Production Operations
Management I

ISDS 3510
Sections 002, 003, 004, 501
Spring 2010

Lectures: January 14th through April 28th
Spring Break (no classes): March 8th through 11th
Section 002: Tuesdays and Thursdays, 8:00 – 9:25 AM, Classroom 127
Section 003: Tuesdays and Thursdays, 9:40 – 11:05 AM, Classroom 127
Section 004: Tuesdays and Thursdays, 11:20 AM – 12:45 PM, Classroom 127
Section 501: Wednesdays, 6:00 – 9:00 PM, Carrier Center

Roger Dean Iles (M.B.A. ’97), Instructor
Office Hours, 1:30 – 4:30 PM:
• Mondays, Tuesdays, and Thursdays: Fogelman College Admin Wing, BA 208
  o 901-678-3414
• Wednesdays: Carrier Center
  o 901-678-5515
• Other hours by appointment, (901) 678-3414 or Roger.Iles@memphis.edu

Course Description

Operations as a key element of organizational strategy from a competitive viewpoint. Integration of various techniques to facilitate solution to productivity and quality issues in both manufacturing and service industries using multifunctional approaches in the creation of goods and services. Role of P/OM function and relationship to other functional areas; basic production techniques and tools for both manufacturing and service operations. PREREQUISITE: ISDS 2710.

Course Objectives:

Demonstrate many of the concepts involved in operations management, to provide students with a foundation for a business career, and in-depth coverage of the topics in subsequent courses, at the undergraduate and graduate levels.
Texts:

   • There are four supplements which will be covered, which are only available on the publisher’s Web site:
     Please ensure that you have access to this site (its interaction with firewalls, etc., is unpredictable). There are many additional resources on this site, including PowerPoint files and spreadsheet templates.
   • No other text, including earlier editions of Reid & Sanders, is a suitable substitute.

   • The “2nd revised edition” is identical in content, and may be substituted.

3. Supplemental course material: [http://umpeople.memphis.edu/riles](http://umpeople.memphis.edu/riles) (UM Drive) and on our eLearn site: [eLearn.Memphis.edu](http://eLearn.Memphis.edu)
   • The course section eLearn site hosts Discussion Forums which provide an opportunity to continue classroom discussions, including your instructor possibly posting afterthoughts or beneficial information which didn’t come up in all four sections he is teaching, and requests for clarification of lecture content.
   • This site also hosts our Dropbox folders.

Requirements of the Course:

1. WARNING FROM The Undergraduate Office: A prerequisite and upper division check will be completed once the first class roll has been issued. You must meet the following requirements to be enrolled in any 3000-4000 level business courses:
   • Any student seeking a degree in the FCBE must: (1) have completed all required lower division BA courses with a minimum grade of “C-” in each course, (2) have a minimum quality point average of 2.25 (ACCT major 2.5) in all required lower division business courses and MATH 1830 (or 1312), (3) have accumulated 55 hours of course work including the required 9 semester hours of English.
   • Non-Business majors must have junior or senior standing and must have met specific prerequisites of courses. If you have not met these requirements, it is your responsibility to correct the situation during the official drop/add period.
If you have NOT met these requirements and have NOT corrected the situation, there is a distinct possibility of being administratively withdrawn, possibly with no refund (!).

2. Any student who may need class or test accommodations based on the impact of a disability is encouraged to speak with your instructor privately to discuss your specific needs. Students with disabilities should also contact Student Disability Services (SDS) at 110 Wilder Tower, 901-678-2880. SDS coordinates reasonable accommodations for students with documented disabilities.

3. Due to the contents of this course, class attendance is required. Attendance will be verified randomly during class sessions. Missed classes will negatively affect your final course grade, including possible failure. Attendance for the entire time of all class sessions is not only profitable to the student (after all, part of what you are paying for is 2,400 minutes of classroom time, so any that you miss are a waste of money!), but has a major impact on 10% of your course grade. Unannounced “pop” quizzes covering the reading due will be conducted at the beginning of some topic lectures; there will also be review quizzes at the end of some lectures. These quizzes generally can’t be “made up.”

- Students will be expected to have read and become conversant with the assigned text chapters prior to each lecture session. There is a content outline at UMeople.Memphis.edu/riles, filename “ISDS 3510 Content Outline.doc” which may assist in notetaking; it is in MS Word™ format to permit insertion of notes. A rough schedule of topics for each week is provided below; definite reading assignments will be made no later than the previous week.

4. A paper based on the Goldratt text, not to exceed five (5) double-spaced typed/printed pages, will be due no later than 8:00 AM, March 2nd (must be uploaded to our eLearn Dropbox folder). Instructions are appended to this Syllabus. A final draft should not be prepared prior to a discussion which will be conducted in class on February 16th. This paper will count toward 15% of your course grade, only if submitted on time; however any student not submitting this assignment by 8:00 AM, April 28th will receive an “F” grade for this course. As this is not a course in Composition or Communications, every effort will be made by your instructor to make content more important than writing form in grading, but deduction will be made for grammar/spelling/usage errors which impair the professional impact of the paper, and proper citation form will be strictly enforced where applicable.

5. Homework assignments will be made from time to time during the course. The completed assignments must be uploaded to eLearn prior to 8:00 AM of the assigned date (note that Section 501’s due dates are one day later), which will allow no less than a week of lead time. Hard copy or email submissions will not
be accepted. Quizzes and homework together will comprise 15% of your course grade, so a grade better than “B” for the course is not possible without diligence to each.

6. Homework and the Goldratt paper must be submitted to our section’s eLearn Dropbox, in Word™, Excel™, .pdf, or compatible format.
   • Email or hard copy submission of these assignments is not accepted.
   • Note that, as stated above, the Goldratt paper must be submitted, even if it is late, in order to receive a passing grade in this course.

7. Routine conversations with your instructor should be carried on in our eLearn Discussion Forums, so all can see questions & answers, clarifications, etc. Note that we have a Forum called “Virtual Student Lounge” for discussions not pertaining to our course (Tiger sports, etc.).
   • There are Discussion Topics for each topic in the course; some Topics have some “starter” posts from your Instructor, to help get discussion threads going on course material. Any user may start a new thread on any “on topic” subject.
     o Participation in the eLearn Discussion folder will positively influence the “attendance/participation” portion (10%) of your course grade.
   • Necessarily private communication may be carried on with Roger.Iles@Memphis.edu, from any email address, but sensitive information such as grades and academic progress information will only be sent to the student’s UofM address (username@memphis.edu), for security/privacy protection. Please refrain from using eLearn’s email application.
   • ALL communication in our Discussion Forums must be respectful, and free of offensive, vulgar, or obscene language. Personal attacks, “flaming” and posting of SPAM will not be tolerated.
   • Please avoid excessive use of “textspeak” (“lol” “aisi” etc.), which may not be understood by all viewers (including your instructor!).

8. There will be three non-comprehensive written examinations administered during the semester, along with a comprehensive Final Exam per the schedule near the end of this document. Each of these exams will count 15% toward your course grade. The first three exams may be “made up” if missed through no fault of the student (strictly instructor’s judgment), at a time scheduled to the instructor’s convenience, no later than two weeks after the original date. Please give advance notice to your instructor if possible, if you will be unable to take an exam when scheduled. You may take any exam, including the Final, with another section of the course with the same instructor (see heading of this Syllabus). Your instructor must be notified as far in advance as possible if you will not be able to sit the Final Exam on schedule. Content to be covered in each exam will be discussed during class the prior week.
9. Expectations for academic integrity and student conduct are described in detail on the website of the Office of Student Judicial and Ethical Affairs (http://saweb.memphis.edu/judicialaffairs). Please take a look, in particular, at the sections about “Academic Dishonesty,” “Student Code of Conduct and Responsibilities,” and “Disruptive Behaviors.” Students are expected to be aware of these guidelines and to conduct themselves accordingly.

**Course Grading:** Based upon 4 Exams (60%), the Goldratt Review (15%), homework and quizzes (15%) and attendance/participation (10%). Note that it is possible to receive a “failing” score on all four examinations, and still receive a “C” course grade.

The grading scale is fairly standard:

- $>93 = A$; $92.9-90 = A-$; $89.9-87 = B+$; $86.9-83 = B$; $82.9-80 = B-$; $79.9-77 = C+$;
- $76.9-73 = C$; $72.9-70 = C-$; $69.9-67 = D+$; $66.9-60 = D <60 = F$
**Detailed Topical Outline (dates tentative):**

Each of the following is planned to be a week’s class session(s); of course, any one may require more or less than three hours of class.

**CONTENT AREA I:**

Weeks of January 14 & 19: *Introduction to Operations Management* (Reid & Sanders, Chapter 1)

Week of January 26: *Operations Strategy and Competitiveness* (Reid & Sanders, Chapter 2); *Product design and process selection* (Reid & Sanders, Chapter 3)

Week of February 2: *Introduction to Spreadsheet Modeling* (Online resource: *Supplement A*; *Supply Chain Management* (Reid & Sanders, Chapter 4)

**CONTENT AREA II:**

Week of February 9: *Total Quality Management* (Reid & Sanders, Chapter 5)

Week of February 16: *Statistical Quality Control* (Reid & Sanders, Chapter 6); *Just-In-Time and Lean Systems* (Reid & Sanders, Chapter 7)

Week of February 23: *Forecasting* (Reid & Sanders, Chapter 8); *Introduction to Optimization* (OnLine Resource: *Supplement B*)

**CONTENT AREA III:**

Week of March 2: *Capacity Planning and Facility Location* (Reid & Sanders, Chapter 9)

Week of March 16: *Facility Layout* (Reid & Sanders, Chapter 10); *Work System Design* (Reid & Sanders, Chapter 11)

Week of March 23: *Independent Demand Inventory Management* (Reid & Sanders, Chapter 12)

Week of March 30: *Master Scheduling and Rough-Cut Capacity Planning* (OnLine Resource: *Supplement D*)

**CONTENT AREA IV:**

Week of April 6: *Aggregate Planning* (Reid & Sanders, Chapter 13)
Week of April 13: **Resource Planning** (Reid & Sanders, Chapter 14); **Scheduling** (Reid & Sanders, Chapter 15)

Week of April 20: **Waiting Line Models** (OnLine Resource: [Supplement C](#))

Week of April 27: **Project Management** (Reid & Sanders, Chapter 16)

**STUDY DAY** (no classes): April 29

**FINAL EXAMINATIONS** (*students in any section may sit any of these times/places*):

- **Classroom 127**:
  - May 4, 8:00 – 10:00 AM
  - May 4, 10:30 AM – 12:30 PM
  - May 6, 8:00 – 10:00 AM

- **Carrier Center**:
  - May 5, 6:00 – 8:00 PM

**TENTATIVE** DATES FOR THE FIRST THREE EXAMINATIONS:

- February 9/10
- March 2/3
- April 6/7
Application of Goldratt’s *The Goal*

Due **8:00 AM, March 2nd**; papers submitted after this date may receive no credit toward the student’s course grade.  **A paper must be submitted before 8:00 AM, April 28th, however, to enable a grade other than “F” for this course.**

The book consists of several parables, in the form of narratives of the main character/narrator’s experience.  Your assignment is to recount at least two of them, what they teach “Alex Rogo,” and how the principles taught can be applied to one or more organizations with which you have experience or are familiar.  The organization(s) may be business, or volunteer or religious organization, fraternity/sorority, or even a household.  There is no minimum length, but your paper **should not exceed 5 (double space) pages.**

This paper will count up to **15%** toward your final course grade, so apply an appropriate amount of effort.  As this is not a course in Composition or Communications, every effort will be made by your instructor to make content more important than writing form in grading, but deduction will be made for grammar/spelling/usage errors which impair the professional impact of the paper. **Proper citation form will be strictly enforced where applicable** (APA or other major style format).  At the very minimum, information from Goldratt must be properly attributed; if you have occasion to draw from or quote any other work, such as an employee manual or organizational charter, this must also be cited.  As a general guide, anything that the writer or reader of the paper would not know except by reading the source, must be identified with the author and date in the body of the paper, corresponding with a “works cited” or equivalent entry which credits the publisher, etc.; direct quotations must be identified by author and page in the body of the paper.  Examples: use of Goldratt’s definitions of throughput, inventory, and operating expense – these definitions differ from your Accounting texts – should be followed with “(Goldratt, 2004)”; the direct quotation, “productivity is the act of bringing a company closer to its goal.” should be followed with “(Goldratt, 32).”

We will hold a discussion of the book during our class session of February 16th/17th; you should have it read by then.  By taking good notes that day you may save yourself some work.  Further discussion among your colleagues and with your instructor is encouraged, to get better value out of the book; there will be a **topic** in our **eLearn discussions** for this purpose.  The text of each paper submitted **must be original with the student submitting it**, however; **identical** papers, or those with **identical** applications of the **same** principles, will receive grades of “zero.”
This paper must be submitted to our Dropbox folder, in Word™, “.pdf,” “.rtf,” or other compatible format, no later than 8:00 AM, March 2\textsuperscript{nd} to receive course credit. Even if it is late, though, it must be submitted by 8:00 April 28\textsuperscript{th}, to prevent receiving an \textbf{F} grade for the course.