Reviews and Resources

BOOKS

Lab Dynamics: Management Skills for Scientists


The authors of Lab Dynamics: Management Skills for Scientists indicate that “This is a book for scientists and technical professionals about surviving and succeeding in the organizations and groups in which they work. It is also for science managers and executives who want to know how best to manage scientists.” The book concerns the challenges of working in the scientific disciplines and dealing with the various individuals involved, including oneself.

In general, science programs are designed to convey scientific knowledge and technical skills to their students. Unfortunately, the majority of these programs fail to include any training in management or interpersonal skills, thus conveying to the student the assumption that these skills are neither relevant nor necessary. The authors, a scientist and a psychotherapist, offer practical advice, use real-life examples, and present exercises relevant to the scientific workplace.

The first three chapters of the book provide the reader with a set of core skills and concepts that provide the foundation for the rest of the book. Chapter 1 allows the readers to examine their behavior within the context of the scientific workplace and consider current information about scientists and their approach to the work environment. Self-assessment exercises help define which aspects of self-awareness and interpersonal skills could be improved. Chapter 2 provides guidelines and exercises for improving interpersonal skills, particularly those used to become better active observers of others, as well as becoming more aware of your own actions. Chapter 3 demonstrates how to apply skills of self-observation, self-management, and group observation within the context of work environment challenges and negotiations that continually arise.

The second section of the book teaches the reader to apply new skills and powers of observation with three different groups: employees, peers, and supervisors. Included in this section are methods for improving the management of emotions as a manager and recommendations for recognizing and dealing with potential problems associated with team management, particularly those involving conflict.

The final section of the book includes management problems associated with organizations and groups within which scientists work. These chapters discuss issues such as the student/mentor relationship and how to transition from the academic to the private sector. The last chapter uses an extensive case study to demonstrate the use of concepts and tools previously explained in the book.

At the end of each chapter, the authors provide exercises designed to help the reader acquire and use skills presented earlier. Some of the exercises are in the form of experiments developed to use and evaluate the effectiveness of new behaviors.

Certainly, there are distinct differences between science organizations and other organizations. These include differences in managerial timetables and scientific discovery timetables, as well as the tendency to ignore interpersonal “people” issues within the scientific setting. Another difference involves the scientific environment in which scientists are trained and rewarded as individuals rather than team members. Management often involves executives who have little or no science training and do not understand the nature of the scientific process. In spite of the differences, there are also similarities between science organizations and other organizations, including the need for professionals to take ownership of projects, for reliance on what individuals know, and for the value of scientific guidance and consultation in the boardroom.

The authors have had extensive teaching experience, including workshops based on methods that they have tried and used themselves. The book is easy to read, provides some interesting insights, and includes some very important considerations regarding interpersonal skill development, all of which could be very valuable for the scientist with little or no exposure to these concepts. The information contained in this book should be required as a part of any scientific curriculum, particularly at the graduate levels, for students as well as laboratory directors and academic mentors. The subject is also important for managers looking to improve the overall productivity and effectiveness of academic and industrial research.

Lynne Garcia
LSG & Associates
Santa Monica, Calif.

Oceans and Health: Pathogens in the Marine Environment


The discharge of treated and untreated wastewater into marine systems, as well as runoff from populated towns and cities and from agricultural land, combined with an increased use of our oceans for leisure and sports and our traditional contact with the sea for food and transport, has led to an increasing public awareness of diseases associated with the sea. Oceans and Health: Pathogens in the Marine Environment gives a very comprehensive overview of the factors affecting the growth of pathogens in the marine environment (biotic and abiotic), methods for detection and quantification of pathogens, and molecular aspects of bacterial survival in marine ecosystems. Most of the chapters fo-
Microbiology of Fresh Produce
Series Editor: Michael P. Doyle, University of Georgia
Volume Editor: Karl R. Matthews, Rutgers, The State University of New Jersey

Microbiology of Fresh Produce presents the latest research and industry practices promoting microbiological safety of fruits and vegetables. This inaugural volume in the new series Emerging Issues in Food Safety examines key issues of microbiological safety of fresh produce, from production to consumption, and focuses on the unique challenges the specialists encounter in controlling microorganisms found on produce.

Key Features
- Presents latest research and industry practices that promote microbiological safety of fruits and vegetables
- Provides extensive information on practices related to the safety of seed sprouts
- Highlights consumer preferences and handling practices of fruits and vegetables
- Covers latest information on the attachment to and localization of human pathogens on plant surfaces
- Addresses topical issues including good agricultural practices, irradiation, edible films, and diagnostic techniques
- Includes the latest science as well as technology in development for future use to deal with contamination of marine systems.

I particularly enjoyed reading this book and was surprised at the extent to which we are affecting the marine ecosystem and how that in turn affects our health. A major strength of this book is the variety of topics covered, which makes this book a must read for marine ecologists, environmental microbiologists, and wastewater engineers.

Diane McDougald
University of New South Wales
Sydney, Australia