

**OPSM 4820-001 - MANUFACTURING PLANNING AND CONTROL
FALL 2017**

Instructor:	Dr. Divesh Ojha	Class Room:	BLB 270
Office:	BLB 385C	Class Time:	Th 6:30 PM-9:20 PM
Telephone:	940-565-2862	Office Hrs:	Tu, Wed 6:30 PM-8:00 PM
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Text: Jacobs, F.R., Berry, W.L., Whybark, D.C., and Vollman, T.E., Manufacturing Planning and Control For Supply Chain Management, Sixth Edition, McGraw-Hill Irwin, 2011 (Sixth Edition).

Additional Readings may be assigned to various topics throughout the semester.

OPSM 4820 – Manufacturing Planning and Control for Supply Chain Management: 3hrs.
In-depth coverage of the function of production planning and control, including such topics as forecasting, materials requirements planning, capacity planning, master production scheduling, forecasting, production activity planning, and control and project management. Prerequisites(s): OPSM/MGMT 3830.

Course Objectives:

- 1) To introduce the student to a broad array of topics that fall under the umbrella of manufacturing planning and control; this includes an exposure to the terminology, concepts, principles, etc. associated with the area.
- 2) To develop a basic understanding of traditional planning techniques used by tactical and operational managers in real world organizations.
- 3) To introduce students to new approaches for planning and control.

Grading:

Exam 1	15.0%
Exam 2	20.0%
Exam 3	25.0%
Project	20.0%
Reading summary	10.0%
Discussion Leaders	2.0%
Attendance/Tardiness, policy conformance	
Class Participation & Assignments	<u>8.0%</u>
	100.0 %

EXAMS: There will be three examinations each may consist of problems, short answer questions, matching, essay questions, and/or multiple choice. Exams will come from class lectures and discussions, assigned readings, and other materials covered in the course

(overhead slides, hand-outs, readings, cases, videos, etc.). **There will be no make-up exams except as indicated in UNT policy on *Authorized Absences* and *Absence for Religious Hoildays* in the Undergraduate Catalog, e.g., prior arrangements have been made with the instructor or there is documented evidence of an emergency creating the absence. Exams are not cumulative. *The final will not be given prior to the scheduled time.**

GROUP PROJECT - Each project team is required to carry out a manufacturing planning and control project (MPC), submit a report, and make a presentation. In order for such a major undertaking to be successful, each group needs to select an organization (either a service company or a manufacturing concern or a government agency or a nonprofit institution), make initial contacts, visit the facility, and discuss with one or more of the managers there to understand the MPC process. Relevant information gathered should be carefully analyzed and synthesized to gain insights into the MPC so that meaningful suggestions for improvement can be made.

The project report can be prepared with the aid of the textbook, class notes, and handouts. Use of personal experience, the Internet, and information from other sources should prove helpful and is encouraged. The issues addressed in the paper should be comprehensive and consist of the following:

- (1) Description of the organization. This includes the name, location, and brief history of the firm, the type of industry it is in, the organizational structure, the variety of products made, the volume of each product, the transformation process(es) employed, the types of equipment used, the facility layout, the production strategy adopted, and the labor requirements (for example, skilled and unskilled workforces). Moreover, any MPC-related corporate strategy that is being implemented should be reported as well.
- (2) Description of the MPC function. This includes the size, structure, organizational position, and objectives of the MPC department, the variety of goods, parts, and components bought, the purchase volumes, the number and types of suppliers used, and the information technologies employed.
- (3) Description of the MPC processes, and programs that are currently in place. These include, but are not limited to demand management, sales and operations planning, master production schedule, material requirements planning, capacity requirements planning, scheduling, distribution requirements planning. Any forms, tables, or graphs used in the MPC system should be documented.
- (4) Analysis and discussion of the existing practices. This includes a critical review of the MPC process in light of all the information collected, identification of its strengths as well as weaknesses, description of concerns raised by the individual(s) interviewed, and initiatives being taken within the organization to address the problems encountered.
- (5) A day in the life of the interviewee. This includes the MPC professional's name, job title, contact information (such as postal mail address, electronic mail address, and work phone number), age group, salary range, educational background, and previous business experiences. In addition, it is necessary to give a detailed account of his/her current work responsibilities, allocation of time among various activities, interaction with colleagues in other functional areas, notable professional accomplishments, career developments (such as MPC related memberships (e.g. APICS, ISM) in professional societies, and participation in conferences/seminars/workshops), future goals, and so on.

- (6) Conclusion and recommendations. This includes a succinct summary of the project undertaken, major findings of the study, specific recommendations for the improvement of the MPC system, and challenges facing the MPC department of the company.

Each team has to submit one typewritten progress reports during the course of the semester. The required format of the submission is shown on this page. Additionally, **each team must turn in two copies of the final project report** in essay form, typewritten, double-spaced, with one-inch margins at the top, bottom, left, and right, and no more than 25 pages of text in Times New Roman font of size 12. A maximum of 15 pages of attachments may be included for clarification purposes. Strict adherence to the guidelines in the *APA Style Manual* is required in preparing the report, so be sure to consult the following book, which is available in the University libraries:

American Psychological Association. *Publication manual of the American Psychological Association* (6th ed.) Washington, DC: American Psychological Association, 2010.

Particular attention will be paid to the following areas when a project report is evaluated: content of materials, organization of paper, improvement recommendations made, clarity of presentation, writing style and format, visual illustrations, as well as typographical and grammatical errors if any. The grade will be determined as follows:

Description of organization	15%
Description of MPC function	15%
Description of MPC initiatives and programs	20%
Analysis and discussion of MPC system	20%
A day in the life of interviewee	10%
Conclusion and recommendations	20%

Each group must present its completed project to the rest of the class. The presentation should be professional in nature with respect to appearance and style. Moreover, it should last about 20 but no more than 25 minutes.

The project presentation will be evaluated based on thoroughness of materials covered, relevance of recommendations, clarity of delivery, professionalism (such as dress and visual aids), and overall organization. Please note that each student's grade on the term project will be subject to peer evaluations. Suppose, for instance, that you receive a grade of 90% for the report and the presentation combined and get an average group assessment of 90%. Your overall project grade will then be $90\% \times 90\% = 81\%$. See Page 10 for a sample completed evaluation form.

Dropping a project member - In case an individual does not perform to the team's expectation in the research project by constantly missing group meetings, failing to provide requested information in a timely fashion, contributing work that is poorly done, or exhibiting other unprofessional behaviors, the other members may collectively decide to drop him/her from the team. However, in the interest of fairness, the five-step procedure outlined below must be closely followed:

- (1) There needs to be a unanimous agreement among all other team members that the student's performance is unsatisfactory.
- (2) The concern must be conveyed to the individual in writing and discussed with him/her in person. The written notice must be signed and dated by the rest of the group.
- (3) A copy of the above-mentioned notice has to be submitted to the instructor at the same time.
- (4) The student has one week of class time to improve his/her performance.
- (5) If no satisfactory improvement is made over the two-week period, then a final written notice of dropping the person as a member of the team will be signed and dated by the other members and given to him/her. In the meanwhile, a copy of the document must be forwarded to the instructor.

If a student is dropped from a team and not accepted by another, then he/she must undertake another research project independently. **Notice that no team members can be dropped after the second exam.**

READING SUMMARIES – Book chapters will be assigned as readings. All reading summaries should be typewritten in Times New Roman of size 12 on 8 ½ x 11 white paper. Only two single spaced pages are allowed for the summaries. Please print front and back on one sheet rather than two separate sheet. There will be class discussion based on assigned readings. *An assigned group (discussion leaders) will be leading the discussion and making the notes of the key takeaways from the discussion.* The notes from the discussion should be emailed to the entire class by the Sunday following the class meeting.

ATTENDANCE/TARDINESS, CLASS POLICY CONFORMANCE, CLASS PARTICIPATION & MISC. ASSIGNMENTS: Attendance is expected in the same manner as employees are expected to be on the job. If a student misses three classes or any part of the class without prior notification or if there is no documented evidence of an emergency, this constitutes grounds for loss of all attendance/tardiness, class participation & assignments points. Also, conformance to class policy is absolutely necessary to do well on this aspect of the grade.

In-class Group Assignment Problems: Problems will be assigned for various topic areas throughout the semester. The assignments involve completion and submission of a hard copy of the solutions by all groups at the end of class. Students may be asked to explain problems using the white board.

Business communication is important. If a student has planned business activities, i.e., interviews, personal business, etc., and he/she is concerned about loss of all attendance/tardiness, class participation and misc. assignments grade, prior communication of planned absence/tardiness will be considered for the three miss rule. The prior communication should take the form of a type written memo, E-mail, fax, etc. indicating the planned absence or tardiness.

Class participation will add to the quality of the class; consequently, students are expected to read all assigned materials prior to class and raise questions about the material presented in lectures. Volunteering related information (e.g., comments pertaining to experience, recent newspaper articles, etc.) will also add to the quality of the class. Each student should be sufficiently prepared to the extent that he or she could lead the class in a discussion about the chapter.

Points will be awarded for both individual contribution (discussion in class and presentation of solutions to class) and attendance. Misc. assignments may be assigned to provide an additional learning perspective about a course topic.

NOTE: Chapters should be read at least once before class and at least twice and probably three times (conceptual and examples) before tests.

STUDENTS WITH DISABILITIES:

THE COLLEGE OF BUSINESS ADMINISTRATION COMPLIES WITH THE AMERICANS WITH DISABILITIES ACT IN MAKING REASONABLE ACCOMMODATION FOR QUALIFIED STUDENTS WITH DISABILITY.

IF YOU HAVE AN ESTABLISHED DISABILITY AS DEFINED IN THE AMERICANS WITH DISABILITIES ACT AND WOULD LIKE TO REQUEST ACCOMMODATION, PLEASE SEE ME AS SOON AS POSSIBLE. MY OFFICE HOURS AND OFFICE NUMBER ARE SHOWN ON THIS SYLLABUS.

ACADEMIC DISHONESTY:

If you engage in academic dishonesty related to this class, you will receive a failing grade on the test or assignment, and a failing grade in the course. In addition, the case will be referred to the Dean of Students for appropriate disciplinary action.

Academic dishonesty includes cheating and plagiarism.

The term "cheating" includes, but not limited to, (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or (3) the acquisition, without permission, of tests of other academic material belonging to a faculty member or staff of the university.

The term "plagiarism" includes, but not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency in the selling of term papers or other academic materials. (Source: Code of Conduct and Discipline at the University of North Texas.)

STUDENT EVALUATION OF TEACHING EFFECTIVENESS (SETE)

Purpose: The SETE's purpose is to provide a measure of teaching effectiveness as perceived by students. It is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students and consider the SETE to be an integral part of your participation in this class.

Access: Students may access the SETE at <https://sete.unt.edu> or at <https://my.unt.edu> and selecting the SETE banner.

TENTATIVE READING SCHEDULE

Date/Day	Chapter Number	Chapter Name
Thursday, August 31, 2017	Syllabus distribution/Group formation etc.	-----
	Chapter 1	Manufacturing Planning and Control
Thursday, September 07, 2017	Chapter 1A	Enterprise Resource Planning (ERP)
	Chapter 2	Demand Management
Thursday, September 14, 2017	Chapter 4	Sales and Operations Planning
Thursday, September 21, 2017	Chapter 4	Sales and Operations Planning
	Chapter 5	Master Production Scheduling
Thursday, September 28, 2017	Chapter 5	Master Production Scheduling
Thursday, October 05, 2017	EXAM # 1	
Thursday, October 12, 2017	Chapter 6	Material Requirements Planning
Thursday, October 19, 2017	Chapter 6A	Advanced Concepts in MRP
Thursday, October 26, 2017	Chapter 7	Capacity Planning and Management
Thursday, November 02, 2017	Chapter 7	Capacity Planning and Management
Thursday, November 09, 2017	EXAM # 2	
Thursday, November 16, 2017	Chapter 8	Production Activity Control
Thursday, November 23, 2017	Thanksgiving Break	
Thursday, November 30, 2017	Chapter 8A	Advanced Scheduling
	Chapter 10	Distribution Requirements Planning
Thursday, December 07, 2017	Chapter 10	Distribution Requirements Planning
Thursday, December 14, 2017	FINAL EXAM (6:30 PM to 8:30 PM)	

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Peer and Self Evaluation Form for Group Project

Instruction: Please rate each of your fellow team members with respect to the criteria listed in the table below.
 Be honest, reasonable, and fair.

Group number: 1

	Amy Becker	Chris Drake	Eileen Flay	Gene Hanks	Yourself
Meeting attendance (15%)	15%	12%	13%	15%	14%
Punctuality of work (15%)	14%	15%	12%	15%	13%
Fair share of work (30%)	29%	30%	27%	30%	29%
Quality of work (40%)	38%	37%	35%	40%	39%
Total (100%)	96%	94%	87%	100%	95%

Name: _____

Signature: _____

Date: _____

Comments: _____
