Accredited Africa Training Institute for Capacity Development
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COURSE BROCHURE

Display And Apply Knowledge Of Biomechanics In A Golfing Context Training

Culture and Arts / Sport

Unit Standard 120205 · NQF Level 5 · 8 Credits · 5 Days

COURSE OVERVIEW

This course equips learners with the fundamental principles of biomechanics as applied to golf, enabling them to analyse and improve golf swing mechanics, enhance performance, and reduce injury risk. It bridges theoretical knowledge with practical application in a golfing context.

Category	Culture and Arts
Subfield	Sport
Unit Standard	120205
Accreditation	SAQA Accredited · NQF Level 5 · 8 Credits
Duration	5 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS — verifiable online

LEARNING OUTCOMES

- Apply biomechanical principles to analyse the golf swing and identify areas for improvement.
- Evaluate the role of joint angles, forces, and muscle activation patterns in golf performance.
- Demonstrate corrective exercises and techniques to optimise swing mechanics and reduce injury risk.
- Analyse video footage of golf swings using biomechanical concepts to provide feedback.
- Implement training programmes that incorporate biomechanical knowledge to enhance golf performance.
- Assess the impact of equipment (e.g., club design) on biomechanics and swing efficiency.

WHO SHOULD ATTEND

- This course is designed for golf coaches, fitness trainers, and golf enthusiasts seeking to understand the biomechanical principles underlying golf performance and injury prevention.

COURSE OUTLINE

Day 1: Foundations of Biomechanics in Golf

- Introduction to biomechanics: terminology and scope.
- Skeletal and muscular anatomy for golf.
- Planes of motion and axes of rotation.
- Newton's laws of motion applied to golf.
- Lever systems and torque generation.
- The kinetic chain: linking body segments.
- Overview of golf swing phases.
- Safety considerations in biomechanical analysis.

Day 2: Kinematics and Kinetics of the Golf Swing

- Kinematics: displacement, velocity, acceleration.
- Angular kinematics of the golf swing.
- Kinetics: forces, torques, and impulse.
- Ground reaction force measurement and interpretation.
- Joint moments: hip, knee, ankle, shoulder, elbow, wrist.
- Centre of pressure and balance.
- Energy transfer through the kinetic chain.
- Practical: video analysis of swing kinematics.

Day 3: Muscle Activation and Swing Mechanics

- Electromyography (EMG) studies in golf.
- Muscle activation patterns: backswing, downswing, follow-through.
- Core stability and rotational power.
- Hip and shoulder separation (X-factor).
- Common swing faults: early extension, sway, over-the-top.
- Biomechanical causes of golf injuries (low back, elbow, shoulder).
- Practical: muscle palpation and activation drills.
- Case studies: correcting faults using biomechanics.

Day 4: Equipment, Environment, and Biomechanics

- Clubhead design: MOI, centre of gravity, loft.
- Shaft properties: flex, torque, weight.
- Grip size and its effect on wrist action.
- Ball flight laws and spin mechanics.
- Lie angle and sole interaction.
- Hitting from slopes: uphill, downhill, sidehill.
- Wind and rain adjustments.
- Practical: club fitting assessment using biomechanical data.

Day 5: Applied Biomechanics and Coaching Integration

- Biomechanical assessment protocols.
- Using video analysis software for feedback.
- Force plate and pressure mat applications.
- Designing corrective exercises: mobility, stability, strength.
- Periodisation for biomechanical improvement.

- Communication: translating biomechanics for golfers.
- Ethics and scope of practice for coaches.
- Final assessment: present a biomechanical analysis.

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **8 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 24,200.00	**R 24,200.00**
1	In-House	R 31,400.00	**R 31,400.00**
1	On-Campus (Pretoria)	R 36,200.00	**R 36,200.00**

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	14 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	14 Aug 2026	On-Campus	Abu Dhabi, UAE
10 Aug 2026	14 Aug 2026	On-Campus	Pretoria, South Africa
10 Aug 2026	14 Aug 2026	On-Campus	Dubai, UAE
10 Aug 2026	14 Aug 2026	On-Campus	Cape Town, South Africa
10 Aug 2026	14 Aug 2026	On-Campus	Mauritius
17 Aug 2026	21 Aug 2026	On-Campus	Dubai, UAE
17 Aug 2026	21 Aug 2026	On-Campus	Pretoria, South Africa

Contact us if no suitable date is listed — on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit **www.aaticd.co.za**, open the page for this course (Unit Standard 120205) and click **Get A Quote / Apply**. Select your training method and number of delegates — your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to **apply@aaticd.co.za** — our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call **+27 12 004 8389** or WhatsApp **+27 65 077 6310** and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically — the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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