (e.g., for some medical need) please inform the professor prior to class.

**Academic Dishonesty**

I have no tolerance for acts of academic dishonesty. Such acts damage the reputation of the school and the degree and demean the honest efforts of the majority of students. The minimum penalty for an act of academic dishonesty will be a zero for that assignment.

The responsibilities for both students and faculty with regard to the Honor System are described on [http://mba.mccombs.utexas.edu/students/academics/honor/index.asp](http://mba.mccombs.utexas.edu/students/academics/honor/index.asp). As the instructor for this course, I agree to observe all the faculty responsibilities described therein. During Orientation, you signed the Honor Code Pledge. In doing so, you agreed to observe all of the student responsibilities of the Honor Code. If the application of the Honor System to this class and its assignments is unclear in any way, it is your responsibility to ask me for clarification.

**Students with Disabilities**

Upon request, the University of Texas at Austin provides appropriate academic accommodations for qualified students with disabilities. The office of Services for Students with Disabilities (SSD) is housed in the Office of the Dean of Students, located on the fourth floor of the Student Services Building. Information on how to register, downloadable forms, including guidelines for documentation, accommodation request letters, and releases of information are available online
Class Schedule and Reading Assignments

You are required to read 2-4 articles for each class period. The readings should be done before the class assigned. For several of the articles, your classmates will have prepared a discussion paper which you should read before coming to class. Your goal should be to come to class prepared to discuss the topic with the required readings as a starting place for discussion. You are encouraged to use any material that you have access to in preparing for class discussion. There are numerous sources on the Internet for information about complexity theory. The reading packet is intended as a start, not as the end of insights into the topic. Use your imagination and your skills to enhance your sources of knowledge. Share your discoveries with the class so that we can all enjoy the fruits of your labor.

Wednesday, August 29, 2012

Introduction


Monday, September 3, 2012

Labor Day. No Class.

Wednesday, September 5, 2012

Overview of Complex Adaptive Systems


**Monday, September 10, 2012**

**Overview of Complex Adaptive Systems**


**Wednesday, September 12, 2012**

**Complex Adaptive Systems: Overview of Structures**


**Monday, September 17, 2012**

**The Science of Complexity**

*Presentation by Dr. Linda Reichl, Professor of Physics and Director of The Center for Complex Quantum Systems, The University of Texas at Austin.*

Driebe (Eds.). *Uncertainty and Surprise in Complex Systems*, 71-76. Springer-Verlag, Berlin.


**Wednesday, September 19, 2012**

**Complex Adaptive Systems: Fundamental Uncertainty**


**Monday, September 24, 2012**

**Complex Adaptive Systems: Diversity of Agents**


Wednesday, September 26, 2012

Complex Adaptive Systems: Communities of Practice


Monday, October 1, 2012

Complex Adaptive Systems: Emergence


Wednesday, October 3, 2012

Complex Adaptive Systems: Co-Evolution and Fitness Landscapes


Monday, October 8, 2012

Complex Adaptive Systems: Interactions of Ideas


Wednesday, October 10, 2012

Complex Adaptive Systems: Theory in Action

Guest Speaker: Lloyd Provost, Appreciation of a System


Monday, October 15, 2012

Sensemaking

Firestorm Video


Wednesday, October 17, 2012

Sensemaking


Monday, October 22, 2012

Learning


Wednesday, October 24, 2012

Learning


Monday, October 29, 2012

Learning
B. Edmondson, Amy C. (2003). Speaking up in the operating room: How team
leaders promote learning in interdisciplinary action teams. *Journal of
Management Studies, 40*(6), 1419-1452.

Implementing new practices: An empirical study of organizational learning in

**Wednesday, October 31, 2012**

**Improvisation**

*Wynton Marsalis Video*

B. Barrett, Frank J. (1998). Creativity and improvisation in jazz and organizations:

*Organizational Science, 9*(5), 543-555.

**Monday, November 5, 2012**

**Improvisation**

B. Orlikowski, Wanda J. (1996). Improvising organizational transformation over time:
A situated change
perspective. *Information Systems Research, 7*(1), 63-92.

- McKenna, Kalin, Leykum, Luci K., McDaniel, Reuben, R. Jr., (2012). The role
published ahead of print).

**Wednesday, November 7, 2012**

**Relationships**

B. Lanham, H.J., McDaniel, R.R. Jr., Crabtree, B.F., Miller, W.L., Stange, K.C.,
clinicians and nonclinicians can improve
quality in primary care. *The Joint Commission Journal on Quality and Patient
Safety, 35*(9), 457-466.

**Monday, November 12, 2012**

**Conversation**


**Wednesday, November 14, 2012**

**Thinking about the Future**

**Lecture on Formal Planning and Formal Control**


**Monday, November 19, 2012**

**Information Systems**


**Wednesday, November 21, 2012**

No Class

**Monday, November 26, 2012**

**Social Networks and Social Capital**


**Wednesday, November 28, 2012**

**Organizational Design**


**Monday, December 3, 2012**

**Leadership**


**Wednesday, December 5, 2012**

Review

***Final Paper Due***