Operations and Management Science 3001: Introduction to Operations Management

Dr. Ernest L. Owens, Jr.


Course Objectives

An analysis of the transformation process of changing inputs (materials, labor, cultures, etc.) into goods and services. We will address the role of the operation's manager and his/her role as a boundary spanner and systems integrator in a business, non-profit, government, and/or education organization. We will look at small, medium, and large firms, recognizing that corporate is a culture not a magnitude.

In any organization, public or private, profit or non-profit, the transformation of goods, people or information is the major function. This course examines strategic and tactical decisions that deal with:

1. The manifestation of an organization's chosen competitive advantage,
2. The design of the transformation process and its infrastructure,
3. Some operational issues such as: forecasting, project management, and quality control.

In addition, the course examines various models of leadership and management plus the distinction between the two elements of behavior.

This course is not aimed at theoreticians, or pure research oriented people. Rather, it is aimed at people who intend to be practitioners in the field. Results from Organization Theory, Operations Research, Industrial Engineering, and Systems Engineering will be applied to problems in production, service, non-profit, and government organizations.

After you have done your organizational research, you will have the opportunity to summarize your findings via a simulated executive briefing. This component of the course provides you with practice in important, real world, business skills.

Methodology

This course combines the use of lecture and text material, classroom discussions, and experiential exercises. Exams and a personal synthesis are viewed as opportunities for learning both course materials and developing your abilities as a future manager.
Success in this course is measured by learning, not just by a grade. You will be required to actively and effectively participate in all course activities, including class discussions, in-class exercises, and field work at local organizations. Interaction with your instructor (as a resource and as a mentor) and with other students in the class will be necessary to succeed.

No allowance will be made for students who do not prepare sufficiently for class. Each student is expected to have properly prepared assigned work before class, and in-class activities will be based on this expectation. Questions and concerns about homework assignments need to be resolved prior to class. Whether or not, we cover the book materials in class; the subjects are still fair game for exams.

**Classroom Culture**

*First:* I will deliberately not dot all the "i's" or cross all "t's" to explain how one succeeds with this course. Rather I will leave many holes, which you the student must learn to plug through clarification, initiative, moxie, creative thinking and "down-right" hard work.

*Second:* You will learn to deconstruct an enterprise into its various functions by using the language and principles of Operations Management and Organization Theory.

*Third:* Successful students will learn the art of dealing with ambiguity, the need to make choices in an environment of uncertainty and the power of business cultures. You are required to talk, dialogue, and participate in the classroom discussion. Failure on your part will guarantee a low course grade.

*Fourth:* I will be available to help any student understand the principles of the course through scheduled appointments. However, if you do not work hard in this course, there is a good chance you can fail. Conversely, students who do their assignments well have a very good chance of obtaining a high grade.

*Fifth:* It is my job to challenge you. No challenge is a personal attack on you but rather your ideas. You, thereby, have complete authority to challenge me, however, please be prepared to defend your point of view. If your challenges become personal, I will warn you and guide you towards ways to challenge my thoughts. If you continue with personal attacks - you will be dismissed from the course. Almost all students have mastered this process and have become comfortable in making such challenges. Know that questioning what I say is sound learning. Humor and cheekiness are encouraged.

*Sixth:* You are responsible for your actions in this course. It is my prerogative to adjust any grade in this course based on your attitude towards the subject. If you are in this class because you have to be - don't make that your reason for having a poor disposition towards the course. We all have things we must do and how we approach those situations can make or break our careers. A negative attitude by you will result in a lower grade by me. Conversely, students who
demonstrate a genuine enthusiasm for this course will get the benefit of the doubt if their grade is on a borderline. Coming to class claiming you did not know what the assignment was for a class period is not acceptable.

**Attendance Policy**

Attendance is expected at all class sessions. If you are unable to attend, please notify me before class. Missing 4 classes for any reason will result in an "F" - No exceptions. If the absence is due to a verified medical crisis, you will be allowed to repeat the course the next semester this instructor teaches it again at no cost. You must produce a doctor's written memo to the Dean of the College or me. I will check the authenticity of the memo. Remember you can fail on attendance alone! Though this is very rare, it has happened.

Business is an art not a science

**OMS 3001 Class Schedule**

This schedule can and probably will change without notice. However, you are still responsible for work scheduled.

- **Week 1** 9/3 Course Introduction Chap 1
- **Week 2** 9/9 Project Management Chap 14
  - First 10 Chapters of the Goal (1-10)
- **Week 3** 9/16 Process Flow Analysis APA - Paper Flow - email transmittals Chap 7
  - Second 10 Chapters of the Goal (11-20)
- **Week 4** 9/23 Operations Strategy & Product Design Chap 2 & 3
  - Third 10 Chapters of the Goal (21-30)
- **Week 5** 9/30 Process Selection-Mfg & Service Process Selection Chapt 4 & 5
  - Fourth 10 Chapters of the Goal plus conclusions (31 - end)
- **Week 6** 10/7 Choice of Technology Chap 6
  - E-mail of paper introduction due by 10-10 Exam 1
- **Week 7** 10/14 Quality Management & Control and Improvement Chap 8 & 9
- **Week 8** 10/21 Supply Chain Chap 10
- **Week 9** 10/28 Forecasting Chap 11
- **Week 10** 11/4 Facilities & Aggregate Planning Chap 12
- **Week 11** 11/13 Scheduling Operations & Project Scheduling Chap 13 & 14
  - Exam 2
- **Week 12** 11/20 Independent Demand Chap 15
- **Week 13** 12/2 MRP Chap 16
- **Week 14** 12/9 JIT Systems Chap 17
  - Synthesis Paper due 12-15
- **12/16 Final Test - (Semester Cumulative)**
Note: From time to time unscheduled guest speakers will come. You are still responsible keeping readings and work up to date. All quizzes and test are cumulative.

**Grading Components**

Exams (45%)
Exam 1 (10%)
Exam 2 (15%)
Final (20%)
Synthesis Paper (40%)
Participation (15%)

**Participation**

Your participation in our class will be evaluated on the following:

- Peer review of your project efforts.
- In-class contributions
- Your engagement through journalizing.
- How I see you "playing" with the theory.

**Attendance**

Good attendance is a necessity for a good grade. I will take attendance into consideration in making grade decisions. For example, if you are on the borderline between a C+ and a B-, your attendance may influence my decision. You will be allowed four absences, no more. I will strictly enforce this. Should there be a medical crisis, you must get a letter from the Dean of the School stating why your grades to date should be reinstated.

Your successful completion of the course depends upon:

1. Reading the assignments before class
2. Doing the required assignments before class
3. Rereading the text after class
4. Attempting to solve your research problems
5. A willingness to use class time to ask questions
6. A strong willingness to use out-of-class time to master the required skills
7. The success of relating your research to your professional life.
What to Do in Order to Earn the Grade You Want

NOTE: By doing nothing more than enrolling in this class each student is guaranteed an "F". If you are satisfied with this grade you need do nothing more for the remainder of the semester.

A
If you show up almost all the time, your written assignments are completed on time, are very well written and display a mastery of the material, if you give evidence that you are always prepared for class discussions by making regular, substantive contributions, and also take a solid leadership role in your group, you will have earned an "A".

B
If you show up almost all the time, your written assignments are completed on time, are well written and give evidence of a genuine understanding of the material, if you give evidence that you are almost always prepared for class discussions by making regular, substantive contributions, and also make solid contributions to your group, you will have earned a "B".

C
If you show up most of the time (missing no more than 3 classes), complete your written assignments adequately and on time, are generally prepared for class and make contributions with some regularity, and make an adequate contribution to your group, you will have earned a "C".

D
If you show up most of the time (missing no more than 3 classes), complete your written assignments (but do them rather superficially and perhaps not always on time), are occasionally prepared for class discussions (but hardly ever make a contribution), and make minimal contributions to your group, you will have earned a "D".

In general, it is your responsibility to show me that you deserve the grade you want. The amount of time and effort you put into the course is irrelevant unless it translates into performance. You should assume that you begin the course with, say, a "C", and that this grade will be changed only when you demonstrate in one way or another that you deserve something better or worse.

Papers

A
The Paper is well organized both overall and at the paragraph level. Sentences are smooth and carefully crafted. There are virtually no errors in punctuation or spelling, grammar or usage. Words are chosen with precision. Informal language (i.e., slang) or dialect is used only when appropriate. The paper avoids triteness and unwarranted generalization: the language is fresh and vivid. The paper is tight, not wordy. The ideas show a thorough understanding of the work and
are often insightful; the ideas are developed and supported. The ideas illuminate the work as a whole and do not contradict other parts of the work or overlook parts, which are relevant to the topic. The writer keeps his/her audience in mind and, as a consequence, the paper engages and interests the reader. Citations of authors and literature in the field are abundant, add insight, and clarify ideas stated.

**B**
The paper is well-organized, but the paragraph structure may sometimes be disjointed. The paper may have a few awkward passages and a few errors in punctuation, spelling, grammar or usage. The language may at times be too general; it may lack the freshness or precision of the "A" paper. But one of these errors is glaring or highly distracting. The ideas are worthwhile and show good understanding of the work; they are sometimes insightful, generally well developed, and well supported. The ideas help illuminate the work as a whole and contradict or overlook no major aspects. While the paper is always clear and thus suggests that the writer had his/her audience in mind in a general way, the style or presentation of the ideas does not always engage or interest the reader. Citations of authors and literature in the field add clarity to the ideas stated.

**C**
The Paper is basically well-organized, though individual paragraphs may be disunited or misplaced. Generally, however, the paper shows that the writer has followed a logical plan. The writing is competent, but often wordy, overly general, imprecise, or trite. Sentences may at times be awkwardly constructed, but their meaning is clear. Grammar, punctuation, spelling, and usage are not highly distracting, but there may be some errors. The ideas are generally worthwhile, but not very insightful; development and support are present but sometimes less than adequate. The ideas illuminate parts of the work, but not the whole; no major aspects of the work are contradicted or entirely disregarded. While the writing is usually competent, the writer does little to interest or engage the reader in what he/she has to say. Citations of a thesis and literature in the field add limited clarity or misrepresent the ideas stated.

**D**
The paper is poorly organized, though there is a recognizable thesis. Some sentences may be so confused that their meaning does not clearly emerge. Words may be imprecise, incorrect, trite or vague. In general, however, the paper in understandable. Ideas are generally superficial and weakly developed or supported, although some development and support are present. Obvious aspects of the work have been overlooked or disregarded; some significant facts may be incorrect. Audience "engagement" cannot occur, although the writer may have attempted to elicit it, because of the serious deficiencies already noted. Citations are limited or missing.

**F**
The paper lacks a clear thesis; the language or sentence structure is so muddled as to be unclear in several spots; or the errors in punctuation, spelling, grammar, and usage are highly distracting. The ideas are superficial and show no real understanding of the work beyond, perhaps, plots; important facts are incorrect. The paper relies on generalizations with little or no development or
support. The paper blatantly overlooks, disregards, or contradicts important aspects of the work. Under any of these conditions audience "engagement" is impossible.

BIOS
Ernest L. Owens, Jr., Ed.D. is a full time tenured faculty instructor at the University of St. Thomas (UST) in the Department of Operations and Strategic Management. His doctorate is in leadership from UST. He has taught since 1991, both graduates and undergraduates in management. He also is an adjunct member of the Carlson School of Management and the University of Wisconsin River Falls where he teaches management, operations, and strategic information systems. His twenty two years of industry experience comes from Unisys as Director of the Strategic Planning, IBM as a Cost Engineer, Johnson and Johnson's as an Industrial Engineer, Melville Shoe Corporation as a Methods Analyst, and Mass General Hospital as an Industrial Engineering Technician. He holds an MBA in Finance and Manufacturing Systems Engineering from UST. He holds a BS in Industrial Engineering from Northeastern University in Boston. Dr. Owens has won several local and national awards from both the non-profit and business communities for strategic planning.

His background in planning is extensive with businesses and includes organizations like Unisys, IBM, and Precision Inc. Dr. Owens has conducted planning sessions with direct service delivery groups such as American Indian Opportunities Industrialization Center (OIC), East Metro OIC, State of Minnesota OIC, Minneapolis Urban League and Little Earth Resident Association and schools such as Como Park Senior High in St. Paul and Heart of the Earth Survival School in Minneapolis. Dr. Owens also works as a paid consultant with both business and community based organizations.

Key Awards
"Innovative Achievement In Corporate and Community Responsibility Award" - UST
"Jefferson Award" American Institute for Public Service - national service award
"Dr. Leon Sullivan Award" - national award for job training and community development
"Eleven Who Care Award" - local award for community service
"WCCO Good Neighbor" - local recognition of community volunteers
"St. Paul Chamber of Commerce Community Development Award" - featured article

Other efforts that round out his administrative and planning skills are:
Appointed by Governor Perpich, Carlson, and Ventura to the Minnesota Workforce Development Council (GWDC).
Former Executive Committee member of the GWDC.
Former Vice Chair of Education to Work Committee
Former Chair of the Governors' Council for Dislocated Workers in Minnesota.
Former Board Member and Planner for Ramsey County OIC.
Former Chair of the St. Paul United Way Goal Area on Self-Sufficiency.
Former Executive Steering Committee member of the Human Development Action Coalition (HUDAC), a coalition working on the hungry and homeless issues.