

**WILLIAM PATERSON UNIVERSITY
CHRISTOS M. COTSAKOS COLLEGE OF BUSINESS**

COURSE SYLLABUS

Course Number & Title:	MGT4310 – Production and Operations Management
Semester:	Winter 2020
Professor:	Jim Samuel
Office:	By appointment - As Posted on Bboard /emailed.
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Office hours:	By appointment

COURSE DESCRIPTION

This is the introductory course in Production and Operations Management. It surveys the major topics and issues in the management of the production function of a business enterprise. Specifically, it provides a fundamental understanding of solving the management issues that personnel deal with operations of manufacturing and service oriented firms. Topics to be covered in the course include but are not limited to: Operations Functions, Quality Management, Quality Control, Process Strategy, Service Operations Design, Forecasting, Supply chain management, Layout Strategy, Capacity planning, Inventory Management, and Quantitative models such as linear programming, waiting line models and Project Management.

COURSE OBJECTIVES

- Develop a basic knowledge and understanding of basic Production & Operations Management (POM) concepts and their applications
- Explain how a firm's operations function is managed
- Introduce a number of Operations Management tools that can be applied in job settings
- Enhance skills needed to solve complex, real- business problems in Production and Operations Management

COURSE PREREQUISITES

MGT 200, DMATH 1170, ECON 210 and ECON 211

COURSE MATERIALS

1. Heizer, J. and Render, B. (2011). Operations Management, 11th. Edition. (Required)
ISBN-10: 013-292114-6; ISBN-13: 978-0-13-292114-5
2. Scientific Calculator (Required for selected topics)
3. Lecture Notes, Powerpoints, and additional readings will be available on Blackboard. Please visit the site every other day.

STUDENT LEARNING OUTCOMES

After the completion of the course, students will be able to:

- 1) Introduction to the course, Operations and Productivity
 - a) Define operations management and productivity measures
 - 2) Operations Strategy and Competitiveness
 - a) Define OM's role in business and relationship to strategy development, and identify competitive priorities for Operations function
 - 3) Project Management
 - a) Describe project management objectives, the project life cycle
 - b) Diagram networks of project activities, estimate the completion time of a project, and compute the probability of completing a project by a specific time.
 - 4) Forecasting
 - a) Identify principles of forecasting, types of forecasting methods and their characteristics
 - b) Use various methods of forecasting and compute forecast accuracy
 - 5) Design of Goods & services & Process Strategies
 - a) Define product design and its strategic impact on organization
 - b) Using break-even analysis as a tool in selecting between product alternatives
 - c) Describe and use techniques for decision making
 - 6) Managing Quality
 - a) Explain the meaning of Total Quality Management (TQM) and identify features of the philosophy and tools used for solving quality problems
 - 7) Statistical Process Control
 - a) Describe categories of Statistical Quality Control and use statistical tools in measuring quality characteristics
 - b) Identify the differences between various control charts and describe the usage
 - 8) Capacity Planning and Facility Location
 - a) Describe relationship between capacity planning and location
 - b) Describe the decision support tools used for capacity planning and location analysis
 - 9) Facility Layout
 - a) Identify and describe different types of layouts and solve problems
 - 10) Supply Chain Management
 - a) Explain the strategic importance of supply chain management
 - b) Identify the six supply chain strategies
 - c) Explain the issues and opportunities in supply chain management
 - 11) Inventory Management
 - a) Describe the objectives of inventory management, different models and use of inventory, and calculate inventory
 - 12) Linear Programming
 - a) Formulate Linear Programming Models
 - b) Solution to a Linear Programming Problem.
- Optional Topics:
- 13) Simulation
 - a) Explain the merits and demerits of simulation
 - b) Apply the steps of Monte Carlo simulation to practical applications
 - 14) Waiting-Line Models
 - a) Understand characteristics of a Waiting-Line System
 - b) Calculate Queuing Costs

NOTE: All structure is indicative and details on any /all topics in this document may be adjusted by the instructor during the course. Students will be updated on relevant changes if any.

Schedule

Phase 1

Part One: Introduction, Operations Strategy and Competitiveness

Phase 2

Part Two: Project Management, Forecasting, Design & Quality

Phase 3

Part Three: Quality, Statistical Process Control, Capacity & Facility

Part Four: Supply Chain Management, Inventory and Linear Programming / simulations

A schedule included detailed grading schema, with all assignment weights, will be posted on Blackboard by the first day of the course – Students are required to download, review and abide by the same for the duration of the course.

Academic Integrity Policy

The highest ethical standards of honesty and good conduct are expected. Students are expected to conduct themselves in a professional, mature and ethical manner. Any form of disrespect among or between students and faculty will not be tolerated. Plagiarism is not permitted at any time. The textbook/Handout and Internet are great sources of information, however, “cutting and pasting” or copying that text on a paper, test or exercise is an act of plagiarism. Proper citations are always required.

The academic community assumes that work of any kind - whether a research paper, a critical essay, a homework assignment, a test or quiz, a computer program, or a creative assignment in any medium - is done, entirely and without assistance, by and only for the individual(s) whose name(s) it bears. If joint projects are assigned, then the work is expected to be wholly the work of those whose names it bears. If the work contains facts, ideas, opinions, discoveries, words, statistics, illustrations, or other elements in any media form (including electronic) that are beyond the assumption of being common knowledge, these must be fully and appropriately acknowledged, following a prescribed format for doing so. They may be acknowledged through footnotes, end notes, citations, or whatever other means of accreditation is acceptable according to the format prescribed in that particular field of study. Students bear the ultimate responsibility for implementing the principles of academic honesty. Students must understand that it is not enough to identify the source of quoted material; it is also necessary to indicate when one is paraphrasing (restating in other words) material found in a source. Thus, the use of others’ ideas as well as their words needs to be acknowledged.

Note: Ignorance of the rules is not an acceptable excuse for disobeying them. Any student who attempts to compromise or devalue the academic process will be sanctioned. Academic sanctions in this class will range from an F on the assignment to an F in this course, and subject to case specifics, further action may be taken by WPU College or concerned authorities. **Ultimately, all laws must be respected and abided by.**

ASSIGNMENTS

- All assignment **MUST** be submitted via a Windows compatible software in exactly the format that is specified. Example – If an Excel Spreadsheet is required in a .xls format, another format cannot be used.
- Online documents such as Google Drive (or MS Office online documents /links) spreadsheets /PowerPoints /other are **NOT** acceptable forms of assignment submission. Files must be discrete attachments uploaded as digital files (not links) onto Blackboard.

- There will be several assignments and you will receive detailed instruction regarding assignments during the semester. It is your responsibility to ensure that you understand completely all the requirements of any assignment.
- **ALL assignments (unless otherwise instructed specifically) must be submitted via Blackboard ONLY. Emailed submissions are not permitted and will not count, unless specifically preapproved.**
- Assignments are generally posted in the course site on “Blackboard”, emailed to your WPUID and/or discussed in class or lab.
- Make sure that you understand the requirements of the assignments before you leave the class. Arrange to see the instructor for clarification regarding your assignment if you have any questions.
- **Each submission file must be saved by including your last name in the first part (e.g.: Smith.Assignmt3.Docx) and follow the “submit by” due dates posted on Blackboard (NOT the availability).**
- Save all files on your disk and make a back-up copy of all files for future reference. Please keep copies of all returned assignments. All assignments are due on the dates stated. No assignment is accepted after an assignment has been graded.
- A missed assignment will count as a zero.
- Late assignments may not be accepted or face a significant grade reduction penalty.

USING E-MAIL:

You must become familiar with, and be able to use, your WPU e-mail (Use your WPU email IDs only to reach me on my email ID, STRICTLY no IMs / Blackboard messages etc;). Please include your **NAME, Date & Course-section ID** in the subject line of your email. You must use a unique subject line for each distinct email query. **DO NOT** use “reply” to a generic announcement as such replies are difficult to track and you may not receive a reply.

Faculty /TAs is/are not responsible to reply to emails which do not follow above instructions.

ATTENDANCE POLICY & CLASS PARTICIPATION

- Class participation (threaded discussions if online) /weekly attendance is an important element of the course, so make every effort to attend /participate. To avoid disruption, you should arrive to the classroom (or submit your online posts/assignments) on time.
- Any evidence of cheating in the attendance sign on sheet /weekly participation schema will be handled according to the academic integrity guidelines established by the College.
- If you miss class /weekly post, it is entirely your responsibility to make up for it in all possible ways - find out about any announcements or assignments you may have missed. It is not required to email the professor if you miss a class. *The professor must not be expected to repeat material or make any concessions for missed classes /weekly discussions.
- Laptops, cell phones, pagers and other electronic devices should be turned off during class and especially during exams. Cell phones cannot be used in the classroom /lab, except for a significant emergency.
- Students should refrain from engaging in any kind of distractive behavior during class. It is better to leave the classroom politely than to disrupt the decorum of the classroom – no exceptions.
- Students are expected to spend significant time outside the lectures doing homework, reading the assigned materials, preparing extensively for each class session and checking the course web site.
- There will be a negative scoring mechanism if the student is absent for more than 2 sessions (In-class or Online, cumulative) for a one-day class session per week format, and for more than 4 sessions for a two-day class session per week format. Students may be disqualified from the course for more than 3 absences.
- **PARTICIPATION:** Students are expected to participate regularly and actively in classroom/ online discussions; without substantial participation, you cannot get an A in this class. Read the material and respond to comments and questions in class. You are also encouraged to share your experiences in class discussions and assignments. However, please maintain confidentiality and acknowledge personal privacy in communication of personal or professional information about one’s employer, other students, and their employers.

ONLINE ETIQUETTE / NETIQUETTE

When taking a course online, it is important to remember several points of etiquette that will enable respectful communication between students and their instructors.

1. Avoid language that may come across as strong or offensive. Language can be easily misinterpreted in written communication. If a point must be stressed, review the statement to make sure that an outsider reading it would not be offended; then post the statement. Humor and sarcasm may easily be misinterpreted as well, so try to be as matter-of-fact and professional as possible.
2. An online classroom is still a classroom. Though the courses may be online, appropriate classroom behavior is still mandatory. Respect for fellow classmates and the instructor is as important as ever.
3. Avoid impropriety of expression in any form - For example, do not write using all capital letters, because it will appear as SHOUTING.
4. Respect privacy, Example: Ask permission prior to giving out a classmate's email address or other information.
5. No inappropriate material. Do not forward virus warnings, chain letters, jokes, etc. to classmates or instructors.

NOTE: All structure is indicative and details on any /all topics in this document may be adjusted in order or content by the instructor during the course. Students will be updated on relevant changes if any.

Grading Schema

Weekly discussions /web exercises	-----	~25%
Quizzes /Exams	-----	~50%
Project / Cases analysis	-----	~25%

A 5% to 7% variation in possible, students will be updated of changes if any – Itemized details listing each of the assignments and their grading weights will be posted as a separate document called “Grading Schema” on Blackboard under the syllabus tab.

Total Points	Grade*	Percentage
930 – 1000	A	93-100%
900 – 929	A-	90-92%
870 – 899	B+	87-89%
830 – 869	B	83-86%
800 – 829	B-	80-82%
770 – 799	C+	77-79%
730 – 769	C	73-76%
700 – 729	C-	70-72%
670 – 699	D+	67-69%
600 – 669	D	60-66%
0 – 599	F	<60%

Do not make unwarranted grade requests - Scores will not be “rounded” or adjusted in any way to manipulate final letter grades. All assignments and submissions are due by 11:59PM of stated due date, usually Saturdays -please verify for each assignment.

* The schedule is tentative and may be modified as the class progresses. The instructor will inform students of any changes; however, it is the student’s responsibility to keep up with any modifications made.