Over the past several years, curricula in exercise science programs have been moving toward a model of integrating science with practice. Current textbooks tend toward a theoretical approach only, often leaving students searching for the relevancy of this education to their future careers. This created an opportunity to design a textbook that is application-based and geared toward students who take an exercise physiology course as part of coursework toward a degree in exercise science, athletic training, coaching, physical education, etc. It is also geared toward professionals who are preparing for certification exams or looking to bolster their knowledge base.