
Table of Contents

Chapter 1	
Introduction	1
<i>Rory A. Cooper</i>	
Chapter 2	
Clinical Practice of Rehabilitation Engineering	19
<i>Carmen Digiovine, Douglas A. Hobson, and Rory A. Cooper</i>	
Chapter 3	
Universal Design	47
<i>Linda van Roosmalen and Hisaichi Ohnabe</i>	
Chapter 4	
Technology Transfer	67
<i>Rory A. Cooper and Jonathan Pearlman</i>	
Chapter 5	
Standards for Assistive Technology	77
<i>Douglas Hobson, Rory A. Cooper, and Martin Ferguson-Pell</i>	
Chapter 6	
Seating Biomechanics and Systems	101
<i>Mark Schmeler, Bengt Engstrom, Barbara Crane, and Rosemarie Cooper</i>	
Chapter 7	
Tissue Integrity Management	117
<i>David Brienza, Yihkuen Jan, and Jeanne Zanca</i>	
Chapter 8	
Wheelchairs	129
<i>Alicia Koontz, Jonathan Pearlman, Brad Impink, Rory A. Cooper, and Matthew Wilkinson</i>	
Chapter 9	
Functional Electrical Stimulation	157
<i>Songfeng Guo, Karl Brown, Emily Zipfel, Yusheng Yang, Jue Wang, Tong Zhang, and Elizabeth Leister</i>	

Chapter 10

Wheelchair Transportation Safety	187
<i>Patricia Karg, Gina Bertocci, Linda van Roosmalen, Douglas Hobson, and Toru Furui</i>	

Chapter 11

Rehabilitation Robotics	211
<i>Dan Ding, Richard Simpson, Yoky Matsuoka, and Edmund LoPresti</i>	

Chapter 12

Major Limb Prosthetic Devices	239
<i>Diane M. Collins, Brad Dicianno, Amol Karmarkar, Paul F. Pasquina, Rick Relich, and Annmarie Kelleher</i>	

Chapter 13

Orthotic Devices	261
<i>Michael Dvorznak, Kevin Fitzpatrick, Amol Karmarkar, Annmarie Kelleher, and Thane McCann</i>	

Chapter 14

Aids for People Who Are Blind or Visually Impaired	287
<i>John Brabyn, Katherine D. Seelman, and Sailesh Panchang</i>	

Chapter 15

Maximizing Participation for People with Hearing Loss	315
<i>Elaine Mormer, Amanda Ortmann, Catherine Palmer, and Katherine D. Seelman</i>	

Chapter 16

Telecommunications, Computers, and Web Accessibility	339
<i>Katherine D. Seelman, Stephanie Hackett, Bambang Parmanto, Richard Simpson, and Sailesh Panchang</i>	

Chapter 17

Augmentative and Alternative Communication Technology	355
<i>Katya J. Hill, Bruce Baker, and Barry A. Romich</i>	

Chapter 18

Adaptive Sports and Recreation Technology	385
<i>Mary E. Buning, Ian M. Rice, Rory A. Cooper, and Shirley G. Fitzgerald</i>	

Selected Terms and Definitions 413

Abbreviations 427

Index 429