

SIXTEENTH EDITION

**FOUNDATIONS OF** 

# PHYSICAL EDUCATION, EXERCISE SCIENCE, AND SPORT

DEBORAH A. WUEST CHARLES A. BUCHER

# Contents

#### Preface x

# PART

Nature and Scope of Physical Education, Exercise Science, and Sport 1

#### CHAPTER 1

#### Meaning and Philosophy 2

Contemporary Physical Education, Exercise Science, and Sport Programs 5 Physical Education, Exercise Science, and Sport Defined 8 Physical Education, Exercise Science, and Sport: The Field 11 The Name Debate 20 Allied Fields 21 Health 21 Recreation 22 Dance 23 Philosophy 24 What Is Philosophy? 25 Branches of Philosophy 25 Traditional Educational Philosophies 27 Modern Educational Philosophy 29 The Mind-Body Relationship 29

Philosophy of Sport and Physical Activity 31 Your Professional Philosophy 33

Summary 36

Self-Assessment Activities 37

References 37

Suggested Readings 38

#### CHAPTER 2

#### Goals and Objectives 40

Role of Education in Society 41
Goals and Objectives Defined 43
Goals of Education: Historical
Development 44
Contemporary Goals of Education 45
Physical Education and the Goals
of Education 50
Goals of Physical Education, Exercise
Science, and Sport 51
Historical Development 52
Contemporary Goals and
Objectives 53
Learning in the Three Domains 57
Taxonomies 58
Cognitive Domain 58

Affective Domain 61
Psychomotor Domain 63
Assessment of Learning 67
Assessment Defined 68
Purposes of Assessment 68
The Role of Technology in
Assessment 71

Summary 75

Self-Assessment Activities 76

References 76

Suggested Readings 78

#### CHAPTER 3

#### Role in Society and in Education 80

Changing Demographics 81

What Are the Implications of These

Changing Demographics for Physical

Education, Exercise Science, and Sport? 84

Wellness Movement 87

Wellness and Health 87

Epidemiologic Shift 88

Chronic Disease in the United States 89

Health Goals of the Nation 90

What Are the Implications of the Wellness Movement for Physical Education,

Exercise Science, and Sport? 102

Physical Activity and Fitness Movement 106 Fitness and Physical Activity of Children and Youth 109

Fitness and Physical Activity of Adults 113

What Are the Implications of the Fitness Movement for Physical Education, Exercise Science, and Sport? 117

Educational Reform 121

What Are the Implications of the Educational Reform Movement for Physical Education? 124

#### Summary 130

Self-Assessment Activities 131

References 131

Suggested Readings 134

# PART

Foundations of Physical Education, Exercise Science, and Sport 137

#### CHAPTER 4

#### Historical Foundations 138

Sport History 139

Definition and Scope 139

Historical Development 140

Areas of Study 141

Ancient Greece and Rome 142

Early Modern European Programs 143

Germany 143

Sweden 144

Denmark 145

Great Britain 145

Physical Education and Sport in the

United States 146

Colonial Period (1607–1783) 146

National Period (1784-1861) 148

Civil War Period until 1900 149

Early Twentieth Century 155

World War I (1916–1919) 157

Golden Twenties (1920–1929) 158

Depression Years (1930-1939) 160

Mid-Twentieth Century

(1940–1970) 161

Significant Recent Developments

(1970-Present) 166

The Discipline 166

Disease Prevention and Health

Promotion 168

School Physical Education 168

Physical Fitness and Participation

in Physical Activity 170

The Growth of Sports 171

Girls and Women in Sports 172

Programs for Individuals with

Disabilities 175

Olympics 178

Summary	181

Self-Assessment Activities 181

References 182

Suggested Readings 183

#### CHAPTER 5

#### Motor Behavior 185

Motor Behavior 185 Motor Learning and Motor Control 187 Definition and Scope 187 Historical Development 188 Areas of Study 189 Information-Processing Model 189 Stages of Learning 191 Forces Influencing Learning 194 Motor Learning Concepts 197 Motor Development 203 Definition and Scope 204 Historical Development 204 Areas of Study 205 Phases of Motor Development 205 Selected Fundamental Motor Skills 208 Development of Fundamental Motor Skills 214

#### Summary 216

Self-Assessment Activities 216

References 217

Suggested Readings 217

### CHAPTER 6

#### Biomechanical Foundations 220

Kinesiology and Biomechanics 221

Definition and Scope 222

Historical Development 223

Reasons for Studying

Biomechanics 225

Major Areas of Study 229

Selected Biomechanical Terms Related to Human Motion 230

Mechanical Principles and Concepts
Related to Movement 232
Stability 232
Motion 234
Leverage 235
Force 237
Biomechanical Analysis 240
Instruments 240
Analysis 244
The Future 248

#### Summary 250

Self-Assessment Activities 250

References 251

Suggested Readings 252

#### CHAPTER 7

#### Exercise Physiology and Fitness 254

Exercise Physiology: An Overview 255 Definition 255 Historical Development 256 Areas of Study 258 Physical Fitness 259 Physical Activity, Physical Fitness, and Health 261 Fitness Development 265 Energy Production for Physical Activity 265 Principles of Fitness Training 267 FITT Formula 269 Health Fitness Components 271 Cardiorespiratory Endurance 271 **Body Composition 276** Muscular Strength and Endurance 281 Flexibility 286 Effects of Training 290 Special Considerations for Fitness 291 Environmental Conditions and Fitness 292 Nutrition and Fitness 293 Ergogenic Aids 297

#### Summary 303

Self-Assessment Activities 303

# References 304

#### Suggested Readings 305

# CHAPTER 8

#### Sociological Foundations 307

Sociology of Sport 308 Definition and Scope 309 Historical Development 310 Areas of Study 312 Sport: A Definition 312 Sport Activities 312 Conditions 313 Participation Motives 314 Sport in Educational Institutions 314 Interscholastic Sports 316 Intercollegiate Sports 320 Girls and Women in Sport 328 Minorities in Sport 336 Sport for Children and Youth 344 Violence 347 Performance-Enhancing Substances in Sport 349

#### Summary 351

Self-Assessment Activities 352

References 352

Suggested Readings 353

#### CHAPTER 9

# Sport and Exercise Psychology 356

Sport and Exercise Psychology 357

Definition and Scope 357

Historical Development 357

Areas of Study 360

Psychological Benefits of Physical

Activity 362

Benefits 362

Mechanism of Effect 363

Exercise Adherence 364

Understanding Behavior Change 365

Promoting Adherence 368

Personality 370 Nature of Personality 370 Personality and Sport 370 Anxiety and Arousal 372 Nature of Anxiety and Arousal 372 Anxiety, Arousal, and Performance 373 Goal-Setting 374 Types of Goals 375 How Goal-Setting Works 376 Principles of Effective Goal-Setting 376 **Enhancing Performance Through** Self-Talk 378 Nature of Self-Talk 379 Types of Self-Talk 379 Application of Self-Talk 379 Modifying Self-Talk 380 Mental Imagery to Enhance Performance 381 Nature of Imagery 382 Uses of Imagery 383 Imagery Theories 384 Strategies to Enhance Imagery 385 Intervention Strategies 385

# Summary 387

Self-Assessment Activities 387

References 388

Suggested Readings 389

# PART

Careers and Professional Considerations 393

#### CHAPTER 10

# Career and Professional Development 394

Careers in Physical Education, Exercise
Science, and Sport 395
Choosing a Career 396
Maximizing Professional Preparation 401
Attaining a Professional Position 409
Leadership and Professional
Development 416
Definition of Leadership 416

Leadership Qualities, Traits, and Skills 417 Professionalism 420 Professional Organizations in Physical Education, Exercise Science, and Sport 424 Why Belong to a Professional Association? 425 Professional Organizations 426

#### Summary 430

Self-Assessment Activities 431

References 431

Suggested Readings 433

#### CHAPTER 11

#### Teaching and Coaching Careers 434

The Teaching Profession 435 Choosing a Teaching Career 435 What Are the Benefits and Drawbacks Associated with Teaching? 436 What Is Effective Teaching? 438 Competencies for Beginning Teachers 440 Quality Physical Education 441 Conducting Quality Programs 442 Teaching Responsibilities 444 Teaching Careers 448 Teaching in the School Setting 449 Teaching in Nonschool Settings 456 Teaching Certification 460 Coaching Careers 460 Choosing a Coaching Career 461 What Are the Benefits and Drawbacks of Coaching? 461 Teaching and Coaching 463 Coaching Responsibilities 464 Securing a Coaching Position 465 Certification of Coaches 466 Burnout 468 Increasing Your Professional Marketability 470

#### Summary 474

Self-Assessment Activities 474

References 475

Suggested Readings 476

#### CHAPTER 12

#### Fitness- and Health-Related Careers 478

Fitness- and Exercise-Related Careers 479 Worksite Wellness Programs 482 Commercial and Community Fitness Programs 485 Personal Trainers 488 Strength and Conditioning Professionals 490 Rehabilitation Programs 490 Career Preparation 491 Health-Related Careers 494 Athletic Training 495 Health and Weight-Management Clubs and Spas 498 Therapy-Related Careers 500 Dance Therapy 500 Recreational Therapy 500 Kinesiotherapy 501

Recreational Therapy 500
Kinesiotherapy 501
Physical Therapy 501
Chiropractic Care 502
Increasing Your Professional
Marketability 504

Summary 505

Self-Assessment Activities 506

References 506

Suggested Readings 507

#### CHAPTER 13

#### Sport Careers 509

Sport Management 512 Careers in Sport Management 515 Athletic Administration 515 Campus Recreation 516

Corporate Recreation 517 Sport Facilities Management 517 Sport Retailing 518 Career Opportunities in Professional Organizations 519 Sport Tourism 520 Careers in Sport Media 521 Sport Broadcasting 521 Sportswriting and Journalism 523 Sport Photography 524 Sports Information Director 524 Web Developer 525 Performance and Other Sport Careers 525 Dance Careers 525 Professional Athletics 526 Officiating Careers 527 Sport Law 528 Entrepreneur 529 Increasing Your Professional Marketability 531

#### Summary 532

Self-Assessment Activities 532

References 533

Suggested Readings 534

# PARTIV

Issues, Challenges, and the Future 537

#### CHAPTER 14

#### Issues and Challenges 538

Issues in Physical Education, Exercise
Science, and Sport Today 539
Leadership in Physical Activity 539
Teaching Values in Physical Education
and Sport 541
Leadership in Youth Sport 546
The Growing Fields and Our
Identity 549
The Gap between Research
and Practice 551

Challenges 552
High-Quality, Daily Physical
Education 553
Advocacy 555
Achievement of National Health
Goals 559
Lifespan Involvement for All People 563

#### Summary 566

**Self-Assessment Activities 566** 

References 567

Suggested Readings 568

#### CHAPTER 15

#### **Future Trends 570**

Societal Trends and Current
Developments 573
Health Promotion and Disease
Prevention Movement 573
Education 577
Technology 579
Changing Demographics 582
Expanding Frontiers 585
Preparing for the Future 586
Establishment of Jurisdiction over Our
Domain 587
Enhancing Our Delivery System 588
The Future 588

#### Summary 592

Self-Assessment Activities 592

References 593

Suggested Readings 594

#### CREDITS C-1

#### INDEX I-1