

Course specifications of

Quality of Service Industries - MDP 325

University: Ain Shams

Faculty: Engineering

| | |
|---|-----------------------------------|
| Programme on which the course is given | B. Sc. in Production Engineering |
| Major or minor element of programme | N.A. |
| Department offering the programme | Design and Production Engineering |
| Department offering the course : | Design and Production Engineering |
| Academic year/ Level : | Fourth year / First semester |
| Date of specification approval : | |

A- Basic Information

| | | | |
|-----------------------|-------------------------------|------------------|-----------------|
| Title : | Quality of Service Industries | code : | MDP-325 |
| Credit Hours : | N.A. | Lecture : | 2 |
| Tutorial : | 2 | Practical | Total: 4 |

B- Professional Information

1 – Overall aims of course

By the end of the course the students will be able to:

- Demonstrate knowledge and understanding of the different quality control tools.
- Introduce students to both qualitative and quantitative information and techniques to arrive at economical and socially responsible solutions.
- Reason critically, both individually and collaboratively, draw sound conclusions from information, ideas, and interpretations gathered from various sources and disciplines
- Apply those conclusions to the solutions of real-world engineering problems.

2- Intended learning outcomes of course (ILOs)

a-Knowledge and understanding

- a1 - Provide an introduction to the fundamental concepts of statistical process control, total quality management, six sigma and the application of these concepts, philosophies, and strategies to issues arising in government and industry.
- a2 - Enhance the student's understanding of the complexities of statistical analysis and control-chart interpretation and their work-place application.
- a3 - Provide skills in diagnosing and analyzing problems causing variation in manufacturing and service industry processes.
- a4 - Provide a basic understanding of "widely-used" quality analysis tools and techniques. Create an awareness of the quality management problem solving techniques currently in use.

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b-Intellectual skills

- b1 - Improve students understanding of statistical tools and their application.
- b2 - Assess approaches to analyze different problems and statistical experiments.
- b3 - Assess means of analyzing quality problems within the organization, thus maintaining high quality and market superiority.

c-Professional and practical skills

- c1 - Identify the different quality analysis tools with which the engineer is likely to deal.
- c2 - Deal with professional terms such as presentation of data, hypothesis sampling and control charts.
- c3 - Create effective work area.

d-General and transferable skills

- d1 - Conduct oral and written presentations.
- d2 - Practice working in a team to develop communication skills.

3- Contents

| No | Course Content | lectures | tutorial | Total |
|----|--|----------|----------|-------|
| 1 | industrialization of service | 2 | 2 | 4 |
| 2 | unique nature of service characteristics | 2 | 2 | 4 |
| 3 | the differences between service and manufacturing industries | 2 | 2 | 4 |
| 4 | classifications of service industries | 2 | 2 | 4 |
| 5 | productivity in service systems | 2 | 2 | 4 |
| 6 | service technology | 2 | 2 | 4 |
| 7 | service systems design | 4 | 4 | 8 |
| 8 | managing quality in service systems | 2 | 2 | 4 |
| 9 | service management | 2 | 2 | 4 |
| 10 | customer role in service industry and customer rights | 2 | 2 | 4 |
| 11 | customer information program | 2 | 2 | 4 |
| 12 | customer compliant | 4 | 4 | 8 |
| 13 | customer delight | 2 | 2 | 4 |
| | Total Hours | 30 | 30 | 60 |

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4- Assessment schedule

| Assessment method | No | Description | Week No | Weight (%) |
|---------------------|----|-------------|---------|------------|
| assignment and quiz | 1 | assignment1 | Week 3 | 2 |
| reports | 5 | report1 | Week 5 | 5 |
| assignment and quiz | 2 | assignment2 | Week 5 | 5 |
| assignment and quiz | 3 | assignment3 | Week 9 | 5 |
| assignment and quiz | 4 | quiz | Week 10 | 5 |
| reports | 6 | report2 | Week 11 | 5 |
| assignment and quiz | | assignment4 | Week 12 | 3 |
| Written exams | | final exam | Week 16 | 70 |
| Total | | | | 100 % |

5- List of references

5.1 Course notes

- Course notes

5.2 Essential books (text books)

- Grant,E.L., "Statistical Quality Control", McGraw Hill, New York, 1996.

- Motgomery, D. C., "Introduction to Statistical Quality Control", John Wiley and Sons, N.Y., 1997.

5.3 Periodicals, Web sites, ... etc

- www.ASQ.org

6- Facilities required for teaching and learning

- Appropriate teaching class accommodations including presentation board and data show.

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Course Content/ILO Matrix

| Course Content | a1 | a2 | a3 | a4 | b1 | b2 | b3 | c1 | c2 | c3 | d1 | d2 |
|--|----|----|----|----|----|----|----|----|----|----|----|----|
| industrialization of service | ● | ● | | | ● | | | | | | | |
| unique nature of service characteristics | | ● | | | | | | | | | | |
| the differences between service and manufacturing industries | | ● | | | | | | | | | | |
| classifications of service industries | | ● | | | | | | | | | | |
| productivity in service systems | ● | | | | | | | | | | | |
| service technology | | | | ● | | ● | | | | | | |
| service systems design | | ● | | | | | ● | | | | | |
| managing quality in service systems | ● | | | | | | ● | | | | | |
| service management | | | ● | ● | | | | | | | | |
| customer role in service industry and customer rights | ● | ● | | | | | | | | | | |
| customer information program | | ● | | | | | | ● | ● | ● | ● | ● |
| customer compliant | ● | | | | | | | | ● | | | |
| customer delight | | | ● | | | | | | | ● | | |

Learning Method /ILO Matrix

| Learning Method | a1 | a2 | a3 | a4 | b1 | b2 | b3 | c1 | c2 | c3 | d1 | d2 |
|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|
| lectures | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | |
| tutorial | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

Assessment Methods /ILO Matrix

| Assessment | a1 | a2 | a3 | a4 | b1 | b2 | b3 | c1 | c2 | c3 | d1 | d2 |
|-----------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| assignment and quiz : assignment1 | ● | ● | ● | ● | ● | ● | ● | | | | | |
| reports : report1 | | | | | | | | | | | ● | |
| assignment and quiz : assignment2 | | | | | | | | ● | ● | ● | ● | ● |
| assignment and quiz : quiz | ● | ● | ● | | | | | | | | | |
| reports : report2 | | | | | | | | | | | | ● |
| exams : final exam | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | |

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