MGMT 3305 – Production and Operations Management

Course Description/Overview

Production and Operations Management (POM) is concerned with management of resources and activities that produce and deliver goods and services to the customers. Efficient and effective management of operations will provide an organization with major competitive advantage. The ability to respond to customer needs at lower cost, higher quality and faster delivery is critical to survive and succeed in a global competitive environment. By integrating operations successfully into their business models, companies such as Toyota (manufacturing) and Walmart (retailing) have shown that efficient and effective operations are critical for the long-term success of an organization.

This course will focus on basic concepts, issues, and techniques for efficient and effective management of operations. Both qualitative concepts and quantitative problems will be used to learn in this course. Topics include operations strategy, product and service design, capacity planning, location planning, demand forecasting, aggregate planning, master scheduling, material requirements planning, enterprise resource planning, inventory management, lean operations and supply chain management.

Prerequisite Knowledge

MGMT 2331, Microsoft Excel

Course Technology

This online course will be delivered using ASU Blackboard and Pearson’s MyOMLab. This course can be accessed at http://blackboard.angelo.edu.

In addition to a competent level of computer and Internet literacy and capability, certain minimum technical requirements must be met to enable you to have a successful learning experience. Please review the important technical requirements, and the Web browser configuration information, which is located on the log in page of Blackboard and MyOMLab. In other words, check out your computer system to see if it meets the minimal requirements before you begin this course.

1. You must use a recent version of Adobe Acrobat Reader and Adobe Flash Player for MyOMLab. You may be prompted to install Flash or upgrade your current Flash if necessary when you set-up your MyOMLab account. These are already installed in the ASU labs. For your own computers you can download them for free at the http://get.adobe.com/reader and at http://get.adobe.com/flashplayer

2. Pop-up blockers must be set to allow pop-ups from Blackboard and MyOMLab. While pop-up blockers are used to prevent annoying advertising messages that pop-up on a computer screen during internet surfing, some Web applications (such as Blackboard and MyOMLab) are incompatible with pop-up blockers and do not perform correctly until all pop-up blockers are disabled for these websites. Pop-up blockers on university computers must be disabled or reconfigured for MyOMLab as well.
Technical Support

The Technology Service Center (TSC) may be contacted for any technical support by calling (325) 942-2911 or 1-866-942-2911 or by email at helpdesk@angelo.edu

Class Meeting Times

This is an 8-week on-line course, and so students are required to login to Course Blackboard and MyOMLab regularly to complete all course related work (homework, exams, etc.) as per the syllabus. Friendly Advice: Please make sure to study regularly (almost every day) and also it is each student’s responsibility to ensure ahead of time that his/her computer meets all the system requirements for this course (Software’s, Internet, Blackboard, MyOMLab, etc.).

Faculty/Instructor Information

Name: Raj Kamalapur, Ph.D.
Title: Associate Professor
Office: RAS 205
Phone: 325-486-6632
E-Mail: raj.kamalapur@angelo.edu
Hobbies: Golf, Tennis, Segway, Music, Travel, etc.

Course Objectives

Learning Objectives:

Upon completion of this course, students will be able to...

1. Understand the strategic role and the importance of operations management in creating and enhancing a company’s competitive advantage
2. Understand the key concepts and key issues of operations management in both the manufacturing and service organizations
3. Understand the interdependence of the operations function with the other key functional areas of an organization
4. Apply analytical skills and problem-solving tools (e.g. Microsoft Excel) to analyze many different types of operations management problems

Students learning outcome for this course will be assessed using homework assignments (concepts and problems) from all chapters covered, along with four exams.

Course Textbook and Required Readings


It is preferable to buy ‘MyOMLab Access Code with eBook’ (helps with assignments) instead of buying ‘MyOMLab Access Code with hard copy of textbook’ (however, each student can make their own decision on what works best for them). Also, there is a PDF file on Course Blackboard titled ‘MyOMLab Student Registration’ which explains how to easily register and get access to this course in MyOMLab for all assignments and exams.
Grading Policies

This course employs the following to measure student learning.

<table>
<thead>
<tr>
<th>Grade Calculations</th>
<th>Percent of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework (From All Chapters)</td>
<td>40%</td>
</tr>
<tr>
<td>Exams (Total of Four Exams)</td>
<td>60%</td>
</tr>
</tbody>
</table>

On-going grades for students are available under ‘My Grades’ in the course Blackboard. Angelo State University employs a letter grade system as shown below. Grades in this course are determined on a percentage scale:

- A = 90.0 – 100 %
- B = 80.0 – 89.9 %
- C = 70.0 – 79.9 %
- D = 60.0 – 69.9 %
- F = below 60 %

Class Participation

This course is an 8-week on-line 3-credit-hour course that, on campus would require you to attend class for 5.0 hours per week. You should plan to spend this much time, and plus another 8-10 hours each week for reading, practicing, working on homework assignments, etc. (Compared to 16-week semester, you should plan to work twice as much each week for only half the time for an 8-week semester). Generally, different students learn differently and may need more time to learn, understand and complete their work. Some chapters are longer than others, so plan to spend the appropriate time needed for each chapter. Also, some additional material may be covered in some chapters to add more value to this course. Be sure to review all materials uploaded on Blackboard, and all resources available in MyOMLab. Also, work on all questions and problems available in MyOMLab to help you prepare and do well in this course. To succeed in online learning, students need to stay motivated, and be committed to learning, possess good time management skills which will help them do well in this course.

This on-line course is built on a two-step learning process. For each chapter you will

1. Learn it, and then
2. Do it

First, you will review and learn the course material (many resources are uploaded for each chapter on the course Blackboard). I recommend that you review PowerPoint slides first to gain a general understanding of the material, and then review chapter from the textbook, solved examples, solved problem videos (some selected problems), practice problem solutions, etc. As quantitative problems will be a significant part of the homework assignments and exams, spend enough time working and understanding quantitative problems (to help all students, I have created many Excel problem solutions for all chapters, and upload them on course Blackboard).

Next, you will do it (in MyOMLab) what you have learned by working on your study plan questions (for practice) and homework assignments (concepts and problems). You will close the loop by going back to your homework assignments and study plan questions (if needed) to review and work on areas you need to improve your understanding. This process will surely help you learn and gain a good understanding of the material for you to do well in this course.
Although this is an online course, it is not a self-paced study. Once every two weeks, homework assignments (concepts and problems) from each Course Module will be assigned, and they need to be completed before the due dates. The main purpose of this is to keep class on the same topic during the given week, so that all students in this course will be somewhat together on the homework, and any exams assigned during that week. Unless otherwise stated, the homework assignments are due by midnight on the due date (to be precise at 11:59 pm).

**Homework**

Homework (concepts and problems) are assigned (in MyOMLab) which needs to be completed by the due dates. Also, during first week of the semester, each student needs to provide a brief introduction of themselves on discussion board (more details provided on Blackboard). The homework assignments are open book and open notes which will help you learn and test your knowledge in both areas, i.e. ‘concepts and problems’. The ‘homework concepts’ can be attempted one time and the ‘homework problems’ can be attempted multiple times up until the due date. The homework concepts usually consist of multiple-choice questions, and some questions are assigned where students need to watch a short video before answering these questions. The highest grade for homework assignments will be recorded after due date. **Note:** There are no make-ups or no late submissions allowed for any homework assignments.

**Problem 1.17**

As part of a study for the Department of Labor Statistics, you are assigned the task of evaluating productivity for small businesses. Data for one of the small businesses you are to evaluate is shown below. The monthly average this year.

- Labor $7 per hour;
- Capital 0.75% per month of investment;
- Energy $0.40 per BTU;

Click the icon to view the data for one of the small businesses you are to evaluate.

\[ \text{Click the icon to view the data for one of the small businesses you are to evaluate.} \]

a) Determine the multifactor productivity with dollars as the common denominator for last year.

The multifactor productivity with dollars as the common denominator for last year is \[ \text{dozen} \]. (Round your response to three decimal places.)

To help all the students, I have created many Excel Problem Solutions (for every chapter), and upload them on Blackboard under appropriate chapter headings. Use these Excel solutions to solve many homework problems, and also use them as examples to learn and create your own Excel solutions for other problems. For most problems, plan to use Microsoft Excel which will help you save significant amount of time and effort to solve these quantitative problems.

In addition, for homework problems, there are excellent sources available within MyOMLab to help you learn and answer homework problems. If you need help with any homework problems, click on ‘Question Help’ (as shown above) to ‘Help Me Solve This.’ or ‘View an Example’ (View an Example may not be available for all problems). A new pop-up window opens providing more details to answer this problem (make sure to allow pop-ups for this website.) You can also click on ‘Check Answer’ (as shown below) to see if your answer is correct or not. Use these useful resources to help improve your learning and to do well in this course.
Exams

Four equally-weighted online exams will be given in MyOMLab. In computing your total percentage score for exams, one lowest exam score (out of four exams) will be dropped. Note that there are no make-up exams. If you miss one exam, that score becomes the lowest exam score and is dropped for computing your total percentage score for exams. Exams will be open book and open notes; however, you cannot collaborate or take help from anyone else, either in person or using digital medium. You need to take all exams on the given date and time, and you will have one attempt to complete the exam within the allotted time. The exams will consist of multiple choice questions and quantitative problems. Dates for exams are listed on the course schedule and more details for exams will be provided on the course Blackboard.

Note: Question Help, Check Answer, etc. will NOT be available for Exams. Good luck.

Policy on Server Unavailability

Angelo State University is committed to providing a reliable online course delivery system to all users. However, in the event of any unexpected Blackboard server outage or any ASU technical difficulty which prevents students from completing a time sensitive activity, I will extend the due date and provide an appropriate accommodation based on the situation. The accommodations will be made as soon as the ASU IT Department confirms that there was such a problem. Students should report any problems to the professor through their ASU email account and also email elearning@angelo.edu about any issues related to the Blackboard.

Note: This does not apply to individual technical problems that you may encounter on your personal computer or your network. So it is the responsibility of each student to make sure they have a reliable computer, reliable software, reliable Internet, etc. to help them complete all course related work (in Blackboard, MyOMLab, etc.)

Communication and Response Time

I will upload many course related documents on the Course Blackboard. Communications about your course will be in the form of ASU email and/or announcements on the course Blackboard. So please make sure to check your ASU email and course Blackboard on a regular basis.

Email is the preferred way of communicating with me for this course. I recommend that you include ‘MGMT 3305 On-Line’ in the subject line of all emails sent to me for this course. I will respond to your email questions within one business day. Please make sure to use ASU email account when communicating with me, as I will not respond to other email accounts like Yahoo, Gmail, etc. (as some emails from these accounts may come from unreliable sources).

Missed/Late Work

No late work will be accepted for any reason. Reasonable deadlines have been set to ensure that students have adequate time to complete all assignments, exams, etc. during the week. So make sure to plan ahead, work regularly, and do not wait until the last day to complete your work.

Extra Credit Work

There is no extra credit work for any individuals. Extra credit work for individual students are not fair for other students who submit their work in good order and on time. Therefore, no extra credit assignments are allowed, unless it is scheduled for the entire class. If you keep up with your regular work each week, there will be no need for any extra credits.
Course Policies

Required Use of Masks/Facial Coverings by Students in Class

As a member of the Texas Tech University System, Angelo State University has adopted the mandatory Facial Covering Policy to ensure a safe and healthy classroom experience. Current research on the COVID-19 virus suggests there is a significant reduction in the potential for transmission of the virus from person to person by wearing a mask/facial covering that covers the nose and mouth areas. Therefore, in compliance with the university policy students in this class are required to wear a mask/facial covering before, during, and after class. Faculty members may also ask you to display your daily screening badge as a prerequisite to enter the classroom. You are also asked to maintain safe distancing practices to the best of your ability. For the safety of everyone, any student not appropriately wearing a mask/facial covering will be asked to leave the classroom immediately. The student will be responsible to make up any missed class content or work. Continued non-compliance with the Texas Tech University System Policy may result in disciplinary action through the Office of Student Conduct.

Courtesy and Respect

Courtesy and Respect are essential ingredients to this course. We respect each other's opinions and respect their point of view at all times while in our class sessions. The use of profanity & harassment of any form is strictly prohibited (Zero Tolerance), as are those remarks concerning one's ethnicity, life style, race (ethnicity), religion, etc. violations of these rules will result in immediate dismissal from the course.

Academic Honesty and Integrity

Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding and complying with the university Academic Honor Code, which is in both print and web versions of the ASU Student Handbook.

Academic integrity is expected. This includes, but is not limited to, any form of cheating, plagiarism, unauthorized sharing of work, or unauthorized possession of course materials. The professor assumes that all students can be trusted. Please do not violate this trust. Violation of academic integrity will result in a failing grade for the course.

It is the professor’s intention to be as fair and impartial as is humanly possible. Therefore, all students will be asked to adhere to the same set of guidelines and rules UNLESS there are disabilities or documented extenuating circumstances that have been discussed with the professor and the Student Life Office. Please make sure you inform the professor as soon as any situation arises. Do NOT wait until the problem is compounded by poor class performance, poor attendance, etc.

Plagiarism

Plagiarism is a serious topic covered in ASU’s Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.
In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list. Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center.

**Copyright Policy**

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

**Code of Ethics**

Students, faculty, administrators and professional staff of the Norris-Vincent College of Business should always:

- Be forthright and truthful in dealings with all stakeholders
- Take responsibility for one’s actions and decisions
- Serve as an example of ethical decision-making and behavior to others
- Admit errors when they occur, without trying to conceal them
- Respect basic dignity of others by treating them as one would wish to be treated

**Student Absence for Religious Holidays**

As stated in the Angelo State University Operating Policy and Procedures (OP 10.19 Student Absence for Observance of Religious Holy Day), a student who intends to miss class to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence.

**Title IX at Angelo State University**

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination including: sexual assault, sex-based discrimination, sexual exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations I am notified of to the Office of Title IX Compliance. This is done in order to connect students with resources and options in addressing the allegations reported. As a student, are encouraged to report any incidents of sexual misconduct directly to ASU’s Office of Title IX Compliance and the Title IX Coordinator. You may do so by contacting:
Michelle Miller, J.D.
Title IX Coordinator
Mayer Administration Building, Room 210
325-942-2022
michelle.miller@angelo.edu

You may also file a report online 24/7 at www.angelo.edu/incident-form

If you are wishing to speak to someone about an incident in confidence you may contact the University Health Clinic at 325-942-2171, Counseling Services at 325-942-2371 or the ASU Crisis Helpline at 325-486-6345.

The Office of Title IX Compliance also provides accommodations related to pregnancy (such as communicating with your professors regarding medically necessary absences, modifications required because of pregnancy, etc.). If you are pregnant and need assistance or accommodations, please contact Office of Title IX Compliance utilizing the information above. For more information about Title IX in general you may visit www.angelo.edu/title-ix

Accommodations for Disability

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and subsequent legislation.

Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is student’s responsibility to initiate such a request by emailing studentservices@angelo.edu, or by contacting:

Mrs. Dallas Swafford,
Director of Student Development
Office of Student Affairs
University Center, Suite 112
325-942-2047 Office
325-942-2211 FAX
Dallas.Swafford@angelo.edu

Grade Appeal Process

As stated in the Angelo State University Operating Policy and Procedures (OP 10.03 Student Grade Grievances), a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, has experienced inequitable evaluation procedures, or inappropriate grading practices, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including responsibilities of the parties involved in the grade appeal process and number of days allowed for completing steps in the process, see Operating Procedure 10.03 at: https://www.angelo.edu/live/files/14196-op-1003-grade-grievance
Course Drop

To view information on how to drop this course or important dates relevant to dropping this course, visit http://www.angelo.edu/services/registrar_office/course_drop_provisions.php.

Incomplete as a Course grade

As stated in the Angelo State University Operating Policy and Procedure (OP 10.11 Grading Procedures), the grade “I” is given when the student is unable to complete the course because of illness or personal misfortune. For undergraduates, an “I” that is not removed before the end of the next long semester automatically becomes an “F”. A graduate student will be allowed one year to remove a grade of “I” before it automatically becomes an “F”. To graduate from ASU, a student must complete all “I’s”.
# Course Outline

<table>
<thead>
<tr>
<th>Week</th>
<th><strong>Due Date</strong> (Homework)</th>
<th><strong>MGMT 3305 - Course Schedule</strong> (Homework Assignments are due by Midnight)</th>
</tr>
</thead>
</table>
| 1    | Thu (03/25)             | Chapter 1 – Operations and Productivity  
 |      |                         | Homework (Concepts and Problems)                                             |
| 1    | Mon (03/29)             | Chapter 4 – Demand Forecasting  
 |      |                         | Homework (Concepts and Problems)                                             |
| 2    | Thu (04/01)             | Chapter 5 – Design of Goods and Services  
 |      |                         | Homework (Concepts and Problems)                                             |
| 2    | Fri (04/02)             | **Exam 1** - (Chapters 1, 4, 5)                                                 |
| 3    | Thu (04/08)             | Chapter 6 – Managing Quality  
 |      |                         | Homework (Concepts and Problems)                                             |
| 3    | Mon (04/12)             | Chapter 7 – Process Strategy  
 |      |                         | Homework (Concepts and Problems)                                             |
| 4    | Thu (04/15)             | Chapter 8 – Location Strategies  
 |      |                         | Homework (Concepts and Problems)                                             |
| 4    | Fri (04/16)             | **Exam 2** - (Chapters 6, 7, 8)                                                  |
| 5    | Thu (04/22)             | Chapter 11 – Supply Chain Management  
 |      |                         | Homework (Concepts and Problems)                                             |
| 5    | Mon (04/26)             | Chapter 12 – Inventory Management  
 |      |                         | Homework (Concepts and Problems)                                             |
| 6    | Thu (04/29)             | Chapter 13 – Aggregate Planning and S&OP  
 |      |                         | Homework (Concepts and Problems)                                             |
| 6    | Fri (04/30)             | **Exam 3** - (Chapters 11, 12, 13)                                               |
| 7    | Thu (05/06)             | Chapter 14 – Materials Requirements Planning  
 |      |                         | Homework (Concepts and Problems)                                             |
| 7    | Mon (05/10)             | Chapter 15 – Short Term Scheduling  
 |      |                         | Homework (Concepts and Problems)                                             |
| 8    | Thu (05/13)             | Chapter 16 – Lean Operations  
 |      |                         | Homework (Concepts and Problems)                                             |
| 8    | Fri (05/14)             | **Exam 4** - (Chapters 14, 15, 16)                                               |

**Note:** Some chapters are longer than others. So plan accordingly to spend the appropriate time needed to complete your work. Also, based on how the course is progressing, course schedule may be updated or changed to meet the course requirements. Good Luck 😊