

## NORTH PARK UNIVERSITY

BSE 2510 \_\_\_\_\_ Professor Bonie  
Operation Management and Information Systems \_\_\_\_\_  
Office: SBNM  
Fall 2009 \_\_\_\_\_ Hours: M,W,F  
Four Credit Hours

### TEXT:

Production Operations Management, 9<sup>th</sup> Edition, by Stevenson

### COURSE DESCRIPTION:

Objectives, constraints and processes associated with the efficient production of goods and services. Mathematics are used along with analytical models and applications software, are used to measure and analyze problems dealing with efficiency. Topics include process and systems analysis, capacity design, inventory planning and control, queuing theory applications, network systems, computer applications, database management, spreadsheets, and systems analysis.

Prerequisites: STAT 1490, BSE 1010

### PURPOSE:

This course is part of the Business Administration core of courses and covers one of the functional areas. The course is managerially orientated. It introduces quantitative concepts which are important to managers and to the making of the best decisions in operating systems. Analytical methods are applied to both manufacturing and service systems. Information systems have been added to this course. Computers are an integral part of the operations of any organization, and topic is now included in this four hour course. This is a “300” level course and is targeted at junior and seniors majoring in business administration.

### COURSE OBJECTIVES:

- a. To study productive systems, how they work and how they are managed effectively
- b. To identify the nature of the problems in operations management and study the analytical models found most useful in approaching these problems.
- c. To understand the traditional models for approaching the analysis of problems such as work measurement and methods analysis.
- d. To apply specific analytical methodologies in connection with the problems to which they are applicable. These methodologies include inventory models, linear programming, queuing theory and network systems.
- e. To evaluate and select a confirmation of strategies involving processes and product designs for production.

- f. To weigh the trade-offs and planning issues that set the course for quality, cost, dependability, flexibility and service.
- g. To integrate ethical considerations into topics such as statistical quality control.
- h. To understand the importance of computers in the information age.
- i. To use application software, to get work done.
- j. To create and use databases and spreadsheets to complete tasks.

#### COURSE REQUIREMENTS:

- \_\_\_\_\_ Regular attendance at class meetings
- \_\_\_\_\_ Participation in classroom discussion
- \_\_\_\_\_ Satisfactory completion of all assignments and examinations

#### OPERATIONAL EXCELLENCE:

In this course, students are required to select the appropriate formula, substitute correctly into the equation and accurately perform the necessary arithmetic operations to solve the equation. This course strives to ensure the highest quality in the execution of all computational procedures. We are guided by W. Edwards Deming's teachings: Adopt the approach of defect prevention rather than defect detection throughout. Students repeating the problem computations to assure accurate calculation achieve defect prevention. To promote precision, do not round the calculated amounts during intermediate computations. Carry all digits in the calculator to decrease the likelihood of error. By carrying all digits in the calculator memory (without intermediate rounding), students are able to repeat their calculations and compare the result of the second computation with the result of the original computation. Thus, when a computational error is identified by the student, the student is able to correct the error (i.e. defect prevention) on the examination paper or homework assignment prior to submitting the work for evaluation by the professor. When the professor detects a defect in the work of a student (i.e. error) in the formula, in the substitution, or in the computation, the professor will not award credit for the problem. Computer projects must be complete and accurate.

#### ASSIGNMENTS:

Students are responsible for textbook reading assignments as well as library reading assignments. Students are expected to read pertinent articles in daily and weekly business news publications. Written assignments must be submitted to the instructor by the specified due date.

#### EXAMINATIONS:

Exams are problem oriented. Quantitative questions dominate the exams. Some definitions, derivations, and short proofs are required. All exams are cumulative. Exams are based upon class lectures and discussions, as well as the material in the text. Sufficient details of steps to solution must be reported on the examination paper in order to receive credit for the problem. The appropriate equation, substitutions, and calculations for computed amounts must be recorded on the

examination paper. To promote precision, do not round the calculated amounts during intermediate computations. Carry all digits in your calculator to decrease the likelihood of error.

#### COURSE OUTLINE:

Week	1	Intro & Statistics	Chap. 1 & 2
	2	Forecasting Intro	Chap. 3
	3	Forecasting	Chap. 3
	4	Linear Programming	Chap. 6
	5	Linear Programming	Chap. 6
	6	First preliminary examination and Transportation	Chapter 7
	7	System Design & Decision Theory	Chap. 5
	8	Computers and Information	Chap. 6
	9	Databases	Chap. 6
	10	Spreadsheets	Chap. 6
	11	Quality	Chap. 9 & 10
	12	Second preliminary examination	
	13	Input and Output	Chap. 12
	14	Databasemanagement	Chap. 13
	15	Systems Analysis	Chap. 14
	16	Final Examination	11:00 A.M.

#### OFFICE HOURS:

The office is at the School of Business. The office telephone is (773) 244-6270. Office hours are two mornings per week: Tuesday and Thursday from 10:00 through 11:00. Office hours are three afternoons per week: Tuesday and Thursday from 1:00 through 3:00 and Saturday from 12:00 through 1:00. The e-mail address is jbonie@northpark.edu on campus.

#### ETHICS CODE:

North Park University regards honesty and integrity as essential qualities in the practice and profession of management. Therefore, each student is expected to uphold and defend high ethical standards in the classroom and in all North Park activities. Each student is expected to promote and maintain an environment in which honor and trust complement and encourage a superior academic experience. In all academic activities at North Park no student will: (a) give or receive unauthorized aid during completion of academic requirements; or (b) obtain, process, or destroy property of another without consent; or (c) misrepresent fact or self at any time.

#### GRADING SYSTEM:

The numerical course grade is determined by computing the weighted mean of three requirements:

First preliminary examination	20%
Second preliminary examination	30%

Final examination \_\_\_\_\_ 50%

The student's final grade in the course is determined by the level of the weighted mean after rounding.

Weighted _____ Mean _____	Final _____ Grade _____
90-100	A
80-89	B
70-79	C
60-69	D
Less than 60 _____	F

- A \_\_\_\_\_ For outstanding performance in terms of the class and standards established for the course by the professor; excellent mastery and mature understanding of the subject; student is fully capable of utilizing the material and applying it to new situations.
- B \_\_\_\_\_ For commendable performance short of the superior achievement of those given the grade of "A"; good mastery of the subject; to use the material in a new situation, the student would have to do some careful review and study, but could not be relied upon to perform competently.
- C \_\_\_\_\_ For wholly competent but undistinguished performance of the attainment of course standards; adequate mastery of the subject; but could not be expected to utilize the material independently in a new situation without supervision and guidance; may have some trouble with subsequent related courses.
- D \_\_\_\_\_ For achievement acceptable for grade and credit without repeating the course; this "passing" performance is sufficiently below average, however, so that, if consistently or frequently found in the record of the individual student, overall major objectives and college standards are not being met.
- F \_\_\_\_\_ For failure to meet even minimum standards for the course. \_A failure in a required course must be made up by repeating the course.\_ Failure to master the minimum standards established by the professor for the course.