Golf Teaching and Research Center

Department of Recreation, Park, and Tourism Management
Serving Golfers of All Ages

The GTRC offers services and instruction to people of all skill levels and ages, in both individual and group settings.

The GTRC Experience

Staff work with golfers to identify weaknesses in a golf game, compare a golfer’s movement patterns against the twelve most common faults among amateur golfers, and can evaluate a golfer’s swing against what has been documented in the world’s best golfers.

All services provided by the GTRC are meant to supplement a player’s current private lesson program with his/her PGA professional. Players are encouraged to share their results with their professionals.

Golfers may choose individual instruction modules or the GTRC Half-Day Experience.

Fitness and Golf Biomechanics

GTRC instructors partner with Penn State’s Department of Kinesiology to provide a multifaceted approach to enhancing golf instruction that draws upon knowledge of the golf swing, biomechanics, and fitness.

The GTRC’s innovative teaching technologies include:

- An eight-camera 3D optical motion capture system
- An eight-sensor 3D electromagnetic motion capture system
- A 3D Doppler radar ball flight monitor that displays the trajectory and distance of the ball
- A Multiple-camera 2D video capture system
- An indoor putting green
- Golf club bending machines
- Golf-specific fitness and training equipment

Services include:

- Physical Evaluation – movement screenings to determine golf-specific physical limitations
- 2D Video Analysis – an evaluation of a swing, specifically looking at common swing faults
- 3D Swing Efficiency – a highly detailed swing evaluation using the GTRC’s motion capture systems
- Ball Flight Analysis – a measurement of ball flight characteristics (launch angle, spin, speed, etc.) and club movement (speed, angle of attack, etc.) using the GTRC’s Doppler tracking radar
- Putter Fitting – dynamic putter fitting system to determine proper putter length, lie, loft, head style, etc., to help maximize short game performance

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Fix a slice, lengthen a drive, improve ball striking consistency, turn a bogey into a par with fewer strokes on the putting green—there are countless ways to improve a golf game.

Using innovative technology, faculty and staff in Penn State’s Golf Teaching and Research Center (GTRC) can pinpoint errors that occur in a golfer’s swing, short game, equipment, and more. They are able to see parts of a swing that most people can’t see, giving golfers new tools to enhance their skills. GTRC instructors combine their advanced knowledge and experiences with the golf industry’s most sophisticated technologies to help improve a golfer’s performance.
The GTRC uses equipment from a variety of leaders in the industry. Some of these include:

- TaylorMade
- Qualisys
- FlightScope
- Advanced Motion Measurement
- FootJoy
- Adidas Golf
- Titleist
- Titleist Performance Institute
- Mental Golf Workshop
- GolfWorks
- C-Motion, Inc.
- ShotByShot.com
- SkyCaddie
- Nike Golf

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Location

The GTRC is located in room 5 on the bottom floor of Keller Building at Penn State’s University Park campus. The Keller Building is located across from The Nittany Lion Inn and the Nittany Parking Deck, near the corner of Park Ave. and Atherton St.

Appointments

Appointments for all evaluations are required. The GTRC is open to everyone from April to September. From October to March, the GTRC focuses primarily on instructing students.

For more information or to schedule an appointment, contact:

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