THE WHARTON SCHOOL OF THE UNIVERSITY OF PENNSYLVANIA

MGMT 802: INNOVATION, CHANGE AND ENTREPRENEURIAL MANAGEMENT

Version 1.1 112313

This syllabus is a game plan subject to change, not a contract There may be some changes precipitated by class size. Spring 2014 Q3, Q4

Instructor: Ian MacMillan:

4th Floor Vance Hall, 37th and Spruce

Office Hours: Wednesdays 8-9am by appointment only

TA:

Textbook

"Market Busters" by McGrath and MacMillan. HBSP, 2009. Reading assignments

Bulkpack

A warning: If you miss more than two classes in this course you will get an automatic NC This course will provide you with a theoretical foundation and a set of practical tools for the management of innovation, both in corporate settings and start-up situations. For the purposes of the course innovation is defined as the profitable commercialization of a new idea: product, market or technology. The theoretical backdrop will be provided by multiple readings, your knowledge of which will be tested in a readings report. The practical tools will be provided via lecture/discussion sessions, your skills at which will be demonstrated in an innovation assessment for an actual innovation opportunity.

In the course your team will develop three types of deliverable.

First you will be part of a study group which will prepare an **innovation assessment** – the precursor to a business plan, in which you assess the commercializability of an innovation opportunity that your group has identified.

Second you will be preparing and presenting two moves to MarketBust designated industries using lenses from the course.

Third you will be submitting a team Readings report that discusses the value of the course readings to your group in putting together the innovation assessment.

Finally, a class participation score will be based on the assessment of the quality of your comments in class and the consistency of your attendance.

To help us learn your name and recognize your participation, please use a tent card in all classes. I shall assume for each class that you have prepared the readings – these will not be repeated in class. You may be called on to present a summary of the readings at the start of class.

It is an explicit condition of signing up for this class that you can expect to be cold called.

GRADING:

Class participation 20%
Readings report 10%
Innovation assessment 55%
MarketBusting presentations 15%

Individual contribution to Group Effort:

In order to minimize the free rider problem with respect to group work, you will be asked to rate the contribution of each of the group members by assigning a percentage score to each member, using the GROUP MEMBER EVALUATION FORM below. Note that you should assign each member a score of 1 to 100% for your perception of the contribution they made to the group effort. If you all contributed equally **each** member would therefore receive a score of 100%. These scores will be used to calculate a weighting score that will be applied to the individual's group work as follows

| PERCENTAGE GIVEN TO | | TO A | TO B | TO C |
|---------------------|------|------|-------------|-------------|
| PERCENTAGE GIVEN BY | | | | |
| | BY A | NA | 100 | 65 |
| | BY B | 85 | NA | 55 |
| | BY C | 75 | 100 | NA |
| AVERAGE | | 80 | 100 | 60 |

GRAND AVERAGE (80 + 100 + 60)/3 = 80

FINAL WEIGHTING:

= AVERAGE/GRAND AVERAGE = 80/80 100/80 60/80 1.0 1.25 0.75

SO IF GROUP REPORT SCORE WAS 50 POINTS

A WOULD GET 1.0*50 = 50 B WOULD GET 1.25*50 = 62.5 C WOULD GET 0.75*50= 37.5

There have been (rare) occasions when one group member (free-rider) got an F while another got an A PLEASE NOTE THAT THE INSTITUTION IN ITS "WISDOM" OBLIGES ME TO GRADE TO A CURVE, SO YOU CANNOT **ALL** BE AT THE TOP OF THE CLASS.

WE GO TO CONSIDERABLE EFFORT TO ASSURE THAT EACH STUDENT IS GRADED AS FAIRLY AS POSSIBLE.

THEREFORE UNDERSTAND THAT I WILL NOT DISCUSS GRADES

COURSE OUTLINE – The specifics of course timing may change during the semester

The numbers **without** Ch in front of them refer to the list of readings at the end of this syllabus; the numbers **with** Ch in front of them refer to the Chapters in the textbook

| Session | Q3 date | Q4 Date | TOPIC | |
|---------|------------|------------|--|----------------------------|
| 1 | 1/15 | 3/17 | Class introduction | 1, 2, 20, Ch1 |
| 2 | 1/22 | 3/19 | Consumption Chain and Attribute mapping for innovations Deliverables Tables and Capability Ladders | 4, 10, 16, Ch2 |
| 3 | 1/27 | 3/24 | Stage Gating and Discovery Driven Planning; Checkpoint/assumption Tables | 24, 12, 19 |
| 4 | 1/29 | 3/26 | MarketBusting presentation briefing DDPSolver , Barebones NPV and MCA tables | 3,11, Ch4 |
| 5 | 2/3 | 3/31 | Real options reasoning and Opportunity Engineering Due: Project description and team member list If you are not in a 5 person team you will be randomly assigned to a team | 7, 8, 9 |
| 6 | 2/5 | 4/2 | Tempus software Guest Speaker | 13,14, Reread Ch2, Ch3, |
| 7 | 2/10 | 4/7 | MarketBusting presentations: How you would reconfigure the consumption chain and attribute map to MarketBust in one of the following industries: Health care Education | Prep for presentation |
| 8 | 2/12 | 4/9 | Business model innovation and industry dynamics Innovation assessments | Ch4, 10 |
| 9 | 2/17 | 4/14 | Guest speaker: Innovation in financial data space Case: MasterCard | 5, 22 |
| 10 | 2/19 | 4/16 | MarketBusting Presentations: How you would exploit social networking and or Internet Apps to MarketBust in one of the following industries Crime control Transportation | Prep for presentation 6, |
| 11 | 2/24 | 4/21 | Anticipating competitive response and DRAT analysis | Ch5, 17, 21,, 23 |
| 12 | 2/26 | 4/23 | Opportunity portfolios and Innovation portfolio software | Ch7, Ch8 |
| 13 | 3/3 | 4/28 | Due: Innovation assessment and readings report Guest speaker: James Thompson | Prep assessment |

Innovation Assessment Description

This project is intended to help you refine your skills at assessing the potential of a proposed innovation and designing a system to commercialize it.

Form a team consisting of at least 5 members. Assume the role of a team charged with commercializing an innovation. Select an innovation that really interests your team. Startups are OK, as are innovations being considered by existing firms – even innovations being considered by previous/current employers of group members.

Your goal is to learn enough about the innovation; using whatever data sources you can, to prepare a report for an assessment of the innovation's feasibility and an appropriate strategy for commercializing the innovation.

The following outline should serve as a guide, but use your own best judgment as to the best way to present your work. Confine your text to **no more than** 20 double-spaced pages of 12 point type. Your Discovery Driven Plan, Consumption Chain, Attribute Maps, and other exhibits, supporting materials and additional analyses should not be more than another 12 pages.

- 1. **Executive Summary** (maximum 1 page)
- 2. **Impact statement** Description of the innovation, the problem to be solved, how your innovation solves it better than the current alternatives, what the intellectual property issues (if any) are with this innovation, and expected financial benefits (maximum 2 pages).
- 3. **Market analysis.** Analysis of the market for the innovation: Arenas that will benefit from your project and the benefits, the target revenue arenas you selected, (or target application arenas in the case of an internal project), with value propositions, the revenue model and profit model or, in the case of an internal project, the cost/benefit model. (Maximum 3 pages)
- 4. **MCA analysis.** Nearest competitive solutions, benchmarks these MCA's are setting, what makes you better, and what protects you from competitive matching? (maximum 3 pages)
- 5. **Operations Specification** Required scope of your effort, resources and capabilities must be developed, alliances and partnerships you suggest (maximum 3 pages).
- 6. **Discovery Driven Plan** for implementing the innovation, including reverse financials, operations spec and benchmarks, checkpoint/assumption table, a tornado chart and your Barebones NPV. Your DDP should have maximum twelve major CheckPoints and a maximum twenty assumptions with their ranges.
- 7. **Recommendations and key risks.** What the client should do next, and why you feel this is the best way to proceed. Your recommendation may be to not go forward, in which case your analysis should show why. Critical environmental risks, customer-response issues, alternate competitor reaction scenarios, impact on your base-case discovery driven plan, contingency plan (maximum 3 pages)
- 8. Appendices
 - a. Your consumption chain with trigger events, attribute maps of major links, compared to the MCA
 - b. A completed DRAT table for expected external and internal resistance, if any
 - c. Other appendices that you deem necessary.
- 9. **Extra Credit:** Scorecards and mapping of attractiveness and market power for key market segments

READINGS REPORT DESCRIPTION (NOTE: THIS IS A GROUP PROJECT)

You will be required to submit a five-page report describing how the bulkpack (not textbook) readings applied to your innovation project.

The structure is simple: Pick five of the readings that you think are particularly appropriate for the decisions your team made about your innovation. Explain what concepts and conclusions were useful to you and how you incorporated the learnings into your innovation assessment.

Appendix: List all readings (including your top five) and rate the reading's usefulness along the spectrum: no value, some value, useful, very useful. At the end of the appendix also include any recommendations of readings that your team is aware of that did not appear in the required readings list, but you feel should be included. Finally list any readings that have been used in other courses, and specify the course

This report will then be used to improve the readings for this course.

THE READINGS REPORT WILL COUNT 15% TOWARDS YOUR FINAL GRADE

(NOTE: THIS IS A GROUP PROJECT)

| GROUP MEMBER EVALUATION FORM: E-mail to your TA on the day the In | nnovation Assessment is submitted |
|---|-----------------------------------|
|---|-----------------------------------|

GROUP NAME GROUP LEADER

YOUR NAME: SOCIAL SECURITY NUMBER:

| GROUP MEMBER'S NAME (PLEASE PRINT) | PERCENTAGE EFFORT |
|------------------------------------|-------------------|
| DO NOT RATE YOURSELF | |
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802 READINGS

- 1. Bower, Joseph L. and Christensen, Clayton M. 1995. 'Disruptive Technologies: Catching the Wave" <u>Harvard Business Review</u> January/February, 1995.
- 2. Drucker, Peter. F. "The Discipline of Innovation". <u>Harvard Business Review</u>, November/December, 1998.
- 3. Mullens, John W. "Why Business Plans Don't Deliver", MIT Sloan Management Review, June 22, 2009.
- 4. Von Hippel, E. 1986. 'Lead Users: A Source of Novel Product Concepts' <u>Management Science</u> v32n7.
- 5. Lynn, Gary S., Morone, Joseph G., Paulson, Albert S. "Marketing and Discontinuous Innovation: The Probe and Learn Process". <u>California Management Review</u>, Spring 1996, Vol. 38, Issue 3, p. 8.
- 6. Horn, Lovallo and Viguerde. "Learning to let go: Making better exit decisions" <u>McKinsey</u> <u>Quarterly online journal</u>; mckinseyquarterly.com.
- 7. Selden, L and MacMillan, I.C. "Manage Customer-Centric Innovation Systematically" Harvard Business Review April 2006. pp. 108-116.
- 8. L. Selden and Ian C. MacMillan. "The Incumbent's Advantage" <u>Harvard Business Review</u>, October 2008 pp 111-122
- 9. Rice, M, O'Connor, G and Pierantozzi, R. "Implementing a learning plan to counter project uncertainty" MIT Sloan Management Review, Vol. 49, No 2 (Winter 2008) 54-62.
- 10. Gourville, J.T. "Eager Sellers and Stony Buyers: Understanding the Psychology of New-Product Adoption" <u>Harvard Business Review</u> June 2006.
- 11. Clark, Gilbert and M. J. Eyring "Beating the Odds When You Launch a New Venture" Harvard Business Review Reprint R1005G
- 12. Schwartz, Nelson D. "Online Banking Keeps Customers on Hook for Fees". New York Times, October 15, 2011.
- 13. Gladwell, Malcolm,, "Creation Myth" The New Yorker, May 16, 2011.
- 14. W. Brian Arthur. "The second economy" McKinsey Quarterly, October, 2011.
- 15. Beating the Odds When You Launch a New Venture
- 16. Finding the Right Job for Your Product
- 17. How to Manage Outside Innovation
- 18. The 12 Different Ways for Companies to Innovate
- 19. The 4 Ways IT Is Revolutionizing Innovation
- 20. The 5 Myths of Innovation
- 21. The Era of Open Innovation
- 22. The Innovation Catalysts
- 23. Why Companies Should Have Open Business Models
- 24. McGrath, R.G.,and I.C. MacMillan "Discovery Driven Planning" <u>Harvard Business Review</u>, Volume 73, No. 4, July-August 1995. pp. 44-54.