



WKU[®]

School of Engineering and Applied Sciences
AMS 356M2 System Design and Operations
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Module 2 On-Demand Course Syllabus

Office Hours

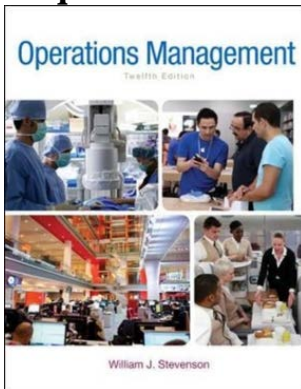
By appointment

Catalog Description

A study of manufacturing organizations and their administration, facilities layout, work systems, forecasting and decision making. Applications of resource planning determining product demand, controlling inventory, goods and services.

Prerequisite(s): AMS 356M1

Required Textbooks



Stevenson, W. J. (2007-2015). *Operations Management (any edition 9th through latest ed. acceptable)*. New York: McGraw-Hill/Irwin. ISBN 978-0-07-802410-8

This text will also be used in the other remaining modules.

Course Module Objectives

By the end of the course module, the student will be able to:

- Use the centroid method to optimize the location of a facility.
- Identify the benefits and practice of JIT and Lean and their fit with systems design and operations.
- Compute EOQs, EPQs, quantity discounts, FOIs, SPMs, and ROPs for a variety of operation scenarios.

Course Module Topics

This is an introductory course to systems design and operation and is designed to increase your knowledge of business strategy, competitiveness, productivity, forecasting methods, design of products and services, capacity planning, selection of processes, process layouts, and work design. Topics include location planning and analysis, just-in-time production, lean operations, and inventory management.

Course Module Structure and Design

The course module will consist of readings from the assigned text and other supplemental materials, chapter quizzes, assignments, and the competency assessment.

Assignments. Various activity exercises, essays, reports, and homework questions will be assigned over the duration of the course. These assignments are designed to help you keep up with the readings, give you material that might be helpful for the quizzes and competency assessment.

Quizzes. Quizzes will be given on the content of the assigned readings and provided material. Quizzes will cover the previously assigned content.

Competency Assessment. The competency assessment is an exam that covers the content material of the course module. It must be taken in a proctored setting. The assessment must be completed with a score of 86% or higher.

This course module uses a web-based delivery method. The course module will consist of reading assignments, project assignments, and quizzes. You are expected to spend the appropriate amount of time preparing for the competency assessment.

Competency Protocol

1. When you enter the course module, you will be given the option of taking a pre-assessment. You can accept or decline the pre-assessment. If you decline, the course units will become available based on the adaptive release rules set for the module.
2. If you accept and take the pre-assessment, you have these choices depending upon the outcome:
 - If you receive a grade of 86% or higher on the pre-assessment, all the material in the course module becomes available. You can then choose to (a) go through any of the unit material in course to gain the additional knowledge that was deficient on the pre-assessment or choose to (b) go directly to the competency assessment.
 - If you score below an 86% on the pre-assessment, you must complete all of the units in the course based on the adaptive release rules set for the course module in order to complete the competency assessment.

The Competency Assessment for the Course Module

In order to qualify for the competency assessment, you must have (a) received at least 86% on the pre-assessment or (b) successfully completed all of the required course unit material. One attempt is allowed and must be in a proctored setting. Minimum passing score is 86% or above. If the attempt is unsuccessful, you must continue to work on the

units of the course module until you can successfully complete the competency assessment at the competency level. See the section on Repeating Course Material in this syllabus.

If you receive a score on the competency assessment equal to or greater than 86%, but less than 94%, you are allowed one additional attempt on the competency assessment to increase your grade from a B to A or you can accept the B and move on to the next course module.

Overall Grading Criteria

The only grade that measures the overall competency of the module is the competency assessment. There are three grade levels available:

Mastery, A+, A, 100% – \geq 94%

Demonstrates superior work performance and mastery of the subject content. The work/performance is commendable and demonstrates exceptional thinking and/or performance. The work or research exceeds expected requirements with substantial depth and efficiency. The work is highly organized, formatted correctly, and communicates effectively.

Competency, B+, B, <94% – \geq 86%

Demonstrates a clear understanding of the subject content with no flaws. The work or research accomplishes the purpose of the task and identifies the most important ideas. The work is over and beyond the minimum requirements with depth. The work is organized, formatted correctly, and communicates effectively.

Minimal, Deficient or Unacceptable; Standard not yet met, F, < 86% – 0%

-Performance at minimum standard. Work displays some understanding of major concepts. Main points of content are covered and required elements included, but the work lacks competent professionalism.

-Shows an incomplete understanding of the task/project. The purpose of the task or research was not accomplished. The work/performance is ineffectual or inappropriate. One or more important elements are omitted. The work is vague, incomplete, and incorrectly formatted. The presentation is so flawed that it obscures the meaning.

-Significantly incomplete and/or deficient. Significant parts omitted or plagiarized. Work shows no understanding of the subject content. Important purpose of the task or research was not achieved. Work did not meet the minimum requirements. Work suggests incompetence.

For this course module, achievement at the competency or mastery level must be obtained in order to pass the course. Performance at minimal standard (< 86%) is not acceptable. Students must achieve competency (\geq 86%) or higher.

You will know in advance the standards for each assignment. You are responsible for:

- Asking for help or clarification when needed

- Completing all course module deliverables
- Committing to a high level of professional development and learning

The grade for this course module is based upon performance to a standard. Students are expected to put forth effort congruent with the highest standard. The grade is based upon your performance to a standard. The earned final grade is based on Overall Grading Criteria listed above. The final grade is per my discretion.

You are ultimately responsible for your learning. Those who take responsibility for their learning are generally more successful in the course module. Successful students are active learners who read the text, complete the assigned work, ask questions as needed, and participate fully in the course module.

Course Module Policies General

General communication and expectations. Students should work independently on assignments unless the instructor gives prior permission for collaboration. Students will communicate with the instructor using the learning management system Blackboard or other communication media such as e-mail, voicemail, or Skype. Access to a late-model computer with standard business software and an Internet connection is required.

This is a paperless course module. This course module and all associated communication within or as part of should adhere to the [WKU Information Technology Acceptable Use Policy](#). All assignments and related documents will be submitted on-line via Blackboard. Students must make prior arrangements before submitting hard copy reports or papers. If you have problems transmitting information, telephone or e-mail immediately, and we'll get the problem solved.

Ground rules for communication

1. Use e-mail for private or personal messages to the instructor and questions regarding grades.
2. Please submit papers as text/word files (e.g., DOC, RTF, TXT, HTML, or PDF), PowerPoint files (e.g., PPT), or spreadsheet files (e.g., .XLS, WKS) uploaded to the Blackboard. Use other file formats at your own risk. If I can't read them, I can't grade them!
3. For **all** assignments that are uploaded to Blackboard, include your name at the top of the document AND as part of the **file name** (e.g., Doggett_Homework.doc). With NetID, your name is no longer associated with documents uploaded to Blackboard. Thus, when I download your file, I am no longer able see your name associated with the file. If you do not put your name at the top of the document, then go back to BB to locate it. This is time-consuming. It is much easier for you to simply put your name on the document and as part of the file name.

Important: Blackboard has a difficult time processing file sizes over 10 MB. If your file does not upload correctly, you may need to change to a different file format that uses less memory!

Repeating Course Material. In the event you complete all module material and are still not performing at a competent level on the final assessment, I may reassign previous work or provide additional work until demonstration of competency is achieved.

Instructor availability. My availability during the week is from 8:00 AM to 5:00 PM CT M-F with limited availability on the weekends. Students may reasonably expect a response from me within 24 hours during the week, but not necessarily on the weekends.

Extra Credit. There is no extra credit work available. Additional work beyond what is assigned will not be considered.

Academic Honesty. All Western Kentucky University policies are in effect. All work must reflect APA citation standards. All your work must be your own, unless I authorize collaboration. Presenting the words, ideas, or expressions of another person in any form and claiming them as one's own is plagiarism and will not be tolerated. The claim of ignorance is no excuse. (See [academic offenses](#) in the WKU student handbook.) The University Catalog states, “Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the coursework in which the act is detected or a failing grade in the course module without possibility of withdrawal.”

Student Accessibility Resource Center. In compliance with university policy, students with disabilities who require academic and/or auxiliary accommodations for this course module must contact the [Student Accessibility Resource Center](#) at Downing Student Union, 1074. The phone number is 270.745.5004. Please do not request accommodations directly from the instructor without a letter of accommodation. This course module is compliant with the WKU standards for [web accessibility](#).

Title IX statement. Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU’s Title IX Sexual Misconduct/Assault Policy (#0.2070) at <https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf> and Discrimination and Harassment Policy (#0.2040) at https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf.

Add/Drop Policy. Students who have trouble working independently are encouraged to drop the course module. Please check On Demand’s policy to drop a course as there are deadlines in place based on the day you registered for the course.