

Victoria Management School

MMMS 504 QUALITY MANAGEMENT

Trimester Two 2009

COURSE OUTLINE

Contact Details

COURSE COORDINATOR

Assoc Professor Lawrie Corbett

Room: RH901, Rutherford House

Phone: 463 5138

Email: lawrie.corbett@vuw.ac.nz

Website: www.vuw.ac.nz/vms

LECTURER

Dr Jim Sheffield

Room: RH902, Rutherford House

Phone: 463 5085

Email: jim.sheffield@vuw.ac.nz

Website: www.vuw.ac.nz/vms

ADMINISTRATOR

Luisa Acheson

Room: RH919, Rutherford House

Phone: 463 5381

Email: luisa.acheson@vuw.ac.nz

Teaching Period: Monday 13 July to Friday 16 October 2009

End of Year Study Period: Monday 19 October to Monday 26 October 2009

Examination Period: Tuesday, 27 October to Saturday 14 November 2009 (inclusive)

Note: Students who enrol in courses with examinations should be able to attend an examination at the University at any time during the formal examination period.

Withdrawal dates: Information available via

<http://www.victoria.ac.nz/home/admisenrol/payments/withdrawalsrefunds.aspx>

Class Times and Room Numbers

Thursdays 14.40 – 17.30pm RH G01

Introduction

The management and improvement of an organisation's quality is critical in today's business environment. The experience of New Zealand manufacturers, for example, after the dislocative effects of the economic deregulation of the late 1980s has shown that improving their quality was one of the first strategies adopted in order to increase their chances of survival. The quality of an organisation's products and services can be an order winner, though increasingly it can be argued that it is an order qualifier – it is something customers expect – and if they slip up in any way the consequences to sales, profitability and reputation can be massive and long-lasting.

Course Content

This course covers three broad areas:

The Quality System

- introduction to quality
- meaning of quality
- quality philosophies
- international quality systems, ISO9000
- teams and HR focus

Quality and the Management System

- basic quality tools
- problem solving, creativity and TRIZ
- management and planning tools
- voice of the customer

Quality and the Technical System

- quality function deployment
- statistical process control
- process capability
- six sigma
- design for experiments and robust design

By the end of this course, MMS students should:

- have a working knowledge of quality management and how it applies to the management and improvement of business processes
- be able to use the most common quality, problem-solving, and process improvement tools
- be proficient in communicating quality and problem solving activities and outcomes to others
- be able to discuss and debate the major TQM philosophies;
- understand the strategic role of quality in modern global economic competition by fully understanding the relationship of quality to productivity;
- understand the role of management in attaining and sustaining excellence in quality.

Overall Course Objectives

The course has several objectives, which include:

- examining the quality, management and technical systems that constitute a firm's approach to quality management and continuous improvement
- examining the roles and decisions associated with quality management and continuous improvement
- improving competence in managing quality and continuous improvement
- developing an ability to analyse and improve a current quality and continuous improvement system

Course-related Student Learning Objectives

On successful completion of the course, students should be able:

- apply some major theoretical frameworks and concepts relevant to quality management and continuous improvement;
- critique such frameworks to describe and improve a current system;
- use a set of specific theoretical frameworks and tools to carry out a critical analysis of a specified managerial situation;
- discuss the importance of critical analysis, leadership and communication in quality management and continuous improvement.

Performance on each of these objectives is individually assessed by project, research essay, assignment and final exam.

Course Delivery

The course will be delivered by lectures (36 hours) based on the course text. Students are responsible for finding a quality management and continuous improvement operation that they can 'improve'.

Expected Workload

This is a 15 pt course and students can expect a total of 150 hours of work. It is designed to require an average of 10 hours of work outside the scheduled class time each week, although there is some variability week to week. Of course your own experience may vary due to differences in reading ability, computer skills, level of personal organisation, etc. Please let us know if this estimate is substantially inaccurate.

Group Work

While the course has a tradition of study group collaboration, there are important elements in the assessment process that are strictly individual. Collaboration on individual assignments is not allowed beyond general discussion as to how one might interpret the nature of the assignment question. Please do not work together to formulate a response and do not loan out your completed assignments. You will be expected and encouraged to work in groups on in-term cases and assignments; however reports must be individual submissions.

Readings

The *required* textbook (available from Vic books) is: Gitlow, H.S., Oppenheim, A.J., Oppenheim, R., and Levine, D.M. *Quality Management*, 3rd edition. Boston, MA: McGraw-Hill Irwin.

Other readings and case studies will be handed out, made available in the library, or made available online.

Assessment Requirements

Assignment	Title	Weight	Date
1	Research essay on a quality-related topic	20%	Thurs Sept 10 th 14.40
2	Technical system assignment	20%	Thurs Oct 1 st 14.40
3	Individual quality improvement project	20%	Thurs Oct 15 th 14.40
4	Final Examination	40%	27 th Oct to 14 th Nov
	TOTAL	100%	

1. Research essay on a quality-related topic

Date: Thurs Sept 10th 14.40 Marks: 20%
See p 10.

2. Technical system assignment

Date: Thurs August 20th 14.40 Marks: 4% (Preliminary report)
Date: Thurs Oct 1st 14.40 Marks: 16% (Final report and PPT presentation)
See pp 11-12.

3. Individual quality improvement project

Date: Thurs August 20th 14.40 Marks: 6% (Progress report)
Date: Thurs Oct 15th 14.40 Marks: 14% (Final report)
See p 13-14.

4. Examination

Date: 27 October – 14 November Marks: 40%

The examination is worth 40% of the total marks available for this course. It is an open-book three-hour examination. You will be asked to answer questions that will require you to draw on different theories covered in the course. All book chapters covered during the course are examinable.

Handing in assignments

Assignments should be dropped in the relevant MMMS 504 Box # 27 on the Mezzanine floor of Rutherford House (Pipitea Campus) in hard copy form by the due time on the due date, or handed to the instructor before the beginning of class. All completed assignments must have a cover sheet. The cover sheet is in Annex A. Students must also keep an electronic copy of their work archived in case the original assignment goes missing. Failure to do so will jeopardise any claim by you that your work was submitted in the rare cases where your work goes astray.

Mandatory Course Requirements

To meet Mandatory Course Requirements, students are required to:

- a. submit all the assignments within the time period allowed;
- b. obtain at least 40 per cent (i.e. 24 marks out of 60) of the in-course assignments available; and
- c. obtain at least 40 per cent (i.e. 16 marks out of 40) of the final examination marks available.

Students who fail to satisfy the mandatory requirements for this course but who obtain 50% or more overall, will be awarded a "K" grade.

Standard fail grades (D or E) will be awarded when the student's overall course mark falls below the minimum pass mark, regardless of whether the mandatory course requirements have been satisfied or not.

Notice of Failure to meet Mandatory Course Requirements will be posted on Blackboard.

Penalties- for Lateness & Excessive Length of Assignments

- (i) In fairness to other students, work submitted after any deadline will incur a penalty for lateness. **The penalty is 2 of the marks available (marks available means what the assignment is worth i.e. 20% or 20 marks) for an assignment submitted after the due time on the due date for each part day or day late.** (for example if an assignment is out of 20 and the assignment receives 50% then one day late means the mark will be out of 18 and the student will receive 50% of 18). **Saturdays, Sundays and public holidays** will be included when counting the number of days late. Assignments received **more than 7 days after the due date** will not be accepted and the student will **automatically fail the Mandatory Course Requirements**.
- (ii) Course Outlines provide a signal to student of forthcoming workload, dates of submission etc, and thus student study plans should take account of course requirements across all courses. Consequently, workload issues related to other courses and employment will not be accepted as reason for dispensation from mandatory requirements or waiver of penalties. **Extensions** to submission deadlines for any assigned work will only be granted in **exceptional circumstances**.
- (iii) Students who are unable to comply with any of the mandatory requirements should make a written application for an extension to the due date for submission of assigned work or for waiver of a penalty, **in advance**, to the **Course Coordinator**, providing documentary evidence of the reasons of their circumstances.

All such applications must be made **before** the deadline and be accompanied by documentary evidence, eg a medical certificate, or counsellor's report that indicates the degree of impairment, and for how long the student has been impaired. Please be sure to

ask at the time of consultation for the degree of impairment to be stated in any certificate you provide to support your case.

- (iv) In the event of unusual or unforeseeable circumstances (e.g. serious illness, family bereavement or other exceptional events), that precludes an application in advance, students should make contact with the **Course Coordinator** as soon as possible, and make application for waiver of a penalty as soon as practicable.

Grading Guidelines

The following broad indicative characterisations of grade will apply in grading assignments and the exam:

A+	excellent performance in all respects at this level
A	excellent performance in almost all respects at this level
A-	excellent performance in many respects at this level
B+	very good, some aspects excellent
B, B-	good but not excellent performance at this level
C+, C	work satisfactory overall but inadequate in some respects
D	poor performance overall, some aspects adequate
E	well below the required standard
K	failure to achieve mandatory course requirements and have achieved at least an average "C" over all the assessment. Note this is a failing grade.

Policy on Remarking

Every attempt is made to ensure that the marking is consistent across tutors and fair to students. Students may ask for their written work to be remarked. A different tutor will do the remarking and provide comments. The original marking sheet is removed to ensure the process is independent. If the mark differs by 10% or less the two marks are averaged. If it exceeds 10% then it is independently marked by a third marker and the average of the two closest marks is taken. Experience from previous years is that almost all remarks are within 10% and where there is a change in mark, half the assignments go up and half go down. Occasionally there is a significant shift in the mark.

Application for remarks must be made within 5 days after the marks are available. To apply for a remark, complete the request for re-examination of assessed work form (Annex B) stating which sections (criteria listed in the mark sheet) you wish re-examined. Write on why you think the mark does not, in your view, fairly reflect the quality of your work. Hand this with your assignment into the following place:-

- Pipitea Campus – the Reception Desk on Level 10 Rutherford House where your assignment will have the **time, date and signature** noted on the front cover by the person receiving it.

Allow up to 5 days for remarks to be completed.

Referencing

There are many different styles of referencing and the Faculty of Commerce & Administration at VUW has decided to make APA (American Psychological Association) referencing style the common standard across the Faculty. The Commerce and Central Libraries hold the APA Style Guide. You can also access the information from the online VUW library site <http://www.victoria.ac.nz/library/research/reference/referencingguides.aspx>

Communication

Information on course-related matters will be announced at class and posted on the **Blackboard** website at <http://blackboard.vuw.ac.nz/>. It will be crucial for you to regularly check Blackboard for messages, announcements and materials.

Email Contact

Students wishing to contact staff by email should adhere to the following instructions:

Include the **Course Code**, your **Name**, your **Student ID** and the **Topic** in the subject area of the email, eg

MGMT300_Smith_Pauline_3000223344_Ass1 Query

All students must use their VUW SCS email account and ID. Otherwise, email will be classified as Spam and will be dumped without being read. All emails with attachments will be dumped, unless requested by staff.

Use of Turnitin

Student work provided for assessment in this course may be checked for academic integrity by the electronic search engine <http://www.turnitin> Turnitin is an on-line plagiarism prevention tool which compares submitted work with a very large database of existing material. At the discretion of the Head of School, handwritten work may be copy-typed by the School and subject to checking by Turnitin. Turnitin will retain a copy of submitted material on behalf of the University for detection of future plagiarism, but access to the full text of submissions will not be made available to any other party.

For the following important information follow the links provided:

Academic Integrity and Plagiarism

<http://www.victoria.ac.nz/home/study/plagiarism.aspx>

General University Policies and Statutes

<http://www.victoria.ac.nz/home/about/policy/academic.aspx>

Faculty of Commerce and Administration Offices

<http://www.victoria.ac.nz/fca/studenthelp/Contactus.aspx>

Manaaki Pihipihinga Programme

http://www.victoria.ac.nz/st_services/mentoring/

Weekly Class Schedule and schedule (draft)

Week	Class dates	Lecturer	Topics	Chapters to read in Gitlow et al (2006)
1	Thurs July 16	LC	Course introduction The meaning of quality The fundamentals of quality	1
2	July 23	JS	The leading quality philosophies, Deming etc	2
3	July 30	JS	Fundamentals of statistical studies Defining and documenting processes	3 & 4
4	August 6	JS	Basic probability and statistics	5
5	August 13	LC	Attribute and variable control charts	6-9
6	August 20	LC	Process capability	11
			Study Break	
7	Sept 10	LC	Design of experiments	12
8	Sept 17	JS	The tools of quality control	10
9	Sept 24	LC	Six sigma	20
10	Oct 1	LC	Six sigma	
11	Oct 8	LC	TRIZ and design quality	
12	Oct 15	LC	Administrative systems for quality management Project presentations Course review	



Victoria Management School

MMMS504 Assignment Cover Sheet

Assignment	✓
Research essay on a quality-related topic	
Technical system assignment	
Individual quality improvement project	

Name: _____ Student

ID: _____

*I have read and understood the university policy on Academic Integrity and Plagiarism.
I declare this assignment is free from plagiarism.*

Signed: _____

Extension of the due date (*if applicable*)

Please attach a copy of the note authorising your extension.

Date extension applied for: _____

Extension granted until: _____

Extension granted by: _____

Submit to the Mezzanine Floor of Rutherford House to the BOX # 27 labelled with MMMS 504,
or directly to the lecturer.

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI


VICTORIA
 UNIVERSITY OF WELLINGTON

Victoria Management School
MMMS 504
Request for re-examination of assessed work

	Assessment affected <i>e.g. Individual Assignment, In-class Test</i>	
Student ID	Name <i>As it appears in your enrolment</i>	Tutorial No/Tutor's name
Contact Details	Phone _____ Email _____	

Specify which section (criteria specified in the mark sheet) you wish to be re-examined

Note: requests to re-examine "all" criteria will not be considered.

Clearly state why you believe each of these sections should be re-examined:

Note: "I think it is worth more," is insufficient.

In requesting a re-examination of my submitted work, I understand that the result may be an increase OR decrease in the mark obtained.

.....
 Signature Date

MMMS504 – Quality Management

Assignment 1 – Research essay on quality-related topic

This course explores the application of quality management and quality improvement as means of improving the performance of an organisation, and ultimately the whole economy through a reduction in waste and better productivity.

In this essay, you will examine a quality-related topic that is of interest to you, subject to approval by the course coordinator, or from the following list of possible issues you may choose, using the relevant quality management literature. This essay could lead to a thesis topic.

Some issues you could cover include:

- ❖ The current state of the art in measuring quality in service organisations
- ❖ “Productivity isn’t everything, but in the long run, it is almost everything” (Krugman, 1992). Examine the relationship between quality and productivity growth.
- ❖ Is Six Sigma a fad that will pass in time?
- ❖ The challenges of implementing quality management/business excellence/six sigma programmes – implications for the people resources in the organisation
- ❖ Compare and contrast six sigma, TRIZ, and QFD. What are the overlaps? How do they complement one another?

Whatever topic you choose, you need to make sure it is consistent with the assessment criteria below.

Assessment criteria

Content – *the extent to which you essay:*

- ❖ Addresses the topic well
- ❖ Reviews relevant literature
- ❖ Shows independent thought

Argument – *the extent to which you:*

- ❖ Present a clearly defined position
- ❖ Support that argument while acknowledging sources
- ❖ Effectively integrate concepts and ideas

Writing and presentation – *the extent to which your:*

- ❖ Writing is clearly and logically structured
- ❖ Essay is succinct and well-presented

Deliverables (per p 4):

Date: Thurs Sept 10th 14.40

Marks: 20%

Length guide: 2000 words

MMMS504 – Quality Management

Assignment 2 – Technical Assignment on Improvement of a Quality System

This project is intended to give you hands on experience of improving the performance quality of an operating system of a service/manufacturing organisation. The project should also illustrate your in-depth understanding of the Six Sigma methodology for quality improvement. The project requires you to select an operating system, define the customer requirements, measure the current performance level, analyse the causes of inferior performance using quality tools, develop an improvement strategy, and prepare an implementation plan.

The various stages of the project and the deadlines are given below

1. Selection of an Operating System

This involves the selection of a manufacturing/service organisation based in Wellington and selecting a specific process in the organisation for an in-depth analysis. Any service/manufacturing organisation can be selected for the study. It is important that you have some prior knowledge of, or contacts with the organisation to arrange access, or choose a process that is easily observable from the public domain. For instance Wellington airport passenger check-in process, noon-time customer clearance process in a downtown café/restaurant, tyre servicing at Tony's etc. could be good candidates for selection.

Selection of Organisation & Process for study (To be communicated by e-mail to course coordinator by 31st July 2009)

2. Define the Customer requirements/expectations

For the process selected, identify the expectations of the performance (either goods or service as the process may be) from the perspective of customers. In this phase, it is important for you to identify performance parameters, identify customers (internal or external) and collect the data regarding their expectations on the process performance. The process performance measures could be waiting time, service time, service time variations, length of queue etc. A few of these could be fixed a priori but could be modified later depending on customer responses. Appropriate methodologies have to be developed to elicit customer expectations.

3. Measuring the current process performance

Using a primary data collection study and/or based on the secondary records of the organisation, measure the performance of the quality system on the parameters identified, document the same. Conduct observational studies on at least 5 instances so that the variabilities also could be documented. Prepare a preliminary report summarising the steps 1 to 3. The report (max 2 pages) should describe the organisation/process selected, the performance parameters identified, the customer expectations, the current level of operation (sigma levels are preferred) and the variations.

Date: Thurs August 20th 14.40

Marks: 4% (Preliminary report)

4. Analyse the reasons for (poor) performance

In this stage you conduct a detailed analysis to identify the primary reasons for the variations from the customer expectations and for poor sigma levels of operation. Here the data collected should be analysed using computers (Minitab) for better understanding the assignable (common & special) and non-assignable causes for the variation. Use any three quality tools, to understand the root causes (& their frequency of occurrence) which are responsible for the errors.

5. Improve the System

Based on the analysis in stage 4, develop strategies for improving the system. This could be worked from the basics or through a benchmarking study with a similar process in another organisation. Your improvement strategies should clearly outline the approaches for handling special causes of variation and common causes of variation. This should also develop a short and long term improvement plan, and forecast the extent of improvement expected on implementation. Costs involved in implementing the improvement plan and the financial benefits expected have to be assessed. The possible risks and mitigation methods also have to be clearly outlined in the report.

6. Final Reporting

Present the whole project as management report (1500-2000 words) giving details of various stages of the project described above. The implementation plan of the improvement strategies proposed has to be included in detail. Add appropriate annexures to substantiate your work.

The final report will carry 12 Marks max.

Summarise the project in a PPT for making an executive presentation for 20 minutes – worth 4 marks max.

Summary of deliverables (per p 4):

Date: Thurs August 20th 14.40

Marks: 4% (Preliminary report)

Date: Thurs Oct 1st 14.40

Marks: 16% (Final report and PPT presentation)

MMMS504 – Quality Management

Assignment 3 – Individual quality improvement project

“Quality is personal”

Your task

Develop your own personal quality improvement project, that is, a personal intervention over the duration of the course into your personal habits. Notice the key issues associated with of your own resistance to personal change, how you engaged with the issues, and the degree to which the issues were resolved. Provide both unstructured rich diary entries and structured representations that capture the dynamics and outcomes of the intervention, both for your own benefit and for the understanding of the instructor.

Instructions

Develop your own personal quality checklist and analyze the results over an extended period of time. After you have gathered data for a week or two, review the data for the purposes of analysis and improvement. Using appropriate charts from the lectures, plot and analyze weekly and overall results.

Use the following guidelines.

- ❖ Each participant should initiate a personal quality improvement project and maintain and improve it during the rest of the study period.
- ❖ Consistent effort, rather than elegant precision in pursuing the project will be rewarded; that is, individual self-understanding and benefit, rather than "a grade," or perfection, is to be the major objective.
- ❖ The personal quality checklist in Table 1 below will provide a starting point for the project. Other tools and techniques may be incorporated at a later time.
- ❖ Eight to ten items for personal tracking and improvement should be considered and one to three chosen as challenges worthy of significant personal engagement.
The listing of possible checklist standards in Table 1 may be useful. However, participants are not required to use only items from this list. Only what is meaningful to you may be tracked.

Table 1 Some Suggested Standards *for* a Personal Quality Checklist

- ❖ Review class notes after each class
- ❖ Limit phone calls to ten minutes, where possible
- ❖ No more than 10 hours of TV per week
- ❖ Get up promptly - no snooze alarm
- ❖ Complete all reading assignments as due
- ❖ Plan by using a brief outline of what is to be accomplished daily
- ❖ Refer to daily plan each day
- ❖ Use stairs instead of elevator
- ❖ Follow up on job contacts within 24 hours
- ❖ Work in library (or other quiet place) to avoid interruptions
- ❖ Stick to one subject at a time while studying
- ❖ Don't doggedly persist in trying to clear up a confusing point (or "bug" in a computer program) when stuck; set it aside and return later; for example, no more than 10 minutes after searching for a problem
- ❖ Don't spend too much time on routine activities; for example, no more than 15 minutes for breakfast, decrease grooming time to no more than 20 minutes
- ❖ Remember names of people to whom you have been introduced
- ❖ In bed every night before midnight
- ❖ Good housekeeping standards around house, apartment, dorm room, by the end of the day

- ❖ Prompt payment of bills, before their due date
- ❖ Various dietary standards- weight loss, eating of vegetables, avoidance of fats, etc (be specific!)
- ❖ Limit beer and/or cigarette consumption (be specific!)

- ❖ After a week's data are gathered, plot a simple graph to determine the level of "defects" encountered.

- ❖ A suggested practice is that you share your personal checklist items and goals with your instructor, a colleague, partner, spouse, or friend. Have that person ask you about your progress every week or so. If you are making regular progress, you should be happy to discuss it, and to show your charts and graphs. Even if your progress is uneven, you should be able to show that you've improved on one or two items, which is progress. Don't be too self critical!

- ❖ An intermediate progress report (2 pages max) will be due in class in Week 6. This should discuss the standards chosen and your reflections on how you are progressing with the project and any issues regarding improvement or deterioration in performance. The final report on the project will be made at the end of the data collection period and be due in final class session in Week 12.

Deliverables (per p 4):

A progress report (2 pages max) is due by August 20,

A final report (12 pages max including any tables and graphics) is due before class on October 15.