SYLLABUS FOR MBA PROGRAM, SPRING SEMESTER 2014
BAD 64041 OPERATIONS AND SUPPLY CHAIN MANAGEMENT (3)

COURSE DESCRIPTION:

BAD 64041 OPERATIONS MANAGEMENT AND SUPPLY CHAIN (3) Develops a framework for analysis of operating problems. Uses computer, quantitative, and behavioral models to develop operating plans consistent with organizations' competitive (or service) strategy.
Prerequisite: BAD 64005.
Beginning January 13, 2014, ending May 4, 2014

I. TO THE STUDENT:

The main objective of this course plan, the syllabus, is to assist you, the student, in preparing yourself before coming to a class presentation, in being able to follow a lecture and participate in class, and in doing the adequate work after class. You are going to participate in informal, un-graded assignments in and out of the classroom that allow you to understand the basic theory behind operations management and the quantitative skill used to make decisions in operations. These assignments will prepare for formal, graded assignments where students are evaluated on their mastery of these skills.

That is the reason, that your instructor has prepared this syllabus with as much detail as possible. It is actually a tool that will enable you to get the most out of this course.

II. RATIONALE:

As we approach the new millennium, the need for organizations to improve all levels of their operations has never been more important. The effective use of their production resources, the focus in continuous quality improvement, and decision-making could be vital for the success of any organization. The operations function is at the core of a business, because here lays responsibility for most of the labor, materials, equipment, information, energy, and capital used to produce goods and services.

Knowledge of operations management prepares managers to face the competitive challenge of effectively managing organizational resources. Operations management merges topics from accounting, marketing, industrial engineering, human factors, management science, and statistics into a blend of analytical tools and strategic issues.

The main objective of this course is to enable students to become better managers, particularly if they find themselves working in operations management. A sizable part of the U.S. and international work force is employed in operations related jobs. These jobs are important and

challenging, and they can lead to rewarding and successful careers. To achieve this objective, several goals were established and are presented in part III.

III. GOALS:
Upon successful completion of the course, the student should be able to:

Cognitive Domain:

1. Understand what operations managers do in a manufacturing and service firms, and become familiar with the tools and techniques that operations managers use in making operating decisions.

2. Identify weaknesses and strengths of the operation function within a firm and be able to communicate at different levels of the organization with the objective of optimizing results of the operations function.

3. Apply theoretical concepts and analytical techniques learned in this course for the effective operation of manufacturing and service systems.

4. Compare different quality measures and costs, and show how they can be used to translate quality issues into the language of management--money.

5. Propose the importance of participate problem-solving approaches and the application of analytical techniques for the evaluation of production processes.

Affective Domain:

6. Evaluate the numerous managerial factors that contribute to the successful implementations of operations management concepts.

IV. DETAILED COURSE SYLLABUS:

A. COURSE/INSTRUCTOR/TEXT INFORMATION:

Course Title: Operations Management
Instructor: Alan D. Smith, Ph.D., University Professor of Operations Management
Office: Graduate Office, MIS, 434A, Kent State University
Office Hours: hours by appointment
Telephone: 330-206-3557 (cell)
E-mail: smitha@rmu.edu (preferred) and/or adsmith3.kent.edu
Meeting times and place: 6:35PM to 9:20PM, Mondays in Main Classroom Building 118, Stark Campus.

TEXT: Heizer, J. and Render, B. (2008-12). *Principles of Operations Management, 8th – 10th edition*. McGraw-Hill: New York.
Software: Excel-Template (in student DVD ROM bundled with the textbook)

B. COURSE DESCRIPTION:

Operations Management provides the conceptual and analytical frameworks for managerial decision-making in terms of process design, quality, capacity, project scheduling, and inventory and their implementation in the major functional areas of the business disciplines. Concepts and issues in TQM and SPC are emphasized, including a general framework for quality in the product design and production process using Crosby, Deming, Juran, and other theory and design techniques in measuring quality by statistical processes, reliability and sampling techniques. The course should allow the students develop an expertise in analyzing and improving process flows, including flows of customers in service operations, material flows, and information flows in order to improve overall efficiency and effectiveness of operations in general. Lecture, class discussion, problem-solving with aid of appropriate software applications, case studies, and literature reviews will be stressed.

Prerequisite: Statistics for Management (BAD 64001)

C. COURSE SPECIFIC OBJECTIVES:

The primary goal of BAD 64041 OPERATIONS AND SUPPLY MANAGEMENT is to provide graduates of MBA/MS programs at Kent State University with a thorough and carefully planned learning experience in the operations function in making accurate managerial decisions within environmental and information constraints that comply with AACSB standards for graduate education.

In general, managerial decision-making tools and skills are much in demand and highly integrated in the various departments, including computer and information systems, finance, economics, statistics, accounting, management, and marketing. This course in operations management would provide students in the traditional and nontraditional MBA programs (i.e., health care services, quality assurance) a focus point for the theoretical and practical knowledge of the quantitative tools and skills acquired in the Quantitative Skills Interactive course (pre-MBA program). This introductory course in Operations Management will develop these applications, as well as enhance the MBA with topics in statistical quality control (SQC), total quality management (TQM), self-directed work teams, inventory management, capacity planning, and other applied production planning and control topics.

Specifically, student completing BAD 64041 OPERATIONS AND SUPPLY MANAGEMENT will be able to:

1. Differentiate and assess the operations decision-making framework in terms of process design, quality, capacity and scheduling, and inventory, and their implementations in the major functional areas of the business disciplines.

2. Assess an operation strategy to a firm's multiple objectives, focus, and response to external as well as international factors.

3. Recognize and translate product modular design and the interaction of product-processes in both service and industrial settings.

4. Develop a general framework for quality using Crosby, Deming, and others' theory and design techniques in measuring quality by statistical processes, maintainability, reliability, sampling techniques, Pareto charts, cause-and-effect diagrams in a variety of settings (i.e., purchasing, data entry, repetitive manufacturing).

5. Familiarize the student with production and its relationship to achieving an organization's primary objective of efficiency in dollars or resource utilization.

6. Present and interpret production as a common-sense area of business operation, complicated and refined only through the use of more sophisticated quantitative methods.

7. Discuss and demonstrate the major types of process strategies in terms of flow of products, dimensional analysis, and product-process matrices through linking process selection to corporate and vertical integration strategies.

8. Develop strategies to deal with management issues in attempting to rationalize, standardize, and control the design and delivery of services, and integrating the role of technology in the design and delivery of these services.

9. Apply the basic quantitative management skills in business decision-making, such as linear programming and corresponding sensitivity analysis, transportation and transshipment methods, network models including PERT/CPM, queuing, decision analysis, multi criteria decision techniques, forecasting, Markov processes, and calculus-based solution procedures.

10. Familiarize the student with techniques and applications of current management sciences/operations management practices through library assignments, literature reviews, case study analysis, and term projects.

11. Analyze and improve process flows, including flows of customers in service operations, material flows, and information flows in order to improve overall efficiency and effectiveness of operations in general.

12. Access inventory systems, such as EOQ, MRP, JIT, and their impact on costs, technology, lot sizing, project planning and scheduling in optimizing the firm's goals. Software developments and their applications in this area are especially emphasized.

13. Apply and interpret statistical methods and hypothesis-testing procedures in the various functional areas of the operations manager, including forecasting

and time-series, multivariate and analysis techniques, simulation model effectiveness, and program evaluation.

14. Analyze decision problems in operations and the relationship of operations decisions to other business decisions.

15. Present the concepts of operations planning and control including and forecasting, capacity, scheduling, inventory, MRP and JIT, and TQM.

16. Familiarize the student with operations process management including quality, productivity and process design.

17. Present the logistic/transportation function and its interface with operations.

18. Evaluate performance measurement and improvement strategies by quantitative and qualitative means in order to measure and obtain feedback on operations performance measurement, including cost, quality, delivery, flexibility, and innovation. This leads to an appreciation into benchmarking of performance and processes, with the goal of increased efficiency and effectiveness of the firm.

19. Developing aggregate production-planning strategies to handle cases dealing with production planning models, dynamic programming production models with or without changing work- levels, machine workloads balancing, backlogging and desegregations.

20. Performance measurement and improvement strategies by quantitative and qualitative means in order to measure and obtain feedback on operations performance measurement, including cost, quality, delivery, and flexibility. This leads to an appreciation into benchmarking of performance and processes, with the goal of the firm's increased efficiency and effectiveness.

21. Develop an expertise of applied mathematics in problem solving in operations and control situations.

D. COURSE CONTENT:

TENTATIVE CLASS SCHEDULE – SPRING SEMESTER 2014	
WEEKLY DATES	***OPERATIONS AND SUPPLY MANAGEMENT TOPICS***
Week 1	**Chapter 1: Introduction to Operations Management**
Week 1	**Chapter 2: Operations in a Global Environment**

Week 2	**Chapter 2: Operations in a Global Environment**
Week 3	**Chapter 4: Forecasting**
Week 4	**Chapter 5: Design of Goods and Services**
Week 4	**Chapter 6: Management of Quality**
Week 5	**Chapter 6s: Statistical Process Control**
Week 6	**Chapter 7: Process Strategy**
Week 7	**Chapter 8: Location Strategy**
Week 8	**MIDTERM EXAMINATION**
Week 9	**Chapter 11: Supply Chain Management**
Week 10	**Chapter 11: Supply Chain Management**
Week 11	**Chapter 12: Inventory Management**
Week 12	**Chapter 14: Material Requirements Planning (MRP) and Enterprise Resource Planning (ERP)**
Week 12	**Chapter 16: JIT and Lean Operations**
Week 13	**Chapter 3: Project Management**
Week 14	**Chapter 3: Project Management**
Week 15	**COMPREHENSIVE AND TAKE-HOME EXAMS AND GROUP PRESENTATIONS DUE**
Week 15	**CASE PRESENTATIONS**

PART I. INTRODUCTION

1. The Operations Function

17.5 Reducing Setup Times and Lot Sizes
17.6 Layout and Equipment
17.7 Effect on Workers
17.8 Suppliers
17.9 Implementation of JIT
17.10 Comparison of MRP and JIT
17.11 Beyond JIT to Time-Based Competition

E. COURSE REQUIREMENTS

The course, BAD 64041 OPERATIONS AND SUPPLY MANAGEMENT, is an integral part of the MBA program, and a very important integrative course of other managerial business disciplines. Therefore, the instructor expects from the students to demonstrate a professional attitude, and also expects from them to:

1 Come prepared to class presentation, participate in class discussions and case analyses, and contribute in class with relevant opinions.
2. Take one intermediate and one final exam.
3. Take periodic quizzes, or hand out selected homework assignments.
4. Learn how to use Excel, OM Excel 3.0, and/or POM for Windows 3.0or any other computer package recommended or provided by the instructor.
5. Attend classes regularly.

F. TEXT, READINGS AND COMPUTER SOFTWARE:

Textbooks:

Heizer, J. and Render, B. (2008, 2010). *Principles of Operations Management, 7 OR 8th edition*. McGraw-Hill: New York.

Software: Excel-Template (in student DVD ROM bundled with the textbook)

Suggested supplemental journals:

Harvard Business Review
Industrial Management
International Journal of Operations and Production Management
Journal of Quality and Technology
Journal of Operations Management

Suggested Software:

MS Word for written assignments,
PowerPoint for presentations, and

MS-Excel, QM for Windows, Management Scientist or any other recommended by the instructor for quantitative assignments.

G. DELIVERY SYSTEM:

The educational outcomes in BAD 64041 OPERATIONS AND SUPPLY MANAGEMENT will be delivered through a combination of teaching methods and student activities. Teaching methods will include:

1. Lecture and discussions.
2. Use of handout materials provided by the course instructor.
3. Demonstration and interpretation of applications software.
4. Role-playing and discussions in case studies.
5. Evaluations.
6. Use of audiovisual materials such as transparencies and videotapes.
7. Use of outside speakers if available.

A variety of activities will also be used, including but not limited to the following:

1. A class project.
2. Summaries of journal articles.
3. Use of textbook materials and homework assignments.
4. Written evaluations of computer assignments.
5. Written evaluations and interpretations of numerical exercises.
6. Reading and critically comment 2 to 5 case studies given in class.
7. Perform computer assignments on linear programming, transportation, PERT/CPM, queuing and forecasting via appropriate software, such as MS-Excel, QSB+ and/or Management Scientist.

H. EVALUATION CRITERIA AND MEANS:

The student's performance in the course will be evaluated in both course theoretical concepts and analytical techniques by means of two exams, one intermediate exam given during the fourth week of classes, and a final exam given in the last week of classes. These exams will consist primarily of general operations management theory and principles, or problems formulated to be solved, analyzed and interpreted using various analytical techniques discussed in the course. They may include questions requiring definitions, short essay responses, true/false questions, and/or multiple-choice questions. The students must demonstrate their practical understanding of theory, mathematical algorithms and other concepts related to the course. In addition to in class tests, instructors may incorporate other criteria to evaluate students. Periodically unannounced quizzes may be given at the beginning of a class or selected homework assignments may be collected. At least two literature reviews are suggested to acquaint students to referred articles in their discipline that uses OM techniques. Each review must be typed and have a photocopy of the original article attached to your final report, which will consist of the following major headings:

a. Citation

b. Research classification
c. Statement of problem
d. Types of operations management/decision science techniques
e. Evaluation of the usefulness of the above operations management/decision science techniques
f. Personal evaluation.

Also, computer assignments on each major analytical technique and/or quantitative topic are suggested to achieve the outcomes of the course. Computer assignments must have written evaluations along with attached computer printouts. Suggested software packages include, but not limited to, MS-Excel, OM Excel, QSB^{+}, MANAGEMENT SCIENTIST, and/or LINDO.
The following is the weighing scheme for the above-mentioned activities:

Graded Activities % of Course Grade:

Midterm Exam	**35**
Final Exam (includes both take-home and in-class)	**30**
In-class group presentation	**10**
Average of two peer reviewed literature reviews	**10**
Average of computer/homework assignments	**10**
In-class group projects/assignments	**5**
	TOTAL 100

Grading Scale
93 – 100 A
90 – 92 A-
86 – 89 B+
83 – 85 B
78 – 82 B-
67 – 77 C
Below 66 F

Please note that student's your overall score (OS) for the course is determined by the following equation:
OS = 0.10 (average of homework/ computer assignments) + 0.05 (average of various in-class assignments) + 0.35 (Midterm Exam score) + 0.30 (Final Exam score) + 0.10 (average of two literature reviews) + 0.10 (group presentation of operations management case from textbook).

Timely submission of work:

With the exception of emergency situations, which will need to be verified, homework assignments, research projects or presentations must be done by the assigned date.

ACADEMIC POLICY REQUIREMENTS:

1. There are generally no makeup exams in this class for undocumented reason unless requested and approved by the instructor. In emergency situations, which needs to be properly documented (i.e. doctor or employer's excuse-note). In general, students are expected to attend class and are responsible for any material discussed and/or assigned. With respect to make-up, the general policy is no make-up of missed work (including exams) is allowed, and no late work will be accepted. The only exceptions are: A prearranged situation (e.g., course field trips, athletic trips, etc.) and/or emergency illness, death in the family. etc., in this case, the instructor should be notified as soon as possible. Please contact the instructor early if there are any problems or concerns. There will be no exceptions to this policy.

2. There are no excused absences, late arrivals, or early departures, but I appreciate notice if you know you will be missing a class and/or arriving late or departing early.

3. Cheating in any form will result in an automatic grade of F for the course.

4. Students have responsibility to ensure they are properly enrolled in classes. You are advised to review your official class schedule (using Web for Students) during the first two weeks of the semester to ensure you are properly enrolled in this class and section. Should you find an error in your class schedule and if registration errors are not corrected by the proper date and you continue to attend and participate in classes for which you are not officially enrolled, you are advised now that you **will not** receive a grade at the conclusion of the semester for any class in which you are not properly registered.

5. During all examinations, you are allowed an 8.5" by 11" sheet (front and back) containing information of your choice. The tests will consist of definitions, essays, and problems. Examination will typically last the entire class period.

6. Students will need a calculator for all examinations. Your calculator must have a statistics mode to allow for the quick calculation of means, standard deviations and variances.

Academic Integrity:

We will follow the University Policy on Academic Integrity. Academic honesty: Cheating means to misrepresent the source, nature, or other conditions of your academic work (e.g., tests, papers, projects, assignments) so as to get undeserved credit. In addition, it is considered to be cheating when one cooperates with someone else in any such misrepresentation. The use of the intellectual property of others without giving them appropriate credit is a serious academic offense. It is the University's policy that cheating or plagiarism result in receiving a failing grade for the work or course. Repeat offenses result in dismissal from the University.

Course Withdrawal Dates:

For Spring 2014, the course withdrawal deadline is Sunday, March 23, 2014. For most semesters, the course withdrawal deadline is always the Sunday following the 10th week of the semester.

Course Attendance Information:

Students have responsibility to ensure they are properly enrolled in classes.

Enrollment/official registration:

Students have responsibility to ensure they are properly enrolled in classes. You are advised to review your official class schedule (using Student Tools on FlashLine) during the first two weeks of the semester to ensure you are properly enrolled in this class and section. Should you find an error in your class schedule, you have until **Sunday, January 26, 2014** to correct the error. If registration errors are not corrected by this date and you continue to attend and participate in classes for which you are not officially enrolled, you are advised now that you **will not** receive a grade at the conclusion of the semester for any class in which you are not properly registered.

Students with disabilities:

University policy 3342-3-01.3 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through Student Accessibility Services (contact 330-672-3391 or visit http://www.registrars.kent.edu/sas for more information on registration procedures).

Graduation Application Deadlines:

If you are eligible to graduate, it is your responsibility to apply for graduation before the set deadline (**May Graduation**: Apply before September 15th **August Graduation**: Apply before December 13th. **December Graduation**: Apply before March 15th). If you apply after the deadline you will be assessed a $200 late fee. Please see your academic advisor as soon as possible if you are uncertain as to your progress toward graduation. To apply for graduation complete the following steps: Log onto your Flashline account 1. Click on the Student Tools tab, 2. Look in the Graduation Planning Tool Box, 3. Click on Application for Graduation
If an error message appears

The graduation application deadlines are follows:

May Graduation: Apply before September 15th
August Graduation: Apply before December 15th
December Graduation: Apply before March 15th

To apply for graduation complete the following steps:
Log onto your Flashline account

1. Click on the Student Tools tab
2. Look in the Graduation Planning Tool Box

3. Click on Application for Graduation

**If an error message appears, you must contact your advisor.

OTHER POLICIES:

1. Students attending the course who do not have the proper prerequisite risk being deregistered from the class.

2. Students have the responsibility to ensure they are properly enrolled in the classes. You are advised to review your official class schedule during the first two weeks of the semester to ensure you are properly enrolled in this class and section. Should you find an error in your class schedule, you have until the date given in Schedule of Classes or the Registrar's website to correct it with your advising office. If registration errors are not corrected by this date and you continue to attend and participate in the classes for which you are not officially enrolled, you are advised now that you will not receive a grade at the conclusion of the semester for any class in which you are not properly registered.

3. Withdrawal before the deadline results in a "W" on the official transcript; after the deadline a grade must be calculated and reported. The deadline is given in the Schedule of Classes and on the Registrar's website.

4. Students with disabilities: In accordance with University policy, if you have a documented disability and require accommodations to obtain equal access in this course, please contact the instructor at the beginning of the semester or when given an assignment for which an accommodation is required.