



Advanced Production/Operations Management

OSCM 3322 Fall 2020



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Class Hours: 100% Online, Asynchronous

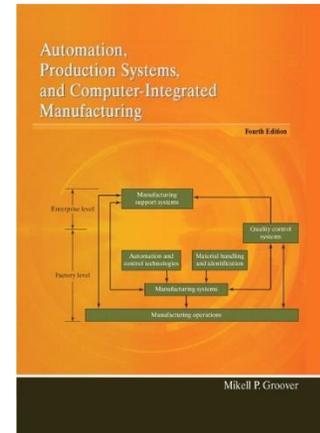
Virtual Office Hours: TR 8:00-9:30 a.m., or by appointment

Required Textbook:

Automation, Production Systems, and Computer-Integrated Manufacturing, by Mikell P. Groover, Pearson, Fourth Edition

Print ISBN: 9780133499612

eText ISBN: 9780133499711



Welcome to the undergraduate Advanced Production/Operations Management Course. Official information for OSCM 3322, including grades, will be posted on Blackboard. You are responsible for reading and responding to Blackboard “Announcements”, “Assignments”, “Assessments”, and any other information concerning this course - **check your Blackboard account daily!**

Course description (*From Goldmine*)

Advanced Production/Operations Management discusses the design and implementation of Advanced Manufacturing Technologies (AMT). This includes Just-in-Time (JIT) systems, cellular and Flexible Manufacturing Systems (FMS), and Computer Integrated Manufacturing (CIM). It also explores the key role that manufacturing plays in product development efforts and cross-functional teams. Other topics such as manufacturing, strategy, maintenance, and the design of work systems are presented as well. Case studies and group projects/presentations are used for instructional purposes. Restricted to majors: ACCT, BAMA, BSAD, CIS, ECON, FIN, GENB, MGMT, MKT, OSCM.

Objectives:

At the completion of this course students will be able to:

1. Identify and describe Advanced Manufacturing Technologies.
2. Define and explain Just-in-Time manufacturing.
3. Define and explain Cellular Manufacturing Systems.
4. Define and explain Flexible Manufacturing Systems.
5. Define and explain Computer Integrated Manufacturing.
6. Define the key design issues of work systems.
7. Define the key factors for maintenance of manufacturing systems.
8. Define the key factors for strategic manufacturing planning.

Prerequisite: OSCM 3321



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Lectures

Important material from the textbook, reference books, case studies, multimedia sources, and homework problem examples will be covered in class lectures. This class is 100% online, so class lectures will be delivered through short 10-15 minute lecture videos posted on Blackboard in the Lecture Videos content area. The detailed class outline, at the end of this syllabus, shows you exactly what activity and book chapters will be covered on each day of the entire summer session. I strongly recommend that you view and understand the lecture videos associated with each day in the outline, on that particular day, to stay on top of all the material that you will need to master for each exam. You should plan to read a lot and take careful lecture notes. Discussion and engagement with your classmates is strongly encouraged about the topics being covered, through regular discussion board assignments.

Regular Exams

There will be three regular, non-comprehensive exams that cover class materials and chapters in the textbook and other materials, taught up to the date of the last class before the exam. Exams will generally be available for 24 hours, beginning on the date specified in the class outline. You may take an exam anytime during that 24-hour period. You must use Respondus Lockdown Browser to take the exam, and have a working webcam and microphone on the computer you are using. Respondus Monitor will be enabled and will be recording everything you do and say during your exam session. You will have 90 minutes to take the exam. You can save and exit the exam if you have some kind of issue or technology problem, but the 90-minute timer will keep running. Even if you have some kind of problem with your computer or Internet connection, your answers will be saved, and you'll have plenty of time to restart and reenter the exam. You must complete the exam within 90 minutes of the time you started it, including any interruptions. There are no make-up exams.

How we will Communicate:

I will communicate with you through Blackboard announcements, global emails sent to the whole class and virtual office hours via Blackboard Collaborate. I may reach out to you via a voice call for something urgent. Your best way to communicate directly with me is via email to msgarcia4@utep.edu. I teach many classes and have many students, so please identify your **course number** and a **message topic** clearly in the Subject line of your email. A good example email Subject line would be:

Subject: OSCM 3322 – Question about Exam 1 Grades

If you do not include this information in the Subject line of your message, it may significantly delay my response. I will do my best get back to you within 1 business day.

Netiquette Guidelines:

Netiquette is a set of rules for behaving properly online. We must establish and maintain a safe online learning environment. All opinions and experiences, no matter how different or controversial they may be perceived, must be respected in a tolerant spirit of academic discourse. You are encouraged to comment, question, or critique an idea but you are not to dismiss or attack any individual. Working as a community of learners, we will build a polite and respectful course community.

The following netiquette tips will enhance the learning experience for everyone in this course:

- Do not dominate any discussion.
- Give other students the opportunity to join in the discussion.
- Do not use offensive language. Present ideas appropriately and professionally.
- Be cautious in using Internet language. For example, do not capitalize all letters since this suggests shouting. Popular emoticons, such as 😊, can be helpful to convey your tone but do not overdo or overuse them.



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- Avoid using vernacular or slang language. This could possibly lead to misinterpretation.
- Never make fun of someone's ability to read or write.
- Share tips with other students.
- Keep an "open-mind" and be willing to express even your minority opinion. Minority opinions will be respected.
- Think, pause, and edit before you push the "Send" button.
- Do not hesitate to ask for feedback.
- Be careful using humor – your perception of what is funny may be very different from someone else's.

Grading Policy:

10 %	First Regular Exam	A =	numerical grade ≥ 90
15 %	Second Regular Exam	B =	$80 \leq$ numerical grade < 90
15 %	Third Regular Exam	C =	$70 \leq$ numerical grade < 80
15 %	Final exam	D =	$60 \leq$ numerical grade < 70
10 %	Participation and Engagement	F =	numerical grade < 60
35 %	Homework, Quizzes and other assignments		

COURSE POLICIES

1. Electronic Devices

All electronic devices (cell phones, tablets, camera containing devices, etc.) should be completely turned off during exams and should not be in the hands of students at any time during an exam. There will be absolutely no texting, phone calls, or social media interaction during exams. Such activity will be captured and recorded by Respondus Monitor and will constitute grounds for disqualifying an exam attempt, resulting in a grade of zero.

2. Academic Integrity

Cheating is unethical and unacceptable. Using information or original wording in a paper, assignment or discussion board without giving credit to the source of that information or wording is **plagiarism**, and is absolutely unacceptable. Do not submit work under your name that you did not do yourself. You may not submit work for this class that you did for another class. If you are found to be cheating or plagiarizing, you will be subject to disciplinary action, per UTEP catalog policy. Refer to <https://www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html> for further information.

3. Participation and Engagement

Just as it would be in a face-to-face class setting, your personal participation and engagement in class activities is essential to your success in this class, and will be worth 10% of your overall grade. Your level of participation and engagement will be determined by:

- Completion of all class assignments
- Completion and level of engagement demonstrated in class discussion board posts
- Viewing of lecture video series as determined by "Lecture Keys."

In each video lecture series (one associated with each text chapter), I will embed or mention a Lecture Key – a word, phrase or number, that is unique to that lecture series, at some random point in the lecture. I will post assignments calling for those lecture keys, as part of your participation and engagement score.

4. Homework

There will generally be one homework assignment for each text chapter, taken from material previously covered in class. Please note that you should complete and turn in homework **exclusively through Blackboard**. Homework will not be accepted via hardcopy, email, or text messages and cannot be turned



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in after its due date. If you expect to be out-of-pocket, make sure you will be able to do the homework before its due date. No late assignments will be accepted. Unless specifically stated otherwise in a homework assignment, **all homework is a strictly individual, non-group, non-collaborative task.**

5. Quizzes

There will generally be one short reading quiz for each text chapter, taken from material that will be covered in the days to follow. These reading quizzes are structured to compel and reward you for reading ahead in the text in preparation for upcoming lectures. Reading quizzes will be administered through Blackboard.

6. Need for Assistance

If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the Center for Accommodations and Support Service (CASS) website at <https://www.utep.edu/student-affairs/cass/>

7. Other Student Services

University Writing Center: <http://uwc.utep.edu/index.php>

Sexual Harassment Guide for students: <https://www.utep.edu/titleix/Filing-a-Complaint.html>

University Counseling Center: <https://www.utep.edu/student-affairs/counsel/>, 747-5302, 202 Union West; walk-ins encouraged.

Student Health and Wellness Center: <https://www.utep.edu/chs/shc/>, 747-5624. Many services free to students paid for through student health fee.

Student Engagement and Leadership Center: <https://www.utep.edu/student-affairs/selc/>, 106 Union West, 747-5670. Includes study space with workstations; family friendly room with lactation space.

University Career Center: <https://www.utep.edu/student-affairs/careers/>, 103 Union West, 747-5640.

Mine Tracker: <https://minetracker.utep.edu/>. Events, news and organizations.

8. Campus Carry:

Persons who hold a Concealed Handgun License can lawfully carry their gun into a UTEP classroom as long as it remains concealed. Open carry remains prohibited on campus. Should you feel someone is intentionally displaying a gun (or any other weapon for that matter), do not hesitate to call Campus Police (ext. 5611) or 911. For information on campus concealed carry, see <https://www.utep.edu/campuscarry/>. For more information on overall campus safety, see:

<https://www.utep.edu/student-affairs/dean-of-students-office/student-emergency/index.html>

Please note that the GBC is a designated **Campus Carry Exclusion Zone** – a property leased by the University which has existing tenant leases *prohibiting weapons*. For more on Exclusion Zones see: <https://www.utep.edu/campuscarry/exclusion-zones/index.html>



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Class Hours: 100% Online, Asynchronous

Detailed Course Outline:

Week	Day	Date	Subject	Discussion	HW
1	Tue	Aug 25	Class Intro Chapter 1	Expectations for the course, Syllabus Introduction to Production Systems	
	Thurs	Aug 27	Chapter 2 Reading Quiz 1	Manufacturing Operations Chapters 1, 2, on Blackboard	
2	Tue	Sep 1	Chapter 2 Problems/Activity Reading Quiz 2	Manufacturing Operations Chapter 3, on Blackboard	#1 - Ch 2
	Thurs	Sep 3	Chapter 3	Manufacturing Models and Metrics	
3	Tue	Sep 8	No Class Reading Quiz 3	Labor Day Holiday Chapter 4, on Blackboard	
	Thurs	Sep 10	Chapter 3 Problems/Activity	Manufacturing Models and Metrics	#2 - Ch 3
4	Tue	Sep 15	Chapter 4 Reading Quiz 4	Introduction to Automation Chapter 7 on Blackboard	
	Thurs	Sep 17	Chapter 7	Numerical Control	#3 – Ch 7
5	Tue	Sep 22	Exam #1 Chapter 8 Reading Quiz 5	90-minute exam covers Chapters 1-4,7 Industrial Robotics Chapter 8, on Blackboard	Take anytime from Noon, Sep 22 to Noon, Sep 23
	Thurs	Sep 24	Chapter 8 Problems/Activity	Industrial Robotics	#4 – Ch 8
8	Tue	Sep 29	Chapter 9 Reading Quiz 6	Discrete Control Using PLCs, PCs Chapter 9, on Blackboard	
	Thurs	Oct 1	Chapter 9 Problems/Activity	Discrete Control Using PLCs, PCs	#5 – Ch 9
9	Tue	Oct 6	Chapter 10 Reading Quiz 7	Material Transport Systems. Chapter 10, on Blackboard	
	Thurs	Oct 8	Chapter 10 Problems/Activity	Material Transport Systems.	#6 – Ch 10
10	Tue	Oct 13	Chapter 11 Reading Quiz 8	Storage Systems Chapter 11, on Blackboard	
	Thurs	Oct 15	Chapter 11 Problems/Activity	Storage Systems.	#7 – Ch 11
11	Tue	Oct 20	Exam #2 Chapter 12 Reading Quiz 9	90-minute exam covers Chapters 8-11 Automatic ID and Data Capture Chapter 12 - on Blackboard	Take anytime from Noon, Oct 20 to Noon, Oct 21
	Thurs	Oct 22	Chapter 12 Problems/Activity	Automatic ID and Data Capture	#8 – Ch 12
12	Tue	Oct 27	Chapter 13 Reading Quiz 10	Overview of Manufacturing Systems Chapters 13, 14 on Blackboard	
	Thurs	Oct 29	Chapter 14	Single-station Manufacturing Cells	
13	Tue	Nov 3	Chapter 14 Problems/Activity Reading Quiz 11	Single-station Manufacturing Cells Chapter 14, on Blackboard Chapter 15, on Blackboard	#9 – Ch 14
	Thurs	Nov 5	Chapter 15	Manual Assembly Lines	



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15	Tue	Nov 10	Chapter 15 Problems/Activity Reading Quiz 12	Manual Assembly Lines Chapter 16, on Blackboard	#10 – Ch 15
	Thurs	Nov 12	Chapter 16	Automated Production Lines	
16	Tue	Nov 17	Exam #3 Reading Quiz 13	1 hour exam covers Chapters 12-16 Chapter 17, on Blackboard	Take anytime from Noon, Nov 17 to Noon, Nov 18
	Thurs	Nov 19	Chapter 17	Automated Assembly Systems	
17	Tue	Nov 24	Chapter 18 Reading Quiz 14	Cellular Manufacturing Systems Chapters 18,19, on Blackboard	
	Thurs	Nov 26	Chapter 19	Flexible Manufacturing Systems	
18	Tue	Dec 1	Chapter 26 Reading Quiz 15	JIT and Lean Production Chapter 26, on Blackboard	
	Thurs	Dec 3	Class Wrap-up	Last day of class!	
19	Tue	Dec 8	Final Exam	1 hour exam covers Chapters 17-19,26 + selected comprehensive questions	Take anytime from Noon, Dec 8 to Noon, Dec 9

9. Student Responsibility

Individual students must operate with integrity in their dealings with faculty and other students; utilize learning materials with appropriate attention and dedication; maintain engagement when challenged by difficult learning activities; contribute to the learning of others; and perform to standards set by the faculty.

Note: This is a tentative syllabus and the Professor reserves the right to make appropriate changes.



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Fall 2020 Academic Calendar:

March 30th	FALL Registration Begins
Aug 14th	Drops for Students with Unsatisfactory Academic Standing, Insufficient Prerequisites, and Prior Grades of C in the Course
Aug 17th	Financial Aid is Disbursed
Aug 24th	Fall classes begin
Aug 24-28th	Late Registration Period (Fees are incurred)
Sept 7th	Labor Day Holiday- University Closed
Sept 9th	Fall Census Day Note: This is the last day to register for classes. If payment is not received by this day, students will be dropped.
Sept 21st	20 th Class Day Note: Students who were given a payment deadline extension will be dropped at 5:00 pm if payment arrangements have not been made.
Oct 2nd	Graduation application deadline for degree conferral
OCT 22nd	Midterm Fall 2020 Grades Due
Oct 30th	Fall Drop/Withdrawal Deadline Note: Student-initiated drops are permitted after this date, but the student is not guaranteed a grade of W. The faculty member of record will issue a grade of either W or F.
Nov 13th	Deadline to submit candidates' names for commencement program.
Nov 26-27th	Thanksgiving Holiday - University Closed.
Dec 3rd	Fall - last day of classes.
Dec 4th	Dead Day
Dec 7-11th	Fall Final Exams
Dec 12-13th	Fall Commencement
Dec 16th	Grades are Due
Dec 17th	Grades are posted to student records; students are notified of grades and academic standing