

# MGMT 3305 – Production and Operations Management

## Course Description/Overview

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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 Wal-Mart (retailing) have shown that efficient and effective operations are critical for the 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 <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. 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](mailto:helpdesk@angelo.edu)

## Class Meeting Times

This is an on-line course and students are required to log into Blackboard and MyOMLab to complete all their course work (homework, exams, etc.) as per the course schedule. **Note:** Summer is a **short semester** and so it is each student's responsibility to **study regularly** (almost daily) and also to ensure ahead of time that his/her computer meets all the system requirements (i.e. Blackboard, Internet, MyOMLab, Software, etc.) for this course.

## Faculty/Instructor Information

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Name: Raj Kamalapur, Ph.D.  
Title: Associate Professor  
Office: RAS 205  
Phone: 325-486-6632  
E-Mail: [raj.kamalapur@angelo.edu](mailto:raj.kamalapur@angelo.edu)  
Hobbies: Playing Golf, Biking, Music, Travel, etc.

## Course Objectives

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### 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 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 to the analysis of different operations management problems

Students learning outcomes for this course will be assessed using homework assignments from all the assigned chapters, along with four exams.

## Course Textbook and Required Readings

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Operations Management: Sustainability and Supply Chain Management Plus MyOMLab with Pearson eText and Access Card Package, 12<sup>th</sup> Edition, by Jay Heizer, Barry Render, Chuck Munson. Publisher: Pearson

It is preferable and cheaper to buy the MyOMLab Access Code with eText (helps with the assignments) instead of 'Access Code and hard copy of textbook' (however, each student can make their own decision). Also, there is a PDF file explaining how to easily sign up and get access to the course in MyOMLab for all assignments and exams. You can find this PDF file on course Blackboard with the title **MyOMLab Student Registration**.

## Grading Policies

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This course employs the following to measure student learning.

Grade Calculations	Percent of Grade
Homework (All Chapters)	40%
Exams (Total Four Exams)	60%

On-going grades for the students are available under 'My Grades' in the course Blackboard.  
Note: Scores from MyOMLab are usually updated to Blackboard once every few hours.

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 is a **summer online course** (which goes by very fast) and so you should plan to study regularly (almost daily). This is a 3-credit-hour online course which on campus, would require you to attend nearly 9 hours of class per week. You should plan to spend this much time plus another 6-8 hours each week for reading, working on homework, preparing for exams, etc. Also, 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. Be sure to review all the materials uploaded on the Course Blackboard, and work on all questions and problems available in MyOMLab to help you do well in this course. To succeed in online learning, **students need to stay motivated** and committed to learning, **possess good time management skills** which will help them to complete all their work and 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, I recommend that you review PowerPoint slides to gain a general understanding of the material, and then review chapter from textbook, solved examples, solved problem videos (some selected problems), Excel problem solutions, etc. As quantitative problems will be a significant part of the homework assignments and exams, plan to spend enough time working and understanding quantitative problems (many Excel problem solutions are uploaded for each chapter as examples to help you learn and solve many homework problems).

Next, use your knowledge that you have learned to work on the homework assignments (concepts and problems). You will close the loop by going back to your homework assignments and study plan (if needed) to review and work on areas you need to improve your understanding. This will surely help you gain a good understanding of the material and help you to do well in this course.

## Homework

There will be homework assignments (in MyOMLab) for each chapter. The homework assignments are open book and open notes and they help you learn and test your knowledge in both areas, i.e. ‘concepts and problems.’ ‘Homework concepts’ can be attempted **one time** and ‘Homework problems’ can be attempted **multiple times** up until the due date. The homework concepts generally consist of multiple choice questions and some questions are assigned where students need to watch a short video before answering the multiple-choice questions. The highest grade for homework assignments will be recorded after the due date.

**Note:** Unless otherwise stated, the homework assignments are due by midnight on the due date (to be precise at **11.59 pm**). Please make sure to work regularly (almost daily) and do not wait until the last day to complete your homework assignments. There are **no make-ups** for any missed or late homework assignments. An instructor needs to be fair to all students in the class and so cannot extend due dates only to some individual students.

**Problem 1.17** Question Help

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

Labor \$7 per hour;  
Capital 0.79% 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.

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  dozen/\$. (Round your response to three decimal places.)

**Question Help** menu options:  
 - Help Me Solve This  
 - View an Example  
 - eText Pages  
 - Calculator

For homework problems, I have created many problem solutions using Microsoft Excel (for every chapter), and upload them on Course Blackboard under appropriate Chapter headings. You can use these Excel problem solutions to complete many of the homework assignments and also use these Excel problem solutions as examples to learn and then create your own solutions for other assigned problems using Microsoft Excel. For most problems in this course, plan to use Microsoft Excel, as Excel will help you with the calculations and saves you significant amount of time in solving these problems.

In addition, for homework problems, there are excellent sources available within MyOMLab to **help you learn and answer** these homework problems. When working on homework problems, and if you need help, click on ‘**Question Help**’ (as shown above) and click on ‘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 help you learn and answer this problem (make sure that you 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 you learn and to complete all your homework assignments.

**Check Answer**

Question points: 1 [Scoring options](#)

◀ Previous Remove Next ▶

## Exams

Four equally-weighted online exams will be given in MyOMLab. In computing your final average on 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 score that is dropped when computing your final average for the 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 the exams are listed on the course schedule and more details about exams will be provided on the course Blackboard.

**Note:** For Exams, Question Help, Check Answer, etc. **will NOT** be available. 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 [elarning@angelo.edu](mailto:elarning@angelo.edu) and [helpdesk@angelo.edu](mailto:helpdesk@angelo.edu)

**Note** that this **does not apply to individual technical problems** that you may encounter on your personal computer and your network. So it is the **responsibility of every student** to plan ahead and work with a reliable computer and with good Internet connection.

## Communication and Response Time

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

Email is the preferred and quickest way of communicating with me. You need to **use ASU email account** when communicating with me, as I **may not** respond to other email accounts like Yahoo, Gmail, etc. (as some emails from these accounts may come from unreliable sources). I recommend that you include 'MGMT 3305 Online' in the subject line of all emails sent to me for this course. I will do my best to respond to any weekday emails within 24 hours (most often, it is much earlier than that). I may or may not be able to respond to emails during the weekend. So plan accordingly, as weekend emails may be answered on the following Monday if not during the weekend.

## Missed/Late Work

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

Also, there is **no extra credit work** for any individuals. Extra credit work for individuals discriminate against the students who submit their work in good order and on time. Therefore, I do not allow extra credit assignments, unless I do so for the entire class. If you keep up with your regular work each week, there will be **no need** for extra credits.

## Course Policies

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### 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.

### 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.

## **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 the student's responsibility to initiate such a request by emailing the [studentservices@angelo.edu](mailto: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](mailto:Dallas.Swafford@angelo.edu)

## **Title IX**

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. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SAVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D. You may submit reports in the following manner:

- Online: [www.angelo.edu/incident-form](http://www.angelo.edu/incident-form)
- Face to Face: Mayer Administration Building, Room 210
- Phone: 325-942-2022
- Email: [michelle.boone@angelo.edu](mailto:michelle.boone@angelo.edu)

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), 24-Hour Crisis Helpline (325-486-6345), or University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit: [www.angelo.edu/title-ix](http://www.angelo.edu/title-ix).

## **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

## **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 the responsibilities of the parties involved in the grade appeal process and the number of days allowed for completing the steps in the process, see Operating Procedure 10.03 at:

<http://www.angelo.edu/content/files/14196-op-1003-grade-grievance>.

## **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.

## **Course Drop**

To view the information about how to drop this course or to calculate the important dates relevant to dropping this course, you can visit

[http://www.angelo.edu/services/registrar\\_office/course\\_drop\\_provisions.php](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

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Due Date (Homework)	MGMT 3305 – Summer Course Schedule (Homework Assignments are due by Midnight)
	<b>Course Module 1 (Chapters 1, 4, 5)</b>
07/08/20	Chapter 1 – Operations and Productivity Homework (Concepts and Problems)
07/10/20	Chapter 4 – Demand Forecasting Homework (Concepts and Problems)
07/12/20	Chapter 5 – Design of Goods and Services Homework (Concepts and Problems)
	<b>Exam 1 - (Chapters 1, 4, 5) Mon (07/13)</b>
	<b>Course Module 2 (Chapters 6, 7, 8)</b>
07/15/20	Chapter 6 – Managing Quality Homework (Concepts and Problems)
07/17/20	Chapter 7 – Process Strategy Homework (Concepts and Problems)
07/19/20	Chapter 8 – Location Strategies Homework (Concepts and Problems)
	<b>Exam 2 - (Chapters 6, 7, 8) Mon (07/20)</b>
	<b>Course Module 3 (Chapters 11, 12, 13)</b>
07/22/20	Chapter 11 – Supply Chain Management Homework (Concepts and Problems)
07/24/20	Chapter 12 – Inventory Management Homework (Concepts and Problems)
07/26/20	Chapter 13 – Aggregate Planning and S&OP Homework (Concepts and Problems)
	<b>Exam 3 - (Chapters 11, 12, 13) Mon (07/27)</b>
	<b>Course Module 4 (Chapters 14, 15, 16)</b>
07/29/20	Chapter 14 – Materials Requirements Planning Homework (Concepts and Problems)
07/31/20	Chapter 15 – Short Term Scheduling Homework (Concepts and Problems)
08/02/20	Chapter 16 – Lean Operations Homework (Concepts and Problems)
	<b>Exam 4 - (Chapters 14, 15, 16) Mon (08/03)</b>

**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 😊