

PDGA Disc Golf Course Design Recommendations

The PDGA does not design nor certify course installations. These recommendations share best practices developed by experienced course designers over 35 years of development, refinement and play.



Disc Golf Course Design Goals

1. Satisfy the design requirements of the people and organizations who approve use of the land and fund the equipment for the course. That includes meeting local, state and federal construction and safety requirements.
2. Design the course to have sufficient visibility of players, pedestrians and vehicles who may pass near or through it.
3. Design course with the potential for multiple configurations to serve not only beginners but players with advanced skills; consistent with the budget and design needs in Goal 1 above.
4. Design a well balanced course with a wide range of hole lengths and a good mixture of holes requiring controlled left, right and straight throws.
5. Utilize elevation changes and available foliage as well as possible. Take care to minimize potential damage to foliage and reduce the chances for erosion.

Course Design Assistance

There are several documents available on the PDGA website to help with course design at: www.pdga.com/course-development There are additional design resources available online, primarily at the websites of basket manufacturers. Contact information for manufacturers of PDGA approved targets can be found in this area: www.pdga.com/tech-standards Course design has gotten more sophisticated over the years. Seeking experienced design help from qualified individuals is highly recommended. Experienced designers can be well worth their fees by guiding clients thru the process, recommending cost effective processes and equipment alternatives, and perhaps most important, improving visibility and reducing interference related problems. This document can help you select a designer: www.pdga.com/documents/choosing-a-course-designer and a resource to find experienced designers is here: <http://www.discgolfcoursedesigners.org/discgolfwiki> Consider contacting the PDGA office: office@pdga.com to locate qualified designers in your area if you still need assistance.

Course Design Elements

1. SPACE: The first decision is to determine what type of course you would like to develop and whether enough space is available for that type of course. The amount of space available can sometimes depend on whether brush and trees can be removed to create fairways. Ideally, a well balanced course has a mixture of holes that go completely thru the woods, partially thru woods and mostly in the open. Fairways in the woods typically range from 15 ft wide pinch points up to 40 feet wide. A few larger trees sometimes need to be removed to create fair flight paths.

Most new courses are being developed with two sets of tees to better serve the different skill levels of players in the community, even if both sets aren't installed right away due to budget constraints. Four primary player skill levels (Gold, Blue, White and Red) have been defined with design guidelines for each level (see www.pdga.com/documents/design-skill-level-guidelines). Public courses are usually designed with a combination of Blue & Red or White & Red tees to meet the needs of most players.

Well developed disc golf areas and private facilities can sometimes justify installing a few of the longest, most challenging courses with permanent Gold tees for the highest player level. Even then, it makes sense to also install a set of shorter tees to serve White or Red level players.

A full length Championship course can require more than one acre per hole depending on foliage density (more trees, less acreage required). However, a small recreational course can sometimes fit 2-3 holes per acre depending on terrain. (Read the document on Acreage Guidelines for more detailed information at www.pdga.com/documents/course-design-acreage-guide)

2. HOLE COUNT: Most courses are 9 or 18 holes. There are several with 12, 24 or 27 holes. It's better to install a well designed, dual tee 12-hole course than it is to install a cramped 18-hole course on the same piece of land. It's tradition the number of holes be divisible by 3 but is not required.

3. LENGTH: Most courses should have at least one configuration for beginners and casual recreational players that rarely averages more than 250 feet per Par 3 hole (75 meters). This works out to a maximum of 4500 ft (1350m) for an 18-hole Par 54 course or 2250 feet (675m) for a 9-hole Par 27 course. The shortest length range is 3600-4300 feet (1080-1290m) for a land constrained 18-hole Par 3 public course. No hole should effectively be shorter than about 100 feet (30m) even on courses for beginners. If land is available, recreational courses can have several par 4 holes and even a par 5 hole for beginner skill levels. This can get a recreational course up to the low 5000s for length.

Alternative longer configurations are achieved by installing another set of tees and/or target positions on most holes. Typical 18-hole course setups for amateur White level players range from 4500-6000 feet (1350-1800m). Course setups longer than 6000 feet (1800m) ranging up to 10,000 feet are primarily for better players at the Blue or Gold level and for tournament play. These courses should again have several par 4s and even a par 5 or two as land is available. There is no maximum length allowed for a hole. The longest holes in the world can get to 1500 feet (458m). See Course Design Guidelines for PDGA Skill Levels & Divisions. www.pdga.com/documents/design-skill-level-guidelines

Hole length is measured from front of the tee to the target along the fairway route the designer intended players of that skill level to throw. For doglegs or water carries, the only time the straight line, crow flies, measurement should be used is if the designer intended players of that skill level to be able to throw over the tree tops to shorten the dogleg or throw straight completely over the water.

4. HOLE NOTES: There should be at least one flight path that can be negotiated at the skill level the route is designed for. There should be more than one flight path or type of throw (including rollers) available on several of the holes. There should not be too many objects within 33 ft (10m) of each target. Any object near the target should not be so large that a player cannot find an unobstructed flight path by stretching sideways, throwing from a low stance, throwing through or over the top of the object.

A player throwing from the shortest (or only) tee on a hole should not be "forced" to throw over water that is normally greater than 18" deep (50cm). Include a flight path (usually to the left) that allows a player to avoid throwing over deeper water. Any normally dry trenches, some occasionally filled with seasonal water under 18" deep, that are regularly in play should have appropriate paths down and out to be able to take a stance as needed and/or retrieve discs.

5. TEES: Hard surface tee pads of textured cement or asphalt are preferred. Typical size for pads at the longer tee positions is 5 ft (1.5m) wide by at least 12 ft (3.5m) long. Maximum size at the front line of the pad is about 6 ft (2m) wide with a length up to 20 ft (6m) long. The back end might flare out to 10 feet (3m) wide. Minimum rectangular size is 4 feet (1.2m) wide and 10 feet (3m) long. If you need to conserve materials, make tee pads shorter on short or downhill holes and longer on long holes. For example, a hard surfaced tee pad at the top of a hill on a short hole might only need to be 8 ft long because most players will just stand at the front edge of the tee to make their throws.

Non-hard surface tee areas should be even surfaced and not contain protruding rocks or roots. Tee areas should be level from left to right. They should not slope too sharply from front to back. Without hard surfaced or rubber tee pad, the front edge of tee area must be indicated by the front edge of a tee board buried flush in the ground or by the imaginary line between two stakes or flags that mark the front edge.

Beyond the front of each tee pad and either side should be adequate room for follow-thru so a player doesn't risk twisting an ankle, falling off a ledge or whacking their arm on a tree or sign. If possible, provide adequate level ground for a run-up behind each tee pad, especially on longer holes. Avoid major obstructions that severely block the flight path up to 20 feet in front of tee.

On courses with alternate tees on some holes, the tee surfaces in the shorter positions should always be better or at least equal in quality to those in longer positions. For example, avoid designs where the long tee pads are cement and short tee pads are grass or dirt, especially when there are no tee signs.

The designated color for each set of tees used for course layout identification on scorecards should match one of the four recognized player skill levels that set of tees was designed for: Gold, Blue, White or Red. Sometimes there's no room for two tees on every hole. Just make sure to mark each tee on single tee holes with both colors.

Course managers are encouraged to move toward these color guidelines when the opportunity presents itself for new installations, redesigns or course upgrades when their current color(s) do not match the PDGA guidelines.

6. TARGETS: Any marked object or post could serve as a target but the basket/chain style are preferred. Make sure homemade targets do not have sharp edges to injure players or damage discs. Locally fabricated targets for sale or to be installed on public land must not have elements that violate any target manufacturers' patents. Higher tier PDGA sanctioned events are expected and sometimes required to use better and more consistent target models. PDGA approved targets at the Basic, Standard and Championship levels are listed here: www.pdga.com/tech-standards

Manufacturers are required to produce targets so the height of the basket rim above the playing surface will be 82 cm +/- 6 cm. Targets should be installed level with the ground below them even though course developers may install some targets where the height falls outside the 76-88 cm manufacturing range. The PDGA Course Committee suggests that no more than 6 targets out of 18 be installed outside the manufactured height range with just 2 or 3 being preferred. Targets suspended from above can be fun for recreational play but there should be a way to secure it from swinging freely during sanctioned play.

7. SIGNS: Install a rules sign prominently before the first tee or post the rules on an information board (if there is one). Signs or marker arrows on or near each target should indicate the direction to next tee (as needed). Signs should indicate Out-of-Bounds (OB) boundaries and any other areas players should avoid. Ideally, the OB lines bordering non-uniform boundaries like water/grass or gravel/grass should be identified with markers flush with the ground or white tipped stakes if possible.

The primary tee on each hole should have permanent signs indicating the hole number, length(s), teeing direction (if needed) and par for that skill level (see next section). When a hole has more than one target location, it's helpful if the current location can be identified on the sign. Try to have some sort of sign by or on the alternate tee positions even if it's just the hole number and length.

8. PAR: Par should be set for each tee/basket position combination on a hole based on the player skill level they were designed for. www.pdga.com/documents/design-skill-level-guidelines provides assistance to determine pars. This document: www.pdga.com/documents/par-guidelines provides a more specific way to determine par based on length and foliage elements of holes for each player skill level. The hole length used to determine par (not for the signs) should be adjusted up or down based on a 3-to-1 factor (i.e. 30 feet adjustment for every 10 feet elevation change) if the hole has a significant upslope or downslope.

So players know what standard has been used for par, it should be indicated on scorecards and tee signs as Blue Par or Red Par, which hopefully matches the tee color(s) used. When less precise estimates are used to determine par (i.e., not using color skill levels), use the terms Expert or Pro Par for longer tees and Standard or Amateur Par for shorter tees. The terms Women's, Senior's or Junior tees should not be used.

9. LAYOUT: Fairways should not cross one another and should be far enough apart so errant throws aren't regularly in the wrong fairway. Fairways should not cross or be too close to public streets, sidewalks or too near private property and other busy areas where non-players congregate. Absolutely avoid designs where players might throw into blind areas where non-players could be walking on a well-defined park pathway. Avoid hazardous areas such as swamps and thorny or poisonous foliage. Tees and targets should be far enough from the targets and fairways of other holes.

The tee for the first hole should ideally be the closest to the regular parking area. The target for the last hole should not be too far from the parking area and relatively close to the first tee. If possible, try to locate at least one other hole in the middle of course near the parking area. Try to minimize the amount of walking between holes while keeping paths as much out of other fairways as possible.

10. ADA COMPLIANCE: Sections of many disc golf courses are accessible to many people with a disability other than wheelchair bound. With the exception of some disc golf courses on ball golf courses, carts are not utilized as a regular part of the disc golf game. The normal challenges presented by the sometimes rough terrain utilized for courses make it unrealistic to accommodate everyone on every hole. Unlike golf where golf carts along with a 48" wide cart path throughout the course are common, the cost of a similar path on disc golf courses would be an undue cost burden in relation to the typical budget for installing courses and carts would not be around to use it. Efforts can and have been made to provide an opportunity for those with disabilities to play at least some holes, even if not all holes are easily accessible. In some cases, designing a multiple hole loop on part of the course may provide that opportunity.