Concepts of Production Management

OSCM 5308  May 18th – June 25th, 2020  AMBA

Instructor:  Dr. José Humberto Ablanedo-Rosas
E-mail: jablanedorosas2@utep.edu
Office: BUSN 206  Phone: (915) 747 6041  Fax: (915) 747 5126

Course description

The production or operations function is concerned with the planning and decision-making activities of managers directly responsible for the conversion of resources into products and services. The operations manager plans production, schedules work and controls inventories. This course is a study of the issues underlying the management of operations, and introduces the student to a variety of tools and techniques used by operations managers exploring alternative means of implementing decisions.

Course objectives:

At the completion of this course, students will be able to:
1. Identify the global trends and challenges facing operations management.
2. Define process reengineering and process improvement.
3. Explain the basic principles of TQM and Six Sigma programs.
4. Describe how to manage constraints in an assembly line.
5. Explain the implementation issues associated with the application of lean systems.
6. Define the key design issues associated with supply chain processes.
7. Identify the major causes of dynamics in a supply chain.
8. Define the key factors that determine the appropriate choice of an inventory system.
9. Describe the operations planning and scheduling process.

Required materials:

Recommended books


Course Assignments and Grading Distribution:

100-90 = A   89-80 = B   79-70 = C   69-60 = D   59 and below = F

- 20 points MyOMLab simulations
- 45 points MyOMLab Assignments
- 20 points Promodel project
- 15 points Participation

MyOMLab simulations: To deepen our understanding of the class topics, students will perform a simulation for the following chapters: forecasting, project management, quality, supply chain, and inventory management. Each MyOMLab simulation has a four-point value. The assignment of points will be based on the percentage achievement of the simulation’s stated goals. Students will have two attempts at each simulation and the highest score will be considered.

MyOMLab assignments: Fifteen chapters from the book will be covered in this course. Students have to complete an assignment after the discussion of each chapter. Students will perform their assignment in MyOMLab. Students have to study the material before planning to complete the assignments. However, MyOMLab offers practice problems and several level of hints to support assignments’ completion.

Promodel project: To strengthen our understanding of topics and develop decision making skills, students will develop a simulation model with Promodel. The simulation model is particular for each student and it should model a real scenario. The simulation model must be accompanied with a sensitivity analysis for understanding the tradeoffs among parameters. The report will include the recommendation for decision makers. The simulation model has a twenty-point value.

Participation: For this online course, students will be required to participate in some discussion boards—both an initial post and responses to your peers. The initial post will be the solution for a mini-case where the material studied in the corresponding chapter is applied. The responses should correspond to a critical analysis of the proposed solution. Five chapters will be analyzed in the discussion boards. One point corresponds to the initial solution and two points correspond to the responses to your peers. Each of these activities will be given point values that add up to the total 15-point participation grade. These points cannot be made up.

Attendance Policy:

This is an online course. It is expected that you complete the course activities as indicated in the course calendar. You should be available to complete them on time.

Technology Requirements

Course content is delivered via the Internet through the Blackboard learning management system (LMS). Ensure your UTEP e-mail account is working and that you have access to the Web. You may use any of the primary Web browsers—Explorer, Google Chrome, Firefox, Safari, etc. When having technical difficulties, try switching to another browser.
If you encounter technical difficulties of any kind, contact the Help Desk (UTEP Library Room 300, TS.UTEP.EDU, 915-747-4357).

Netiquette

- Always consider audience. Remember that members of the class and the instructor will be reading any postings.
- Respect and courtesy must be provided to classmates and to instructor at all times. No harassment or inappropriate postings will be tolerated.
- When reacting to someone else’s message, address the ideas, not the person. Post only what anyone would comfortably state in a F2F situation.
- Blackboard is not a public internet venue; all postings to it should be considered private and confidential. Whatever is posted on these online spaces is intended for classmates and professor only. Please do not copy documents and paste them to a publicly accessible website, blog, or other space. If students wish to do so, they have the ethical obligation to first request the permission of the writer(s).

Late Work Policy

- MyOMLab assignments and MyOMLab simulations will be due on Sundays at midnight (11:59 PM). No late work will be accepted.
- All discussion board assignments will be due on Saturdays at midnight (11:59 PM). No late work will be accepted.
- Promodel simulation model will be due on Saturday June 27th at midnight. No late submission will be accepted.

Drop Policy

To drop this class, please contact the Registrar’s Office to initiate the drop process. If you cannot complete this course for whatever reason, please contact me. If you do not, you are at risk of receiving an “F” for the course.

Accommodations Policy

The University is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services and activities with documented disabilities in order to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with
Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the UTEP Center for Accommodations and Support Services.

**Scholastic Integrity**

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as one's own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the Office of Student Conduct and Conflict Resolution (OSCCR) for possible disciplinary action. To learn more HOOP: Student Conduct and Discipline.

**Student Resources**

UTEP provides a variety of student services and support:

- **UTEP Library**: Access a wide range of resources including online, full-text access to thousands of journals and eBooks plus reference service and librarian assistance for enrolled students.
- **Help Desk**: Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.
- **University Writing Center (UWC)**: Submit papers here for assistance with writing style and formatting, ask a tutor for help and explore other writing resources.
- **Math Tutoring Center (MaRCS)**: Ask a tutor for help and explore other available math resources.
- **Military Student Success Center**: UTEP welcomes military-affiliated students to its degree programs, and the Military Student Success Center and its dedicated staff (many of whom are veterans and students themselves) are here to help personnel in any branch of service to reach their educational goals.
- **RefWorks**: A bibliographic citation tool; check out the RefWorks tutorial and Fact Sheet and Quick-Start Guide.
The due date for MyOMLab assignments and simulations is ALWAYS Sunday at midnight (11:59 PM). No late work will be accepted.

The due date for all discussion board assignments is ALWAYS Saturday at midnight (11:59 PM). No late work will be accepted.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings Due</th>
<th>Assignments Due</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>05/18</td>
<td>Online Orientation Session, Monday May 18 at 6 pm, via Blackboard Collaborate Ultra</td>
<td>Review Syllabus, Ch 1, Ch 4, and Module A in the textbook</td>
<td>05/23 DB, 05/24 HA Ch 1, 05/24 HA Ch 4, 05/24 HA Simulation Ch 4, 05/24 HA Module A</td>
<td>DB will be completed on BB, HAs will be done in MyOMLab</td>
</tr>
<tr>
<td>05/18-05/24</td>
<td>Operations and Productivity (Ch. 1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decision-Making Tools (Module A)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Forecasting (Ch. 4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Promodel I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>05/25-05/31</td>
<td>Operations Strategy in a Global Environment (Ch. 2)</td>
<td>Ch 2, Ch 3 and Supplement 5 in the textbook</td>
<td>05/30 DB, 05/31 HA Ch 2, 05/31 HA Ch 3, 05/31 HA Simulation Ch 3, 05/31 HA Supplement 5</td>
<td>DB will be completed on BB, HA will be done in MyOMLab</td>
</tr>
<tr>
<td></td>
<td>Sustainability in the Supply Chain (Supplement 5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Project Management (Ch. 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Promodel II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>06/01-06/07</td>
<td>Managing Quality (Ch. 6)</td>
<td>Ch 6, Supplement 6, Ch 7 and Ch 16 in the textbook</td>
<td>06/06 DB, 06/07 HA Ch 6, 06/07 HA Simulation Ch 6, 06/07 HA Ch 7</td>
<td>DB will be completed on BB, HA will be done in MyOMLab</td>
</tr>
<tr>
<td></td>
<td>JIT, TPS, and Lean Operations (Ch. 16)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Process Strategy (Ch. 7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Statistical Process Control (Supplement 6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Promodel III</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date Range</td>
<td>Topics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>--------</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 06/08-06/14 | Capacity and Constraint Management (Supplement 7)  
Location Strategies (Ch. 8)  
Promodel IV |
| 06/07-06/14 | 06/07 HA Supplement 6  
06/07 HA Ch 16 |
| 06/15-06/21 | Supply Chain Management (Ch. 11)  
Supply Chain Management Analytics (Supplement 11)  
Inventory Management (Ch. 12)  
Promodel V |
| 06/13-06/21 | 06/13 DB  
06/14 HA Supplement 7  
06/14 HA Ch 8 |
| 06/22-06/28 | Material Requirements Planning (MRP)  
and ERP (Ch. 14)  
Promodel VI |
| 06/21-06/28 | 06/28 HA Ch 14  
06/27 Promodel project |