

**OPSM 4820-001 - MANUFACTURING PLANNING AND CONTROL
FALL 2022**

Instructor: Dr. Divesh Ojha
Office: BLB 385C
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Class Room: BLB 090
Class Time: Th 6:30PM - 9:20PM
Office Hrs: Mo 11:30 to 12:30 PM in
385C and via Zoom by appointment

E-Mail: Use **CANVAS e-mail** only
FAX#: 940-565-4394

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:

Assigned reading summaries	15%
Online Review Quizzes	10%
Research Participation	10%
Online Discussion lead/notes	5%
Exam 1	6.0%
Exam 2	7.0%
Exam 3	7.0%
Project	30.0%
Attendance/Tardiness, policy conformance	
Class Participation & Assignments	<u>10.0%</u>
	100.0 %

LATE WORK POLICY: There is no credit for late work

EXAMS: There will be three online 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.

ONLINE REVIEW QUIZZES: The online quizzes will be posted on CANVAS.

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 – The reading list is provided on CANVAS along with the SUMMARY SUBMISSION LINKS . 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. **Summaries have to be submitted by the deadline using the link available on the CANVAS.**

SUMMARY DISCUSSIONS: Teams will be assigned to lead online discussion of summaries. The team leading a discussion **should send notes via CANVAS email by the first Sunday following the class discussion.**

RESEARCH PARTICIPATION

Research Participation (10 points). As part of your learning experience in this course, you will be required to participate in research studies to gain experience with the research process and learn about methods and scaling techniques. Your participation in these research studies will make up **10%** of your final class grade.

To fulfil the requirement, you **must** create an account on the **College of Business REP** webpage—unt-cob.sona-systems.com—which allows you to browse and sign up for available studies. **DO NOT** sign up for the SONA in the Psychology Department! Use the **CoB SONA** link provided above.

The amount of credit assigned is based on the length of time the study takes to complete and whether you participate online or in-person in the COB behavioral Lab (BLB 279):

Online Studies

- <15 minute studies = 1 credit
- 15-30 minute studies = 2 credits
- >30 minute studies = 3 credits

In-Person Lab Studies (Behavioral Lab - BLB 279)

- <15 minute studies = 3 credit
- 15-30 minute studies = 4 credits
- >30 minute studies = 5 credits

To fulfill the 10% course requirement, you must earn a total of **10 REP credits** throughout the semester (i.e., 1 credit = 1 percent of your final grade). All credits earned will be added to your final course grade at the end of the semester. Additional extra credit points may be available at my discretion.

- ➔ To sign up, please visit unt-cob.sona-systems.com. If you have questions, DO NOT contact me. Instead, contact the SONA managers via email at RCoBRep@unt.edu. Your questions will be addressed promptly, usually within 24 hours.

Please Note:

- 1) Access the studies early and often to make sure you have first access to available studies. Once you sign up, the lab manager will update you periodically about newly posted studies.
- 2) Make sure you assign your credits to the correct course. This course is: **OPSM 4820 section 01**.
- 3) If you do not want to participate in the posted studies, you can complete a 2-page research article critique for 2 points of REP credit each. To do so, please email RCoBRep@unt.edu and they will assign you an article to critique.

Deadlines for Participation

Last day to participate in SONA for Fall semester: **Dec 2nd, 5:00 PM.**

Thanks in advance for your participation! Have a great semester!

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 graded items 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.

Group classwork (CANVAS submission): Classwork will be assigned for various topic areas throughout the semester. The assignments involve completion and submission of a soft copy by the deadline.

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.

DISABILITY ACCOMODATION: The College of Business Administration complies with the Americans with Disabilities Act (ADA) in making reasonable accommodation for qualified students with a disability. If you have an established disability as defined in the ADA and would like to request accommodation, please see me as soon as possible. My office location, office hours, email address, and office phone number are shown on this syllabus.

ACCEPTABLE STUDENT BEHAVIOR (Required in all UNT classes)

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable, disruptive, and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct is found at: <https://deanofstudents.unt.edu/conduct>.

Some examples of disruptive behaviors include:

- Refusal to comply with faculty or staff
- Challenges to authority
- Actions that distract the class from the subject matter and/or discussion
- Continually and persistently speaking without being recognized in the classroom or in the office
- Repeatedly leaving and entering the classroom without authorization while class is in session
- Loud, distracting, or erratic behavior inappropriate to the setting
- Answering cell phones or allowing them to continuously ring in class, or in the office
- Overt hostility, defiance, or insults on Blackboard and email
- Excessive e-mails, phone calls, and other means of communication demanding attention outside of class times or business hours

ACADEMIC INTEGRITY:

The G. Brint Ryan College of Business takes academic honesty seriously. Ethics and

integrity are important business values, essential to building trust and adhering to both professional and legal standards. Academic dishonesty destroys trust, damages the reputation and the value of the degree and is unacceptable.

According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions from admonition (a warning) to expulsion from the University.

Some of the most common examples of academic integrity violations include plagiarism or cheating, such as unauthorized assistance on examinations, homework, research papers or case analyses. Your work must be entirely your own. When working on assignments, you should not discuss your work with others unless approved by the course instructor. Group assignments should only be discussed with members assigned to your group, and all group members may be held accountable in some way for known academic integrity violations in a group assignment.

Another example of academic dishonesty relates to improper attribution. When preparing your assignments, you must cite all outside sources in the manner requested by your instructor. Copying or using material from any source prepared by or previously submitted by others, at UNT or other institutions, or downloaded from the Internet, is plagiarism. Unless directed otherwise in an assignment, large scale “cutting and pasting” from other sources, even if properly footnoted, is not appropriate. You should synthesize this material in your own words and provide a footnote.

Your instructor will specify what materials, if any, may be used on the tests and exams.

Using materials other than those permitted, talking with other individuals during the exam, individuals exchanging information about an exam when one has taken the exam and the other has not, or copying or using material from another individual’s exam is academic dishonesty and will result in a meeting to discuss academic integrity violations and potentially issue sanctions mentioned above, and may result in ineligibility for academic scholarships. The use of online assistance, such as sites commonly used for finding homework solutions, group chat, cell phones, smart watches, and similar tools during exams is not allowed for any reason unless specifically permitted. No portion of an exam may be copied or photographed without permission.

Students are expected to conduct themselves in a manner consistent with the University's status as an institution of higher education. A student is responsible for responding to a request to discuss suspected academic dishonesty when issued by an instructor or other University official. If a student fails to respond after a proper attempt at notification has been made, the University may take appropriate academic actions in the absence of the student’s participation.

EMERGENCY EVACUATION PROCEDURES FOR BUSINESS LEADERSHIP BUILDING:

- **Severe Weather** In the event of severe weather, all building occupants should immediately seek shelter in the designated shelter-in-place area in the building. If unable to safely move to the designated shelter-in-place area, seek shelter in a windowless interior room or hallway on the lowest floor of the building. All building occupants should take shelter in rooms 055, 077, 090, and the restrooms on the basement level. In rooms 170, 155, and the restrooms on the first floor.

- **Bomb Threat/Fire** In the event of a bomb threat or fire in the building, all building occupants should immediately evacuate the building using the nearest exit. Once outside, proceed to the designated assembly area. If unable to safely move to the designated assembly area, contact on or more members of your department or unit to let them know you are safe and inform them of your whereabouts. Persons with mobility impairments who are unable to safely exit the building should move to a designated area of refuge and await assistance from emergency responders. All building occupants should immediately evacuate the building and proceed to the south side of Crumley Hall in the grassy area, west of parking lot 24.

STUDENT EVALUATION OF TEACHING EFFECTIVENESS (SPOT)

Purpose: The SPOT'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 SPOT to be an integral part of your participation in this class.

COVID-19 impact on this UNT class

It is important for all of us to be mindful of the health and safety of everyone in our community, especially given concerns about COVID-19. Please contact me if you are ill, or unable to complete a scheduled, graded class task on time due to any issue related to COVID-19. It is important that you communicate with me prior to the deadline for the task as to what may be preventing you from completing it so that I may make a decision about accommodating your request in a reasonable manner that is also fair to the other students.

If you are experiencing cough, shortness of breath or difficulty breathing, fever, or any of the other possible symptoms of COVID-19 (<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider. While regular, steady work is an important part of succeeding in this class, your own health, and those of others in the community, is more important.

Here is the link to the UNT webpage on staying safe on campus during the pandemic.
<https://healthalerts.unt.edu/return>

TENTATIVE CLASS SCHEDULE

Week Starting	Chapter Number	Chapter Name	MODULES
Thursday, September 1, 2022	Syllabus distribution/Group formation etc. Chapter 1	----- Manufacturing Planning and Control	Module 1
Thursday, September 8, 2022	Chapter 1A	Enterprise Resource Planning (ERP)	Module 2
Thursday, September 15, 2022	Chapter 2	Demand Management	Module 3
Thursday, September 22, 2022	Chapter 4	Sales and Operations Planning	Module 4
Thursday, September 29, 2022	Chapter 5	Master Production Scheduling	Module 5
Thursday, October 6, 2022	EXAM # 1 (Chapters 1, 1A, 2, 4, and 5)		Module 6
Thursday, October 13, 2022	Chapter 6	Material Requirements Planning	Module 7
Thursday, October 20, 2022	Chapter 6A	Advanced Concepts in MRP	Module 8
Thursday, October 27, 2022	Chapter 7	Capacity Planning and Management	Module 9
Thursday, November 3, 2022	EXAM # 2 (Chapters 6, 6A, and 7)		Module 10
Thursday, November 10, 2022	Chapter 8 Chapter 8A	Production Activity Control Advanced Scheduling	Module 11
Thursday, November 17, 2022	Chapter 10	Distribution Requirements Planning	Module 12
Thursday, November 24, 2022	Thanksgiving break		Module 13
Thursday, December 1, 2022	Project is Due		Module 14
Thursday, December 8, 2022	Exam 3 (Chapters 8, 8A, and 10)		Module 15
Thursday, December 15, 2022	Optional Final Exam (6:30 PM to 8:30 PM)		Module 16

Due Dates

Date	Details	Due
Thu Sep 1, 2022	Assignment Group Classwork-1 (MPC Framework)	due by 11:59pm
Sat Sep 3, 2022	Quiz Confirmation of Reading the Syllabus	due by 10pm
	Quiz Review Quiz - Chapter 1	due by 10pm
Thu Sep 8, 2022	Assignment Group Classwork-2 (ERP systems)	due by 11:59pm
	Discussion Topic Summary 1 Discussion	due by 11:59pm
	Assignment Summary 1 submission link	due by 11:59pm
Sat Sep 10, 2022	Quiz Review Quiz - Chapter 1A	due by 10pm
Thu Sep 15, 2022	Assignment Group Classwork-3 (Demand Management)	due by 11:59pm
	Discussion Topic Summary 2 Discussion	due by 11:59pm
	Assignment Summary 2 submission link	due by 11:59pm
Sat Sep 17, 2022	Quiz Review Quiz - Chapter 2	due by 10pm
Thu Sep 22, 2022	Assignment Group Classwork -4 (Operations Plan/Aggregate Planning)	due by 11:59pm
	Discussion Topic Summary 3 Discussion	due by 11:59pm
	Assignment Summary 3 submission link	due by 11:59pm
Sat Sep 24, 2022	Quiz Review Quiz - Chapter 4	due by 10pm
Thu Sep 29, 2022	Assignment Group Classwork -5 (MPS and ATP)	due by 11:59pm
	Discussion Topic Summary 4 Discussion	due by 11:59pm
	Assignment Summary 4 submission link	due by 11:59pm
Sat Oct 1, 2022	Quiz Review Quiz - Chapter 5	due by 10pm
Thu Oct 6, 2022	Quiz Exam 1	due by 11:59pm
Thu Oct 13, 2022	Assignment Group Classwork -6 MRP	due by 11:59pm
Sat Oct 15, 2022	Quiz Review Quiz - Chapter 6	due by 10pm
Thu Oct 20, 2022	Assignment Group Classwork -7 Advanced MRP (Optimizing Ordering Quantities)	due by 11:59pm
	Discussion Topic Summary 5 Discussion	due by 11:59pm
	Assignment Summary 5 submission link	due by 11:59pm

Sat Oct 22, 2022	Quiz Review Quiz - Chapter 6A	due by 10pm
Thu Oct 27, 2022	Assignment Group Classwork -8 Capacity Requirements Planning	due by 11:59pm
	Discussion Topic Summary 6 Discussion	due by 11:59pm
	Assignment Summary 6 submission link	due by 11:59pm
Sat Oct 29, 2022	Quiz Review Quiz - Chapter 7	due by 10pm
Thu Nov 3, 2022	Quiz Exam 2	due by 11:59pm
Thu Nov 10, 2022	Assignment Group Classwork -9 Scheduling	due by 11:59pm
	Discussion Topic Summary 7 Discussion	due by 11:59pm
	Assignment Summary 7 submission link	due by 11:59pm
Sat Nov 12, 2022	Quiz Review Quiz - Chapter 8	due by 10pm
Thu Nov 17, 2022	Assignment Group Classwork -10 Distribution Requirements Planning	due by 11:59pm
	Discussion Topic Summary 8 Discussion	due by 11:59pm
	Assignment Summary 8 submission link	due by 11:59pm
Sat Nov 19, 2022	Quiz Review Quiz - Chapter 8A	due by 10pm
Thu Dec 1, 2022	Assignment Group Project (submit report and power point)	due by 11:59pm
Sat Dec 3, 2022	Quiz Review Quiz - Chapter 10	due by 10pm
Thu Dec 8, 2022	Quiz Exam 3	due by 11:59pm
Thu Dec 15, 2022	Quiz Optional Final	due by 11:59pm

MGMT 4820.001
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: _____

