



INNOVATION & CREATIVITY

ENTP 4360.001

FALL 2016

Class Meeting Mon-Wed: 4:00 – 5:15 PM, JSOM 2.107 Office Hours: Mon/Wed 3:00 – 3:45 PM or by appointment Final Exam: TBD	Dr. Joseph C. Picken SOM 4.212 Email: jcp016300@utdallas.edu Phone: (UTD office): (972) 883-4986
--	--

COURSE OBJECTIVES:

Innovation researchers have observed that: “creative individuals and innovators excel at linking together ideas that aren’t obviously related to produce original ideas” and “one’s ability to generate innovative ideas is not merely a function of the mind, but also a function of behaviors.” This course will explore these and other dimensions and characteristics of individual creativity and innovation.

Topics will include the nature of innovation and creativity; the development of an innovative mind-set in individuals; the antecedents, processes and barriers to individual and team creativity; and the development of the skills essential to the stimulation and management of team creativity and innovation. The course will be organized around a series of individual exercises and team-based innovation challenges.

LEARNING OBJECTIVES

Upon successful completion of this course, students will:

- Understand the nature of innovation and creativity, the precursors and determinants of individual insight and creativity, and the mindset and processes essential to team and organizational innovation.
- Develop and enhance personal creativity by understanding, practicing and applying proven tools and techniques for idea generation, the stimulation of creative insight and problem resolution.
- Understand, develop and enhance the individual skills essential to innovation: associating, questioning, observing, networking, and experimenting.
- Demonstrate the ability to apply the tools, techniques and principles of innovation and creativity to the solution of individual and team-based innovation challenges.

REQUIRED COURSE MATERIALS:

- Johansson, F. 2006. *The Medici Effect: What You Can Learn from Elephants and Epidemics*. ISBN 1-4221-0282-3 (\$16.00)
- Michalko, M. 2006. *Thinkertoys: A Handbook of Creative Thinking Techniques*, 2nd ed. Ten Speed Press/Random House, Inc. New York. ISBN 978-1-58008-773-5. (\$19.99)
- Dyer, J.; Gregerson, H. & Christensen, C. 2011. *The Innovator’s DNA: Mastering the Five Skills of Disruptive Innovators*. Harvard Business Review Press. Boston, MA. ISBN 978-1-4221-3481-8 (\$32.00)
- **Electronic Readings:** Download **eJournals** (Harvard Business Review and other articles) as required. The **eJournals** are available for download at no charge on the UTD Library website (<http://www.utdallas.edu/library/>). Teaching notes and other readings are posted on eLearning/Course Materials (see ASSIGNMENTS below).

SELF INTRODUCTION

Each student should post a Self-Introduction in the Discussion Board area of eLearning prior to the second class (August 24th). Guidelines are provided on the eLearning Discussion Board. This information will be used to set up the gradebook and assist in the formation of teams for the course.

FORMATION OF TEAMS

Much of the work in this course will be performed in teams. Students should form small teams (3 members) during the first two weeks of the course. It is important that you include a diverse set of skills, including basic word processing and presentation graphics skills. A list of the members of each team (with name, email and telephone contact information) should be submitted on eLearning prior to the beginning of class on August 31st.

LECTURE NOTES The MS Powerpoint slides used in lectures and case discussions and other course-related materials will be posted on eLearning (<https://elearning.utdallas.edu/>) under course ID ENTP 4360. You should be able to access eLearning with your UTD NetID and password. Call computer services at (972) 883-2911 if you need assistance.

COURSE REQUIREMENTS & GRADING:

The list of assigned readings is attached. Supplemental materials may be provided or posted electronically. Advance preparation and enthusiastic participation in class discussions is an important part of the learning experience in this course and will be evaluated. There will be four challenges (class presentations), two mid-terms and a final exam. Class participation will be evaluated by the instructor. These assignments, their due dates and page length guidelines, and their relative weights in determining your final grade are summarized in the table below:

Activity	Due Date	Type	Length (time or pages)	Weight
Team Challenge #1 – Storytelling	9/14/16	Team (presentation)	10 mins	5.0%
Team Challenge #2 – Dumpster Diving	9/26/16	Team (presentation)	10 mins	5.0%
MID TERM EXAM #1	9/28/16	Individual	1 hr, 15 minutes	12.5%
Team Challenge #3 – Using Discovery Tools	10/19/16	Team (paper & presentation)	5-7 pages/10 mins	10.0%
MIDTERM EXAM #2	11/2/16	Individual	1 hr, 15 minutes	12.5%
Team Challenge #4 – Creative Solution	11/28/16	Team (paper & presentation)	8-10 pages/15 mins	10.0%
PEER EVALUATION	12/5/16	Individual	Form	0%
FINAL EXAM - Monday 12/15 5:00 – 7:00	TBD	Individual	2 hours	15.0%
CLASS PARTICIPATION (<i>see below</i>)	As required	Individual		30.0%
Overall Course Grade				100%

Class Participation. Thirty percent (30%) of your grade will be based on attendance, preparation and active participation in each exercise and class discussion. The class participation grade will be based on three components:

- **Active Participation.** Attendance and active participation in class discussions. If necessary to miss a class due to illness or personal business, please let me know in advance (90 class participation points).
- **Key Ideas/Insights.** Readings and videos are assigned as pre-class preparation for most class sessions. As indicated in the syllabus (sessions 03, 06, 09, 13, 16, 20 and 26), you are to prepare a brief outline form summary of the key ideas and insights gained from each reading or video. Submit to the designated eLearning dropbox prior to 3:00 PM on the day of the class. Keep a copy for your use during class discussion. (105 class participation points). A format sample is included in the eLearning Course Materials folder. These can be effective study notes, as most of the questions on the midterms and final exams will be based on the readings and videos covered by these assignments and may not be addressed in the lectures or class discussions. Late submissions turned in within one week of the due date will receive half credit.
- **Exercises and Individual Assignments.** As indicated in the syllabus, a number of brief individual assignments and exercises are required (sessions 01, 04, 05, 12, 14, 16, 18, 22, 24 and 28). Submit to the designated eLearning dropbox prior to 3:00 PM on the day of the class. Keep a copy for your use during class discussion. (105 class participation points). Late submissions turned in within one week of the due date will receive half credit.

Session	Date	Description	CP Points
01	8/22	SELF-INTRODUCTION	5
03	8/29	Key Ideas/Insights #1	15
04	8/31	TEAM ROSTERS	0
05	9/7	EXERCISE: Define a Challenge	15
06	9/12	Key Ideas/Insights #2	15
09	9/21	Key Ideas/Insights #3	15
12	10/3	EXERCISE: Mind Map	20
13	10/5	Key Ideas/Insights #4	15
14	10/10	EXERCISE: Alarm to Front Door	20

Session	Date	Description	CP Points
16	10/17	Key Ideas/Insights #5	15
16	10/17	EXERCISE: Three pieces of “junk”	5
18	10/24	EXERCISE: Challenge/Quotation	10
20	10/31	Key Ideas/Insights #6	15
22	11/7	EXERCISE: Idle Diversions	5
24	11/14	EXERCISE: Psychological Hardiness	20
26	11/28	Key Ideas/Insights #7	15
28	12/5	PEER EVALUATION	5
Attendance (30 sessions @ 3 points/session)			90
Total Class Participation Points Available			300

Peer Evaluation. A peer evaluation process will be utilized to adjust individual grades on all team assignments. Complete the peer evaluation form (located in the Course Materials folder on eLearning), put your name at the bottom of the form and submit to the designated eLearning dropbox by 3:00 PM on **December 5th**.

GUIDELINES FOR SUBMISSION OF ASSIGNMENTS

Due Dates. Written assignments and presentations should be submitted to the designated eLearning Assignment Dropbox prior to 3:00 PM on the date assigned.

Format. Your name (or the team identification and names of all team members) the course number and the date should appear in a header at the beginning of each page of the document. The body of each written assignment should comply with the page length guidelines specified for the assignment. The use of charts and exhibits is encouraged, to the extent that they help you make your points. Charts and exhibits should be numbered and appropriately referenced in the document. A list of references should be attached as

required. Cover pages, charts or exhibits, and lists of references are not included in the page count. The manuscript should use MS Word, 11-12 point type, double-spaced, with 1" margins all around. Appropriate titles and section headings should be used. Number the pages and staple in the upper left corner. Binders and report covers are neither necessary nor desired.

Presentation Format. Use MS Powerpoint. Keep it simple (no videos, sound effects, etc.) Limit animation to that required for an effective presentation. Submit electronic copy to designated eLearning Assignment Dropbox.

Electronic Submissions. Assignments should be submitted to the proper eLearning Assignment dropbox prior to 3:00 PM on the due date of the assignment. The file name should identify the course, assignment number and your name or team ID. For example, "ENTP 4360_2_JSmith.doc" would identify John Smith's written assignment 2; "ENTP 4360_3_Team B.doc" would identify Team B's written assignment 3.

Effective written and oral communications are critically important in the business world. It is equally important that students "put their best foot forward" in classroom presentations and written assignments. Poor organization, convoluted sentence structures, mangled grammar and misspelled words have no place in effective communications, and will be considered in the evaluation of your work and ideas.

UNIVERSITY POLICIES

Technical Support. If you experience any problems with your UTD account you may send an email to: assist@utdallas.edu or call the UTD Computer Helpdesk at 972-883-2911.

Off-campus Instruction and Course Activities. Off-campus, out-of-state, and foreign instruction and activities are subject to state law and University policies and procedures regarding travel and risk-related activities. Information regarding these rules and regulations may be found at the website address http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm. Additional information is available from the office of the school dean. Below is a description of any travel and/or risk-related activity associated with this course: none.

Student Conduct & Discipline. The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD printed publication, *A to Z Guide*, which is provided to all registered students each academic year. The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the *Rules and Regulations, Series 50000, Board of Regents, The University of Texas System*, and in Title V, Rules on Student Services and Activities of the university's *Handbook of Operating Procedures*. Copies of these rules and regulations are available to students in the Office of the Dean of Students, and online at <http://www.utdallas.edu/judicialaffairs/UTDJudicialAffairs-HOPV.html>. A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

Academic Integrity. The faculty and administration of the School of Management expect from our students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work. We want to establish a reputation for the honorable behavior of our graduates, which extends throughout their careers. Both your individual reputation and the school's reputation matter to your success.

The Judicial Affairs website lists examples of academic dishonesty at <http://www.utdallas.edu/judicialaffairs/UTDJudicialAffairs-Basicexamples.html>. Students in this course suspected of academic dishonesty are subject to disciplinary proceedings, and if found responsible, the following minimum sanctions will be applied:

- Individual Written Assignments – Zero for the assignment
- Team Written Assignments and Presentations – Zero for the assignment for all team members

These sanctions will be administered only after a student has been found officially responsible for academic dishonesty, either through waiving their right for a disciplinary hearing, or being declared responsible after a hearing administered by Judicial Affairs and the Dean of Student's Office. In the event that the student receives a failing grade for the course for academic dishonesty, the student is not allowed to withdraw as a way of preventing the grade from being entered on their record. Where a student receives an F in a course and chooses to take the course over to improve their grade, the original grade of F remains on their transcript, but does not count towards calculation of their GPA. The School of Management also reserves the right to review a student's disciplinary record, on file with the Dean of Students, as one of the criteria for determining a student's eligibility for a scholarship.

Copyright Notice. The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted materials, including music and software. Copying, displaying, reproducing, or distributing copyrighted works may infringe the copyright owner's rights and such infringement is subject to appropriate disciplinary action as well as criminal penalties provided by federal law. Usage of such material is only appropriate when that usage constitutes "fair use" under the Copyright Act. As a UT Dallas student, you are required to follow the institution's copyright policy (Policy Memorandum 84-L3-46). For more information about the fair use exemption, see <http://www.utsystem.edu/ogc/intellectualproperty/copypol2.htm>

Email Use. The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's UT Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individuals corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at UT Dallas provides a method for students to have their UT Dallas mail forwarded to other accounts.

Withdrawal from Class. The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.

Student Grievance Procedures. Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's *Handbook of Operating Procedures*. In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy to the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the dean will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.

Incomplete Grade Policy. As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of **F**.

Disability Services. The goal of Disability Services is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Disability Services is located in room 1.610 in the Student Union. Office hours are Monday and Thursday, 8:30 a.m. to 6:30 p.m.; Tuesday and Wednesday, 8:30 a.m. to 7:30 p.m.; and Friday, 8:30 a.m. to 5:30 p.m.

The contact information for the Office of Disability Services is:

The University of Texas at Dallas, SU 22
PO Box 830688, Richardson, Texas 75083-0688
(972) 883-2098 (voice or TTY)
disabilityservice@utdallas.edu

If you anticipate issues related to the format or requirements of this course, please meet with the Coordinator of Disability Services. The Coordinator is available to discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, it is very important that you be registered with Disability Services to notify them of your eligibility for reasonable accommodations. Disability Services can then plan how best to coordinate your accommodations. It is the student's responsibility to notify his or her professors of the need for such an accommodation. Disability Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor during office hours.

Religious Holy Days. The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated. The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment. If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

COURSE OUTLINE

Date	Readings & Preparation	Assignment
Session 01 Monday 8/22	INTRODUCTION Readings/Pre-Class Preparation <ul style="list-style-type: none"> Johansson. 2006. <i>The Medici Effect</i>. Introduction (1-7) Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: Preface, Introduction (ix – xx) Dyer, Gregerson & Christensen. 2011. <i>The Innovator's DNA</i>: Introduction (1-13) Video: Kawasaki. <i>The Art of Innovation</i> (21:15) http://www.youtube.com/watch?v=Mtjatz9r-Vc In Class <ul style="list-style-type: none"> Lecture: What is creativity? What is innovation 	SELF-INTRODUCTION Post to eLearning Discussion Board by 3:00 PM on 8/22/16 Use template on discussion board (5 CP points)
Session 02 Wed 8/24	THE STRUCTURE AND FUNCTION OF THE BRAIN Readings/Pre-Class Preparation <ul style="list-style-type: none"> Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 1-21 Video: The Sents Brain Animation Series (7 short videos – about 15 mins) https://www.youtube.com/watch?v=UYSKW3IvZlQ&index=6&list=PL53nCCeNj-RQDhbjE9LjvnFad-wdB5bw7 (numbered 1-7. Start with #1) Video: Brain Tricks: This is How Your Brain Works (4:41) http://www.youtube.com/watch?v=JiTz2i4VHFw Video: Daniel Kahneman: Thinking Fast vs. Thinking Slow (6:35) https://www.youtube.com/watch?v=PirFrDVRBo4 Video: Creativity and the Brain (3:09) http://www.youtube.com/watch?v=MIfceB895Jw In Class <ul style="list-style-type: none"> Discussion of readings and videos 	Form Teams of 3 students each and upload team roster to eLearning dropbox by 3:00 PM on 8/31/15

Date	Readings & Preparation	Assignment
Session 03 Monday 8/29	HOW THE BRAIN WORKS Readings/Pre-Class Preparation <ul style="list-style-type: none"> Video: The Divided Brain, RSA (11:47) http://www.youtube.com/watch?v=dFs9WO2B8uI Video: How the Brain Works, Nova, DeGrasse Tyson (53:09) https://www.youtube.com/watch?v=L-DYoSutWrE Video: BBC Documentary - Horizon: The Creative Brain How Insight Works (58:05) http://www.dailymotion.com/video/xy9ag1_bbc-horizon-the-creative-brain-how-insight-works_tech Video: Brain Divided. Haworth (4:45) http://www.youtube.com/watch?v=JuyB7NO0EYY (just for fun) In Class: Discussion of readings and videos	KEY IDEAS/INSIGHTS Assignment #1 <i>Upload to eLearning dropbox by 3:00 PM on 8/29/16</i> <i>Videos and readings from Sessions 01-03 (15 CP points)</i>
Session 04 Wed 8/31	THE INNOVATION ENGINE: WHERE DO GOOD IDEAS COME FROM? <ul style="list-style-type: none"> Johansson. 2006. <i>The Medici Effect</i>. 11-32 Video: Where Good Ideas Come From, Johnson (4:06) http://www.youtube.com/watch?v=NugRZGDbPFU Video: Where Good Ideas Come From, Johnson (18:16) http://www.youtube.com/watch?v=0af00UcTO-c Video: "inGenius" at Google. (40:31) Seelig http://transcriptvids.com/v/Dle_GvFIbqY.html In Class: Discussion of readings and videos	TEAM ROSTERS <i>upload to eLearning dropbox by 3:00 PM on 8/31/16</i>
9/7	NO CLASS – Labor Day Holiday	
Session 05 Wed 9/7	GENERATING IDEAS: DEFINING THE CHALLENGE Readings/Pre-Class Preparation <ul style="list-style-type: none"> Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 22-39 Einstein's Secret to Amazing Problem Solving (Course Materials Folder) Individual Assignment – Defining a Challenge <ul style="list-style-type: none"> Identify 3 problems or challenges you have encountered during the past year that also affect others and require creative solutions. Describe each challenge in a brief paragraph (What bugs you about the challenge? Why is it personal? Why is it important to you to solve it?). Select one challenge and explore it thoroughly following the blueprint outlined on pages 27-34 of <i>Thinkertoys</i>. (state the challenge; write it as a question; vary the words; stretch the challenge to see the broader perspective; squeeze the challenge to see the narrow perspective) and the various approaches outlined in <i>Einstein's Secret to Amazing Problem Solving</i>. Propose a solution to the selected problem or challenge (evaluate your solution for technical, economic and social feasibility). Present your selected problem and proposed solution to the class (2-minute presentation – max of 3 ppt. slides). In Class <ul style="list-style-type: none"> EXERCISE: Presentation of selected challenges and solutions Introduction of Team Challenge #1 	INDIVIDUAL ASSIGNMENT: Defining a Challenge <i>Upload paper and presentation to eLearning dropbox by 3:00 PM on 9/7/16 (15 CP points)</i>
TEAM CHALLENGE #1 (Storytelling) Instructor will select 3 words at random from dictionary or <i>Thinkertoys</i> (pp 161-165) for each team. Assignment is to create a new story with a plot line utilizing the 3 words. Each team will present their story in Session 07. Each team will have 5 minutes to tell their story and 3 minutes to describe the creative process you used.		Prepare for Presentation during Session 07 on 9/14/16
Session 06 Monday 9/12	BARRIERS TO CREATIVITY (AND OVERCOMING THEM) Readings/Pre-Class Preparation <ul style="list-style-type: none"> Johansson. 2006. <i>The Medici Effect</i>. 35-60 Video: Ideas into Innovation: Belief (3:33) http://www.youtube.com/watch?v=0JUFjTOM32g Video: How to Build your Creative Confidence (11:46) https://www.youtube.com/watch?v=16p9YRF0I-g Video: How to become more confident -- lay down on the street for 30sec (15:15) https://www.youtube.com/watch?v=HtDkg3Xwn7U Video: Tim Brown – Tales of Creativity and Play (27:59) http://www.youtube.com/watch?v=RjwUn-aA0VY&list=PLjDIfEq66T-aFDMukrfzltBxXeD6BTA1 In Class: Discussion of reading and videos	KEY IDEAS/INSIGHTS Assignment #2 <i>Upload to eLearning dropbox by 3:00 PM on 9/12/16</i> <i>Videos and readings from Session 04-06 (15 CP points)</i>

Date	Readings & Preparation	Assignment
Session 07 Wed 9/14	GENERATING IDEAS: EXPLORING THE INTERSECTION Readings/Pre-Class Preparation <ul style="list-style-type: none"> Johansson. 2006. <i>The Medici Effect</i>: 61-87 Video: How to be Creative: PBS Digital Studios (9:12) https://www.youtube.com/watch?v=weIQIthC3Ks Video: Creativity at the Intersection of the Arts and Science, Taylor (13:58) http://www.youtube.com/watch?v=-XDotBpWVyo In Class Activity <ul style="list-style-type: none"> Discussion of readings and videos Introduction of Team Challenge #2 	PRESENTATIONS: Team Challenge 1 Storytelling Graded: 5%
	Presentations: TEAM CHALLENGE #1 (Storytelling) <ul style="list-style-type: none"> Each team will have 5 minutes to tell their story and 3 minutes to describe the creative process you used. You may use slides, animation, costumes, props or any other method in your storytelling. Class will vote for most creative solutions to challenge; most effective presentation (bonus class participation points) 	
	TEAM CHALLENGE #2 (Dumpster Diving) Find a trash container on campus. Inventory its contents. Come up with a creative use for the contents utilizing at least 5 of the articles in the container. Describe in detail: pictures, video, prototypes, or whatever will best communicate your creative use for the articles. In class presentation (show and tell) during Session 10. Readings/Pre-Class Preparation <ul style="list-style-type: none"> Sullivan. 2015. <i>Wired</i>. The Pro Dumpster Diver Who's Making Thousands (Course Materials Folder) 	<i>Prepare for Presentation in Session 10 on 9/26/16</i>
Session 08 Monday 9/19	GENERATING IDEAS: IDEA HUNTING Readings/Pre-Class Preparation <ul style="list-style-type: none"> Johansson. 2006. <i>The Medici Effect</i>: 89-102 Video: Connect & Combine, Seelig (3:42) http://www.youtube.com/watch?v=-CGgLnbFHBI DiLuzio: 7 steps of creative thinking (15:32) http://www.youtube.com/watch?v=MRD-4Tz60KE In Class Activity <ul style="list-style-type: none"> Video: Idea Hunting: Key Principles for Spawning Great Ideas (Andy Boynton) (44:00) Discussion of readings and videos 	
Session 09 Wed 9/21	GENERATING IDEAS: BRAINSTORMING Readings/Pre-Class Preparation <ul style="list-style-type: none"> Johansson. 2006. <i>The Medici Effect</i> 103-116 Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 311-322 Video: Brainstorming: Pargman (1:56) https://www.youtube.com/watch?v=cjeJ60zQ8-E In Class Activity <ul style="list-style-type: none"> Discussion of readings EXERCISE: Brainstorming: Bucket with a hole in it. 	KEY IDEAS/INSIGHTS Assignment #3 <i>Upload to eLearning dropbox by 3:00 PM on 9/21/16</i> <i>Address videos and readings from Sessions 07-09</i> (15 CP points)
Session 10 Monday 9/26	PRESENTATIONS: TEAM CHALLENGE #2 Dumpster Diving Readings/Pre-Class Preparation In Class Activity <ul style="list-style-type: none"> Team Challenge #2 – team presentations (10-12 minutes per team) Class will vote for most creative solutions to challenge; most effective presentation (bonus class participation points) 	PRESENTATIONS: Team Challenge 2 Dumpster Diving Graded: 5%
Session 11 Wed 9/28	MIDTERM EXAM 1 (12.5%)	MIDTERM EXAM 1 Graded: 12.5%

Date	Readings & Preparation	Assignment
Session 12 Monday 10/3	INNOVATOR'S DNA (#1 Associating; Mind-Mapping) Readings/Pre-Class Preparation <ul style="list-style-type: none"> Dyer <i>et al.</i> 2011. <i>The Innovator's DNA</i>: Ch 1-2; Appendix C Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 66-71 Video: Innovators DNA, INSEAD (17:42) http://www.youtube.com/watch?v=Xy6Ex1C_SAs Video: How to Make a Mind Map – the Basics (2:51) https://www.youtube.com/watch?v=wLWV0XN7K1g A Cool (and Free) Mind Mapping Tool – Xmind (9:22) https://www.youtube.com/watch?v=mzweToOv9gk For iPad users: How to Mind Map (iMind Map) https://www.youtube.com/watch?v=4wZ5wV5dPZc EXERCISE: MIND MAP (Individual) Develop and submit an Individual Mind Map (tell us about yourself) using XMind mapping tool (Project Plan template). Follow the example provided in “How to Make a Mind Map – the basics”. Upload to eLearning dropbox and bring a hard copy to class. In Class Activity <ul style="list-style-type: none"> Discussion of readings and video EXERCISE: Presentation of individual mind maps 	EXERCISE: MIND MAP Open a free account with XMind (mind-mapping software). http://www.xmind.net/download/win/ Develop and print an Individual Mind Map addressing the question: “Who am I?” Upload to eLearning dropbox by 3:00 PM on 10/3/16 and bring a copy to class Put your name on it. (20 CP points)
Session 13 Wed 10/5	INNOVATOR'S DNA (#2 Questioning; #3 Observing) Readings/Pre-Class Preparation <ul style="list-style-type: none"> Dyer <i>et al.</i> 2011. <i>The Innovator's DNA</i>: Ch 3-4 Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 72-109 Video: What Questions Did you Ask Today? (3:65) http://www.youtube.com/watch?v=O6ZnJIdgc1A Video: Asking Questions: Gregersen (9:41) http://www.youtube.com/watch?v=KSNqMCn6zb8 Video: What?: Asking the Right Questions: Herrscher (19:51) https://www.youtube.com/watch?v=Ro9vDEZdQLk In Class Activity <ul style="list-style-type: none"> Discussion of readings and videos EXERCISE: Developing a sequence of questions to understand a problem. 	KEY IDEAS/INSIGHTS Assignment #4 Upload to eLearning dropbox by 3:00 PM on 10/5/15 Videos and readings from Sessions 10-13 (15 CP points)
TEAM CHALLENGE #3 – DISCOVERY TOOLS <ul style="list-style-type: none"> Visit a UT Dallas Club or student organization that you do not belong to (a directory of student organizations can be found at http://utdallas.orgsync.com/search/). Use the Discovery Tools from the Innovator's DNA to gather as much info as possible about the club: its history, its purpose, its activities – what they do and how they do it, its officers, its membership criteria, the benefits it provides for its members, how the members feel about the organization, etc. Use XMind to develop a Mind Map to describe the organization. Summarize your findings in a brief paper (3-5 pp) Prepare a 10-12 minute presentation: addressing: (a) what you learned about the organization; (b) how the discovery tools helped you to get this information; (c) how the Mind Map helped you to organize the information and the presentation; and, (d) what you found most interesting about the organization? 		TEAM CHALLENGE #3 This Team Challenge will require your team to attend a meeting of a UT Dallas Student Club. Plan ahead. Paper and presentation will be due by 3:00 PM on 10/19/16
Session 14 Monday 10/10	INNOVATOR'S DNA (#4 Networking; #5 Experimenting) Readings/Pre-Class Preparation <ul style="list-style-type: none"> Dyer <i>et al.</i> 2011. <i>The Innovator's DNA</i>: Ch 5-6 Video: Think Like an Innovator (7:08) http://www.youtube.com/watch?v=FSxSinVVRLw Video: Classroom Experiments in Entrepreneurship (6:11) Seelig https://www.youtube.com/watch?v=VVgIX0s1wY8 Assignment Observing – From Alarm to Front Door: You have five senses (what you see, hear, smell, taste and touch). Before you go to bed, prepare a sheet of paper with six columns and 12-15 rows. Label the columns activity, see, hear, smell, taste and touch. When you awake, make a list of everything you did (activities) from the time the alarm went off until you walked out the front door on your way to work or class. In the next five columns, for each activity, describe what you saw, heard, smelled, tasted and felt (touch) as you performed that activity. Submit as an MS Word document. In Class Activity <ul style="list-style-type: none"> Discussion of readings and video Presentation/discussion of observing exercise (assignment) 	EXERCISE: Observing – from alarm to front door. See Template in Course Materials Folder Upload to eLearning dropbox by 3:00 PM on 10/10/16 (20 CP points)

Date	Readings & Preparation	Assignment
Session 15 Wed 10/12	LATERAL THINKING <ul style="list-style-type: none"> Vertical vs. Lateral Thinking; Generation of Alternatives; Challenging Assumptions Readings/Pre-Class Preparation <ul style="list-style-type: none"> Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 41-59 Video: Dr. Edward de Bono at Creative Innovation 2010 - "Re-thinking the future" (18:28) https://www.youtube.com/watch?v=e20lpMyXFj4 Video: Six Thinking Hats https://www.youtube.com/watch?v=QJmoq1R3KVc Video: Challenging Assumptions, Seelig (5:46) http://www.youtube.com/watch?v=mp-Jj6BBkzM In Class Activity <ul style="list-style-type: none"> Lecture: Lateral Thinking/Challenging Assumptions. EXERCISE: Dissect a statement (to be provided.) Identify the assumptions. Challenge/validate each assumption. Use the Six Thinking Hats to come up with a better way to accomplish the goal. 	
Session 16 Monday 10/17	TRICKS OF THE TRADE: LINEAR THINKERTOYS – GROUP A <ul style="list-style-type: none"> Fractionation (cherry split); Think Bubbles Readings/Pre-Class Preparation <ul style="list-style-type: none"> Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 60-71 In Class Activity <ul style="list-style-type: none"> EXERCISE #1:(individual) Each member of the class should bring three unique and different pieces of “junk” to class (interesting, but generally useless items are preferred – you won’t get them back). You will have a chance to “show and tell” about your contributions before they are deposited in the “junk box” at the front of the classroom for use later in the semester. EXERCISE #2:(individual) using fractionation: Split attributes of challenge (cherry split). Recombine attributes into possible solutions. EXERCISE #3:(individual) using think bubbles. Summarize on one page. 	KEY IDEAS/INSIGHTS Assignment #5 Upload to eLearning dropbox by 3:00 PM on 10/17/16 Address videos and readings from Sessions 14-16 (15 CP points) EXERCISE: Bring 3 pieces of “junk” to class. (5 CP points)
Session 17 Wed 10/19	PRESENTATIONS – Team Challenge #3 (10%) <ul style="list-style-type: none"> 10-minute presentation of findings from Team Challenge #3 Class will vote for most effective presentation (bonus class participation points) 	PRESENTATIONS: Team Challenge 3 Upload to eLearning dropbox by 3:00 PM on 10/19/16
Session 18 Monday 10/24	TRICKS OF THE TRADE: LINEAR THINKERTOYS – GROUP A <ul style="list-style-type: none"> SCAMPER Questions Readings/Pre-Class Preparation <ul style="list-style-type: none"> Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 72-108 Brown: <i>Design Thinking</i> (HBR, Jun2008, Vol. 86 Issue 6, p 84-92) (eJournal) Video: SCAMPER a creative thinking technique: Graham (5:15) https://www.youtube.com/watch?v=G8w0rJhztJ4 Video: Advanced Brainstorm Methods - SCAMPER and Random Word. Sloan (15:17) https://www.youtube.com/watch?v=YvNOsogS6Mg EXERCISE: Challenge and Quotation (Individual) List two things on a piece of paper: (a) a challenge (problem to be solved), and (b) a favorite quotation (identify the author). The challenge should be something you have encountered during the past year (different from those submitted in Session 05) that also affects others and requires a creative solution. Describe the challenge in a brief paragraph (what bugs you about the challenge? why is it personal? Why is it important to you to solve it?) In Class Activity: EXERCISE: Using Design Thinking techniques and SCAMPER Questions	EXERCISE: Challenge & Quotation Upload to eLearning dropbox by 3:00 PM on 10/24/16 Make sure you put your name on the paper. (10 CP points)
Session 19 Wed 10/26	TRICKS OF THE TRADE: LINEAR THINKERTOYS -- GROUP B <ul style="list-style-type: none"> Force field; morphological analysis; questions Readings/Pre-Class Preparation <ul style="list-style-type: none"> Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 109-125 (Tug of War; Idea Box) Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 137-143 (Phoenix) In Class Activity EXERCISE: Developing a “tug of war” (force field) analysis	

Date	Readings & Preparation	Assignment
Session 20 Monday 10/31	TRICKS OF THE TRADE: LINEAR THINKERTOYS – GROUP C <ul style="list-style-type: none"> Random stimulation; forced connections (Brutethink; Hall of Fame) Readings/Pre-Class Preparation <ul style="list-style-type: none"> Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 156-178 (Brutethink; Hall of Fame) Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 190-197 (Clever Trevor) (listening to others) In Class Activity: EXERCISE: Team challenges using <i>Brutethink</i> and <i>Hall of Fame</i> processes. Consider how these random association techniques can help to break down the barriers created by relying solely on “experts” within a field.	KEY IDEAS/INSIGHTS Assignment #6 <i>Upload to eLearning dropbox by 3:00 PM on 10/31/16</i> <i>Address videos and readings from Sessions 17-20</i> (15 CP points)
Session 21 Wed 11/2	MIDTERM EXAM 2 (12.5%)	MIDTERM EXAM 2 Graded: 12.5%
TEAM CHALLENGE #4 – CREATIVE SOLUTION <ul style="list-style-type: none"> Review the articles from the <i>Economist</i> posted on eLearning (Team challenge #4). These articles describe new and emerging technologies and suggest some potential applications. Identify a significant problem (other than the one described in the article) that could be addressed through the use and application of this technology. Prepare a paper (8-10 pages) and a presentation (15 minutes) describing the problem, its impact, why the problem needs to be solved, and your proposed solution utilizing the technology. Solutions will be evaluated on (a) overall impact; (b) technical feasibility; (c) political/economic feasibility; (d) implementation time/cost; (e) unique/innovative approach. Paper and presentations due November 28th. Presentations scheduled on Nov 28th and Nov 30th (if needed) 		<i>Select an emerging technology as the focus of your Team Challenge #4.</i> <i>Notify the instructor by email of your choice (first come, first served)</i>
Session 22 Monday 11/7	INTUITIVE THINKERTOYS <ul style="list-style-type: none"> Relaxation; Intuition; Incubation; Analogies; Fantasy Questions Readings/Pre-Class Preparation <ul style="list-style-type: none"> Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 199-247 (Chilling Out; Blue Roses; Incubation; Analogies; Stone Soup) S22 – <i>Get Creative at Your Desk with a Little Playtime</i> (Course Materials Folder) Video: How Can you be Creative in Your Organization (3:46) http://www.youtube.com/watch?v=of6xxKxYUuU (analogies) Spinning Dancer: http://www.maniacworld.com/Spinning-Silhouette-Optical-Illusion.html In Class Activity: EXERCISE: Create a “totally useless” invention using the contents of the Junk Box. Clear your mind; use your intuition, let the ideas incubate and use analogies. To come up with creative ideas. Explain its benefits using analogies and metaphors from an assigned “parallel world”	EXERCISE: IDLE DIVERSIONS <i>See reading: “S22 - Get Creative at your Desk”.</i> <i>What kinds of idle diversions help you to relax and focus on the problem at hand?</i> <i>Bring an example to class to share.</i> (5 CP points)
Session 23 Wed 11/9	INTUITIVE THINKERTOYS <ul style="list-style-type: none"> Dreams; Drawing; Improvisation Readings/Pre-Class Preparation <ul style="list-style-type: none"> Michalko. 2006. <i>Thinkertoys</i>, 2nd ed.: 256-267 (Dreamscape; DaVinci’s Technique) Video: Morris: The Way of Improvisation (10:49) http://www.youtube.com/watch?v=MUO-pWJ0riQ Video: O. Henry Punoff World Championship Final Round 2012 (13:04) http://www.youtube.com/watch?v=hiAK29AQibY (Improvisation) In Class Activity: EXERCISE: Improvising – demonstrating the “yes, and....” technique.	
Session 24 Monday 11/14	MAKING IT HAPPEN: EXECUTING THROUGH FAILURE <ul style="list-style-type: none"> Learning from Failure; Fostering Psychological Hardiness Readings/Pre-Class Preparation <ul style="list-style-type: none"> Johansson. 2006. <i>The Medici Effect</i> 119-141 Video: Fail Fast and Frequently (1:34) Seelig http://www.youtube.com/watch?v=MixwxqHDcIo Video: Failure Is Part of Success: Eduardo Zannata at TEDxBYU (6:54) https://www.youtube.com/watch?v=bujlb_sQZvQ Assignment: <ul style="list-style-type: none"> Psychological Hardiness Exercise: download from eLearning Course Materials folder, complete and submit to eLearning dropbox; bring an extra copy to class. In Class Activity: Discussion of readings, videos and Psychological Hardiness exercise	EXERCISE: PSYCHOLOGICAL HARDINESS <i>Upload to eLearning dropbox by 3:00 PM on 11/14/16</i> (20 CP points)

Date	Readings & Preparation	Assignment
Session 25 Wed 11/16	MAKING IT HAPPEN: BREAK OUT OF YOUR NETWORK <ul style="list-style-type: none"> Break out of your network; Using Social Media to Build Your Networks Readings/Pre-Class Preparation <ul style="list-style-type: none"> Johansson. 2006. <i>The Medici Effect</i> 143-160 Reading: Why You Need to Break Out of Your Network to Innovate. Jorge Barba http://www.game-changer.net/2011/06/09/why-you-need-to-break-out-of-your-network-to-innovate/#.U3lbwfldUm8 Video: Beware Online Filter Bubbles (9:04) Eli Pariser http://www.youtube.com/watch?v=B8ofWFx525s#t=528 Video: Break out of your comfort Zone. (7:37) Brian Tracy http://www.youtube.com/watch?v=xYNJ2g2ZDss In Class Activity <ul style="list-style-type: none"> Discussion of readings and videos 	
	FALL BREAK	
Session 26 Monday 11/28	MAKING IT HAPPEN: INTELLIGENT RISK TAKING <ul style="list-style-type: none"> Risk & Failure at the Intersection; Avoiding Behavioral Traps Readings/Pre-Class Preparation <ul style="list-style-type: none"> Johansson. 2006. <i>The Medici Effect</i> 161-190 Video: Experience, Risk-Taking and Innovation (1:46) Jim Carroll http://www.youtube.com/watch?v=4zgxcmZ4yf8 Video: Reid Hoffman: Entrepreneurs Take Intelligent Risks (2:33) http://www.youtube.com/watch?v=otiVNfutKvQ Video: Anker: Warning -- leaving comfort zone (20:34) https://www.youtube.com/watch?v=X7h7ondzFNA In Class Activity <ul style="list-style-type: none"> Discussion of readings and videos EXERCISE: What is the most dangerous thing you've ever done? What was the biggest risk you've ever taken? What did you learn? 	KEY IDEAS/INSIGHTS Assignment #7 Upload to eLearning dropbox by 3:00 PM on 11/28/16 Address videos and readings from Sessions 21-26 (15 CP points)
Session 27 Wed 11/30	PRESENTATIONS – Team Challenge #4 (15%) Creative solution to a significant problem or challenge	TEAM CHALLENGE #4 Upload paper and presentation to eLearning dropbox prior to 3:00 PM on 11/30/16
Session 28 Monday 12/5	PRESENTATIONS – Team Challenge #4 (15%) (if necessary) Creative solution to a significant problem or challenge	PEER EVALUATION Upload to eLearning dropbox by 3:00 PM on 12/5/16 Form posted on eLearning (5 CP points)
Session 29 Wed 12/7	COURSE REVIEW/FINAL EXAM PREP Readings/Pre-Class Preparation <ul style="list-style-type: none"> None In Class Activity <ul style="list-style-type: none"> Final Exam prep 	
Session 30 TBD	FINAL EXAM (15%) TBD (Dec 9-15)	