





FLORIDA ATLANTIC UNIVERSITY



Rev: 8/16/18

**MAN 6525 - 11860**  
**Quality Management**  
**Spring 2019**

**Class Time:** W 6:30-9:20 p.m. in Fleming Hall Room 426

**Professor Information**

Dr. David Menachof  
Fleming Hall 213  
dmenachof@fau.edu  
561-297-6089

**Office Hours**

Wednesday 5:00 – 6:10 PM  
And by appointment

**Required Text and Materials**

Improving Business Processes: Expert Solutions to Everyday Challenges  
ISBN 10: 142212973X ISBN 13: 9781422129739  
Publisher: Harvard Business Review Press, 2010

Brassard, Michael; Boisvert, Lisa; & Bienkowski, Jeff, The Problem Solving Memory Jogger 2nd Edition, Published by goal/qpc, 2011 ISBN 10: 1576811352 ISBN 13: 9781576811351

Brassard, Michael, The Memory Jogger 2: Tools for Continuous Improvement and Effective Planning, Goal/QPC, 2016 ISBN 10: 1576811131 / ISBN 13: 9781576811139

Other materials provided on Canvas

All page references throughout the course are based on editions listed above. If you obtain any other edition of the book, it is your responsibility to find the equivalent page numbers and references for all assignments.

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**NOV 14 2018**

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### **Course Description**

Covers leading concepts of business process improvement management in manufacturing and services. Introduces the tools and techniques of process improvement management. Includes a focus on Six Sigma Quality, Process Capability, Process Control, Business Process Reengineering, and Service Quality. An emphasis on theory-led real-world solutions is provided.

### **Course Prerequisites and Credit Hours**

*Course Prerequisites:* Admission to an FAU graduate program and MAN 3506 or MAN 6501 or equivalent

*A Side Note:* Please note that students should have a good understanding of and be comfortable with the foundational concepts of a normal distribution, areas under the normal curve, the z table, and how the measure of number of standard deviations (z) is used in relation to the normal distribution/curve and areas under the normal curve, etc.

*Credit Hours:* 3

*Class Time Commitments:* According to Florida State Statute 6A-10.033, students must spend a minimum 37.5 hours of **in class** time during a 3-credit course. Additionally, students enrolled in a 3-credit course are expected to spend a minimum of 75 hours of **out-of-class-time** specifically working on course-related activities (i.e., reading assigned pieces, completing homework, preparing for exams and other assessments, reviewing class notes, etc.) and fulfilling any other class activities or duties as required.

### **Course Learning Objectives**

Much of the learning will be practitioner-oriented and directly applicable to the so-called "real-world". Informative readings on quality management topics from journals, experiential learning exercises, and a group project complement the text and lectures in shaping the learning experience in this class.

This course will enable students to:

- Develop an understanding of the various theories of process improvement management;
- Have a grasp of contemporary issues pertaining to the management of improvement in services and manufacturing in the context of international and domestic markets as well as the private and public sectors;
- Acquire conceptual and analytical skills required for statistically controlling a process, understanding Six-Sigma, and improving the quality and capability of a process;
- Apply process improvement concepts and analytical quality management techniques to businesses through experiential learning exercises;

Develop leadership skills and competencies for shaping a continuous improvement culture within an organization; and  
 Strengthen communication skills through oral presentations and written papers/reports.

**Grading Scale**

The grading structure will be based on the following fixed increment grading structure:

A= (93-100) %	B- = (80-82.99) %	D+ = (67-69.99) %
A- = (90-92.99) %	C+ = (77-79.99) %	D = (63-66.99) %
B+ = (87-89.99) %	C = (73-76.99) %	D- = (60-62.99) %
B = (83-86.99) %	C- = (70-72.99) %	F = < 60 %

**Course Evaluation Method**

Discussion boards/ quizzes/ mini-assignments (4 assignments worth 5% each)	20%
Exam (See CANVAS for date)	30%
Process Improvement Project (Individual paper)	30%
Group project/presentation on Six Sigma	20%
	100%

**Additional Course Policies**

**Individual Process Improvement Project Assignment:** Drawing upon either your own organization (or previously worked for) or an organization with which you are familiar, identify an area of activity and suggest how the current management of operations could be improved. It is important that you explain the area of activity and its purposes clearly by providing adequate information and contextual information of the chosen organization. For the area of activity identified, define and critically evaluate suitable operational objectives or performance outcomes and suggest how the current management of the operations could be improved. It is important that you seek where possible to apply the various models, concepts, tools and techniques considered during the course. It is also important that you support your work by references and data (where applicable). The individual report to be submitted should be **3000** words  $\pm$  10%. Please do not exceed the limit, as penalties will be incurred. You must be concise in your efforts, but still convey the meaning to the reader.

Important assessment criteria:

- Standard of literature review
- Application of models, concepts, tools and techniques
- Analysis and synthesis of information from a variety of sources
- Clarity of expression
- Knowledge of the subject
- Accurate and proper citations
- Good presentation

Allocation of Marks:

Demonstrate the ability to critically identify and evaluate an area of activity for improvement (20%)

Demonstrate the ability to present and critically analyze information from the organization and other sources (20%)

Demonstrate the ability to critically apply relevant models, concepts, tools and techniques in the area of operations and/or supply chain management (30%)

Demonstrate a critical understanding of the effectiveness and limitations of the applied models, concepts, tools and techniques in the area of operations and/or supply chain management (20%)

Professional presentation in terms of structure, language, illustration, and accurate and proper Harvard-style citations (10%)

Due to the nature of the assessment, all learning outcomes of the module may be addressed.

### **Overlong Assessments**

There is no penalty for submitting an assessment that is under the published word-length; as, by not using the full word-length, you may effectively penalize yourself. If, on the other hand, you do submit an assignment that is in excess of the published word-length, then the mark you are awarded will incur the following penalties:

<b>Amount over word limit</b>	<b>Marks deducted</b>
Up to 10%	No deduction
10-20%	10 marks
More than 20%	Mark of 0 awarded

### **Submitting your work**

Coursework submission dates are provided on your Canvas site. Deadlines are strictly adhered to. You must submit each assignment on, or before, 10pm on the submission date provided. Please note that a submission will be considered late even if it is only a few seconds after the published deadline.

### **Missing Exams**

Make-up exams will not be given unless the student has a documented serious illness (i.e. hospitalization) or other extreme personal circumstance, or absent due to a University sanctioned event, and must be arranged PRIOR to the scheduled exam period.

### **Late Assignments**

A sliding penalty of 5 points per day late up to 5 business days will be applied to late submissions. Over 5 days late will result in a 0. However, similar to the Missing Exams policy, if you have a documented excuse, exceptions will be made. Please get in touch with me as soon as possible if there are genuine reasons that would cause you to be late on an assignment.

### **Attendance Policy Statement**

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved

reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student’s responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student’s final course grade as a direct result of such absence.

Additional course policies as desired (Optional) – Note: additional course policies should not conflict with established University and/or College and/or School Policies. Examples include the following

**Etiquette and/or Netiquette Policy**

**Anti-plagiarism Software**

Written components of any assignment or project may be submitted to anti-plagiarism software to evaluate the originality of the work. Any students found to be submitting work that is not their own will be deemed in violation of the University’s honor code discussed above.

**Course Outline**

Date	Topic	Readings	Location	Critical Items
9 Jan 2019	What is a process? What is process improvement? Key success factors for problem solving		FL426	
16 Jan 2019	Six Sigma – Yellow Belt – Pt 1. Data Driven Processes and Decision		FL426	
23 Jan 2019	Gemba Walk		FL426	
30 Jan 2019	Identifying root causes  Specific Techniques 1. Activity Network Diagram (AND) and Gantt Chart 2. Affinity Diagram 3. Brainstorming 4. Cause & Effect/Fishbone Diagram		FL426	
6 Feb 2019	5. Check Sheet 6. Control Charts		FL426	

	7. Data Points 8. Flowchart 9. Force Field Analysis			
13 Feb 2019	10. Histogram 11. Interrelationship Digraph (ID) 12. Matrix Diagram 13. Nominal Group Technique (NGT) & Multivoting		FL426	
20 Feb 2019	14. Pareto Chart 15. Prioritization Matrices 16. Process Capability		FL426	
27 Feb 2019	Poka Yoke		FL426	
13 Mar 2019	17. Radar Chart 18. Run Chart 19. Scatter Diagram		FL426	
20 Mar 2019	Business Process Reengineering		FL426	
27 Mar 2019	Service Quality Issues		FL426	
3 Apr 2019	Six Sigma – Yellow Belt- Pt 2.		FL426	
10 Apr 2019	Student Presentations		FL426	
17 Apr 2019	Course review, assignment discussion and module closure		FL426	TBA – Individual Process Improvement Project due.

### **Selected University and College Policies**

#### **Code of Academic Integrity Policy Statement**

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty.

For more information, please see FAU Regulation 4.001 at: [FAU Regulation 4.001](#).

#### **Disability Policy Statement**

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at <http://fau.edu/sas/>

### **Counseling and Psychological Services (CAPS) Center**

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

### **Religious Accommodation Policy Statement**

In accordance with rules of the Florida Board of Education and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices, observances, and beliefs with regard to admissions, registration, class attendance and the scheduling of examinations and work assignments.

For further information, please see FAU Regulation 2.007 at: [FAU Regulation 2.007](#).

### **University Approved Absence Policy Statement**

In accordance with rules of the Florida Atlantic University, students have the right to reasonable accommodations to participate in University approved activities, including athletic or scholastics teams, musical and theatrical performances and debate activities. It is the student's responsibility to notify the course instructor at least one week prior to missing any course assignment.

### **Incomplete Grade Policy Statement**

A student who is passing a course, but has not completed all work due to exceptional circumstances, may, with consent of the instructor, temporarily receive a grade of incomplete ("I"). The assignment of the "I" grade is at the discretion of the instructor, but is allowed only if the student is passing the course.

The specific time required to make up an incomplete grade is at the discretion of the instructor. However, the College of Business policy on the resolution of incomplete grades requires that all work required to satisfy an incomplete ("I") grade must be completed within a period of time not exceeding one calendar year from the assignment of the incomplete grade. After one calendar year, the incomplete grade automatically becomes a failing ("F") grade.

### **Withdrawals**

Any student who decides to drop is responsible for completing the proper process required to withdraw from the course.



### **Grade Appeal Process**

A student may request a review of the final course grade when s/he believes that one of the following conditions apply:

- There was a computational or recording error in the grading.
- Non-academic criteria were applied in the grading process.
- There was a gross violation of the instructor's own grading system.

The procedures for a grade appeal may be found in [FAU Regulation 4.002](#).

### **Disruptive Behavior Policy Statement**

Disruptive behavior is defined in the FAU Student Code of Conduct as "... activities which interfere with the educational mission within classroom." Students who behave in the classroom such that the educational experiences of other students and/or the instructor's course objectives are disrupted are subject to disciplinary action. Such behavior impedes students' ability to learn or an instructor's ability to teach. Disruptive behavior may include, but is not limited to: non-approved use of electronic devices (including cellular telephones); cursing or shouting at others in such a way as to be disruptive; or, other violations of an instructor's expectations for classroom conduct.

### **Faculty Rights and Responsibilities**

Florida Atlantic University respects the right of instructors to teach and students to learn. Maintenance of these rights requires classroom conditions which do not impede their exercise. To ensure these rights, faculty members have the prerogative:

- To establish and implement academic standards
- To establish and enforce reasonable behavior standards in each class
- To refer disciplinary action to those students whose behavior may be judged to be disruptive under the Student Code of Conduct.

### **Bibliography**

Alexander, M. "Six Sigma Simplified: Quantum Improvement Made Easy." *Technometrics* 44(2):2003.

Antony, Jiju, Alex Douglas, and Frenie Jiju Antony. "Determining the Essential Characteristics of Six Sigma Black Belts." *TQM Magazine* 19(3):2007.

Brassard, Michael; Boisvert, Lisa; & Bienkowski, Jeff, *The Problem Solving Memory Jogger* 2nd Edition, goal/qpc, 2011 ISBN 10: 1576811352 ISBN 13: 9781576811351

Brassard, Michael, *The Memory Jogger 2: Tools for Continuous Improvement and Effective Planning, Goal/QPC*, 2016 ISBN 10: 1576811131 / ISBN 13: 9781576811139

Boutros, Tristan, and Purdie, Tim, *The Process Improvement Handbook: A Blueprint for Managing Change and Increasing Organizational Performance*, McGraw Hill Education, 2013

Deming, W. Edwards. *Out of the Crisis*. Cambridge, MA: Massachusetts Institute of Technology Center for Advanced Engineering Study, 1986.

Dettmer, H. William. *Goldratt's Theory of Constraints: A Systems Approach to Continuous Improvement*. Milwaukee, WI: ASQ Quality Press, 1997.

Gitlow, H. (2009), *A Guide to Lean Six Sigma Management Skills* (New York: CRC Press).

Gitlow, H., "Viewing Statistics from a Quality Control Perspective," *International Journal of Quality and Reliability Management*, vol.18, issue 2, 2001.

Hoerl, Roger. "So Just What Is a Sigma, and Why Do I Need Six of Them?" *Stats*, Spring 2004.

Liker, Jeffrey K. 2004. *The Toyota way: 14 management principles from the world's greatest manufacturer*. New York: McGraw-Hill.

Womack, James P. and Daniel T. Jones. 2003. *Lean thinking: banish waste and create wealth in your corporation*. New York, NY: Free Press.

Goldratt, Eliyahu M. and Jeff Cox. 2004. *The goal: a process of ongoing improvement*. Great Barrington, MA: North River Press.

Goldratt, Eliyahu M. *It's Not Luck*. Great Barrington, MA: North River Press, 1994.

Yankelevitch, Sam, *Walking the Invisible Gemba: Discover the Hidden Link Between Communication and Quality*, 2018

Business Process Improvement Management

Course Description – MAN6525 (Former Quality Management)

Name change from Quality Management to Business Process Improvement Management

Catalog Description

This course enables students to provide leadership in shaping a culture for business process improvement initiatives within an organization and determining the effectiveness of improvement initiatives such as Six Sigma Quality, Process Capability, Process Control, Business Process Reengineering, and Service Quality

Longer description (as seen on MBA page)

- Principles of business process improvement concepts including:
  - Total Quality Management
  - Lean Six Sigma
  - Business Process Reengineering
  - ISO9000
  - Theory of Constraints
  - Statistical Process Control
  - Continuous Improvement
- Measuring and benchmarking business process performance
- Identification of areas for improvement
- Evaluation and the choice of improvement solutions – opportunity and risk
- Evaluation of the impact of improvement solutions on the supply chain and the organisation
- Building Risk and Resilience into the business process
- Implementation of improvement solutions

This course provides an understanding of the various theories of process improvement and the interdisciplinary nature of the field. It engages students in contemporary issues pertaining to the management of quality in services and manufacturing, in international and domestic markets, as well as in the private and public sectors. The conceptual and analytical skills acquired in this course enable students to provide leadership in shaping a culture for business process improvement initiatives within an organization and determining the effectiveness of quality initiatives such as Six Sigma, Process Capability, Process Control, Business Process Reengineering and Total Quality Management. With continuous improvement underlying every aspect of business, having such training in quality improvement is an asset for any student that is viewed desirably by business. Much of what the student learns will be theory-led practitioner-oriented and directly applicable to the real world. Informative readings on quality management and experiential learning exercises complement the text and add to the learning experience in this course.

From the Florida SCNS:

MAN 6525 is listed as follows:

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<u>Institution</u>	<u>Course Number</u>	<u>Course Title</u>	<u>Effective Date</u>
FAMU	<a href="#">MAN 5525</a>	TOTAL QUALITY MANAGEMENT	08/01/2002
FAU	<a href="#">MAN 6525</a>	QUALITY MANAGEMENT	01/01/2009
FIU	<a href="#">MAN 6525</a>	MANAGING FOR TOTAL QUALITY	05/01/1994
FSU	<a href="#">MAN 5525</a>	QUALITY MANAGEMENT	05/01/1994
UNF	<a href="#">MAN 6525</a>	PROCESS MANAGEMENT AND QUALITY IMPROVEMENTS	08/01/2008

Justification for the name change is that it will allow a wider examination of improvement methods that will continue to include Quality Management, but will bring in other topics that are important in today's business environment. The course under the existing title has not run for the last two years. I believe that it is due for a facelift that will bring in more "hot" topics such as lean and six sigma to name just a couple, but not forgetting its starting point.

## Concepts in Business Process Improvement Management

Course Description MAN4520

### Proposed:

#### Concepts in Business Process Improvement Management (MAN 4520) 3 credits

*Prerequisite: MAN 3506 or permission of instructor*

Covers leading concepts of business process improvement management in manufacturing and services. Introduces the tools and techniques of process improvement management. Includes a focus on Six Sigma Quality, Process Capability, Process Control, Business Process Reengineering, and Service Quality. An emphasis on theory-led real-world solutions is provided.

### Current:

#### Quality Management (MAN 4520) 3 credits

*Prerequisite: MAN 3506 or permission of instructor*

Covers contemporary issues of quality management in manufacturing and service. Introduces the tools and techniques of quality management and the various quality philosophies. Includes a focus on quality measurement, Quality Function Deployment, product usability, designing fail-proof mechanisms, statistical process control, total quality management, and quality leadership.

From the Florida SCNS:

MAN 4520 is listed as follows:

Institution	<a href="#">Course Number</a>	<a href="#">Course Title</a>	<a href="#">Effective Date</a>
AU	<a href="#">MAN 4520</a>	MANAGING QUALITY IN THE PROJECT ENVIRONMENT	11/27/2017
CC	<a href="#">MAN 4520</a>	TOTAL QUALITY MANAGEMENT	05/01/2011
DSC	<a href="#">MAN 4520</a>	QUALITY MANAGEMENT	04/01/2016
FAU	<a href="#">MAN 4520</a>	QUALITY MANAGEMENT	01/01/2018
FLPOLY	<a href="#">MAN 3520</a>	SIX SIGMA	02/01/2014
FSU	<a href="#">MAN 3520</a>	TOTAL QUALITY MANAGEMENT Z	10/04/2001
GCSC	<a href="#">MAN 4520</a>	QUALITY MANAGEMENT (SIX SIGMA)	01/01/2010

JMVU	<a href="#">MAN 3520</a>	QUALITY MANAGEMENT	03/23/2010
MDC	<a href="#">MAN 4520</a>	QUALITY MANAGEMENT	08/01/2014
NWFSC	<a href="#">MAN 4520</a>	QUALITY MANAGEMENT	08/20/2004
PBSC	<a href="#">MAN 4520</a>	QUALITY MANAGEMENT CONTROL	01/03/2017
SCFMS	<a href="#">MAN 4520</a>	QUALITY MANAGEMENT	01/01/2012
SPC	<a href="#">MAN 4520</a>	QUALITY MANAGEMENT (SIX SIGMA)	12/16/2006
UCF	<a href="#">MAN 3520</a>	QUALITY & PRODUCTIVITY MANAGEMENT	05/01/2017
UNF	<a href="#">MAN 4520</a>	TRENDS IN PROCESS MANAGEMENT AND QUALITY	08/01/2010