

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

INDUSTRIAL AND MANAGEMENT ENGINEERING DEPARTMENT

MBA651: QUANTITATIVE METHODS FOR DECISION MAKING

Instructor: IME Faculty

Office: IME Dept.

Phone: 7376 (O)

Email: N/A

Course Name: Quantitative Methods (3-0-0-10)

Course number: MBA 651

Department: Industrial and Management Engineering

Proposer's Name: N/A

Pre-requisite N/A

Syllabus/Course Content

Introduction to decision analysis and process, Simplex Method, Duality Theory, Network Problems,

Decision Sciences, Elementary probability theory, conditional probability, Bayesian decision analysis,

EVPI, moment generating functions, the central limit theorem, Descriptive and deductive statistics,

Sampling techniques, Estimation, Hypothesis testing and Regression.

Text books/References

- 1) Albright, S. C., Winston, W. and Zappe, C. J., Decision Analysis & Decision making, Thomson Press, ISBN(10): 9812435433.
- 2) Freund, John E, Mathemaical Statistics with Applications, Pearson Education, ISBN(10): 81-7758-7552.
- 3) Levin, Richard I and Rubin David S., Statistics for Management, Person Publication, ISBN(13): 978-81-7758-5841.
- 4) Render, B., Stair, Jr. R. M., Hanna, M. E. and Badri, T. N., Quantitative Analysis for Management, Pearson Publication, ISBN(13): 9788131723739.
- 5) Taylor III, B. W., Introduction to Management Science, Pearson Publication, ISBN(13): 9788131720714.

Evaluation Methodology

1) Class/group assignments: 30%

2) Quizzes: 20%

3) Mid-semester examination: 20%

4) Final Examination: 25%

5) Attendance: 05%

Total: 100%

Note

 All quizzes, examinations are closed notes/books, while class/group assignments are open book.

- 2) The number of quizzes will be about six (06) to seven (07).
- 3) The number of assignment will be about ten (10).
- 4) Groups for assignment will be decided by the instructor.
- 5) In case a student is absent during class/group assignment (when given in class), quiz/mid-semester/final examination (when conducted) then it will re-conducted for him/her as per PG norms (with proper reasons/documents/paper being submitted by student).
- 6) No mobiles in class.
- 7) Be exactly on time or do not be in class.
- 8) All notes, assignments, cases, etc., can be found at http://home.iitk.ac.in/~raghus/

Students likely to take this course MBA 1st year students (compulsory course)

Other faculty members who can teach this course Prof. Kripa Shanker, Prof. A. K. Mittal, Prof.

R. R.K. Sharma

Signature of Instructor Sd/- Raghu Nandan Sengupta