

## NORTH PARK UNIVERSITY

BSE 2510-M1 \_\_\_\_\_ Professor Bonie  
Operation Management and Information Systems \_\_\_\_\_  
Office: SBNM  
Spring 2012-13 \_\_\_\_\_ Hours: M,T,W,TH  
Four Credit Hours

### TEXT:

Production Operations Management, 10<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:**

|           |   |             |
|-----------|---|-------------|
| Section 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<br>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 four mornings per week: Mon. thru Thursday from 10:00 through 11:00. Office hours are three afternoons per week: Tuesday and Thursday from 1:00 through 3:00. 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 _____ | Final _____ |
|----------------|-------------|
| Mean _____     | 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.

## **Academic Honesty**

In keeping with our Christian heritage and commitment, North Park University (NPU) and the SBNM are committed to the highest possible ethical and moral standards. Just as we will constantly strive to live up to these high standards, we expect our students to do the same. To that end, cheating of any sort will not be tolerated. Students who are discovered cheating are subject to discipline up to and including failure of a course and expulsion.

Our definition of cheating includes but is not limited to:

- Plagiarism – the use of another’s work as one’s own without giving credit to the individual. This includes using materials from the Internet.
- Copying another’s answers on an examination.
- Deliberately allowing another to copy one’s answers or work.
- Signing an attendance roster for another who is not present.

In the special instance of group work, the instructor will make clear his/her expectations with respect to individual vs. collaborative work. A violation of these expectations may be considered cheating as well. For further information on this subject you may refer to the Academic Dishonesty section of the University’s Catalog (available at [www.northpark.edu](http://www.northpark.edu)). In conclusion, it is North Park’s mission to prepare you for a life of significance and service. Honesty and ethical behavior are the foundation upon which such lives are built. We therefore expect the highest standards of each student in this regard.

## **Attendance Policy**

### Attendance Policy

The graduate courses in the SBNM are all 7 weeks in length. Missing one class session is allowed without penalty as long as all readings and assignments are made up by the student within a reasonable time period (the following week). Failing to log into an online course site for an entire week is allowed, but a penalty may be applied at the instructor’s discretion. Missing a second class session is allowed only in unusual circumstances by prior arrangement with the instructor. Since this represents almost 30% of the engagement time for the course, the student runs the risk of receiving a lower overall grade for the class. Faculty are encouraged to drop the course grade by a full letter grade in this situation. A student who misses three classes (or the equivalent two weeks for an online class) will automatically fail the course, unless the student drops the course before the seventh week of class. Students who drop a course will be held responsible for tuition, based upon the current North Park University refund policy outlined in the University Catalog.

## **Disabilities**

Students with disabilities who believe that they may need accommodations in this class are encouraged to contact the SBNM program office (773-244-6270). Please do so as soon as possible to better ensure that such accommodations are implemented in a timely manner. For further information please review the following website:  
<http://www.northpark.edu/ada>.

## **Use of *APA Publication Manual***

The School of Business and Nonprofit Management (SBNM) has adopted the *Publication Manual of the American Psychological Association (APA)* as the standard and required format for all written assignments in SBNM courses.

Our goal in adopting the *APA Manual* is to enhance student learning by:

- 1) Improving student's writing skills.
- 2) Standardizing the required format of all written assignments in all SBNM courses.
- 3) Emphasizing the importance of paper mechanics, grammatical constructs, and the necessity of proper citations.
- 4) Holding students accountable for high quality written work.

If you are unfamiliar with the requirements of the *APA Publication Manual*, we recommend that you purchase the reference manual and/or that you consult one or more of the suggested resources as listed on the Student Resources section of the SBNM website. ***It is your responsibility to learn and ensure that all written work is formatted according to the standards of the APA Manual.***