

NATIONAL UNIVERSITY OF SINGAPORE  
NUS BUSINESS SCHOOL  
Department of Analytics & Operations

## **DSC3202 Purchasing and Materials Management**

**Lecturer:** Dr. Mei Qi

**Session:** Semester II, 2017/2018

### **COURSE DESCRIPTION**

In an increasingly competitive world, enterprises need to outperform competition and differentiate themselves from the pack so as to ensure survival and profitability. Maintaining good relationships with trading partners, managing the total cost of ownership (TCO) in a value chain setting, and constantly achieving target costing are fast becoming strategic imperatives especially on the upstream supply chain. In many enterprises, the value of purchased goods and services can account up to 90% of their total cost of goods sold (COGS). Therefore, Purchasing and Materials Management (PMM) is a critical frontier for enterprises to generate sustained competitive advantage, especially in emerging Asia.

PMM is a functional area that deals with supply management such as sourcing, goods storage and distribution, contract negotiations, value buys, as well as supplier relations, in both manufacturing and service organizations. The challenge in PMM is to manage the triage of Speed, Cost, and Quality, and to engage the technology providers to radically overhaul procurement functions and processes.

### **LEARNING OBJECTIVES**

Through this course, students will learn about supplier relationship, vendor pre-qualification and selection, contract performance management, procurement strategies, and sourcing practices. Students will internalize concepts and practice skills that will enable them to:

- Define and assist in PMM improvement projects
- Assist in launching PMM programs in a wide range of industries and organizations
- Develop strategies for PMM

### **INSTRUCTIONAL METHODS**

We seek to achieve planned learning objectives through a combination of lectures, tutorial-like dialogues, ideation sessions, interactive simulation games, group breakouts, and case analyses, which require individual as well as team work. Students are expected to make persuasive arguments, and deliver business cases. The class also has the occasional speakers from industry to share managerial perspectives on PMM practices, complementing the concepts and principles taught in class.

Theory and conceptual thinking form the backbone of the course but there will also be a strong emphasis on experiential and action-based learning through case study preparations

and one group project in which actual results are expected. Groups will consist of 4 to 5 students and will be responsible for a PMM strategy audit or a PMM performance improvement project.

### **Assessment Methods**

- |                            |                                    |
|----------------------------|------------------------------------|
| 1. Class Participation:    | 20% (individual)                   |
| 2. Case analysis write-up: | 10% (group)                        |
| 3. Peer Evaluation:        | 10% (individual)                   |
| 4. Group Project:          | 30% (20% group and 10% individual) |
| 5. Quiz (in MCQ format):   | 30% (individual)                   |

### **PREREQUISITES**

- DSC2006 Operations Management
- DSC1007 Business Analytics

### **ASSESSMENT METHODS**

1. Class Participation (20%):
  - Class participation depends on your presence in the classroom, your perceived preparation, and the contribution you make to the learning experience of others.
  - Class participation includes in-class questions to the instructor, insights and/or comments regarding class content, answers to the instructor's in-class questions, and reactions to other students' in-class contributions.
  - The quality of in-class participation will critically depend on your preparation: reading the case and assigned articles and preparing answers to the discussion questions listed in the class schedule (see below).
  - Cold-calling (direct questions by the instructor to an individual student during a class session) will be used to check class preparation. Cold-call questions can relate to case discussion questions but can also be questions that test whether you have read and understood the assigned articles.
  - Please sit in the same seats every class meeting throughout the semester. Please put your name cards in front of you.
2. One case analysis write-up (10%):
  - There is one case write-ups to be handed in throughout the semester (group work)
  - Cases should not be discussed with anyone outside your group nor should you use other sources without acknowledgment.
  - The case write-up is to be no longer than 2 pages (excluding exhibits tables, charts, figures), 12-point, double spacing, and 1 inch margins (top, bottom, left and right).
  - Start your case write-up with a short summary (less than 1/3 of a page) that describes the situation of the company, the problem it is facing, the question it needs to answer and your recommended plan of action. Then support this recommendation with a detailed analysis

- Assessment criteria include: quality of analysis, appropriate and sufficient use of case facts where needed, apparent grasp of relevant course concepts as well as logic and structure of the write-up.
3. Peer Evaluation (10%) will be performed by other members in the same group and will depend on the contribution of effort, team organization, work quality, knowledge and ideas.
  4. Group Project (30%):

### **GUIDELINES FOR GROUP PROJECT**

- Each team will have 4 or 5 members
- Expected time commitment per team member is 30-50 hours
- Project deliverables are:
  - Project proposal (5% due before week 4 class)
  - Preliminary project report (5% due before week 8 class)
  - Project presentation (10% individual in week 12 and 13 class)
  - Project written report (20% group due Sunday midnight on April 22, 2017)
- Project proposal will consist of 1 page (12-point, double spacing, and 1 inch margins (top, bottom, left and right) outlining
  - Project title
  - Executive Summary (preliminary; see structure below)
  - Contact person at related organization who has agreed to cooperate with project
  - Project methodology
  - Project timeline
  - Team member roles
- The executive summary of the report will have the following structure
  - Situation (what is the background situation for your report)
  - Complication (what in this situation leads you to do your investigation)
  - Question (what is the question you will try to answer in your report)
  - Answer (a summary of the answer you have come up with in your investigation, i.e. your main findings and recommendations)
- Project report will be approximately 8 pages long (not including exhibits, 12-point, double spacing, and 1 inch margins (top, bottom, left and right)), including a 1/2 page executive summary
- The grading criteria for the project report will be
  - Thoroughness and comprehensiveness of investigation
  - Quality of the report: logic, structure, style, clarity, grammar, spelling, layout
  - Creativity displayed in study
  - Knowledge and insights displayed in work
  - The extent to which this study can guide meaningful action
- The Presentation will consist of
  - A five minutes introduction by a team member
  - Twenty minutes presentations by the rest of the other team members

- Q&A and assessment by instructor and classmates from other teams
- Presentation should reflect the story in your report
- The grading criteria for the presentation will be
  - Same as project report (for peer assessment), plus
  - Effectiveness of the presentation in communicating the story
  - Effectiveness of the 5 minute introduction by a team member (tell the story in a clear, engaging, polished and timely manner)
  - Ability to answer questions effectively
- Groups will choose one of the following project types:
  - Type I: PMM Strategy for a selected organization/company
  - Type II: PMM Improvement Project at a selected organization/company
  - Type III: PMM Innovation