



Module Synopsis

The 12 modules composing the Foundation Course are comprised of a total of 109 sections, designed to be taken in series. Each section either has specific learning checks, or suggested tasks to complete before progressing onto the next section. In addition, content is complemented by a variety of definitions and glossary terms; discussions and explanations; graphics to illustrate key points; videos to complement the content; section summaries, and a variety of further learning resources and references designed to encourage critical thinking.

Module 1

Biomechanical Concepts

- 1.1 - *Introduction to Biomechanics*
- 1.2 - *Branches of Biomechanics*
- 1.3 - *Newton's Laws of Motion*
- 1.4 - *Biomechanical Terms and Concepts*
- 1.5 - *Motion*
- 1.6 - *Descriptors of Movement*
- 1.7 - *Flight & Angular Motion*
- 1.8 - *Torque, Coupled forces & Angular Momentum*
- 1.9 - *Summation of force*
- 1.10 - *Observation and Feedback*

Module 2

Applied Physiology

- 2.1 - *Introduction to Physiology*
- 2.2 - *Introduction to the structure of the muscular system*
- 2.3 - *Factors impacting the generation of muscular force*
- 2.4 - *Muscular adaptations to resistance training*
- 2.5 - *The Nervous System*
- 2.6 - *Biochemistry and Sport Performance*
- 2.7 - *Neuroplasticity & Neuropsychology*
- 2.8 - *Energy systems and their interaction*
- 2.9 - *Endocrine & Integumentary Systems*
- 2.10 - *Fatigue, Stress, Rest & Recovery*
- 2.11 - *The effect of travel on athlete physiology*
- 2.12 - *Special considerations for female athletes*
- 2.13 - *Anecdotal thoughts on physiology in action*

Module 3

Functional Anatomy & Kinesiology

- 3.1 - *Introduction to Anatomy & Kinesiology*
- 3.2 - *Anatomical Terminology*
- 3.3 - *Systems of the human body*
- 3.4 - *The Skeletal System*
- 3.5 - *Skeletal development*
- 3.6 - *Spinal abnormalities & skeletal injury*
- 3.7 - *Joints*
- 3.8 - *Microstructure of the muscular system – recap*
- 3.9 - *The muscular system explored*
- 3.10 - *Muscles of the human body – Upper Body*
- 3.11 - *Muscles of the human body – Hip, pelvis and lower body*
- 3.12 - *Muscles of the human body – The ‘core’*
- 3.13 - *The Fascial Matrix and Sling Systems*
- 3.14 - *Muscular injury and its treatment*

Module 4

Training Methodology

- 4.1 - Methodology defined
- 4.2 - Adaptation
- 4.3 - A review of periodization methods
- 4.4 - An introduction to loading
- 4.5 - Exercise classification
- 4.6 - Loading methods
- 4.7 - Specificity
- 4.8 - Variation
- 4.9 - Individualization

Semester 1 Graduation!

Module 5

Planning & Organization

- 5.0 - Introduction to Planning
- 5.1 - General Plans for Specific Populations
- 5.2 - Planning a Club Document
- 5.3 - Planning for Specific Event & Player Groups
- 5.4 - The Annual Plan
- 5.5 - Medium-term Planning for Reaction-Based Programming
- 5.6 - Microcycle Planning
- 5.7 - Session Planning

Module 6

Progressions

- 6.1 - Introduction
- 6.2 - The need for progressions
- 6.3 - Long term progressions into high performance sport
- 6.4 - Bulletproofing – creating a healthy athlete
- 6.5 - Long-term progression of biomotor abilities
- 6.6 - Long term endurance progressions
- 6.7 - Long term speed progressions
- 6.8 - Long term strength progressions
- 6.9 - Long Term Special Strength Progressions

Module 7

Cueing

- 7.1 - Introduction to cueing
- 7.2 - An Overview: Learning, Technique, and Technical Models
- 7.3 - Delving Deeper: Motor and Skill Learning
- 7.4 - Motor Learning Theories
- 7.5 - Practice to Actualization
- 7.6 - Understanding the Teaching Process
- 7.7 - Feedback
- 7.8 - Cue formats
- 7.9 - Practical cueing strategies

Module 8

Athlete Management

- 8.0 - Introduction to Athlete Management
- 8.1 - Personality & Behavior
- 8.2 - Environment & Group Management
- 8.3 - Coach-Athlete Communication & Reporting
- 8.4 - Key Performance Indicators, Accountability, Goals
- 8.5 - 'Balance' & Transition
- 8.6 - Millennials & Resilience
- 8.7 - Managing Relationships
- 8.8 - Maximizing Competitive Performance
- 8.9 - Coach Health

Semester 2 Graduation!

Module 9

Strength Development Fundamentals

- 9.1 - First Principles in Muscular Strength
- 9.2 - Loading Parameters
- 9.3 - Eccentric Training
- 9.4 - Writing the Program
- 9.5 - Monitoring & Data Collection
- 9.6 - Strength & Power Assessment

Module 10

Strength Exercise Inventory

- 10.1 – *Warm Ups for Strength Training*
- 10.2 – *Zone 1 Exercises*
- 10.3 – *Zone 2 Exercises*
- 10.4 – *Zone 3 Exercises*
- 10.5 – *Structural Integrity/Tolerance*
- 10.6 – *Rotational Exercises*
- 10.7 – *Bodyweight Exercises*

Module 11

Speed Development Fundamentals

- 11.1 – *An Introduction to Speed*
- 11.2 – *Speed: Models, Systems & Theories*
- 11.3 – *Fundamentals of Sprinting*
- 11.4 – *Speed: The ALTIS Philosophy*
- 11.5 – *Speed: The Start-Point*
- 11.6 – *Speed: Acceleration Concepts*
- 11.7 – *Speed: Maximum Velocity*
- 11.8 – *Speed: Error Detection and Correction*

Module 12

Speed Exercise Inventory

- 12.1 – *Preparing for Speed*
- 12.2 – *Developing Starting Abilities*
- 12.3 – *Acceleration Development*
- 12.4 – *Maximum Speed Development*
- 12.5 – *Developing Speed Endurance*
- 12.6 – *Plan B for Speed*
- 12.7 – *Programming Considerations for Speed Development*

Foundation Course Graduation!