M.L. Pinedo

Planning and Scheduling in Manufacturing and Services

- Author Michael L. Pinedo is a major figure in the scheduling area (well versed in both stochastics and combinatorics), and knows both the academic and practitioner side of the discipline
- Includes the integration of case studies into the text
- Second edition features a new chapter on planning and scheduling in healthcare
- Appeals to engineering and business students interested in operations research

This second edition book focuses on planning and scheduling applications with a new chapter on planning and scheduling in healthcare. Planning and scheduling are forms of decision-making that play an important role in most manufacturing and services industries. The planning and scheduling functions in a company typically use analytical techniques and heuristic methods to allocate its limited resources to the activities that have to be done.

The application areas considered in this book are divided into manufacturing applications and services applications. The book covers four areas in planning and scheduling: preliminary scheduling, planning and scheduling in manufacturing, planning and scheduling in services and systems development and implementation. It covers four areas in services: reservations and timetabling, tournament scheduling, planning and scheduling in transportation, planning and scheduling in healthcare and workforce scheduling. At the end of each chapter, a case study or a system implementation is described in detail. Numerous examples and exercises throughout the book illustrate the material presented. The fundamentals concerning the methodologies used in the application chapters are covered in the appendices.

This book is suitable for more advanced students in industrial engineering and operations research as well as graduate students in business.

Michael Pinedo is the Julius Schlesinger Professor of Operations Management in the Stern School of Business at New York University. His research interests lie in the theoretical and applied aspects of planning and scheduling. He has written numerous papers on the theory of deterministic and stochastic scheduling and has also consulted extensively in industry. He has been actively involved in the development of several large industrial planning and scheduling systems.

"The book may be very useful as an application guideline for practitioners from the manufacturing and services sectors, while it has a special value for academic people."