Biomechanics and Motor Control of Human Movement

David A. Winter
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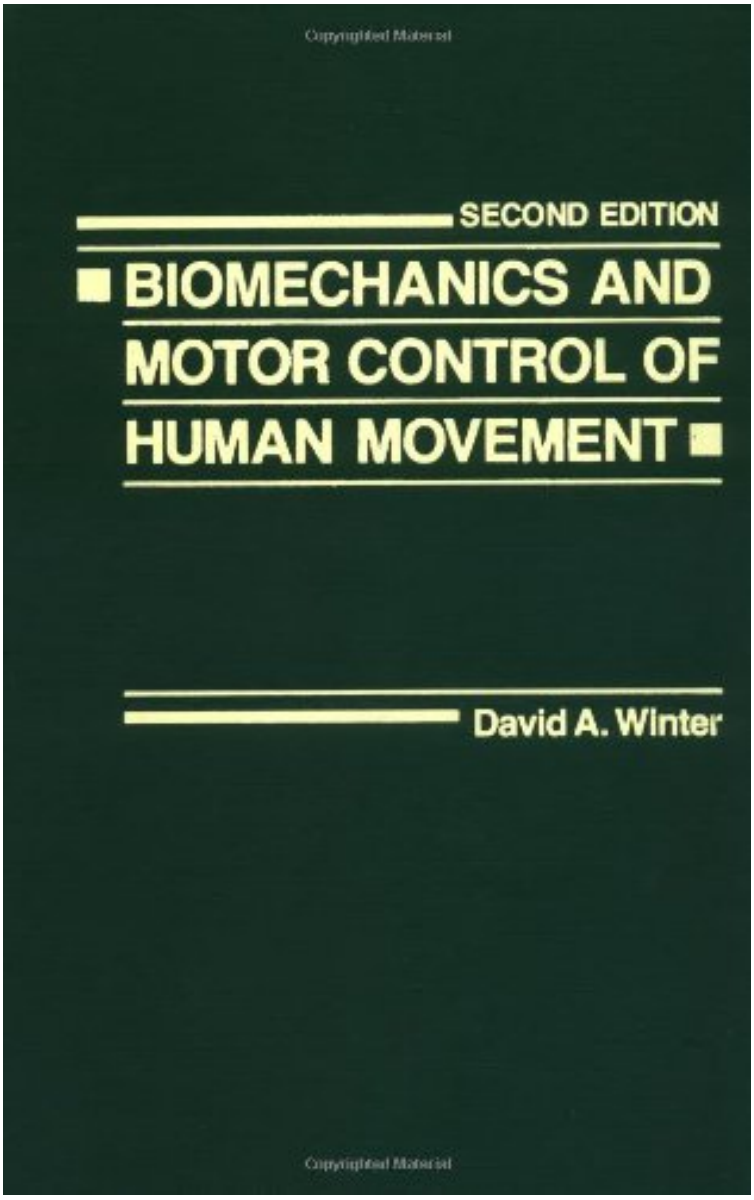

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David A. Winter : Biomechanics and Motor Control of Human Movement before purchasing it in order to gage whether or not it would be worth my time, and all praised Biomechanics and Motor Control of Human Movement:

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reason. Winter's writing is clear and concise and he covers the entire subject beautifully. It is a great source for anyone interested in the subject.4 of 4 people found the following review helpful. A must have for anyone serious about biomechanicsBy B. WallaceThis book is a must have for biomechanics Graduate students. It looks at biomechanics from an engineering standpoint and technological standpoint, not just a math/physics standpoint. It is much cheaper (used) and just as good as the third edition. The only meaningful thing the third edition does better is describe filters (butterworth, spline, etc.). Some other parts of this book could be better explained, but I like the shortness of it overall. It also has Demster's anthropometric data in it that is the most commonly used for inverse dynamic solutions in biomechanics. Overall a great book and I'd recommend it to any advanced biomechanics student, even over the third edition all things considered.2 of 2 people found the following review helpful. The BibleBy Nathan HamiltonWe actually refer to this as the bible of biomechanics in our lab. I decided I had to have this book after looking at the third edition and realizing how much applicable information it contained to not only my thesis, but most projects in biomechanics. Very comprehensive book. I do wish it would have a little bit of applied statistics in it, but a man can dream right?

Looks at human body movement as a mechanical system and examines techniques used to measure and analyze all body movements. Each limb of the body is treated as a separate segment connected at hinge joints. Muscles are replaced by actuators and the net effect of all muscles is replaced by torque motors. The characteristics of those actuators are documented, along with their neural control as represented in the readily available electromyographic signal. The book's organization is such that description of the movement is covered first, followed by chapters that examine the cause of the movement at kinetic and electromyographic levels. Will appeal to all those involved in the study of a wide variety of human movement problems--from pathological gait to chronic running injuries. Material on biomechanical techniques contributes to the understanding of such everyday movements as walking and lifting. Information is integrated with a common set of data and analyses. In addition, basic physics principles are presented in capsule form for ease of use. This text is a substantial revision of the widely used Biomechanics of Human Movement, updated and retitled to reflect progress in the field.

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