

## MSO201: Probability and Statistics

According to DOAA timetable, in this semester we will be having around 36 lectures and 13 tutorials. Our classes are on Monday, Thursday and Friday from 9:00 am to 9:50 am in L-7 and the tutorials are on Wednesday from 9:00 am to 9:50 am in L-07 (Section 1), L-15 (Section 2) and L-16 (Section 3). To find your tutorial section divide your roll number by 3, if the remainder is 1, then you are in Section 1, if the remainder is 2, you are in Section 2, otherwise you are in Section 3.

This is the first course in Probability and Statistics in B-Tech/BS program. The main aim of this course is to introduce axiomatic approach in probability and then introduce random variables, different probability distribution functions and transformation of random variables. In the second part of the course we will introduce basic concepts and modern tools of statistics, namely estimation of the unknown parameters and testing of hypothesis. Various applications will be provided.

The pre-requisite of this course is mainly Calculus and some basic Analysis (MTH101). Regular assignments will be given. We will be mainly using the following books:

1. Introduction to Mathematical Statistics, R.V. Hogg, J.W. McKean and A. Craig (2019), 8-th Edition, Pearson Education Inc., USA.
2. Introduction to Probability Models, S.M. Ross (2010), 10-th Edition, Elsevier, USA.

The course will be evaluated by four quizzes, one mid-sem and one final examination. The quizzes will take place (a) January 23, 2025 (b) February 06, 2025 (c) March 20, 2025 and (d) April 17, 2025. All the quizzes will take place in the evening from 7:00 pm to 7:30 pm. in L-18 (Section 1), L-19 (Section 2) and L-20 (Section 3). If any of the quiz has to be cancelled for some unforeseen reason, the next available date will be announced. There will no makeup quiz. If any body misses one quiz then it will be replaced by the half of the minimum marks of the other three quizzes, and if any body misses more than one quiz, they will be replaced by zero. The final grade will be based on: Quiz (20%), Mid-Sem (30%) and Final (50%). If any body misses the Final examination, irrespective of the quiz and mid-sem marks F-grade will be assigned. If I see any copying (or any unfair means) in any quiz, mid-sem, or in final, all the concerned person(s) will be de-registered immediately and the matter may be reported to SSAC.

**Special Announcement:** I have some official travel during the semester. I will miss the following classes: 10.01.25 & 16.01.25 & 17.01.25 & 13.02.25 & 14.02.25. I will take extra classes from 6:00 pm to 6:50 pm on 23.01.25 & 24.01.25 & 06.02.25 & 06.03.25 & 27.03.25.