



**Advanced Production/Operations Management**  
**OSCM 3322 Fall 2017**



**Instructor:** Mr. Michael S, Garcia MSPM

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**Class Hours:** MW 9:00-10:20 a.m.

**COBA Room 304**

**Office Hours:** MW 1:00-4:30 p.m.

**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

**Lectures**

Important material from the textbook, reference books, and case studies will be covered in class. You should plan to read a lot and take careful notes. Discussion is strongly encouraged about the topics being covered.



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### Regular Exams

There will be 3 regular, non-comprehensive exams that cover class materials and chapters in the textbook taught up to the date of the last class before the exam. A regular exam must be completed within 60 minutes. On examination class days, you **MUST** come to class prepared with SCANTRON forms, an electronic calculator, and writing materials for taking an exam. These materials will not be provided to you, and you cannot leave and reenter the classroom, once an exam has begun. There are generally no make-up exams. In a specific, pre-coordinated case, an **all-essay** make-up exam may be arranged at the discretion of the Professor.

### Grading Policy:

15 %	First Regular Exam	<b>A</b> =	numerical grade $\geq 90$
15 %	Second Regular Exam	<b>B</b> =	$80 \leq$ numerical grade $< 90$
15 %	Third Regular Exam	<b>C</b> =	$70 \leq$ numerical grade $< 80$
15 %	Final exam	<b>D</b> =	$60 \leq$ numerical grade $< 70$
5 %	Attendance and Punctuality	<b>F</b> =	numerical grade $< 60$
5 %	Supply Chain News presentation		
30 %	Homework and Quizzes		

### Project

There will be a written class project requirement, in the form of a Supply Chain News/Current Events presentation. Project assignments will be determined before the end of the first week of classes. Each student is expected to contribute an equal, appropriate amount of time across the duration of the class towards this project.

## COURSE POLICIES

### 1. Electronic Devices

All electronic devices (cell phones, laptops, tablets, camera containing devices, etc.) should be completely turned off in class and should not be in the hands of students at any time during class. The Professor reserves the right to temporarily confiscate electronic devices owned by students when electronic devices create distractions or disruptions. There will be absolutely no texting, phone calls, or social media interaction during class. All students are expected and required to comply. Keep in mind that adherence to this policy is part of your participation grade, and could be worth up to 17% of your overall grade.

### 2. Academic Integrity

Cheating is unethical and unacceptable. Using information or original wording in a paper or assignment 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 <http://sa.utep.edu/osccr/academic-integrity> for further information.

### 3. Attendance and Punctuality

Attendance is valued in this class, just as it is in the workplace. Being absent or late to class sends a negative message to the Professor, just like it does to an employer, manager, or customer. You cannot make a contribution to class discussion when you are not present. Please keep in mind that missing 1 class is equivalent to missing 5 days of work.



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Class attendance is required and expected. Exam and quiz material will be partially based on lectures, therefore you are responsible for all material covered in class. Please arrive on time and take your seat quickly and quietly. Arriving late hinders all students and is considered disruptive to everyone in class.

Please keep in mind this University policy on attendance: “When in the judgment of the instructor, a student has been absent to such a degree as to impair his or her status relative to credit for the course, the instructor can drop the student from the class with a W before the course drop deadline or with a grade of F after the course drop deadline.” The instructor reserves the right to raise or lower student’s grade based on the quality and quantity of the student’s participation.

#### 4. Homework

Please note that you should complete homework on Blackboard. Homework cannot be turned in after its due date. If you expect to miss class, be sure you will be able to do the homework before its due date. No late assignments will be accepted.

#### 5. Exams/Quizzes

Exams and quizzes will be taken from any material discussed in class. Some quizzes may be administered through Blackboard with specific/recurring due dates. You are responsible for bringing SCANTRON forms and a calculator to the exam/quiz as you may need to solve quantitative questions. A missed exam/quiz will result in a score of 0 (zero) for that exam/quiz. Graded exams/quizzes will be returned during the following class. Do not discard them - they are a critical record if there is a discrepancy later. There are no make-up quizzes. In a specific, pre-coordinated case, an all-essay make-up exam may be arranged at the discretion of the Professor.

#### 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](mailto: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 <http://sa.utep.edu/cass>

#### 7. Other Student Services

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

Sexual Harassment Guide for students: <http://admin.utep.edu/Default.aspx?tabid=43881>

University Counseling Center: <http://sa.utep.edu/counsel/>, 747-5302, 202 Union West; walk-ins encouraged.

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

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

University Career Center: <http://sa.utep.edu/careers>, 103 Union West, 747-5640.

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



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### 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 more information on campus concealed carry, see <http://sa.utep.edu/campuscarry/>. For more information on overall campus safety, see <http://admin.utep.edu/emergency>.

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 information on Campus Carry Exclusion Zones see: <http://sa.utep.edu/campuscarry/exclusion-zones>

### 9. Student Responsibility

Individual students must operate with integrity in their dealings with faculty and other students; engage 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.

**See Detailed Class Outline on Next Page!**



# Advanced Production/Operations Management

## OSCM 3322 Fall 2017



**Class Hours: MW 9:00–10:20 a.m.**

**COBA Room 304**

### Detailed Course Outline:

Week	Day	Date	Subject	Discussion	HW
1	Mon	Aug 28	Syllabus Chapter 1	Expectations for the course Introduction to Production Systems	
	Wed	Aug 30	Chapter 2 <b>Reading Quiz 1</b>	Manufacturing Operations Chapters 1, 2, on Blackboard	
2	Mon	Sep 4	<b>No Class</b> <b>Reading Quiz 2</b>	<b>University closed for National Holiday</b> Chapter 3, on Blackboard	
	Wed	Sep 6	Chapter 2 Problems/Activity	<b>Review / Assign Class Project!</b> Manufacturing Operations	#1 - Ch 2
3	Mon	Sep 11	Chapter 3 <b>Reading Quiz 3</b>	Manufacturing Models and Metrics Chapter 4, on Blackboard	
	Wed	Sep 13	Chapter 3 Problems/Activity	Manufacturing Models and Metrics	#2 - Ch 3
4	Mon	Sep 18	Chapter 4 <b>Reading Quiz 4</b>	Introduction to Automation Chapters 7 on Blackboard	
	Wed	Sep 20	Chapter 7	Numerical Control	#3 – Ch 7
5	Mon	Sep 25	<b>Exam #1</b> Chapter 8 <b>Reading Quiz 5</b>	<b>1 hour exam covers Chapters 1-4,7</b> Industrial Robotics Chapter 8, on Blackboard	
	Wed	Sep 27	Tennis Ball Exercise	In-Class Exercise	#4 – from class activity
8	Mon	Oct 2	Chapter 8 <b>Reading Quiz 6</b>	Industrial Robotics Chapter 9, on Blackboard	
	Wed	Oct 4	Chapter 9	Discrete Control Using PLCs, PCs	#5 – Ch 9
9	Mon	Oct 9	Chapter 9 Problems/Activity <b>Reading Quiz 7</b>	Discrete Control Using PLCs, PCs Chapter 10, on Blackboard	
	Wed	Oct 11	Chapter 10	Material Transport Systems.	#6 – Ch 10
10	Mon	Oct 16	Chapter 10 Problems/Activity <b>Reading Quiz 8</b>	Material Transport Systems. Chapter 11, on Blackboard	
	Wed	Oct 18	Chapter 11	Storage Systems	#7 – Ch 11
11	Mon	Oct 23	Chapter 11 Problems/Activity <b>Reading Quiz 9</b>	Storage Systems. <b>+ In-Class Review</b> Chapter 12 - on Blackboard	
	Wed	Oct 25	<b>Exam #2</b> Chapter 12	<b>1 hour exam covers Chapters 8-11</b> Automatic ID and Data Capture	
12	Mon	Oct 30	Chapter 12 <b>Reading Quiz 10</b>	Automatic ID and Data Capture Chapters 13, 14 on Blackboard	
	Wed	Nov 1	<b>Guest Speaker</b>	Mr. Gutierrez - Owner	#8 – Ch 12



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13	Mon	Nov 6	Chapter 14 Problems/Activity <b>Reading Quiz 11</b>	Single-station Manufacturing Cells Chapter 15, on Blackboard	
	Wed	Nov 8	Chapter 15	Manual Assembly Lines	#9 – Ch 14
15	Mon	Nov 13	Chapter 15 Problems/Activity <b>Reading Quiz 12</b>	Manual Assembly Lines Chapter 16, on Blackboard	
	Wed	Nov 15	Chapter 16	Automated Production Lines	#10 – Ch 15,16
16	Mon	Nov 20	Chapter 16 Problems/Activity <b>Reading Quiz 13</b>	<b>+ In-Class Review</b> Chapter 17, on Blackboard	
	Wed	Nov 22	<b>Exam #3</b>	<b>1 hour exam covers Chapters 12-16</b>	
17	Mon	Nov 27	Chapter 17 <b>Reading Quiz 14</b>	Automated Assembly Systems Chapters 18,19, on Blackboard	
	Wed	Nov 29	Chapter 18	Cellular Manufacturing Systems	#12 – Ch 26
18	Mon	Dec 4	Chapter 19 <b>Reading Quiz 15</b>	Flexible Manufacturing Systems Chapter 26, on Blackboard	
	Wed	Dec 6	Chapter 26	JIT and Lean Production	
			Chapter 26 Problems/Activity	JIT and Lean Production <b>+ In-Class Review</b> <b>Last day of class!</b>	
19	Wed	Dec 13	<b>Final Exam</b> <b>10:30-11:50am</b>	<b>1 hour exam covers Chapters 17-19,26</b>	