

WESTERN KENTUCKY UNIVERSITY
GORDON FORD COLLEGE OF BUSINESS

MGT 314 - Operations Management (Online)

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Office Hours: By appointment

Course Description: In a dynamic, competitive world, a company's effectiveness depends significantly on how well its resources are managed. Managing the company's critical performance dimensions - quality, speed, flexibility, and cost - requires a thorough understanding of physical and information *processes* by which inputs of materials, labor, capital and information are transformed into products and services for customers. These processes can be managed well or poorly. Knowledge introduced in this course will help you understand the reasons for both.

Course Objectives:

- To develop critical thinking skills in the assessment of problems encountered in managing business operations.
- To address the moral and legal issues encountered in business operations and develop approaches that are ethically sound.
- To develop a familiarity with current practices in operations management.

Required Materials: *Operations and Supply Management* by R. B. Chase, F. R. Jacobs, and N. J. Aquilano (12th edition, 2009, Irwin/McGraw-Hill, ISBN 0073403296) is the required textbook for the course (12th edition, 2008 is OK, too). The book will provide a broad overview of the field and resource material for solving operations problems after the course is finished. You can buy the book online as well. You can find the any edition of the book at the bookstore. [The desk copy of the 13th edition is available at VPAL of the library.](#) There is also 14th edition of the book available at the bookstore that would be OK, too. However, I strongly suggest acquiring used 12th or 13th editions of the book due to cheaper prices. In any case, you can use the book at the VPAL of the library.

Required Software and IT aid: *Microsoft Word, PowerPoint and Excel; Adobe Reader; Internet connection*

Course Topics:

1. **Process Types and Process Flow Analysis.** The first section of the course introduces the spectrum of manufacturing and service processes. Concepts of process flow and bottlenecks will be introduced. Throughput, flow time and in-process inventories will be related by using Little's Law to measure effectiveness of business processes. A service exercise (Kristen's Cookie Company) will guide our discussion.
2. **Planning Production and Projects.** In the second section, specialized tools for planning will be introduced in case contexts. For project management, the tool is the Critical Path Method,

which is applied in the construction industry. For production planning, the tool is Linear Programming.

3. **World-Class Operations Systems.** World-class manufacturing systems design will be introduced. Toyota Production System and related topics are Material Requirements Planning, Quality Management and Capability, and Lean Operations.
 4. **World-Class Supply Chain Operations.** The challenge of excellence that transcends technical, national and organizational boundaries will be discussed. Inventory management and decisions in a distribution system will be studied. The newsvendor model is background for an exercise in non-centralized decision making within a distribution chain. An example of world-class excellence in supply chain management is illustrated in the consumer products industry.
 5. **Managing Process Flows: Planning Capacity and Coping with Variability.** The final section of the course revisit business contexts in which variability complicates the planning and management of process flows. A service-sector case, from healthcare industry, shows the effects of variability and the application of queuing models. The last session will be wrap-up and review.
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Grading: The course grade will be based on the following components.

Homework (3)	30%
Quiz (3)	15%
Midterm Exam	25%
Final Exam	30%
TOTAL	100%

Homework:

- There are 3 homeworks that each of them is worth 10% of the total grade (100%).
- Homeworks have to be typed in Word, Excel, Blackboard or a similar program and submitted via Blackboard.
- If you have charts, calculations on a paper, you can scan it or take a picture of it. You should put scanned work or picture in Word document before submitting it.
- Late submissions will be penalized by 10% per day.
- None of the homework scores will be dropped.

Quiz:

- There are 3 quizzes that each of them is worth 5% of the total grade (100%).
- Questions will ALL be multiple-choice.
- You will be given limited time to complete the exam.
- None of the quiz scores will be dropped.

Midterm Exam:

- The midterm exam will be held in Blackboard.
- You will be given limited time to complete the exam.
- The midterm exam will be consisting of both quantitative and qualitative questions related to the readings and lecture slides.
- Questions will ALL be multiple-choice.

Final Exam:

- The final exam will be held in Blackboard.
- You will be given limited time to complete the exam.
- The final exam will be consisting of both quantitative and qualitative questions related to the readings and lecture slides.
- Questions will ALL be multiple-choice.

Optional Work:

- Your report should be written in Word and 3-4 pages long (double spaced).
- This optional work is worth 10% and will be added to your total grade.

Letter Grades:

A	≥ 90%
B	80% - 89%
C	70% - 79%
D	55% - 69%
F	≤ 54%

ADA Accommodations

In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, Room 1074. The SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

Title IX/ Discrimination & Harassment

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's [Sex and Gender-Based Discrimination, Harassment, and Retaliation](#) (#0.070) and [Discrimination and Harassment Policy](#) (#0.2040). Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Executive Director, Office of Institutional Equity/Title IX Coordinator, Ena Demir, 270-745-6867 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121. Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's [Counseling and Testing Center](#) at 270-745-3159.

COVID-19

All students are strongly encouraged to [get the COVID-19 vaccine](#). In accordance with WKU policy, all students must call the WKU COVID-19 Assistance Line at 270-745-2019 within 4 hours of testing positive for COVID-19 or being identified as a close contact to someone who has tested positive. The COVID Assistance Line is available to answer questions regarding any COVID-19 related issue. This guidance is subject to change based on requirements set forth by federal, state, and local public health entities. Please refer to the Healthy on the Hill website for the most current information. www.wku.edu/healthyonthehill

WKU Counseling and Testing Center

The university experience should be challenging, but not overwhelming. To this end, the WKU Counseling Center provides a variety of services to help strengthen students' capacity to tolerate distress, form healthy relationships, and seek healthy expressions of their ideals and values. If you would like to

Speak with someone, you may contact WKU's [Counseling and Testing Center](#) at 270-745-3159 or use their Here To Help service at <https://www.wku.edu/heretohelp/heretohelpemail.php>. If you need immediate help, please visit the Counseling Center in 409 Potter Hall or call the 24-hour emergency help line at 270-745-2548.

Big Red Backpack

The Big Red Backpack program is the title of WKU's partnership with Barnes & Noble College for their First Day Complete initiative. Big Red Backpack is a course materials delivery program that ensures students have their required course materials on the first day of class and may reduce the costs of materials for many of their courses. Enrollment in the program occurs automatically when students register for classes. Students may opt out of the program each semester, as long as they choose to opt out for all of their classes.

Students **MUST** carefully and completely follow all instructions regarding the Big Red Backpack Program. Those instructions will be provided by:

1. An email to all Topper email addresses from the Big Red Backpack Program one month prior to the start of classes.
2. The Big Red Backpack Program site: <https://www.wku.edu/bigredbackpack/>.

Students should refer to the Big Red Backpack Program site referenced above for opt-out deadlines and any additional details.

Regular And Substantive Interaction (RSI) Statement

- Providing constructive feedback on student assignments, which identifies specifically what has been done correctly, needs improvement, or guides students to the next steps of learning.
- Providing information or responding to questions about the content of a course or competency.
- Providing timely and detailed feedback on assignments within 48 hours of submission.

CLASS SCHEDULE

Module 1:

Introduction and Overview: Chapter 1 (12th ed., 13th ed., 14th ed.)

Operations Strategy: Chapter 1 (12th ed., 13th ed., 14th ed.)

Productivity Measures: Chapter 2 (12th ed., 13th ed., 14th ed.)

[Homework 1](#)

Module 2:

Product Design: Chapter 4 (12th ed.), Chapter 3 (13th ed.), Chapter 11 (14th ed.),

Process Analysis: Chapter 6 (12th ed.), Chapter 4 (13th ed.), Chapter 3 (14th ed.),

[Quiz 1](#)

Module 3:

Strategic Capacity Planning: Chapter 5 (12th ed.), Chapter 4 (13th ed.), Chapter 6 (14th ed.)

Project Management: Chapter 3 (12th ed.), Chapter 10 (13th ed.), Chapter 4 (14th ed.)

Forecasting: Chapter 15 (12th ed., 13th ed.), Chapter 18 (14th ed.)

[Homework 2](#)

[Midterm Exam](#)

Module 4:

Material Requirements Planning: Chapter 18 (12th ed., 13th ed.), Chapter 17 (14th ed.)

Just-in-Time Production Systems: Chapter 12 (12th ed.), Chapter 13 (13th ed.), Ch 14 (14th ed.)

[Quiz 2](#)

Module 5:

Inventory Management: Chapter 17 (12th ed., 13th ed.), Chapter 20 (14th ed.)

[Homework 3](#)

Module 6:

Waitline Management: Chapter 8 (12th ed.), Chapter 7 (13th ed.), Chapter 10 (14th ed.)

[Quiz 3](#)

Module 7:

Quality Control: Chapter 9 (12th ed., 13th ed.), Chapter 12 (14th ed.)

Global Supply Chain Management: Chapter 10 (12th ed.), Chapter 11 (13th ed.), Ch 16 (14th ed.)

[Optional Work](#)

[Final Exam](#)