

AAM491 Quality Systems / ISO Syllabus

Instructor: Peter Canellis

Title: Professor

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Office Hours:

Before or after class, or by appointment

Course Description

This is a three credit course introducing the student to the basics of Quality Systems Management as it applies across all product and service industries, with an emphasis on aviation. The ISO 9000 quality standard will be used as a framework for developing this knowledge.

Students will be shown the intricacies of how and why certification is obtained. The course includes topics such as history of quality systems, quality terminology, inspection and test status, and control of quality records.

This course will be taught using a variety of techniques including:

- Lecture
- Text readings
- Class examples and discussion
- Case analysis
- Supplemental articles and readings
- Computer / problem simulations.

Credits: 3

Grading System: Letter Grade

Prerequisites

ENG110

Course Objectives and Outcomes

After successful completion of this course, students will have acquired the ability to answer the following questions:

- What role do Quality systems play in the Aviation industry?
- How is "quality" viewed and measured by different groups within a company?
- How does a company establish and certify a Quality program under ISO?

 How does the application of Quality Management principles and systems affect a company's reputation and profitability?

Course Requirements

Assignments

Individual Assignment

Read and present (i.e., summarize, discuss, critique) an article from a current publication on a Quality Management issue.

Students are required to make this presentation on the notified date. If you do not present on that date, you will not have a chance to make up this assignment.

Group Assignment

This assignment requires work in groups of 4 to 5 members. You will study either a specific company choosing one or more of the topics discussed in class, or choose a topic and do a comparative analysis of two or three companies for that topic

Present your complete project as a group. Presentations should last 15 to 20 minutes and will be followed by questions from your classmates.

Examinations

A quiz is given for each chapter covered in the text.

Required Text(s)

Text:	Managing Quality: Integrating the Supply Chain, 5 ^{tj} Ed.
ISBN:	978-0-13-379825-8
Author(s):	Foster, S. Thomas
Publisher	Pearson, 2016

Required Materials and Proficiencies

- Text as noted above.
- Laptop running the standard Microsoft suite of productivity applications (i.e., Excel, PowerPoint, Word)
- Supplementary articles from various sources as directed by the instructor
- Basic mathematical concepts
- Mid-level Excel (Spreadsheet)
- Basic PowerPoint (Presentation)
- Basic word processing (MS Word)

Suggested Text(s)

NOTE: These textbooks are not essential to passing the course and no assignments/ exam material are taken from them. The textbooks listed in this section are to provide supplemental support to the course topics and readings.)

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ISBN:	
Author(s):	
Publisher	

Additional Reading List

Articles as directed by the instructor.

Grading Policy

The student's grade will be determined as follows:

Assignment	Due Date	Percentage
Exams	TBD	65%
Group case / discussion / presentation	TBD	15%
Critical Review of Management Article	TBD	10%
Class Participation	N/A	5%
Attendance	N/A	5%
	TOTAL	100%

Grading Scale

Grade	Numeric Value	Standard	
Α	90-100	Excellent	
B+	85-89		
В	80-84	Good	
C+	75-79		
С	70-74	Average	
D**	60-69	Min. Passing	
F	Below 60	Failure	

^{**}For Aviation Training Institute students, minimum passing grade for all courses in the airframe and powerplant curriculum is a "C".

Incomplete Grades

Requests for Incomplete grades must be made in writing before the course ends, and after the mid-term has been passed.

Course Schedule

*Course Schedule is subject to change

					Estimated Assignment Time			
Summer Term Week	Fall or Spring Term Week	Session	Topics	Text Chapters	Read	Homework: Answer Questions Assigned (all chapters)	Study: Review Notes for Exams (all chapters)	
1	1	1	Differing Perspectives on Quality	1	1	1	1	

			Estimated Assignment Times				
Summer Term Week	Fall or Spring Term Week	Session	Topics	Text Chapters	Read	Homework: Answer Questions Assigned (all chapters)	Study: Review Notes for Exams (all chapters)
		2			1	1	1
	2	3	Quality Theory	2	1	1	1
		4	•	2	1	1	1
	3	5 6	Global Supply Chain Quality and International Quality Standards	3	1	1	1
2	4	7	Strategic Quality Planning	4	1	1	1 1
2	5	9 10	Voice of the Customer	5	1	1	1
	6	11 12	Voice of the Market	6	1	1	1 1
		13			1	1	1
3	7	14	Quality and Innovation in Product and Process Design	7	1	1 Complete Preparation of Article Review	1
	8	15	Designing Quality Services	8	1	1	1
		16			1	1	1
4	9	17 18	Managing Supplier Quality	9	1	1	1
7	10	19 20	Tools of Quality	10	1	1	1 1
	11	21 22	Statistically Based Quality Improvement for Variables	11	1	1	1
5	12	23 24	Statistically Based Quality Improvement for	12	1	1	1
	13	25	Attributes Six Sigma Management and Lean Tools	13	1	1 Complete Team Projects	1
		26			1	1	1
	14	27	Managing Quality Improvement Teams and	14	1	1	1 1
6		28	Projects			,	
	15	29 30	Implementing and Validating the Quality System	15	1	1	1