San José State University  
College of Business  
School of Global Leadership and Innovation  

BUS5 140, Fundamentals of Operations Management, Fall 2016  

Course and Contact Information  

Instructor: Jon Sung  
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Email: jon.sung@sjsu.edu  
Office Hours: Mondays at 8:45 PM – 9:45PM or by appointment  
Class Days/Time: Mondays at 6:00 PM - 8:45 PM  
Classroom: BBC102  

Course Description  
Operations management is an area of business management concerned with overseeing, designing, and controlling the process of production and redesigning business operations in the production of goods or services. Its primary function is to ensure that business operations are efficient in meeting customer requirements most effectively with limited time. It is concerned with managing all processes, which convert resources, in the forms of raw materials, labor, and energy, etc. into goods and/or services.  

This class covers most of the important Operation Management topics. It is designed to help students familiarize with OM processes. From this course, students will be able to understand the importance of operations management and how it interacts with other parts of the business organization. Students will develop skills in applying appropriate analytical tools to address business operations challenges.  

Course Goals and Course Learning Outcomes  
The operations manager is responsible for planning, organizing, coordinating and controlling organizational resources to produce desired goods and services of quality. This is the subject matter of this course.  

In this course, students will develop a good understanding of the scope and functions of operation management. Students will learn the processes and approaches to plan, design, analyze, operate, control, and manage the entire span of businesses. Students will be requested to apply analytical techniques, develop critical thinking processes, and sharpen decision-making skills. Students are asked to perform a group project to apply they learned in the classes to operate a business. As this group project, selected by students, will get detailed and augmented throughout the course of this class, students will be able to master comprehensive OM topics. The course is designed to help students achieve the following College of Business Student Learning Goals:  

Goal 1: Business Knowledge. Develop an understanding of the strategic importance of manufacturing supply chains and how operations can provide a competitive advantage in the marketplace.
Goal 2: Communication. Develop effective oral and written communication skills by presenting problem solutions clearly and logically in writing and orally, to the class.

Goal 3: Ethical Awareness: Recognize, analyze, and articulate solutions to ethical issues that arise in global operations.

Goal 4: Leadership, Teams and Diversity. Comprehend and appreciate the challenges, opportunities and dynamics of leading and working in diverse teams and environments.

Goal 5: Critical Thinking. Be aware, comprehend, analyze and critically evaluate the new demands of the globally competitive business environment that operations managers face today.

Goal 6: An emphasis the importance of change, facilitation of learning, knowledge capture and cross-functional teamwork, leads to the development and articulation of strategies to promote creativity and innovation.

Required Texts/Readings

- **Textbook.** Principles of Operations Management, 9/e (CD not required. 11/e is optional)
  
  By: Jay Heizer and Barry Render

  Textbook Options: (please select only **ONE** option)

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<thead>
<tr>
<th>(1) Hard-Cover Text</th>
<th>(2) Loose-Leaf Text (value edition)</th>
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</table>

- **Course Reader.** This material is developed by the instructor and will be heavily used in the class. Soft copies will be posted at Canvass ahead of the class. Each student is strongly requested to bring hardcopies to the class.

- **Other equipment / material.** Various handouts will be distributed in class. Students are not required to use computers in class. Students will need Internet access to research online materials on OM outside of the class.

Course Requirements and Assignments

SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in **University Policy S12-3** at [http://www.sjsu.edu/senate/docs/S12-3.pdf](http://www.sjsu.edu/senate/docs/S12-3.pdf).

- **Class Meetings and Discussions.** Each class will consist of lectures and class discussions led by the instructor on the topic of the session. The class meetings will be highly interactive and students are expected to have done advanced readings on the chapters, viewed the Course Reader to get prepared on the planned chapters. Class participation is an important element of the course. Each member of the class could help others learn more by contributing to the class/case discussions through questions, presentations of solutions, and insights. Due to the importance of class participation, students are expected to follow a seating plan as set in the first class throughout the entire semester.

- **Coursework.** In-class quizzes and take-home problem sets will be given to practice and apply the OM concepts learned in class. In the class, students will work on exercises and cases either individually or in
teams to apply the concepts and methods discussed. Examinations are given to evaluate students’ understanding of the topics and will constitute one of the most important grading factors. For the details, schedules and due dates for all coursework, see the course schedule at the end of the syllabus.

- **Group Project.** By the end of the 2\textsuperscript{nd} week of the course, students should form their own groups of 4-6 members, who would be working together on a group project. Each group should choose a project where they can apply the comprehensive OM strategies covered in the class most effectively. The project can be of a real entity such as a local retail store, bank, restaurant, or enterprise, or a virtual entity as described and defined by the group.

By working on this Group Project, each student will be given the chance to create an operation plan cumulatively in each week as the class proceeds. More details of the project will be provided at the class.

**Operations Plan Project Objectives:**

a. For the students to synthesize and apply the various concepts, processes and good practice models learned from the class into an actual plan
b. To cultivate the research skills
c. To learn how to collaborate in a team
d. To develop oral and written communication skills
e. To develop the students’ ability to think critically and creatively

The evaluation of the final project will be on the quality of the application of relevant concepts into the operation plan. The project should link various strategies on the product or service, company and market environment to what students learned in class or from the textbook. Particular focus should be given to the effective application of the OM strategies to address the challenges and constraints of the project target. In the evaluation of the project report, references to concepts, theories and materials from the text and from those used in classroom discussions will be thoroughly examined.

**Group Project Template.** An actual operations plan length should be about 10 – 20 pages long, single space, excluding appendix. The plan should be concise and actionable. The report will be created cumulatively by following the template attached in the Appendix of this syllabus. Detailed guideline on the written report and oral presentation will be provided at the class.

**Group Consulting.** Throughout the course of project execution, group consulting is encouraged to review the status of the project with the professor. Students are responsible for making the appointments.

**Group Presentation.** On the day of group presentation (scheduled in the 15th week), each student should pay close attention on each group’s presentation and participate in evaluation. All students are required to evaluate presentations of other project group. Failing to submit evaluations by the requested time will be subject to deducted score in his/her group project score.

**Internal Group Peer Evaluation.** Each member of the project group will be asked to evaluate the contribution of all other team members to the overall team project. The peer evaluation will be used to determine each student’s individual grade for the group project. Each student’s group grade will be adjusted to account for each individual’s relative contribution to the group effort. All students are required to turn in their peer evaluation forms. Students who do not turn in the peer evaluation forms will have a deduction point from the overall group average grade.
University policy F69-24 at http://www.sjsu.edu/senate/docs/F69-24.pdf states, “Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading.”

Grading Policy

GRADE DISTRIBUTION

<table>
<thead>
<tr>
<th>Item</th>
<th>Weights</th>
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<tbody>
<tr>
<td>In-class quizzes</td>
<td>15%</td>
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<tr>
<td>Take-home problem sets</td>
<td>15%</td>
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<tr>
<td>1st Exam</td>
<td>15%</td>
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<tr>
<td>2nd Exam</td>
<td>15%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>15%</td>
</tr>
<tr>
<td>Group Project Progress Reports</td>
<td>10%</td>
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<tr>
<td>Final Project Report / Presentation</td>
<td>10%</td>
</tr>
<tr>
<td>Peer evaluation</td>
<td>5%</td>
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<tr>
<td>Extra credits – Reflections, Participation</td>
<td>3%</td>
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<tr>
<td>TOTAL:</td>
<td>103%</td>
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Final letter grades:

- **A-** 90-93%
- **B-** 80-83%
- **C-** 70-73%
- **D-** 60-63%
- **F** <60%
- **A** 94-96%
- **B** 84-86%
- **C** 74-76%
- **D** 64-66%
- **A+** >97%
- **B+** 87-89%
- **C+** 77-79%
- **D+** 67-69%

Note that “All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades.” See University Policy F13-1 at http://www.sjsu.edu/senate/docs/F13-1.pdf for more details.

Classroom Protocol

Lucas College and Graduate School of Business: Program Goals and Classroom policy
http://www.sjsu.edu/cob/Students/policies/index.html

University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs’ Syllabus Information web page at http://www.sjsu.edu/gup/syllabusinfo/"

Lucas College and Graduate School of Business:

**Mission:** We are the institution of opportunity in Silicon Valley, educating future leaders through experiential learning and character development in a global business community and by conducting research that contributes to business theory, practice and education.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topics, Readings, and Activities</th>
<th>Assignments &amp; Due Dates</th>
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</thead>
</table>
| 1 8/29/2016| **Course Introduction**  
Chapter 0: Course Overview  
Project Introduction & project team composition | None                                    |
| 2 9/12/2016| **Reading & Lecture Topic:**  
Chapter 1: Operations and Productivity  
In-Class Quiz #1 |  
Group Project Progress  
Report #1 – due on 9/19  
Problem Set #1 – due on 9/19 |
| 3 9/19/2016| **Reading & Lecture Topic:**  
Chapter 2: Operation Strategy in Global Environment  
In-Class Quiz #2 |  
Problem Set #2 – due on 9/26 |
| 4 9/26/2016| **Reading & Lecture Topic:**  
Chapter 3: Project Management  
In-Class Quiz #3 |  
Problem Set #3 – due on 10/3 |
| 5 10/3/2016| **Reading & Lecture Topic:**  
Chapter 4: Forecasting  
1st Exam Preview  
In-Class Quiz #4 |  
Problem Set #4 – due on 10/8 (Saturday) |
| 6 10/10/2016| **1st Exam** |  
Group Project Progress  
Report #2 – due on 10/17  
Reflections on Guest Speaker #1 - due on 10/17 |
| 7 10/17/2016| **Reading & Lecture Topic:**  
Chapter 5: Design of Goods and Services  
In-Class Quiz #5 |  
Problem Set #5 - due on 10/24 |
| 8 10/24/2016| **Reading & Lecture Topic:**  
Chapter 6: Managing Quality  
Chapter 8: Location Strategies (part)  
In-Class Quiz #6 |  
Problem Set #6 - due on 10/31 |
| 9 10/31/2016| **Readings & Lecture Topics:**  
Chapter 8: Location Strategies  
Chapter 9: Layout Strategies  
In-Class Quiz #7 |  
Problem Set #7 - due on 11/5 (Saturday) |
<table>
<thead>
<tr>
<th>Date</th>
<th>Topics, Readings, and Activities</th>
<th>Assignments &amp; Due Dates</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Exam Preview</td>
</tr>
</tbody>
</table>
| 10   | 2<sup>nd</sup> Exam              | Group Project Progress Report #3 - due on 11/14  
|      | Guest Speaker #2                | Reflections on Guest Speaker #2 - due on 11/14 |
| 11   |                                | Problem Set #8 - due on 11/21 |
|      | Readings & Lecture Topics:       | Problem Set #9 - due on 11/28 |
|      | Chapter 7: Process Strategy      | In-Class Quiz #8          |
|      | Chapter 7S: Capacity and Constraint Management |                             |
|      |                                  | In-Class Quiz #10         |
| 12   | Readings & Lecture Topics:       | Problem Set #10 - due on 12/5 |
|      | Chapter 11. Supply Chain Management |                            |
|      |                                  | Project Set #11 - due on 12/12  
|      | In-Class Quiz #9                | Final Group Project Report - due on 12/12  
|      |                                  | Reflections on Guest Speaker #3 - due on 12/12 |
| 13   | Readings & Lecture Topics:       | Project Evaluation – due on 12/14 (Wednesday) |
|      | Chapter 12. Inventory Management | Peer Evaluation – due on 12/14 (Wednesday) |
|      |                                  |                          |
| 14   | Readings & Lecture Topics:       | Final Group Project Presentations |  
|      | Chapter 16: JIT, TPS, and Lean Operations | |  
|      | Guest Speaker #3                | Final Exam Preview          |  
|      | In-Class Quiz #11               | Project Evaluation – due on 12/14 (Wednesday) |
| 15   | Final Group Project Presentations| Final Exam Preview          |  
| 16   | Final Exam                      | Peer Evaluation – due on 12/14 (Wednesday) |

**Class Wrap-up/Check List**

Examinations (45%)

**Chapters for Exam 1 (15%)**

Chapter 1: Operations and Productivity  
Chapter 2: Operation Strategy in a Global Environment  
Chapter 3: Project Management  
Chapter 4: Forecasting  

**Chapters for Exam 2 (15%)**

Chapter 5: Design of Goods and Services  
Chapter 6: Managing Quality  
Chapter 8: Location Strategies
Chapter 9: Layout Strategies

Chapters for Final Exam (15%)
  Chapter 7: Process Strategy
  Chapter 7S: Capacity and Constraint Management
  Chapter 11: Supply Chain Management
  Chapter 12: Inventory Management
  Chapter 16: JIT, TPS, and Lean Operations

Weekly Quiz/Take-home Problem Set (30%)
  In-Class Quiz #1 ~ #11 (15%)
    One lowest score will be excluded in final scoring
  Problem Solving #1 ~ #11 (15%)
    One lowest score will be excluded in final scoring

Group Project (25%)
  Group Project Progress Report #1 ~ #3 (10%) (Group)
  Final Group Project Report (5%) (Group)
  Presentation (5%) (Group)
  Internal Group Peer Evaluation (5%) (Individually-scored)

Extra Credits (up to 3%):
  Reflections on Guest Speakers
## Appendix. Group Project Report Template

<table>
<thead>
<tr>
<th>Topics in Group Project</th>
<th>Checkpoint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company/Business Name</td>
<td>Group Project Progress Report #1</td>
</tr>
<tr>
<td>Group Member Names</td>
<td></td>
</tr>
<tr>
<td>Description of Business</td>
<td></td>
</tr>
<tr>
<td>Market/Customer Requirements</td>
<td></td>
</tr>
<tr>
<td>Chap 2 Reasons to Globalize, if applicable</td>
<td>Group Project Progress Report #2</td>
</tr>
<tr>
<td>Mission</td>
<td>(With updates on Progress Report #1)</td>
</tr>
<tr>
<td>Strategy for Competitive Advantage</td>
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<tr>
<td>Global Operation Strategy, if applicable</td>
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<tr>
<td>Chap 3 Project Management Technique</td>
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<tr>
<td>Chap 4 Forecast Method (Quantitative or Qualitative)</td>
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<tr>
<td>Chap 5 Product Design Methodology, if applicable</td>
<td>Group Project Progress Report #3</td>
</tr>
<tr>
<td>Product Development Continuum, if applicable</td>
<td>(With updates on Progress Reports #1 and #2)</td>
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<tr>
<td>Chap 6 TQM Concepts/Methodology, if applicable</td>
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<tr>
<td>TQM Tools</td>
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<tr>
<td>Chap 8 Method to find alternative location, if applicable</td>
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<tr>
<td>Chap 9 Layout Type</td>
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<tr>
<td>Chap 7 Process Strategy, if applicable</td>
<td>Final Group Project Report</td>
</tr>
<tr>
<td>Process Design and Analysis tool, if applicable</td>
<td>(including final versions of Progress Reports #1, #2, and #3)</td>
</tr>
<tr>
<td>Technique to improve Service Productivity, if applicable</td>
<td></td>
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<tr>
<td>Chap 7s Capacity Planning over time</td>
<td></td>
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<tr>
<td>Chap 11 Sourcing Strategies</td>
<td></td>
</tr>
<tr>
<td>Chap 12 Inventory Model (for independent demand)</td>
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</table>

- Follow the template as applicable (not all of them are must-haves)
- For each topic, you should choose one option
  - May choose more than ones as applicable
  - May not choose any if it is not applicable.
- For each choice you made, you should clearly describe the reasons why it outperforms other options for your project
- The report should cumulative (e.g., Group Project Progress Report #2 should include Group Project Progress Report #1 contents with updates as suggested by the professor)