

CB313 Quality Control In Construction

COURSE INFORMATION

| Prerequisites | Academic Year & Level | | Teaching Methods | | | Credit Hrs. |
|---------------|-----------------------|----------|------------------|----------|----------------|-------------|
| | Year | Semester | Lecture | Tutorial | Laborator y | |
| BA329 | 3 | 6 | 2 | 2 | 0 | 3 |

COURSE AIM

The course aims at introducing the student to the fundamentals of quality control in construction.

COURSE WEEKLY CONTENTS

- 1 Introduction to quality in construction (1,2):
- 2 Introduction to quality in construction (1,2):
- 3 Inspection and testing in construction projects. The documentation and function of quality control engineers in construction sites.
- 4 Quality improvement techniques:
- 5 Review of statistics:
- 6 Control charts for variables (1,2)
- 7 Control charts for variables (1,2) + Midterm Exam
- 8 Evaluation of strength test results of concrete, variation and analysis of strength data, Criteria and evaluation of data, quality control charts for strength data and other evaluation techniques.
- 9 Quality assurance: ISO 9000 / Introduction.
- 10 Quality assurance: ISO 9000 / Development of QMS, objective, benefits.
- 11 Quality assurance: Clauses in ISO 9000 / 2000 version. and 12th week assesment
- 12 Quality assurance: Clauses in ISO 9000 / 2000 version. and 12th week assesment
- 13 Total quality management:
- 14 Total quality management:
- 15 Case Studies:

STUDENT GRADING & ASSESSMENT

| Weeks | Exams | Assign. | Quizzes | Reports | Present. | Lab. | Total |
|---|------------|---------|---------|---------|----------|------|-------|
| 1 to 7 | 20 Midterm | ← | 10 | MARKS | | → | 30 |
| To be freely distributed among possible assessments | | | | | | | |
| 8 to 12 | ← | | 20 | MARKS | | → | 20 |
| 13 to 15 | ← | | 10 | MARKS | | → | 10 |
| 16 or 17 | 40 Final | | | | | | 40 |
| Total | Exams | Assign. | Quizzes | Reports | Present. | Lab. | 100 |

REFERENCES

Textbook Quality Improvement, Dale H. Besterfield, Pearson Education, 9th Edition, 2014.

Other Modern Construction Management, McCaffer, R., Harris, F. and Edum-Fotwe, F. Wiley-Blackwell, 7th Edition, 2013.
Quality Management in Construction, Thorpe, Brian and Sumner, Peter Gower Pub Co , UK, 3rd Edition, 2005.
Quality Improvement Techniques in Construction, McCabe, S., Addison Wesley Longman limited, Edinburgh Gate, England, 1998.
Engineering Quality in Construction: Partnering and TQM, Kubal, M.T., McGraw Hill Inc., New York, 1994.