

# ENME 426 Production Management

## Summer, 2020, Syllabus

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### Course Administration

**Instructor:**

Professor Jeffrey W. Herrmann, Department of Mechanical Engineering and Institute for Systems Research  
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Web page: <http://www.isr.umd.edu/~jwh2/jwh2.html>.

**Class Meeting Times:** Online: Monday to Friday, 2:00 to 3:30 P.M., June 1 to July 10, 2020.

**Office Hours:** by appointment.

**Text:** Factory Physics, Third Edition, by Wallace J. Hopp and Mark L. Spearman, Waveland Press. ISBN = 9781577667391.

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### General Policies

Students are responsible to be familiar with and uphold the Code of Academic Integrity and the Code of Conduct, as well as for notifying your course instructors in a timely fashion regarding academic accommodations related to absences and accessibility, and all other policies in the [Course Related Policies web page](#) maintained by the Office of Undergraduate Studies.

### Expectations

Ethical behavior is important to society, and it is the right thing to do. Engineers are expected to behave ethically.

Academic integrity is an important value for our community. Because of this, we have high standards for behavior. Academic dishonesty is prohibited. All students are subject to the requirements of the Code of Academic Integrity and are responsible for upholding these standards for this course. It is very important for all students to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. If you have any questions about whether something is unauthorized, please contact the instructor.

To further exhibit your commitment to academic integrity, remember to sign the Honor Pledge on all examinations and assignments: "I pledge on my honor that I have not given or received any unauthorized assistance on this assessment."

### Communication

To contact the instructor, please send an email directly to [jwh2@umd.edu](mailto:jwh2@umd.edu).

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### Course Overview

This course comprises six modules that cover the following topics on modeling, designing, and controlling manufacturing systems:

- Module A: History and Variability
  - Module B: Workstation Performance
  - Module C: Production Line Performance
  - Module D: Production Line Design
  - Module E: Pull Control and Cell Design
  - Module F: Controlling Manufacturing Systems
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## Course Schedule

The course schedule will be found on ELMS under Pages. Each module will take one week; sessions on Monday to Wednesday will cover new material; Thursday will be a review session; Friday will be an online quiz.

## Class Sessions

Most class sessions will be held using Zoom and will include a combination of mini-lectures, active learning activities (including problem solving), and discussion. Attendance at these sessions is highly recommended (but not required). Reading assignments and practice activities will be announced beforehand so that students can prepare for the class. Class sessions will be recorded.

## Spreadsheet Modeling Exercise

During Module D, there will also be a spreadsheet modeling exercise using Microsoft Excel. More details will be announced.

## Process Observation Assignment

Every student will submit a short report that describes a manufacturing system and the variability, buffers, and waste in that system. See the assignment in ELMS for more details.

## Examinations

Each module will end with an online quiz in ELMS using the Honorlock proctoring service. Each exam will be a combination of problem solving and short-answer questions. The exams are closed-book, closed-notes.

## Grading

Student grades will be based upon passing skills on the quizzes, the spreadsheet modeling exercise, and the process observation assignment. These assignments provide the opportunity to demonstrate mastery of the 40 course learning outcomes. The list of skills can be found on ELMS under Pages. Students will have multiple opportunities to demonstrate mastery of each learning outcome subject to posted deadlines. See the course schedule for details.

## Letter Grades

There are 40 learning outcomes, and the final grade is based on the number of learning outcomes that have been mastered. Each learning outcome is worth one point. Each letter grade (with a plus or minus) requires the following number of points.

- 38 = A+
  - 37 = A
  - 36 = A-
  - 34 = B+
  - 33 = B
  - 32 = B-
  - 30 = C+
  - 29 = C
  - 28 = C-
  - 26 = D+
  - 25 = D
  - 24 = D-
  - 23 or fewer = F
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