

Preface

This course concentrates on stochastic models and methods for the performance analysis of production systems.

In the first part we look at systems consisting of only one production station. The station can either be a single machine station or a multi machine station. All jobs visit the station only once. We will present and analyse models for evaluating the system performance. Key performance measures are the mean and the distribution of the production lead times.

In the second part we consider production lines and job shop type systems. Such production systems consist of a set of stations, where a station might be a single machine or a number of identical parallel machines. The jobs have to visit a subset of the stations in a fixed or random order.