

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

**BUS5 140**  
**Fundamentals of Operations Management**  
**Winter 2015**

<b>Instructor:</b>	Dr. Sharon Qi
<b>Office Location:</b>	BT 461
<b>Telephone:</b>	408-924-6880
<b>Email:</b>	<a href="mailto:sharon.qi@sjsu.edu">sharon.qi@sjsu.edu</a> (preferred contact)
<b>Office Hours:</b>	Monday (4:00 – 5:00PM) or by appointment
<b>Class Days/Time:</b>	Monday-Friday (1:00 PM – 4:00 PM)
<b>Classroom:</b>	BBC 225
<b>Course Schedule:</b>	1/4/2016 – 1/22/2016

### **Course Description**

Familiarizes students with processes that transform inputs into finished goods and services; helps students understand the importance of operations management and how it interacts with other parts of the organization; develops skills in applying appropriate analytical tools to business operations challenges.

Companies and organizations are created to provide goods and services to the public. At the heart of every organization is operations and its importance cannot be underestimated. The course is a study of operations and the processes leading to the creation of goods and services. It highlights the relationship between operations and other business functions such as human resource, marketing and finance. Global, technological, and ethical Issues relating to designing and managing manufacturing operations will also be tackled.

### **Course Goals and Learning Outcomes**

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

In this course, students will develop an understanding of the manufacturing and operation functions. You will learn to design, plan, operate and control manufacturing, production, service, and operations systems. You will be required to use analytical techniques to develop critical thinking and to sharpen decision making skills. You will also have many opportunities to apply what you are learning to resolve problems and issues. Finally, you will be able to demonstrate your mastery of the course content through a final project. 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: (required)**

#### **Operations Management, Sustainability and Supply Chain Management, Edition 11**

By: Jay Heizer and Barry Render

Note: CD not required

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

(1) Hard-Cover Text ISBN-10: 0133130762 ISBN-13: 9780133130768	(2) Loose-Leaf Text (value edition) ISBN-10: 0133455181 ISBN-13: 9780133455182
--	--

#### **Other Readings:**

- May use other online and offline resources for class discussions
- Other resources, readings, cases and handouts may be distributed in class throughout the course in class or through Canvas.

#### **Classroom Protocol**

- In-class exercises, case studies, quizzes or examinations, reflection on guest speaker talks, and class participation are important components of the course and attendance is required to earn credit points on most of assignments of the coursework.
- Students must turn off or place on silent mode all mobile phones during class hours.

- Please bring your laptops or any mobile device to class. Computers will be used extensively during in-class exercises. However, during lectures and discussions, students are not allowed to use their laptops in the classroom. Using laptops (when not required) in class will result to a **deduction of class participation credit points** for the day.
- All enrolled students are already registered for Canvas. Canvas will be used to post required coursework, additional resources and other announcements. All communications (off-campus) with the students will also be done through Canvas, thus it is the responsibility of each student to regularly check Canvas for course announcements (especially during weekends). Please make sure that you have access and know how to navigate Canvas.
- 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 coursework will be given. Late submissions will not be accepted.**

### Assignments and Grading Policy

[Academic Policy S12-3](http://www.sjsu.edu/senate/S12-3.htm) 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.”

Since this is a winter session, we will have four hours per unit per day for lectures, case studies, group assignment discussion, review games, and guest speakers. See details on the posted 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 or recorded guest talks, and are adequately prepared on the assigned chapters, exercises and cases for the day. 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. Throughout the semester, class participation will be graded as necessary. As much as possible, the classroom discussions will stick to the fundamentals of the topics and their applications. Due to the importance of class

participation, students are expected to follow a seating plan by your project group throughout the semester.

- B. **Coursework.** Case studies and group activities related assignments will be given to practice and apply the operations concepts learned in 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 your understanding of the topics and which have already been discussed. **Make-up coursework will not be given.** For the details, schedules and due dates for all coursework, see the course schedule and course content and requirements wrap-up at the end of the syllabus.

C. **Final Group Project**

By the end of the 1st day of the course, students should have formed their own groups of 4-5 members, who would be working on the final term project. The students will submit an operations plan proposal for a product, service, company, organization, or institution.

**Operations Plan Project Objectives:**

- a. For the students to synthesize and apply the various concepts, processes and good practice models learned from the class.
- b. To cultivate the research skills of the students.
- c. To develop the students' oral and written communicative skills.
- d. To develop the students' ability to think critically and creatively.

The evaluation of the final project will be on the quality of the analysis and the application of relevant concepts. Thus, you should link your observations about the product or service, company and market environment to various concepts you have learned in class or from the textbook. Particular focus would be given to the consistency of the operations strategies with the analysis of the industry. Please ensure that your plan relates to the materials discussed and learned in class. I will be looking for references to concepts, theories and materials from the text and from those used in classroom discussions.

- **Final written proposal.** An actual operations plan length is about 3-5 pages long, single space, excluding appendix. Conciseness is preferred. It will include (1) Customer issue and related product or service demand in the market; (2) Product or service design solutions, which are supported by good practices as researched, and uniqueness as compared to the general service supply at the market; (3) Operation implementation plan which will include scope, team, resources cost, materials cost, indirect cost, quality control strategies, major milestones, communication agreement (within the internal team, with stakeholders, and with major customers); (4) Significant revenue impact to your company; (5) Appendix as needed. Detailed guideline on the written report and oral presentation will be provided on CANVAS and explained at the class.

- **Group consulting.** Prior to the submission of the final project, group consulting are encouraged to review the status of your term project with the professor after mid-term examination at any time. Please make sure that each team get consultation from the instructor as needed via email or after class appointment. Students are responsible for making the appointments.

D. **Peer Evaluation.** Each member of the group will be asked to evaluate the contribution of all the 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 and other group assignments. 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 of **2%** from the overall group average grade.

E. **Grading**

<b>GRADE DISTRIBUTION</b>	
<b>Item</b>	<b>Approximate weights</b>
Weekly Assignments	20%
Mid-term Exam	20%
Final Exam	20%
Project Presentation	10% (+peer evaluation)
Project Report	20% (+peer evaluation)
Class Participation	10%
<b>TOTAL:</b>	<b>100%</b>

**Final letter grades:**

<b>A-</b> 90-93%	<b>A</b> 94-96%	<b>A+</b> 97-100%
<b>B-</b> 80-83%	<b>B</b> 84-86%	<b>B+</b> 87-89%
<b>C-</b> 70-73%	<b>C</b> 74-76%	<b>C+</b> 77-79%
<b>D-</b> 60-63%	<b>D</b> 64-66%	<b>D+</b> 67-69%
<b>F</b> <60%		

## **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>. Add/drop deadlines can be found on the current academic year calendars document on the [Academic Calendars webpage](http://www.sjsu.edu/provost/services/academic_calendars/) at [http://www.sjsu.edu/provost/services/academic\\_calendars/](http://www.sjsu.edu/provost/services/academic_calendars/). The [Late Drop Policy](http://www.sjsu.edu/aars/policies/latedrops/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](http://www.sjsu.edu/advising/) 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](http://www.sjsu.edu/senate/S07-2.htm), 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](http://www.sjsu.edu/studentconduct/) 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](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf) at [http://www.sjsu.edu/president/docs/directives/PD\\_1997-03.pdf](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf) requires that students with disabilities requesting accommodations must register with the [Disability Resource Center](http://www.drc.sjsu.edu/) (DRC) at <http://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](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.
- 6. Innovation.** Recognize, analyze, and articulate strategies for promoting creativity and innovation

## **Student Technology Resources**

Computer labs for student use are available in the [Academic Success Center](http://www.sjsu.edu/at/asc/) 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 are 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 10<sup>th</sup> 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](http://peerconnections.sjsu.edu) at <http://peerconnections.sjsu.edu> for more information.



*Note 1: 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.*

*Note 2: Will not provide lecture PPT unless the content is outside of the textbook. If you are absent, please check your students for class notes.*

*Note 3: Assignment related sample or requirements will be provided on CANVAS*

<b>Day</b>	<b>Sessions &amp; Date</b>	<b>Topics, Readings, and Activities</b>	<b>Assignments &amp; Due Dates</b>
1	1/4/2016	<b>Course Introduction:</b> Syllabus walk-through  <b>Reading &amp; Lecture Topic:</b> Chapter 1: Operations and Productivity	Self-intro sheet due (Individual)
2	1/5/2016	Chapter 2: Operations Strategy in a Global Environment  <b>Related Lecture Topic:</b> Environmental Factors for International Projects	Project groups are formed & team sheet due (Group)
3	1/6/2016	<b>Reading &amp; Lecture Topic:</b> Chapter 3: Project Management (Scope, Time, Cost) Chapter 6: Managing Quality  <b>Recorded talk:</b> Project Management Simulation	-Group project Positioning Statement due (Group) -Reflection on Guest live talk on PM Simulation (individual)
4	1/7/2016	<b>Related Lecture Topic:</b> Project Management (Team, Communication, Procurement, Closure)	Orchard Supply Store Observation Direction Explanation
	1/8/2016	<b>Reading &amp; Lecture Topic:</b> Chapter 4: Forecasting Chapter 5: Design of Goods and Services  <b>Case Study:</b> GoodEarth (*a food product forecasting)	GoodEarth Case Reflection due (Group) Group project revenue estimation due (Group)
5	1/11/2016	<b>Mid-term Review Q&amp;A</b> Main Concepts Review of Chapters 1-6 <b>Group Project Q&amp;A</b>	
6	1/12/2016	<b>Reading &amp; Lecture Topic:</b> <b>Mid-term Examination (Chapters 1-6)</b>	Mid-term exam -Reflection on Op Mng

Day	Sessions & Date	Topics, Readings, and Activities	Assignments & Due Dates
		<p><b>Possible Guest Speaker:</b> Big Data Technologies</p> <p><b>Recorded talk:</b> Operation management cost control</p>	<p>cost control (Individual) -Reflection on Big Data Tech (individual)</p>
7	1/13/2016	<p><b>Readings &amp; Lecture Topic:</b> Chapter 7: Process Strategy</p> <p><b>Related Topic:</b> Software Planning Approaches (Traditional and Modern) Comparison</p> <p><b>Case Study:</b> JHarna Software Planning Process Strategies from Harvard Business School Case Repository</p> <p>Recorded Guest Speaker on ITIL</p>	<p>JHarna Case Reflection (Group) Reflection on recorded talk on ITIL (individual)</p>
8	1/14/2016	<p><b>Readings &amp; Lecture Topics:</b> Chapter 8: Location Strategies Chapter 9: Layout Strategies</p> <p><b>Related Topic:</b> Queueing model (service waiting line issue)</p> <p><b>Recorded Talks:</b> -Orchard Supply Design -Online Store Design</p>	<p>Orchard Supply Store Observation Sheet Due &amp; quick class sharing in group (Individual) -Reflection on recorded talk on retail store layout design (individual) -Reflection on recorded talk on online store design</p>
9	1/15/2016	<p><b>Readings &amp; Lecture Topics:</b> Chapter 11: Supply Chain Management Chapter 12: Inventory Management</p> <p><b>Case Study:</b> Amazon Supply Chain Strategies</p> <p>Recorded talk on Cell phone technology</p>	<p>Amazon Supply Chain Strategies Case Study due (Group) Reflection on live talk of cell phone technology Group project logistics (4a-d) due</p>
11	1/19/2016	<p><b>Readings &amp; Lecture Topics:</b> Chapter 14: Materials Requirements Planning</p> <p><b>Group Project Q&amp;A</b></p>	<p>Group project logistics (4e-f) due</p>

<b>Day</b>	<b>Sessions &amp; Date</b>	<b>Topics, Readings, and Activities</b>	<b>Assignments &amp; Due Dates</b>
12	1/20/2016	<b>Final Examination Review Q&amp;A</b> Main Concepts Review of Chapters 7-9, 11-12, 14	<b>-Internal Group Peer Review due (Individual)</b> <b>-Final group project report due (Group)</b>
13	1/21/2016	<b>Readings &amp; Lecture Topics:</b> <b>Final Examination (Chapters 7-9, 11-12, 14)</b>	<b>Final Exam</b>
14	<b>1/22/2016</b>	<b>Final Project Presentation</b>	<b>-Final group project presentation PPT due (Group)</b> <b>-Peer Group Presentation Evaluation Due (Group)</b>

## **Fundamentals of Operation Management Wrap-up/Check List**

(Yellow/Red = critical tasks; Green/Black = supporting tasks; Blue = extra credits)

### Chapters for Mid-Term Examination (20%):

Chapter 1: Operations and Productivity

Chapter 2: Operation Strategy in a Global Environment

Chapter 3: Project Management

Chapter 4: Forecasting

Chapter 5: Design of Goods and Services

Chapter 6: Managing Quality

### Chapters for Final Examination (20%):

Chapter 7: Process Strategy

Chapter 8: Location Strategies

Chapter 9: Layout Strategies

Chapter 11: Supply Chain Management

Chapter 12: Inventory Management

Chapter 14: Materials Requirements Planning

### Daily Assignments (20%):

Self-Intro Sheet (individual)

Team Sheet (Group)

Group project product/service solution (initial/updated) (Group)

Group project revenue estimation (+cost high level) (Group)

Group project positioning statement/initial logistics (4a-d) (initial/updated) (Group)

Group project logistics (4e-f) (initial/updated) (Group)

Group project operation management efficiency strategy (4g) (Group)

Reflection on Good Earth Product Launching Case Study (Group)

Reflection on JHarna Software Planning Process Strategy Case Study (Group)

Reflection Amazon Supply Chain Strategies Case Study (Group)

Orchard Supply Store Observation Sheet (Individual)

### Final Group Project Report (20%):

Rational (Group) (4%)

Service or Product Solution (Group) (4%)

Revenue Impact (Group) (2%)

Operation plan at project level (Group) (8%)

Appendix (Optional)

Internal group peer review (Individual) (2%)

(\*See updated group project guideline for details + Peer review)

### Final Group Project Presentation (10%):

10 items about the content & 5 items about presentation skills (Group) (8%)

**Peer Group presentation evaluation (Group) (2%)**

(\*See the presentation guideline for details + Peer group review)

**Class Activities Participation (10%):**

Group project in-class discussion (8-10 times)

In-class review game (8-10 times)

**Extra Credits (5-8%):**

Reflection on 4 recorded guest speaker talks

Reflection on 2-4 live guest speaker talks

Reflection on big data bonus talk