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

BUS 140  
Fundamentals of Operations Management  
Fall 2015  

Instructor: Jon Sung  
Office Location: BT 563  
Telephone: (408) 924-6889  
Email: jongwook.sung@sjsu.edu  
Office Hours: Mondays at 8:45 – 9:45PM or by appointment  
Class Days/Time: Monday (6:00 PM - 8:45PM)  
Classroom: BBC 222  

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 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)

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

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.
Classroom Protocol

- In-class quizzes, Q&As, case studies, and class participation are important components of the course will be integral parts of the class. Physical attendance to all classes is required to earn full credits.
- Students must turn off or place on silent mode all mobile phones during class hours.
- Students are not allowed to use computers or mobile device to class. Any use of them in class will result in a deduction of class participation credit for the day.
- Each student must enroll at Canvas. Canvas will be used to post required homework, additional resources, and other announcements. All communications (off-campus) between the instructor and the students will be done through Canvas, and it is the responsibility of each student to regularly check Canvas for course announcements (especially during weekends).
- Important Links:
  - Canvas link: http://www.sjsu.edu/at/ec/canvas/index.html
  - Student resource for Canvas: http://www.sjsu.edu/at/ec/docs/Canvas%20Student%20Tutorial.pdf
- All assigned coursework should be done either in-class, through Canvas on the date and time that it is due unless specified otherwise. No makeup of coursework will be given. Late submissions will not be accepted.

Assignments and Grading Policy

Academic Policy S12-3 at http://www.sjsu.edu/senate/S12-3.htm has defined expected student workload as follows: “Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/ studying or course related activities. Other course structures will have equivalent workload expectations as described in the syllabus.”

A. Class Meetings and Discussions. Each class will consist of short 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 e-lectures and 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.

B. 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.

C. Group Project

By the end of the 2nd week of the course, students should form their own groups of 4-6 members, who would be working together on the final term 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.

- **Final written proposal.** An actual operations plan length should be about 3-5 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.** Prior to the submission of the final project, group consulting is encouraged to review the status of the project with the professor. This should be scheduled after the 8th week and before the final submission via email or after class appointment. Students are responsible for making the appointments. In the
14th week, each team will have a brief session to wrap up consulting with the instructor on any item outstanding.

- **Group Presentation.** On the day of group presentation (scheduled in the 15th week), each student should pay close attention on each group’s presentation.

- **Internal Group Peer Evaluation (credit).** 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.

**D. Grading**

<table>
<thead>
<tr>
<th>Item</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-class quizzes</td>
<td>15%</td>
</tr>
<tr>
<td>Take Home Problem Sets</td>
<td>15%</td>
</tr>
<tr>
<td>1st Exam</td>
<td>15%</td>
</tr>
<tr>
<td>2nd Exam</td>
<td>15%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>15%</td>
</tr>
<tr>
<td>Group Project Progress Report</td>
<td>10%</td>
</tr>
<tr>
<td>Final Project Report / Presentation (peer evaluation)</td>
<td>10%</td>
</tr>
<tr>
<td>Extra credits – Reflections, Participation</td>
<td>~3%</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>~ 103%</td>
</tr>
</tbody>
</table>

**Final letter grades:**

- A - 90-93%
- B - 80-83%
- C - 70-73%
- D - 60-63%
- F - <60%
- A+ >97%
- B+ 87-89%
- C+ 77-79%
- D+ 67-69%

**University Policies**

**Dropping and Adding**

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester’s [Catalog Policies](http://info.sjsu.edu/static/catalog/policies.html) section at [http://info.sjsu.edu/static/catalog/policies.html](http://info.sjsu.edu/static/catalog/policies.html). Add/drop deadlines can be found on the current academic year calendars document on the [Academic Calendars webpage](http://info.sjsu.edu/static/catalog/policies.html) at
http://www.sjsu.edu/provost/services/academic_calendars/. The Late Drop Policy is available at http://www.sjsu.edu/aars/policies/latedrops/policy/. Students should be aware of the current deadlines and penalties for dropping classes.

Information about the latest changes and news is available at the Advising Hub at http://www.sjsu.edu/advising/.

Academic integrity

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The University’s Academic Integrity policy S07-2, located at http://www.sjsu.edu/senate/S07-2.htm, requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The Student Conduct and Ethical Development website is available at http://www.sjsu.edu/studentconduct/.

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person’s ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include your assignment or any material you have submitted, or plan to submit for another class, please note that SJSU’s Academic Integrity Policy S07-2 requires approval of instructors.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 at http://www.sjsu.edu/president/docs директив/PD_1997-03.pdf requires that students with disabilities requesting accommodations must register with the Disability Resource Center (DRC) at ttp://www.drc.sjsu.edu/ to establish a record of their disability.

College of Business Policies and Procedures:

Please check the URL at http://www.cob.sjsu.edu/cob/5_STUDENT%20SERVICES/cobpolicy.htm

Mission

The College of Business is the institution of opportunity, providing innovative business education and applied research for the Silicon Valley region.

College of Business Program Goals:
(Not all program learning goals are covered in every course)
1. Business Knowledge. Understand basic business principles and demonstrate discipline-specific competencies as applied to local and global environments.

2. Communication. Communicate ideas clearly, logically, and persuasively in oral and written format, using technology appropriately.

3. Ethical Awareness. Recognize, analyze, and articulate solutions to ethical issues that arise in business.

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

5. Critical Thinking. Comprehend, analyze, and critically evaluate complex and unstructured qualitative and quantitative business problems, using appropriate tools and technology.


Student Technology Resources

Computer labs for student use are available in the Academic Success Center at http://www.sjsu.edu/at/asc/ located on the 1st floor of Clark Hall and in the Associated Students Lab on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library.

A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include DV and HD digital camcorders; digital still cameras; video, slide and overhead projectors; DVD, CD, and audiotape players; sound systems, wireless microphones, projection screens and monitors.

SJSU Peer Connections

Peer Connections, a campus-wide resource for mentoring and tutoring, strives to inspire students to develop their potential as independent learners while they learn to successfully navigate through their university experience. You are encouraged to take advantage of their services which include course-content based tutoring, enhanced study and time management skills, more effective critical thinking strategies, decision making and problem-solving abilities, and campus resource referrals.

In addition to offering small group, individual, and drop-in tutoring for a number of undergraduate courses, consultation with mentors is available on a drop-in or by appointment basis. Workshops are offered on a wide variety of topics including preparing for the Writing Skills Test (WST), improving your learning and memory,
alleviating procrastination, surviving your first semester at SJSU, and other related topics.
A computer lab and study space is also available for student use in Room 600 of Student Services Center (SSC).

Peer Connections is located in three locations: SSC, Room 600 (10th Street Garage on the corner of 10th and San Fernando Street), at the 1st floor entrance of Clark Hall, and in the Living Learning Center (LLC) in Campus Village Housing Building B. Visit Peer Connections website at http://peerconnections.sjsu.edu for more information.
Course Schedule

Note: This is a “live” course schedule and is subject to change with fair notice to the students. Changes will either be announced in class and/or posted on Canvas Announcements.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics, Readings, and Activities</th>
<th>Assignments &amp; Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/24/15</td>
<td><strong>Course Introduction</strong>&lt;br&gt;Chapter 0: Course Overview&lt;br&gt;Project Introduction</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td><strong>Reading &amp; Lecture Topic:</strong>&lt;br&gt;Chapter 1: Operations and Productivity (part)</td>
<td></td>
</tr>
<tr>
<td>8/31/15</td>
<td><strong>Reading &amp; Lecture Topic:</strong>&lt;br&gt;Chapter 1: Operations and Productivity&lt;br&gt;Chapter 2: Operations Strategy in a Global Environment</td>
<td><strong>Group Project Progress Report #1 – due on 9/14</strong>&lt;br&gt;<strong>Problem Set #1 – due on 9/14</strong></td>
</tr>
<tr>
<td>9/7/2015</td>
<td>Holiday (No Class)</td>
<td></td>
</tr>
<tr>
<td>9/14/15</td>
<td><strong>Reading &amp; Lecture Topic:</strong>&lt;br&gt;Chapter 3: Project Management</td>
<td><strong>Problem Set #2 – due on 9/21</strong></td>
</tr>
<tr>
<td>9/21/15</td>
<td><strong>Reading &amp; Lecture Topic:</strong>&lt;br&gt;Chapter 4: Forecasting&lt;br&gt;1st Exam Preview</td>
<td><strong>Problem Set #3 – due on 9/21</strong></td>
</tr>
<tr>
<td>9/28/15</td>
<td>1st Exam&lt;br&gt;Project Status update and Q&amp;A</td>
<td><strong>Group Project Progress Report #2 – due on 10/5</strong></td>
</tr>
<tr>
<td>10/5/15</td>
<td><strong>Reading &amp; Lecture Topic:</strong>&lt;br&gt;Chapter 5: Design of Goods and Services&lt;br&gt;Special Topic: Software Planning Approaches (Traditional and Modern) Comparison</td>
<td><strong>Problem Set #4 – due on 10/12</strong></td>
</tr>
<tr>
<td>10/12/15</td>
<td><strong>Readings &amp; Lecture Topics:</strong>&lt;br&gt;Chapter 6: Managing Quality</td>
<td><strong>Problem Set #5 - due on 10/19</strong></td>
</tr>
<tr>
<td>Date</td>
<td>Topics, Readings, and Activities</td>
<td>Assignments &amp; Due Dates</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------</td>
<td>-------------------------</td>
</tr>
</tbody>
</table>
| 8    | Guest Speaker: Software Quality Assurance  
**In-Class Quiz #5** | (Extra credit) Reflections on Guest Speaker due on 10/19 |
| 9    | **Readings & Lecture Topics:**  
Chapter 7: Process Strategy  
Chapter 7S: Capacity and Constraint Management  
**In-Class Quiz #6** | **Problem Set #6** - due on 10/26 |
| 10   | **Readings & Lecture Topic:**  
Chapter 8: Location Strategies  
2nd Exam Preview  
**In-Class Quiz #7** | **Problem Set #7** - due on 11/2 |
| 10   | 2nd Exam  
Project Q&A | **Group Project Progress Report #3** - due on 11/9 |
| 11   | **Readings & Lecture Topics:**  
Chapter 9: Layout Strategies  
**In-Class Quiz #8** | **Problem Set #8** - due on 11/16  
(Extra credit) Reflections on Guest Speaker due on 11/16 |
| 12   | **Readings & Lecture Topics:**  
Chapter 11. Supply Chain Management  
Chapter 12: Inventory Management  
**In-Class Quiz #9** | **Problem Set #9** - due on 11/23 |
| 13   | **Readings & Lecture Topics:**  
Chapter 14: Materials Requirements Planning and ERP  
**In-Class Quiz #10** | **Problem Set #10** - due on 11/30 |
| 14   | **Readings & Lecture Topics:**  
Chapter 16: JIT, TPS, and Lean Operations  
Guest Speaker: A new job called DevOps  
**In-Class Quiz #11** | **Problem Set #11** - due on 12/7  
(Extra credit) Reflections on Guest Speaker due on 12/7 |
<table>
<thead>
<tr>
<th>Date</th>
<th>Topics, Readings, and Activities</th>
<th>Assignments &amp; Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 12/7/2015</td>
<td>Final Group Project Presentations&lt;br&gt;Final Exam Preview</td>
<td><strong>Final Group Project Report</strong> – due on 12/7 (submit hard copy in class and at Canvas by 5PM on the same day)</td>
</tr>
<tr>
<td>16 12/14/2015</td>
<td>Final Exam</td>
<td><strong>Internal Group Peer Evaluation</strong> due on 12/14/2015</td>
</tr>
</tbody>
</table>

**Class Wrap-up/Check List**

**Examinations (45%)**

*Chapters for Examination 1 (15%):*
- Chapter 1: Operations and Productivity
- Chapter 2: Operation Strategy in a Global Environment
- Chapter 3: Project Management
- Chapter 4: Forecasting

*Chapters for Examination 2 (15%):*
- Chapter 5: Design of Goods and Services
- Chapter 6: Managing Quality
- Chapter 7: Process Strategy
- Chapter 7S: Capacity and Constraint Management
- Chapter 8: Location Strategies

*Chapters for Final Examination (15%):*
- Chapter 9: Layout Strategies
- Chapter 11: Supply Chain Management
- Chapter 12: Inventory Management
- Chapter 14: Materials Requirements Planning and ERP
- Chapter 16: JIT, TPS, and Lean Operations

**Weekly Quiz/Take-home Problem Set (30%):**

*In-Class Quiz #1 ~ #11 (15%)*
*Problem Solving #1 ~ #11 (15%)*

**Group Project (25%)**

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

Extra Credits (up to 3%):
- Reflections on Guest Speakers (or Recorded Sessions)
- Class Participation
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 HW #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 HW #2</td>
</tr>
<tr>
<td>Mission</td>
<td>(possibly with #1 updates)</td>
</tr>
<tr>
<td>Strategy for Competitive Advantage</td>
<td></td>
</tr>
<tr>
<td>Global Operation Strategy, if applicable</td>
<td></td>
</tr>
<tr>
<td>Chap 3 Project Management Technique</td>
<td></td>
</tr>
<tr>
<td>Chap 4 Forecast Method (Quantitative or Qualitative)</td>
<td></td>
</tr>
<tr>
<td>Chap 5 Product Design Methodology, if applicable</td>
<td>Group HW #3</td>
</tr>
<tr>
<td>Product Development Continuum, if applicable</td>
<td>(possibly with #1 and #2 updates)</td>
</tr>
<tr>
<td>Chap 6 TQM Concepts/Methodology, if applicable</td>
<td></td>
</tr>
<tr>
<td>TQM Tools</td>
<td></td>
</tr>
<tr>
<td>Chap 7 Process Strategy, if applicable</td>
<td></td>
</tr>
<tr>
<td>Process Design and Analysis tool, if applicable</td>
<td></td>
</tr>
<tr>
<td>Technique to improve Service Productivity, if applicable</td>
<td></td>
</tr>
<tr>
<td>Chap 7s Capacity Planning over time</td>
<td></td>
</tr>
<tr>
<td>Chap 8 Method to find alternative location, if applicable</td>
<td>Final Report</td>
</tr>
<tr>
<td>Chap 9 Layout Type</td>
<td>(including final versions of #1,</td>
</tr>
<tr>
<td></td>
<td>#1, and #3)</td>
</tr>
<tr>
<td>Chap 11 Sourcing Strategies</td>
<td></td>
</tr>
<tr>
<td>Chap 12 Inventory Model (for independent demand)</td>
<td></td>
</tr>
<tr>
<td>Chap 14 Lot Size Technique (for dependent demand)</td>
<td></td>
</tr>
</tbody>
</table>

- Follow the template as applicable (not all of them are must-haves)
- For each topic, you should choose one
  - May choose more than ones as applicable
  - May not choose any if it is not applicable.
- For each choice you made, you should describe the reasons why it outperforms other options for your project.