

**ME 584, Manufacturing Strategy**  
**Spring, 2012**

<u>Instructor:</u>	William Hauser Room 144, 15 St. Mary's Street 617-358-0663 wmhauser@bu.edu
<u>Class Hours:</u>	Monday and Wednesday 6:00PM to 8:00PM, Photonics 210
<u>Office Hours:</u>	Thursdays 1:30 to 4:30 or as arranged by appointment
<u>Description:</u>	An introduction to the relationships between a company's products and markets and the competencies required of its manufacturing organization. Topics include manufacturing measurements; capacity planning; process alternatives and their implications; the impact of product and process change on the requirements for worker skills; management of quality improvement and process change; and relationships with suppliers.
<u>Methodology:</u>	Taught through lecture and analysis of case studies.
<u>Course Outline:</u>	Attached, but subject to change as the semester progresses.
<u>Reading List:</u>	Cases are available for purchase at <a href="http://cb.hbsp.harvard.edu/cb/access/12075064">http://cb.hbsp.harvard.edu/cb/access/12075064</a> Readings shown as Local Cases will be distributed in class or posted to the class website.
<u>Grading:</u>	Grading will be based on three written case analyses as well as cogent contribution to in-class case discussion. You may collaborate with others during the research for these papers, but each paper must be your own original composition. See attached <i>Note on Grading</i> .
<u>Class Preparation:</u>	Assignments, readings, daily agendas, and class notes are posted on the web at: <a href="http://blackboard.bu.edu">http://blackboard.bu.edu</a>

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### A Note on Grading

ME-584 is a case discussion course. We learn from each other's insights. Thus students have an obligation not only to themselves, but also to other members of the class. While a few sessions are primarily lecture, most classes call on you to share the insight you have gained through careful reading and analysis of the assignment. Your experience is unique and valuable. You know things that no one else in the class knows. Your contribution to this joint endeavor is an important part of what makes the class work. So your in-class contribution is also an important component of your grade.

Grades are determined by your performance on three required writing assignments and by your contribution during case discussion. Weights are approximately as shown:

Written Case Analysis	80%
Class Participation	20%

Papers may be submitted electronically in MS Word or PDF format. Graphs should, in general, be included as part of the Word or PDF document rather than as separate .XLS files. Talk to me first if you propose to do something different. Please give your paper a filename of the form *yourname\_ME584PaperX*. For example, if I were to submit my first paper it would be titled *Hauser\_ME584Paper1*.

The grade on the first case write-up is included in your average only if it improves your score. That is, the grade on papers is determined by the following algorithm.

The grade for papers is the average of the grades on the second and third papers, or the average of the grades on all three papers, whichever is higher.

This means that your performance on the first paper can only help; it cannot hurt your grade. The first paper is an opportunity to get calibrated on what is expected in a written analysis. Note, however, that all three papers are required. A missing paper will lead to a failing grade. If for some reason you know that you will not be able to submit an assignment on the scheduled date, then it is your responsibility to notify me, in advance, to determine whether alternate arrangements can be made.

We have one unusual rule. You are permitted to discuss your papers with other students in the course and you are permitted to collaborate on quantitative aspects of the cases. If, however, you do collaborate, you are required to acknowledge that fact in writing in the paper itself. You might say, for example, "Table 2 and Chart 5 prepared jointly with Samantha Smith." Since the cases we study are used in many universities, you may find discussions of them on the web. I can't keep you from looking for them, but I require that the text of your paper be your own original work. Violation of this rule is academic misbehavior and cheating and will result in a failing grade.

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Your class participation grade depends upon your attendance, your contribution to discussion during class, and your performance on several assignments that require written preparation. By the nature of the course, participation is an obligation you have to your classmates and not just to yourself. If, for some reason, you know you will not be able to attend class, then please notify me in advance. We can sometimes find alternate ways for you to contribute.

My experience has been that a pattern develops very quickly as to who speaks and who does not. To a limited extent I try to equalize contribution and to call on people who do not volunteer, but the primary obligation for speaking up remains with you. About 1/3 of the way through the semester I will feed back to each of you how you are doing relative to your peers. If at any time earlier I perceive that you are “in trouble,” I will let you know.

For many students, grading for class participation is a troublesome concept. It is, however, a standard feature of case discussion courses. (If you request, I can refer you to websites for courses at various schools so that you can see for yourself the weight that is assigned to class participation.) More importantly, persuasive verbal communication is an ingredient of effectiveness in the real world. So regard your time in this course as a laboratory experience. It will never be easier to speak up than it is here, and the consequences for “mistakes” will never be lighter.

Our enrollment this term is large. A large class provides possibility of a rich discussion and the likelihood of many points of view. Take advantage of the diversity of opinions in the class, and contribute to it. The syllabus is the master plan, but, within limits, we can adjust to the needs and interests of the students.

Most cases present opportunities to organize and manipulate quantitative data. That is, we can often learn from a well-put-together list, table, or graph. The assignments make note of specific opportunities for such contributions. I invite anyone who has done such an analysis to submit it for sharing with the class. You will earn credit for class participation even if I don't show your particular submission. [This assumes, of course, that you've made a serious effort and not simply thrown something together solely for the purpose of gaining points.] At times a written quantitative analysis will be required.

So much for the boilerplate. It is, however, important for you to understand my expectations in this course. Students have generally said they enjoyed the course, and I hope you will also. I'll do my best to facilitate your active participation, your learning, and your having fun in the process.

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Classroom: Photonics 210

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Course website

<http://blackboard.bu.edu>

Link to cases

<http://cb.hbsp.harvard.edu/cb/access/12075064>

Date	Class	Topic / Reading / CASE
Wed, Jan 18	1	Topic: Introduction to course
Mon, Jan 23	2	Topic: Introduction - What Do We Need To Know Case: CLEVELAND TWIST DRILL (A) (9-384-083)
Wed, Jan 25	3	Topic: Manufacturing Measurements Reading: Basic Quantitative Analysis for Marketing (9-584-149) Reading: Process Fundamentals (9-696-023) Lecture: Cost Concepts in Manufacturing
Mon, Jan 30	4	Topic: Manufacturing measurements - contribution and breakeven analysis Case: ANDERSON PLASTICS, INC. (Local Case)
Wed, Feb 01	5	Topic: Manufacturing measurements - Cost Allocation: Overhead and Fixed Costs Case: SELIGRAM, INC.: ELECTRONIC TESTING OPERATIONS (9-189-084)
Mon, Feb 06	6	Topic: Capital expenditure justification. Time value of money. Case: NEW BALANCE (Quantitative Analysis) (9-680-110)
Wed, Feb 08	7	Topic: Manufacturing measurements - additional lecture material
<b>Fri, Feb 10</b>		WRITTEN CASE ANALYSIS: New Balance (9-680-110)
Mon, Feb 13	8	Topic: Capital expenditure justification. Time value of money. Reading: Cash Flow and the Time Value of Money (9-177-012) Case: CAPITAL BUDGETING: DISCOUNTED CASH FLOW ANALYSIS (9-298-068)
Wed, Feb 15	9	Topic: Theories of Human Motivation Reading: A. H. Maslow - A Theory of Human Motivation [Local Case] Reading: One More Time: How Do You Motivate Employees? (87507) Reading: Employee Motivation: A Powerful New Model (R0807G-PDF-ENG)
Tue, Feb 21	10	Topic: Process Strategy - Strategic Alignment Case: LINCOLN ELECTRIC COMPANY (9-376-028)
Wed, Feb 22	11	Topic: Process Change - Strategic Alignment Case: EXPENSE TRACKING AT TIGER CREEK (9-488-026)
Mon, Feb 27	12	Topic: Process Strategy - Strategic Alignment Case: FABRITEK (9-698-014)
Wed, Feb 29	13	Topic: Competitive Strategy Reading: How Competitive Forces Shape Strategy (79208) [Local Case]
Mon, Mar 05	14	Reading: Types of Processes (9-682-008) Additional lecture material in preparation for upcoming cases
Wed, Mar 07	15	Topic: Process Strategy - Flexible Manufacturing / Automation / JIT Case: TOSHIBA OME WORKS (9-696-059)
SPRING BREAK		
Mon, Mar 19	16	Topic: Process Improvement Case: TOYOTA MOTOR MANUFACTURING (9-693-019)
Wed, Mar 21	17	Topic: Process Improvement Additional lecture material in preparation for upcoming cases
<b>Fri, Mar 23</b>		Second WRITTEN CASE ANALYSIS
Mon, Mar 26	18	Topic: Process Improvement and Information Technology Case: RICH-CON STEEL (9-699-133)

Wed, Mar 28	19	Topic: Process Improvement / Quality Improvement Reading: A Note On Quality - the Views of Deming, Juran, and Crosby (9-687-011) Case: STEINWAY & SONS (9-682-025)
Mon, Apr 02	20	Topic: Process Improvement / Quality Improvement Case: LongXi Machinery Works(A - read before class) (9A98D001)
Wed, Apr 04	21	Topic: Process Improvement and Quality Improvement (9A98D002 / 9A98D003) Case: LongXi Machinery Works (B - read before class) / (C - read in class)
Mon, Apr 09	22	Topic: Supply Chain Strategy Reading: Strategic Sourcing - To Make or Not To Make (92610)
Wed, Apr 11	23	Global Manufacturing Reading: The Power of Virtual Integration: An Interview with Dell Computer's Michael Dell (98208)
<b>Mon, 04/16</b>		PATRIOTS DAY HOLIDAY OBSERVED
Wed, Apr 18	24	Additional depth topics
<b>Fri, Apr 20</b>		Third WRITTEN CASE ANALYSIS:
Mon, Apr 23	25	Topic: Supply Chain Strategy - Global Manufacture Reading: Manager's Guide to Supply Chain Management (BH044-PDF-ENG) Reading: Dell Computer: Organization of a Global Production Network [Local] Reading: A Revolution of One (Magazine Article)
Wed, Apr 25	26	Topic: Supply Chain Strategy - Global Manufacture Reading: Fast Global & Entrepreneurial (98507)
Mon, Apr 30	27	Written Case Discussion
Wed, May 02	28	Course Wrapup & Debriefing