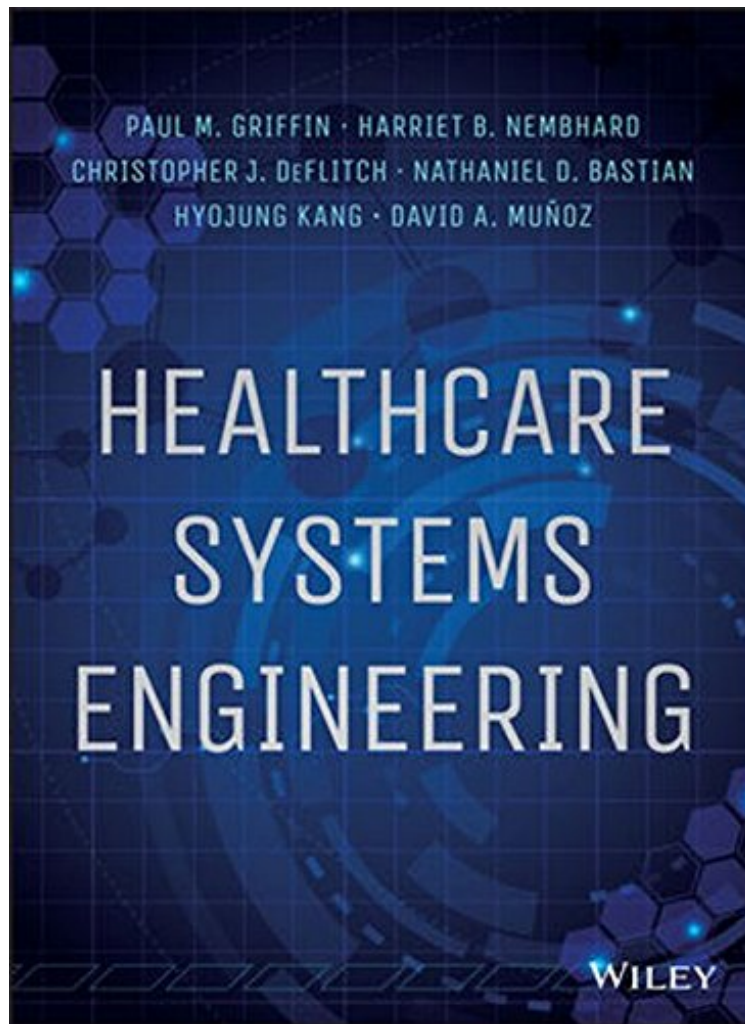


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Paul M. Griffin, Harriet B. Nembhard, Christopher J. DeFlitch, Nathaniel D. Bastian, Hyojung Kang, David A. Munoz

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Paul M. Griffin, Harriet B. Nembhard, Christopher J. DeFlitch, Nathaniel D. Bastian, Hyojung Kang, David A. Munoz : Healthcare Systems Engineering before purchasing it in order to gage whether or not it would be worth my time, and all praised Healthcare Systems Engineering:

0 of 0 people found the following review helpful. Very Useful Resource By Michael Baron I had a strong motivation to learn more about the nature of healthcare systems and compare them within the context of Engineering. This is a valuable guide with recent research and quite effective organization. 0 of 0 people found the following review helpful. Look for a better book than this one. By Edwin Not a very good read. Not what I expected at all. There are better books out there on the subject. Keep looking. 4 of 5 people found the following review helpful. Excellent coverage of systems

engineering methods applied to healthcare. I teach a health systems engineering course to MBA and MS students pursuing degrees in operations management. I have selected Griffin et al.'s Health Systems Engineering as a textbook for my course because it provides excellent coverage of relevant healthcare topics, as well as many rich examples that explore how different types of models can be applied to provide insight on specific healthcare issues. In particular, in addition to covering more traditional problems addressed by operations management/industrial engineering (such as patient flow, capacity management, and supply chains), the book includes chapters on healthcare financing and health data/informatics. Case studies provide detailed illustrations of how systems engineering methods can be applied to specific problems; a wide range of methods and problems are covered. For example, system dynamics is explored in the context of care of chronic kidney disease, lean and six sigma methodologies are outlined in examples such as discharge rounding and emergency department triage, data mining is explored in the context of predicting Parkinson's disease, and optimization is explored for staffing and operating room scheduling. Data visualization, queuing, simulation, and forecasting are also introduced. The book provides detailed examples that cover a variety of different problems and methods, so no particular area is covered in great detail. Each chapter ends with an extensive list of references, to support additional investigation however. The book focuses on the application of methods in healthcare, so does not introduce methods in great detail. If used in a course where students have a background in systems engineering methods, model formulations are often presented and might be explored more deeply. Exercises are included at the end of each chapter, and in general challenge students to think about how methods might be applied to related problems, with a greater emphasis on conceptual formulation rather than on solving small-scale problems. Overall, the book provides a comprehensive exploration of how systems engineering approaches can be used to develop insights about a variety of healthcare issues. I received a free copy of the book to review.

Apply engineering and design principles to revitalize the healthcare delivery system. Healthcare Systems Engineering is the first engineering book to cover this emerging field, offering comprehensive coverage of the healthcare system, healthcare delivery, and healthcare systems modeling. Written by leading industrial engineering authorities and a medical doctor specializing in healthcare delivery systems, this book provides a well-rounded resource for readers of a variety of backgrounds. Examples, case studies, and thoughtful learning activities are used to thoroughly explain the concepts presented, including healthcare systems, delivery, quantification, and design. You'll learn how to approach the healthcare industry as a complex system, and apply relevant design and engineering principles and processes to advance improvements. Written with an eye toward practicality, this book is designed to maximize your understanding and help you quickly apply toward solutions for a variety of healthcare challenges. Healthcare systems engineering is a new and complex interdisciplinary field that has emerged to address the myriad challenges facing the healthcare industry in the wake of reform. This book functions as both an introduction and a reference, giving you the knowledge you need to move toward better healthcare delivery. Understand the healthcare delivery context. Use appropriate statistical and quantitative models. Improve existing systems and design new ones. Apply systems engineering to a variety of healthcare contexts. Healthcare systems engineering overlaps with industrial engineering, operations research, and management science, uniting the principles and practices of these fields together in pursuit of optimal healthcare operations. Although collaboration is focused on practitioners, professionals in information technology, policy and administration, public health, and law all play crucial roles in revamping health care systems. Healthcare Systems Engineering is a complete and authoritative reference for stakeholders in any field.

From the Back Cover: AN AUTHORITATIVE INDUSTRIAL ENGINEERING APPROACH TO HEALTHCARE SYSTEMS OPTIMIZATION. Healthcare Systems Engineering offers comprehensive coverage of engineered solutions to healthcare delivery, measurement, and modeling. Thoughtful discussion tackles both domain and relevant statistical and quantitative models to improve current systems or design new ones from the ground up. Examples and case studies illustrate the practical aspect of the presented strategies to help readers from a variety of backgrounds quickly apply new approaches in practice. Identify the components, stakeholders, and major drivers of the healthcare delivery system. View healthcare as a complex adaptive system to apply systems thinking and system dynamics methodologies. Optimize financials with models for compensation, cost allocation, and capital budgeting. Manage healthcare data and find data mining and visualization solutions. Dig into logistics and supply chain with solid approaches to demand, inventory control, distribution, coordination, and more. With practical insight and clear, authoritative discussion, Healthcare Systems Engineering provides much-needed guidance for this emerging, interdisciplinary field. About the Author: PAUL M. GRIFFIN, PHD, is the Joseph C. Mello Chair and Professor of Industrial Engineering at Georgia Tech. HARRIET B. NEMBARD, PHD, is a Professor of Industrial Engineering at Pennsylvania State University. She is Director of the Center for Integrated Healthcare Delivery Systems. CHRISTOPHER J. DEFLITCH, MD, is the Chief Medical Information Officer and an Associate Professor of Emergency Medicine at the Pennsylvania State University Hershey Medical Center. NATHANIEL D. BASTIAN, PHD, is a Healthcare Operations Research Analyst in the United States Army Medical Department. HYJUNG KANG, PHD, is a Research Assistant Professor of

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