

Business Management 732: Operations Planning and Control
Spring Quarter 2009
Tue/Thur 8:30-10:18am
Schoenbaum Hall (SB) 205

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OFFICE HOURS: Tue & Thur 10:30-12 and by appointment

COURSE CONTENT

The course will describe the use of planning and control systems to manage material flow and capacity in operations using a push system. Operations planning and control is an integrative function in business that is critical in linking the planning activities in many areas of the business (e.g., marketing, operations, finance, and engineering). Topics covered include master production scheduling (MPA), production planning, material requirements planning (MRP), capacity management, and just-in-time (JIT) techniques.

In particular, this course will emphasize the overall structure of the planning and control function in managing operations and how this function coordinates activities within the operations area. We develop both a broad perspective on the manufacturing function and an understanding of the details of operations planning and control system techniques.

While much of the material in the course is directed toward management of manufacturing, some of what we will cover is also applicable and necessary in service industry operations.

OBJECTIVES OF THE COURSE

Our objectives are to develop an understanding of the following tangible and practical skills that are valued by employers:

- the structure of operations planning and control systems in a wide variety of applications
- the conceptual basis for operations planning and control systems
- gaining experience in making operations planning and control decisions

COURSE MATERIAL

TEXT: (VBWJ): Vollmann, T.E., Berry, W.L., Whybark, D.C., & Jacobs, F.R. (2005). *Manufacturing Planning and Control Systems for Supply Chain Management*. Fifth Edition. Irwin McGraw-Hill. ISBN 0072299908. **MAKE SURE YOU GET THE SAME ISBN.**

A copy of the text has been placed on reserve in the business library. However, it is strongly recommended that operations/supply chain management majors obtain and keep a copy of this text for future professional reference. If you plan to take APICS exams for CPIM, this text is the primary reference.

A major objective of the course is for you to be able to apply the concepts presented in the text to the operating environments in which you will find yourself in the future as a manager. I would be glad to provide additional reading references for those who are interested.

There are organizations that allow for the opportunity to learn more about operations including the professional organization APICS (The Association for Operations Management; see <http://www.apics.org/> for the national web site) and the OSU student organization of Buckeye Operations Management Society (BOMS) at <https://groups.cob.ohio-state.edu/boms/> and Purchasing and Supply Management Association (PSMA) at <http://www.osupsma.com>.

The class uses the Carmen course management system. Lecture notes will be published by the start of each week for the material in that week. **Students are responsible for reviewing Carmen regularly, particularly before quizzes and exams.**

Course URL:	https://carmen.osu.edu/
Course Access:	Carmen will ask for a username and password. For username, enter the username associated with your OSU e-mail address (just the portion before the @osu.edu); for example: smith.123 For password, enter your OSU email password

INSTRUCTOR'S EXPECTATIONS

My expectation is that you will be familiar with the reading and problems BEFORE class, corresponding to each date below. Bring the Carmen lecture notes and problem blanks to each class, as applicable. To do well in this class, and your career, it is vital that you really understand how to use and apply what you learn in class. You will likely have to extend the material and use it in new ways for both the exams and your careers.

PLEASE ASK QUESTIONS IN CLASS!! If something is unclear to you, it is probably unclear to several others, and we will all be grateful you asked. Your participation will help make this a great class!

PLEASE COME SEE ME DURING OFFICE HOURS if you need to discuss something in more detail. There may be times in class that one or two individuals get stumped. If this happens, I may keep the class moving and work with those who need more assistance on an individual basis during office hours.

GRADING

There are a number of activities and assignments that will be used to assess your understanding of the material covered in this course. As a class, you can determine the weight that these activities will have in determining your grade. You will be asked to submit the grading suggestion form at the end of this syllabus by the end of the second class session *as your first class participation exercise*.

DISABILITY ACCOMODATION

If you need an accommodation based on the impact of a disability, please arrange an appointment with me as soon as possible - we need to discuss the course format and explore potential accommodations.

I rely on the Office for Disability Services for assistance in verifying need and developing accommodation strategies. You should start the verification process as soon as possible.

SUBMISSION GUIDELINES

- All assignments are due at the **start of class** (unless otherwise specifically noted, e.g. ITEC) and must be **hardcopies**. **Late assignments will not be accepted, so plan your last minute printing in the lab accordingly.**
- You are expected to submit work of a 'professional' caliber (think of me as your 'boss'). As such, everything you turn in should be neat, tidy, complete, typed, no paper fringe, multiple pages are stapled (no folding over of the corners), etc.
- **If you wouldn't turn it in to your boss, don't give it to me!!** I reserve the right to refuse to accept unprofessional submissions.
- **10% of assignment grades will be based upon the professionalism of what you turn in.**

ASSIGNMENTS

You will be asked to complete a number of assignments to practice applying the concepts that are discussed in the text and in class. Some of these may be completed in groups, and some must be completed individually (**assume everything is an individual assignment unless specifically told otherwise**). It is important that you understand how to do all of the exercises on your own as similar problems may appear on the exams and, more importantly, in your future jobs.

ACADEMIC MISCONDUCT

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) **expect that all students have read and understand the University's Code of Student Conduct**, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct* **and this syllabus** may constitute "Academic Misconduct."

Any material submitted for credit in this course must be **ONLY your own work if it is an individual-based assignment or exam**, or **ONLY the work of your specific team if it is a group-based assignment**. Students are not permitted to discuss, read, text message, e-mail, provide access to documents or files, or in any way share work, thoughts, ideas or solutions regarding the cases or exams with any other individual or any team of students, including the work of students from other quarters or classes. If outside references are used, they must be properly referenced. It is recommended that you take action to protect your work, such as collecting your materials from the lab printers and disposing of rough drafts at home. Case write-ups that are similar to current or past case write-ups may initiate serious disciplinary action.

If I suspect that a student or team has engaged in academic misconduct in this course, I am **obligated** by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's *Code of Student Conduct* (i.e., committed academic misconduct), **the sanctions for the misconduct could include a failing grade ('E') in this course and suspension or dismissal from the University.**

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me. Other sources of information on academic misconduct (integrity) to which you can refer include:

The Committee on Academic Misconduct web pages (oaa.osu.edu/coam/home.html)

Ten Suggestions for Preserving Academic Integrity (oaa.osu.edu/coam/ten-suggestions.html)

Eight Cardinal Rules of Academic Integrity (www.northwestern.edu/uacc/8cards.html)

SEQUENCE OF TOPICS: COURSE OUTLINE

(subject to revision; revisions will be announced in class and posted to Carmen)

Date	Topic	Assignment
Mar 31	Course Introduction and Overview Manufacturing Planning and Control (MPC)	Read VBWJ Ch 1
Apr 2	Demand Management (Forecasting)	Read Ch 2; (hwk due 4/7)
7	Sales and Operations Planning (SOP)	Read Ch 3; (hwk due 4/14)
9	Independent Demand	Read Ch 5, pp. 133-152 & 157-162; (hwk due 4/16)
14	Independent Demand Managing the Master Production Schedule (MPS)	Read Ch 6, pp 168-183; 192-206 (hwk due 4/16)
16	MPS Product Structure and Bills of Material (BOM)	Read Ch 6, pp 183-192
21	Material Requirements Planning (MRP)	Read Ch 7 (hwk due 4/28)
23	MRP	
28	Capacity and Theory of Constraints (TOC)	Read Ch 10 (hwk due 4/30) Read Ch 11, pp. 379 - 389 Marina handout - group (due 4/30) TOC Handout - group (4/30)
30	Catch up and Review for exam	
May 5	MIDTERM EXAM	
7	Introduction to ITEC BRING 1 LAPTOP PER TEAM	READ ITEC CASE and take the ITEC quiz BEFORE class
12	Month 1 decision for ITEC	ITEC Month 1 due 5/13 at noon
14	Discuss ITEC results, Redo decision Month 1	ITEC Month 1 redo due 5/16 at 3:00pm
19	Production and Activity Control (PAC) ITEC Month 2 in class	Read rest of Ch 11, pp 370-379 (hwk due 5/26) ITEC Month 2 due 5/20 at noon
21	Just-In-Time (JIT) ITEC Month 3 in class	Read Ch 9 (hwk due 5/26) ITEC Month 3 due 5/22 at noon
26	ITEC Month 4 in class	ITEC Month 4 due 5/27 at noon
28	ITEC Month 5 in class	ITEC Month 5 due 2/29 at noon
June 2	ITEC presentations	ITEC Presentations and hard copy of presentation due
4	Finish Presentations, Final Exam Review, Course wrap up	Written group ITEC Report due
10	CUMMULATIVE FINAL EXAM 7:30-9:18 am (note earlier time!!)	

Team Grade Distribution

EVERYBODY MUST FILL THIS OUT TO BE TURNED IN AT THE END OF THE COURSE; it will be part of YOUR course participation grade to complete this form. During the final would be a good time; or if you prefer, you can bring it to me in my office. What you turn in to me will not be shared with other team members.

INPUT FROM YOUR PEERS WILL BE USED TO ADJUST GRADES ON GROUP ASSIGNMENTS. This mirrors the professional world where feedback in a "360° Review" includes input from your peers, co-workers, and other that you interact with for your performance evaluation which in turn determines your pay increases, stock options, promotions, job assignments, etc. We will be using this class to allow you to develop good team skills from both a performance and an evaluation perspective.

Since the point of this is to allow you to practice the process of evaluating colleagues, and equally important, of being evaluated by them in turn, I strongly encourage you to discuss issues with team members **as they occur**. Team member behavioral issues such as attending scheduled meetings, completing assigned tasks, quality of work, meeting deadlines, etc. are areas you may experience issues in this class, and during your career. Now is a good time to develop and practice your team feedback and management skills.

Fill in YOUR name on the first line, and use the rest of the lines to fill in the names of your teammates. Be sure to list all of them. Then, you must decide how much of the team grade each of you has earned, such that the total sums to 100%. If there is unequal distribution of 'credit', you **MUST** provide information in the comments section of this form.

% of team grade earned

Your Name

Team Member

Team Member

Team Member

Team Member

100 %

Comments:

Providing your input to the course grade distribution is your

FIRST PARTICIPATION OPPORTUNITY

and should be turned in by the **end of the third class**

The results from everyone in class will be announced and posted in Carmen.

Name: _____

	Min %	Max %	
Class Participation	5	15	_____
Individual Quizzes	5	10	_____
Group Quizzes	5	10	_____
Individual Assignments	10	20	_____
Group Assignments	10	20	_____
ITEC Case (group)	10	25	_____
Midterm exam	15	25	_____
Final exam	15	25	_____
			100%