MEM 420: Organizing for Innovation
Instructor: Prof Mark Karasek

Course Overview:
Companies must grow to survive over the long term. Innovation is the lifeblood of growth in corporations and startups. But innovation is arguably the most difficult thing an organization can try to do. And the challenge of innovative growth is getting more complicated. Product companies are adding software services. Service companies are adding products. Value in the marketplace is moving from products or services to ecosystems. As ecosystems define value in a marketplace, the profit pool can redistribute creating new winners and losers. How does the emergence of ecosystems change how we organize for innovation? What are the toolsets of innovation that a modern ecosystem participant needs to master? How can an enterprise develop a portfolio of innovation investments and effectively execute programs to realize profitable growth? This course is intended to provide a working understanding of the toolsets and structures that support profitable growth through managing an innovation portfolio.

The instructor has decades of experience leading innovation in the enterprise and years of experience coaching startups. The course content is based on real life experiences in developing and leading organizations that are the primary drivers of innovative growth in the enterprise. The course is structured to give you tools you can use in your daily work and to stretch your understanding of how to manage the processes of innovation. The class will include a mix of individual presentations applying the previous sessions concepts to real world examples, expert videos and instructor lectures on toolsets and frameworks, and occasional guest speakers.

Learning Objectives:
- What is innovation? How is it different from creativity or invention?
- How is innovation used in a corporation? How is it different in a start-up versus an established enterprise?
- What are the tools of innovation and how are they used effectively?
- How is an innovation portfolio developed?
- How are innovation teams formed?

Reading Materials:
The syllabus includes a list of links for reading materials and videos for each week of the class. Students are expected to read the articles and blogs, and watch the videos in these links before class each week and be prepared to discuss the content during the discussion session. One or more links at the bottom of the reading list each week will be business books that provide more depth and context on each of the lecture topics. It is highly recommended, but not required, that students purchase and read these books for deeper insights and as reference material during their innovation careers.

Class Sessions:

1. Week 1 – Invention versus Innovation
   Define innovation and how is it different from creativity or invention. Understand how innovation relates to corporate strategy. Explore the types of innovation a company might practice and when each type is most effective. Define Open Innovation and how it fits into an innovation strategy. Explore incremental and disruptive innovation. Discuss the differences between technology disruption and business model disruption. Provide a basic definition of a value proposition and a business model.

2. Week 2 – Where innovation starts: Voice of the Customer
   Voice of the customer, user insights and needs based segmentation. Explore the foundational tool sets of understanding value creation. Contrast market research and VoC. How to organize a VoC study – start with hypothesis, etc.

3. Week 3 – Products, Services and Ecosystems
   Understand the difference between product, service and ecosystem innovation. Explore the challenges of execution risk, co-innovation risk and adoption chain risk. Examine tools for developing ecosystem maps.

4. Week 4 – The Innovation Portfolio
   Explore tools for managing an innovation portfolio. Explore the three horizons approach to innovation portfolio management. Understand the innovation tool sets for each horizon and how the tools are governed. Explore methods for planning distribution of investment, scoring projects into horizons, and measuring risk and return balance within each horizon.

5. Week 5 – The Fuzzy Front End
   Organizing to feed the innovation portfolio. Examine models of the "fuzzy front end" in the enterprise. Understand the desirability/feasibility/viability framework. Understand the role of voice of the customer, trends research and technology road mapping.

6. Week 6 Phase-gate Processes: Managing Execution Risk
   Phase gate processes. Explore structure, governance and toolsets. Examine the potential pathologies and how to execute projects effectively. Rigid versus flexible gates.

7. Week 7 – Agile Processes: Managing Flexibility
   Agile processes. Explore structure, governance and toolsets. Examine the pathologies and how to execute projects effectively.

8. Week 8 – Lean Startup Toolset – Managing Learning

   Lean startup/test and learn tool sets. Explore structure, governance and toolsets. Define how toolset is applied in startups versus established enterprises. Examine pathologies and how to execute projects effectively.

9. Week 9 – Bringing It All Together In the Real World

   Real life challenges of innovation in an enterprise. Explore examples of failure and success. Define top down innovation versus bottom up innovation. Understand variations in tolerance for ambiguity.

10. Week 10 – Final Project Presentations

    Report out on full project with updated marketplace research summary, updated ecosystem map, horizon map or 4 quadrant map with all hypotheses plotted, plan and execution of paper test results, and final recommendation on moving forward with the project.