Management Consulting For Engineers – 10 Day-Spring 2018 (**9AM–Noon)** weeks; 28th May–1st June 2018 and 11th June to 15th June 2018. **ROOM SF3201**

Course Outline

Management Consulting will continue to be a significant career option for many graduate students, regardless of whether a student's academic foundation is in business, engineering, or the basic sciences. Careers in Management Consulting often provide individuals an opportunity for challenging work, continued self-development, access to important social and professional networks, and, over time, significant financial rewards. This course is designed to enable graduate engineers explore, and prepare for a career in management consulting. The course is taught by a qualified fellow certified management consultant (FCMC) and licensed professional engineer (P.Eng). The Management Consulting Industry has grown in size and complexity particularly since the early 1990's. Although there are many very small firms, the industry is dominated by a relatively few very large global organizations that practice in a variety of business settings and business disciplines. In addition many businesses have developed internal consulting organizations to provide consulting related services within the organization and often in conjunction with consulting services offered by third party firms. In this course we explore what it means to be a Management Consultant, and will introduce students to consulting frameworks and methods; simulate consulting project activities and situations using business cases; and network students with practicing consulting professionals from a variety of global and local firms. Within the context of this course, consulting is view broadly and is inclusive of a number of practice areas including Strategy Consulting, IT Consulting, Marketing Consulting, Human Capital Consulting, Operational/Process Consulting, Organizational Consulting, and the very specialized field of engineering management consulting. Course participants will be organized into consulting teams and will have the opportunity to identify and complete two simulated consulting engagements and participate in a Case Competition sponsored and judged by a tier one Consulting firm.

Course Objectives

1. Develop an understanding of the nature and rigor of management consulting and to develop skills in management consulting fundamentals.
2. Learn how to identify, analyze, and negotiate consulting opportunities – important in building a practice or progressing upward within an existing one.
3. Demonstrate problem solving, design, and other analytical skills and learn overall consulting process skills.
4. Practice and sharpen executive writing and presentation skills. A student who has successfully completed the coursework should be able to clearly articulate how consultants add value; how consulting practices are built and sustained; approaches to identifying and securing consulting opportunities; how client relationships can be managed and what to do in problem situations; and have demonstrated skills and the effective use of typical analytical frameworks used by consulting organizations today.
5. The primary objective of this course is to provide you with an opportunity to become familiar

with the typical phases in a consulting project. These phases include: selling a project, entering the client firm, gathering data, diagnosing issues, implementing solutions and leaving. In addition to discussing these phases in class, we will discuss how similarly, and how differently, consultants work with their clients. We will also study the functional specialty areas in which most consultants practice. We conclude the course with discussions of ethical issues, career concerns and expert witnessing of consultants.

CORE READING LIST

- Block, Peter. ***Flawless Consulting, 3rd edition***. University Associates, La Jolla, 2011
- Cohen, William A. ***How to Make it Big as a Consultant,*** 2009
- Greiner, Larry E. and Metzger, Robert O. ***Consulting to Management,*** 1983
- Kubr, Milan. ***Management Consulting-A Guide to the Profession,*** 2002

There are no mandatory prerequisites but previous course work or experience in leadership, innovation management, process management, project management, continuous improvement (six sigma, lean), strategic management, organizational change management, lean product development or operations management would be helpful.

Important Expectations of Online Students

Online learning is not home study. It requires as much or more effort than in class learning – the advantage being – you get to engage in the learning experience at a time you choose. The academic rigor and learning outcomes are identical to an in class experience. **The online course will be administered via blackboard therefore use of blackboard is mandatory**. There are some baseline rules that online learning requires. Students:

- Must commit and engage in online discussion from the end of the first week. Marks for online discussion are included in the mid term and final critical review papers.
- Must read and understand the student performance evaluation rubric and demonstrate this by discussing how it works in blackboard by the end of the 2nd week.
- Provide **(optional)** a 2-minute background introduction video by the end of the 2nd week – just to demonstrate the use of video and drop box. **Written introduction mandatory.**
- Will be expected to produce one 4-6-minute video - to self assess the mid term critical review.
- Understand a lack of engagement in the discussion board evenly paced throughout the course will inhibit your ability to write the critical review papers. Each lecture and discussion board will be posted for 2 full weeks and then locked (can read but not write). This means online blackboard discussions on the lectures must be completed in an even flow through the course – you can't build them up. This would inhibit the learning experience

Course Structure and Content

Managing Consulting for Engineers is divided into four themes and 12 modules:

The first theme is: **Management Consulting in Context**

The second theme is: **Professional Practice in Management Consulting**

The third theme is: **Skills for Success in Management Consulting**

Learning outcomes

1. Define management consulting and understand why and how consultants are utilized
2. Apply a consulting process framework to simulated client engagement
3. Understand the value of stakeholder engagement and how to apply it
4. Develop a proposal and work plan for a consulting project
5. Learn, practice, and refine skills for client engagement and project management
6. Learn and apply discovery techniques and qualitative/quantitative research skills
7. Make effective presentations to client organizations

Class Participation. This course will be offered over 10 days June 2018 (over 4 weeks). The course will be taught through a combination of video lectures (15-50 minutes), critical review readings, and **in-Class activity and discussion.** In-class activity includes presentations and discussions that will be delivered as teams each day. Teams will present answer to questions set against each module video (listed in discussion board).

Critical Review (CR) Papers. **The requirements for CR's change from year to year.** CR papers can be handed in and also posted on the discussion board. **All CR's will be written papers (800 – 1200 words).** Critical reviews will consist of reviewing an academic paper and / or **special interest topic** that is most likely career related. There are lots of choices for the critical reviews from the core management consulting books. The remainder of the critical review readings can be from scholarly academic papers listed on the course website (blackboard). There are lots of choices – students can also find and review the latest academic papers on innovation.

Final Paper - Project Report. Students will form teams and produce a team report. Whether in a virtual team environment or as an individual the level of effort is the same. For the final paper you are free to select a topic in innovation that interests you. The goal of the final project report is not to do original field research, but to demonstrate to me your ability to apply innovation concepts *in a situation of your choosing*. The final report should be double-spaced, 12 point font, **(**approximately 1200 – 1500 words per student**).** Timing is very important to Managing Innovation! **A hard copy and a soft copy of the paper** (using Microsoft Word, NOT an Adobe Acrobat PDF!) must be delivered by email no later than **29th June 2018 at 4pm** to my email address, stephenc.armstrong@utoronto.ca - the hard copy to be given to the mechanical & industrial engineering graduate office

Please note: for guidance purposes summaries of the team project reports from the 2010 to 2017 classes are available at: http://www.amgimanagement.com/founder/teaching.html.

Course Grading: The components of the final course grade will be weighted as follows:

Final Team Report (5% Charter and Summary ppt 10%)	40%
In Class Participation (team presentations and discussions)	40%
Critical Review of Academic Paper (CR1)	10%
Written Book or Special Interest Review (CR2)	10%

40% will be determined by the final project team paper (includes 10% for summary ppt presentation and 5% charter). 50% of the grade will be determined by Class activity Participation –blackboard discussion board **is not required** but this is where readings and module discussion questions are located. 10% is a book or special interest review (between 1,000-1,500 words).

Office Hours. Because I am Adjunct faculty it will be difficult to meet all of you individually in a timely manner because of the class size but we will have lots of interaction in class

Important Dates:

28th May 2018 -First Seminar: Orientation on Course Content
29th May 2018 - Final date to drop APS1049 without academic penalty
1st June– Team Charter Due- Submit physical copy in class
15th June 2018 –Last Module and submission of Special Paper Review
15th June 2018 –Project team verbal presentations (Power point)
29th June 2018 – Submission of final report (physical hardcopy and e-copy in word)
17th July 2018 – All coursework grades submitted

Part I – Management Consulting in Context

Mod 0- Courses Introduction and Orientation

- Introduction and purpose of course
- Course Overview
- Review syllabus

The Transition from Engineer to Manager to Management Consultant

- Transferable engineering skills

Mod 1 - Introduction to the Profession

- Definition, roles, purpose of the management consulting profession
- Uses of consultants – public sector, private sector, and internal consulting
- Who Hires management consultants

- Introduce client projects
- PWC Online Case study https://www.pwc.co.uk/careers/casestudy.html

History and Development of the Profession

- History and development of the profession
- Management Consulting Industry – Major Companies
- Consulting roles and culture
- Professionalization certification (CMC) and licensing
- Controversies in Management Consulting

Mod 2 – Consulting Types, Skills, Roles and Culture

- How to Get Clients
- Types of projects and project cycles
- First client meetings
- Assignment strategy and plan
- Proposal development
- Internal v External Consulting
- Consulting contract
- Service Quality
- Assign client projects

Mod 3 –Effective Consulting Client Relationships – Managing Expectations

- The client system
- Manage expectations
- Contract management
- Methods of Influencing
- Stakeholder engagement
- Utilizing resources
- Institutionalizing change
- Pricing your Services

Part 2 – Management Consulting Process and Stages

Mod 4 –Consulting Process –Entry and Defining Client Needs

- Types of projects and project cycles
- First client meetings
- Assignment strategy and plan
- Proposal development
- Consulting contract
- Service Quality
- Assign client projects

Mod 5 –Consulting Process - Diagnoses and Action Planning

- Diagnosis – conceptual framework
- Data gathering techniques
- Client feedback
- On-site interaction

Mod 6 -Consulting Process – Engagement, Implementation, Termination

- Management of projects
- Presentations and communicating with clients
- Implementing your recommendations
- Ongoing client contact and service
- Team effectiveness
- Selling more work or Termination

Part 3 – Management Consulting In Various Areas

Mod 7- Uniqueness of Each Client

- Major Business Corporations
- Industry Differences
- Privately Held Companies
- Family Owned Businesses
- Maintaining independence and objectivity
- Time for withdrawal
- Final reporting
- Evaluation

Mod 8 –Consulting in the Functions of Management

- Strategic and General Management Services
- Operations and Production Management
- Supply Chain Management
- Marketing and Sales Management
- HRM Management
- Financial Management
- IT and Digital Management
- Advanced Manufacturing Systems
- Engineering Management

Mod 9 – Consulting in Industry Sectors

- Aerospace and Defense
- Automotive
- Oil and Gas
- Consumer Goods
- Manufacturing and Industrial Equipment
- High Tech
- Public Sector and Government

- Banking and Finance
- Health Care and Hospitals
- Small Medium Enterprises

Part 4 – Skills For Success in Management Consulting

Mod 10- Legal and Ethical Issues

- Legal risks and management
- Client privilege issues
- Professional ethics
- Biting the hand that feeds you

Mod 11 - Creating Value for Yourself and the Firm

- Firm growth strategies, sales skills
- Managing a firm
- Marketing Consulting Services
- Cost and Fees
- Effective management of consultants
- Evaluation of performance
- Operational and Financial Control
- Structuring a Management Consulting Organization

Mod 12- Managing Your Consulting Career

- Being Authentic
- Maintaining independence and objectivity
- Professional development and staying current
- Developing areas of unique expertise

Mod 13- Final Consulting Project Presentations – Last Day of Class

- Final presentations on consulting projects