

B6102 Operations Management

Summer 2018

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Canvas: Please be sure to have your announcement and messaging notifications set to ASAP.

COURSE DESCRIPTION AND LEARNING OBJECTIVES

Operations Management is the design and management of the processes that transform inputs into finished goods or services. Operations is one of the primary functions of a firm. Whereas marketing focuses on the demand for the product, and whereas finance provides the capital for the product, operations actually produces and delivers the product.

This course provides a foundation for understanding the operations of a firm. Our objective by the end of the course is to provide you with the basic skills necessary to critically analyze a firm's operating performance and practices. Such knowledge is important for careers in a variety of areas, including general management, entrepreneurship, investment banking (e.g. business restructurings, mergers and acquisitions), venture capital (e.g. evaluating new business plans) and management consulting (business restructuring improvement). Unlike many courses in the core, which tend to treat the firm as a "black box", we will be primarily concerned with "opening up" the black box and discovering what makes a firm "tick" - or, for that matter, "stop ticking".

Because the operations of a firm vary widely from one industry to the next, a course like this cannot cover all topics that are relevant to any given industry. Rather, we have selected a set of topics that are fundamental to understanding operations in a wide range of industries. These concepts are then illustrated using cases from a diverse set of businesses.

ASSIGNMENTS

In order to avoid ambiguity that may lead to unintentional violations of the Honor Code, the description types for assignments have been standardized. They are specified in the table below.

<i>Type</i>	<i>Designation</i>	<i>Discussion of concepts</i>	<i>Preparation of submission</i>	<i>Grade</i>
A	group / group	Permitted with designated group*	By the group	Same grade for each member of the group
B	group / individual	Permitted	Individually (No sharing of any portion of the submission)	Individual
C	individual / individual	None of any kind	Individually	Individual
D	(An optional category to be defined in detail by the individual faculty member)			

* The designated group can be either an assigned study group or a self-selected one.

Homeworks

- There are three homework assignments for the course and homeworks constitute 10% of your final grade.
- Homeworks are due at the beginning of the session on the assignment's due date.
- Each student must turn in his or her own assignment for homeworks 1 and 3. We encourage students to attempt completing the assignments on their own. However, to promote learning, students are allowed to discuss each assignment with other students. These are Type B assignments.
- Homework 2 is a group assignment. This is a Type A assignment and should be done with your learning team.

Littlefield Labs Game

During the course, we will play an experiential game, "Littlefield Labs", to get some hands-on experience on some of the concepts covered in class. The game simulates a laboratory that provides blood testing to customers, and each team will have to manage several aspects of the lab (input materials, capacity at several stages of the process, etc.) in order to maximize the profit of the company. Teams will compete during one week, playing the game online (using a web browser) outside lecture hours. The grade for this activity will be calculated based your ranking in the competition (20%) and a write-up to be handed in at the end of the game (80%). This is a Type A assignment and should be done with your learning team. **Teams have 5 students max.**

Final Exam

- The final exam is based on the content of the course: analytical tools, case discussions, lectures, etc.
- It is a 3-hour written exam.
- The format of the final exam is open book and open notes.
- Bring calculator but no laptops allowed.

GRADING

Your grade in the course will be based on individual, as well as group efforts and performance. We will use the following weighting scheme:

Class Participation	30%
Assignments (3)	10%
Littlefield Labs Game	10%
Final Exam	50%

Class Participation

We will judge class participation on the extent to which you appear prepared, the relevance and depth of your comments, the degree to which you listen carefully and respond to your peers, and your willingness to take chances in order to further the educational experiences of others. In many instances, we will ask you to provide a brief summary and/or justification for your answers to pre-class assignments in an online system (a link to the assignments will be provided on Canvas). These pre-class assignments are intended to get you to start thinking about the material for class and will not be graded on a basis of being right or wrong, but rather whether you properly prepare for class. Please bring your tent (name) card to class.

REQUIRED COURSE MATERIALS

The course uses a variety of teaching methods and materials. Classes will consist of lectures, discussions, and video presentations. Fundamental concepts are contained in lecture notes and readings. Analytical tools are presented in notes, discussed in lectures, and reinforced by group as well as individual assignments. Cases are also used to illustrate the context and complexity of operations issues.

Text and Readings

We have divided the readings into required and optional readings. The required readings, indicated with an asterisk (*) in the syllabus, should be read before class to facilitate comprehension and discussion. Recommended readings provide more background and depth of the material covered in the lectures. They help to clarify the topics covered in the lectures and provide some examples of practical applications. All readings are contained in a customized textbook that will be distributed in the first class. Use the syllabus as a guide for readings.

For those who would like to consult a textbook for additional readings, I recommend: "Matching Supply with Demand" by Cachon and Terwiesch. This book is held in the reserve of the library.

CLASSROOM NORMS AND EXPECTATIONS

We have made a sincere effort to keep the amount of reading for each class reasonable; in turn, however, we expect you to read the required materials and be well prepared for each class. Cases, in particular, typically require a detailed reading and will often require analysis of relevant data.

Business School classes take place in an environment that supports learning and encourages the exchange of ideas. Behavior that distracts students and the professor negatively affects the learning environment. For example,

- using electronic devices (including laptops) for purposes not authorized by the professor,
- arriving late to class or leaving early, and
- walking in and out during class

are particularly detrimental to the classroom environment. Such conduct violates the School's Community Contract, the Columbia Core Culture, and/or the School's Electronic Device Policy, and is disrespectful to classmates and instructors.

COLUMBIA CORE CULTURE

The purpose of the Columbia Core Culture is to promote a consistent classroom environment of mutual respect, preparation and engagement. Our expectation of you in class is to be:

Present: Your success depends on being on time and present for the entire class every session. Attendance will be part of your grade for class participation and students are expected to sit in their assigned seats.

Prepared: Bring your nameplate, clicker, and complete any pre-work needed for class discussion. Expect the professor to cold call in class.

Participating: Active participation calls for no electronic devices such as laptops, tablet computers, or smartphones during class, except when the professor tells you as part of in-classwork.

HONOR CODE

You are expected to conform to the norms of behavior outlined in the Columbia Business School Integrity Code (printed at the beginning of the reading packet). Use of case or lecture notes from previous sections of the course is not allowed. Any allegation of academic dishonesty will be forwarded to the Dean's office for investigation. Any case of proven academic dishonesty will result in failure in the course. Simple things such as arriving on time to class, turning cell phones off during class time and not being tempted by the many distractions that the Internet offers can make the experience more enjoyable and rewarding to all.

INCLUSION, ACCOMMODATIONS, AND SUPPORT FOR STUDENTS

At Columbia Business School, we believe that diversity strengthens any community or business model and brings it greater success. Columbia Business School is committed to providing all students with the equal opportunity to thrive in the classroom by providing a learning, living, and working environment free from discrimination, harassment, and bias on the basis of gender, sexual orientation, race, ethnicity, socioeconomic status, or ability.

Students seeking accommodation in the classroom may obtain information on the services offered by Columbia University's Office of Disability Services online at www.health.columbia.edu/docs/services/ods/index.html or by contacting (212) 854-2388.