

LOYOLA UNIVERSITY ROME CENTER
Business Studies Department

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| Operations Management (SCMG 332) TR 3:40PM-4:55PM Fall 2017 Syllabus |
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I. GENERAL INFORMATION

Instructor: Marshall Langer

Office hours: By appointment (convenient times: TR 1:45-2:20pm or 5:00-6:00pm)

Telephone: +39 3471763096

Email: mlanger11@gmail.com

Background: Corporate management, operations department; Wall Street. Wharton MBA.

II. COURSE INFORMATION

1. Course Description. This course provides a general management perspective of the role of operations in companies in both manufacturing and service industries. It offers a broad survey of the concepts and techniques involved in designing and managing operations. Students explore the role of operations in building the competitive strength of the firm and in fulfilling the firm's goal of creating value and delivering customer satisfaction. Focus is on the leading decisions Operations Managers must make within the wider corporate and industry context, from initial product and process design to inventory and quality management, maintenance and development over time. Excel is used extensively to develop quantitative OM analyses.

This course is designed to provide a survey of the field of operations, focusing more on the operations side of management while also presenting the mathematical component. The course is designed to illustrate the 10 key decisions facing operations managers; it is divided into the following 3 modules: 1) Designing Operations, 2) Managing Operations, and 3) Quantitative Methods. Module 1 provides a broad introduction to OM, covering quality, control, project management, capacity planning, location and layout strategies, and measurement. Module 2 focuses supply chain management, early-stage business operations management, inventory management, constraints, and just-in-time methods. Module 3 presents forecasting, and decision-making tools.

Both the teaching approach and the textbook emphasize a real-world strategic, and global focus. Current issues and the latest strategies and tools are discussed. The importance of operations in a firm's quest to create competitive advantage in the global marketplace is shown. The teaching approach, a mix of lectures and case analyses, encourages students to develop logical, well-supported recommendations. Teams will be employed in case and other analysis in order to simulate working situations.

The course is divided into 5 parts, as follows.

1. Budgeting and Forecasting
2. Designing Operations
3. Managing Operations
4. External Operations
5. Work-based Applications

3. Learning Objectives.

- A. Explain the key role that the operations function plays in creating the competitive strength of the firm.
- B. Develop comprehensive, clear written and mathematical analyses that make sense and that foster the decision-making process.
- C. Effectively assess a well managed and well executed operations strategy.
- D. Effectively identify effective soft management skills applicable to operations management.

III. LEARNING ACTIVITIES

1. Interactive Class Lecture. Class lecture is highly interactive. Instructor prompts students for response to questions posed and solicits his/her thoughts on issues discussed. Format is probing and direct. Additionally, instructor provides concrete, real-world examples to illustrate concepts. Lecture format reinforces by example appropriate methods for asking questions, gaining relevant insights, and acting persuasively and sensitively. (Achieves Learning Objectives A, B, C, D)

2. In Class Presentation of Readings by Professor and Students. Textbook and other assigned readings (assigned according to the schedule in section VII of this syllabus) present relevant topics, which are covered more depthfully in class lecture. In class discussion of readings, instructor highlights most relevant reading topics, showing by example how to present data in a stimulating way, consistent with achieving course objectives. (Achieves Learning Objectives A, C)

3. Case Study and Short Assignments. Case studies are used to further illustrate real-world examples of subject topics. For all assigned cases, students should be prepared to answer questions about the case and be able to illustrate in class its more subtle aspects. In-class discussion of case studies serves to highlight analytical methods, indicating specifically, ways to discern the most relevant focal points. (Achieves Learning Objectives A, B, C, D)

4. Term Project (for select students). For this *individual* project, you must observe the operations of a local business (for example, a café, restaurant, retail store, etc.). Present your determination as to how that business might operate more profitably by employing course concepts. The term project submission should be no longer than 2 pages. Use section VI of this syllabus as a further guide for all written submissions.

The term project serves to incorporate course objectives and accomplish course outcomes. Students must display a mastery of course concepts, utilize tools taught, and present their analysis in a compelling, interesting manner. (Achieves Learning Objectives B, C)

IV. ASSESSMENT

1. Grades.

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|-----|---|
| 40% | Midterm Exam |
| 45% | Final exam |
| 5% | Quizzes, case study presentation, short assignments |
| 10% | Class participation |
| 5% | Term project (for select students to supplement low exam grade) |

2. Exams. Exams will be comprised of essay questions that test your ability to apply concepts discussed through the exam date. (Measures Learning Objectives B, C, D)

3. Quizzes. Short, in-class quizzes will test your comprehension of course materials to date. (Measures Learning Objectives B, C, D)

4. Case Study; Short Assignments. Used for students to provide evidence that learning objects are being achieved. (Measures Learning Objectives A, B, C, D)

5. Class Participation. You will be graded on the quality of, and demonstrated insight of, your in-class comments, including comments related to verbal case analyses and answers to assigned problems. (Measures Learning Objectives A, C, D)

6. Term Project. For select students, see description in syllabus section III #4. (Measures Learning Objectives B, C, D)

7. Attendance. Attendance is mandatory, however a student may miss up to 5 classes without penalty or explanation. You may not miss 2 classes in a row without prior approval of instructor. More than 5 unexcused absences will result in a reduced grade in the course.

8. Please see Loyola guide. For additional information on grading, plagiarism, and other class related issues.

V. REQUIRED COURSE MATERIALS

1. Required reading:

| <u>Code</u> | <u>Title</u> |
|--------------------|--|
| OM7 | Heizer, Render, <i>Principles of Operations Management 7th Edition</i> , Prentice Hall, 2008. |
| OM8 | Heizer, Render, <i>Principles of Operations Management 8th Edition</i> , Prentice Hall, 2011. |
| FA | Finance and accounting summary |

Textbook Website: <http://www.prenhall.com/heizer>

VI. SUGGESTED ADDITIONAL READINGS

1. Books.

Kaplan, Norton, The Strategy-Focused Organization, HBS, 2000
Crosby, Let's Talk Quality, McGraw-Hill, 1989
Porter, The Competitive Advantage of Nations, The Free Press, 1990
Carroll, Gannon, Ethical Dimensions of Int'l Management, Sage Publications, 1997
Annacchino, New Product Development, Butterworth-Heinemann, 2003
Koehn, Brand New: How Entrepreneurs Earned Consumer's Trust, HBS Press, 2001
Blattberg, Getz, Thomas, Customer Equity: Building and Managing Relationships, HBS, 2001
Hill, Think and Grow Rich, St. Martin's Press, 2001

2. Internet Sites.

<http://www.brint.com> for business research in information and technology
<http://www.fortunecity.co.uk/meltingpot/back/340/product/java/cdfdemomain.html> for Java driven probability distributions
<http://www.blackwellpublishing.com/essentialmedstats/004.pdf> - clear explanation of st. dev.
<http://www.asq.org> for American Society of Quality
<http://www.sme.org> for the Society of Manufacturing Engineers
<http://stats.bls.gov> for U.S. Bureau of Labor Statistics
www.econ-datalinks.org for American Statistical Association
www.sec.gov for public company filings (all U.S. public plus foreign public with U.S. listings)
www.hoovers.com for summary company info, comparables search, etc.
www.baddesigns.com funny website highlighting poorly designed products
www.statsoft.com for straightforward explanations of statistical terms and concepts

3. Periodicals.

Business Week, Harvard Business Review, The Journal of Operations Management,
Harvard Business Review (HBS), Sloan Management Review (MIT), Industrial Management,
Management Science

VII. CLASS SCHEDULE

Please note: You are not required make a written submission unless instructed to do so. Reading should be completed prior to class. You should be prepared to discuss EOC problems in class (answers are posted online).

| # | Date | Instruction / Activity | Topic / Written Assignment Due (if any) | Reading Assignment (Read for assigned class) |
|--|---------|--|--|--|
| 1 | T 09/05 | Lecture | Course introduction. | See OM consulting reading (CC) posted online (skim) |
| INTRODUCTION TO OPERATIONS MANAGEMENT | | | | |
| 2 | R 09/07 | Lecture EOC practice problems | Strategic OM decisions. ----- Quality management. ----- Metrics for specific industries, business and departments – xls file ----- 6.13 | OM7: C2 p39-p42 OM8: C2 p36-p39 ----- OM7: C6 p198-p208 OM8: C6 p194-p204 ----- Posted online |
| 3 | T 09/12 | Excel | Basics of Microsoft Excel. Designing spreadsheets and using tools. | Excel basics part 1 and 2 (optional) |
| BUDGETING AND FORECASTING | | | | |
| 4 | R 09/14 | Lecture EOC practice problems | Budgeting and forecasting operations. ----- Cost accounting (optional) ----- 4.2, 4.5 | FA: Sections 3 and 4 FA: Sections 6.1-6.2, 7.1-7.8 OM7: C4 p106-p128 OM8: C4 p106-p131 See FAO budget posted online <u>Optional reading</u> See Capital Budgeting and Forecasting (FM) reading posted online ----- Cost accounting reading posted online |
| DESIGNING OPERATIONS | | | | |
| <i>Capacity Planning</i> | | | | |
| 5 | T 09/19 | Lecture EOC practice problems | Capacity planning. -Breakeven -Valuation ----- S7.16, - S7.27 (on break even) Extra FYI: S7.33, S7.35 (on NPV) | OM7: C7 supplement p288-297, p302-p305 OM8: C7 supplement p282-288, p292-p301 |
| 6 | R 09/21 | Lecture | Capacity planning continued: planning for supply/demand fluctuations. | Excel spreadsheet posted online |
| 7 | T 09/26 | Case Study | Genentech | p3-p11 |
| <i>Business Strategy</i> | | | | |
| 8 | R 09/28 | Guest Lecture <i>Rizzo</i> | Game theory. | p164-167 in game theory reading posted online |
| <i>Control</i> | | | | |
| 9 | T 10/03 | Lecture EOC practice problems | Introductory statistical analysis: standard deviation, probability distributions, central limit theorem, confidence intervals, quantitative analysis, volatility. ----- Statistical process control – x-bar and r charts. ----- S6.5, S6.11, S6.19 | OM7: C6 supplement p222-p229 OM8: C6 supplement p218-p226 |

| # | Date | Instruction / Activity | Topic / Written Assignment Due (if any) | Reading Assignment (Read for assigned class) |
|--------------------------------------|---------|--|--|--|
| 10 | R 10/05 | Case Study ----- Video | Deutsche Allgemeinversicherung ----- Bloomberg Game Changers: Twitter | p4-p9 |
| 11 | T 10/10 | Review | Midterm exam review – subjects to date. | -- |
| 12 | R 10/12 | Exam | Midterm Exam | -- |
| -- | T 10/17 | No Class | -- | -- |
| -- | R 10/19 | No Class | -- | -- |
| Layout Strategies | | | | |
| 13 | T 10/24 | Lecture ----- EOC practice problems | Assembly lines. ----- 9.16, 9.17 | OM7: C9 p364-p370 OM8: C9 p360-p365 |
| Scheduling | | | | |
| 14 | R 10/26 | Lecture ----- EOC practice problems | Assembly lines – cont'd. ----- Gantt charts. ----- Short term scheduling. ----- 9.19 ----- 15.1, 15.2, 15.10, 15.12, 15.14 | -- ----- OM7: C15 p607-609 OM8: C15 p590-p591 ----- OM7: C15 p612-614 OM8: C15 p594-p596 |
| 15 | F 10/27 | Activity | Operations management activity. | -- |
| MANAGING OPERATIONS | | | | |
| Product Development / Pricing | | | | |
| 16 | T 10/31 | Lecture ----- EOC practice problems | Product design: House of quality ----- 5.1, 5.17 | OM7: C5 p162-p166 OM8: C5 p158-p163 |
| Supply Chain Management | | | | |
| 17 | R 11/02 | Film | Cola Wars (product development, supply chains) | -- |
| 18 | T 11/07 | Lecture ----- Case Study ----- EOC practice problems | Supply chain management. Zara supply chain: https://www.youtube.com/watch?v=9n0mikF1Esw ----- SKS/Deloitte ----- 11.8, 11.9, 11.10 | OM7: C11 p434-444, p448 (bot)-p454 OM8: C11 p424-p431 p434-p438 ----- p5 (bottom) - p10 |
| 19 | R 11/09 | Simulation | Supply chain / inventory management computer simulation. | Excel spreadsheet posted online |
| EXTERNAL OPERATIONS | | | | |
| Waiting Line Models | | | | |
| 20 | T 11/14 | Lecture ----- EOC practice problems | Waiting-line models (cost/benefit). ----- D.11, D.21 | Module D posted online |
| Traffic Flow Management | | | | |
| 21 | R 11/16 | Lecture | Traffic management ----- Traffic management model | See Traffic Flow Management Excel spreadsheet posted online |
| 22 | T 11/21 | Review/activity | Application of topics since Midterm Exam. | -- |
| -- | R 11/23 | No Class | -- | -- |

| <u>#</u> | <u>Date</u> | <u>Instruction / Activity</u> | <u>Topic / Written Assignment Due (if any)</u> | <u>Reading Assignment</u> (Read for assigned class) |
|--------------------------------|-------------|---|--|---|
| WORK-BASED APPLICATIONS | | | | |
| <i>Negotiations</i> | | | | |
| 23 | T 11/28 | Lecture | Negotiating using analytical bases. | Behavior of successful negotiators (NE) posted online – see also (doc) notes on negotiating with suggested optional reading |
| <i>Retail Management</i> | | | | |
| 24 | R 11/30 | Lecture ----- EOC practice problems | Inventory management. ----- Same store sales analysis. ----- 12.12, 12.25, 12.26 | OM7: C12 p489-499 OM8: C12 p475-p484 ----- Posted online <i>Optional readings</i> OM8: C14, C16 |
| <i>Finance Applications</i> | | | | |
| 25 | T 12/05 | Lecture | Valuation analysis. | FA: Sections 6.1-6.6 Valuation reading (EY) posted online |
| 26 | R 12/07 | Review | Final Exam review | -- |
| 27 | TBD | Exam | Final Exam. | -- |