Strength and Conditioning for Golf

Faculty of Wellbeing Education and Language Studies (WELS)

Call for PhD projects starting in October 2026

The Open University

Contents

Project description

School

Education, Childhood, Youth & Sport

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Aim

The various aims of this research are to:

1. Assess the impact of strength and conditioning interventions on golf swing kinematics and kinetics.
2. Assess the relationship between physical profiling and golf swing kinematics and kinetics.
3. Analyse workloads of junior and / or adult golfers. Studies will investigate the applied use of monitoring to address practice, tournament and training (strength and conditioning; S&C) interventions.
4. Evaluate the impact of longitudinal S&C interventions on injury risk and performance, alongside athlete workload monitoring.

Evaluation in these areas will add to existing knowledge and inform applied monitoring, training, and coaching practice to ensure optimisation of golfers' performance and injury risk reduction. The PhD candidate will be able to discuss specific research aims and negotiate final project aims.

Methodology

The Open University has installed new facilities (November 2024) for sports science data collection as part of an XR-Studio project. These facilities include Qualisys Motion Capture, Kistler and AMTI Force Plates, Physiology testing equipment, VALD profiling kit and many other devices and pieces of equipment that could be used as part of the PhD research.

Methodologies relating to the possible aims include capturing athlete monitoring data using applied applications to inform strength and conditioning (S&C), practice and performance strategies. S&C interventions will be set up and administered across a longitudinal study with potential for motion capture, force plate analysis and S&C testing protocols to be employed. Methods will result in quantitative data analysis to investigate the impact of interventions on technique and performance.

Contribution

The project will extend the understanding of profiling, programming and the benefits of S&C for golfers. It also has the potential to highlight trends and links to overuse injuries and performance enhancement, leading to the establishment of benchmarks and guidelines. More specifically the project will generate understanding of training, practice and competition that can inform

golfers, coaches, organisations and others of the influence and role of practice, S&C and athlete monitoring. Coaches will benefit from dissemination of research findings and structure more effective athlete monitoring, and practice / tournament schedules with their players, while S&C coaches will benefit from increased understanding of the transfer of training to performance. Parents of juniors and golfers themselves may also benefit through understanding the risks of overuse injuries associated with hitting too many golf balls.

PhD project

This PhD will allow the candidate to negotiate a specific path of research within the areas outline above. There is potential to assess profiling, S&C programming, training and golf practice volumes and workloads, injuries/illness and competition loads of golfers. Alongside this athlete monitoring focus, strength and conditioning (S&C) interventions will be applied and the project will investigate the impact S&C has on performance and monitoring data.