

Detailed Methods of Setting Par
which are Compatible with the
2017 Professional Disc Golf Association Par Guidelines
Steve West Disc Golf, LLC - May 5, 2018

It is the responsibility of the Tournament Director to set par according to the PDGA definition:

Par is the score that an expert disc golfer
would be expected to make on a given hole
with errorless play under ordinary weather conditions,
as determined by the Director

When par is set properly:

- ♣ Players have a consistent standard to compare their performance:
 - To other players during the tournament,
 - On different courses,
 - To the expected prize-winning scores,
 - To their own performance at other tournaments.
- ♣ Players can better plan their strategy:
 - By knowing what score they want to shoot for on each hole,
 - By knowing that each bogey costs about as much as each birdie saves.
- ♣ Spectator interest is increased because:
 - Fans can track favorite players even if they are in different groups
 - Remarkable performances are revealed, relative to a consistent standard
 - Commentators have a meaningful statistic to talk about
- ♣ Tournament Directors benefit from:
 - A more professional appearance resulting from taking care to set useful par
 - Increased player and spectator satisfaction
 - Greater ease of noticing anomalies in scoring
 - Comfort in knowing penalties for missed holes are fair no matter which holes are missed

On the following pages are guidelines to help Tournament Directors set par that achieves these goals.

- ♣ These methods were calibrated to achieve optimal performance, using the scores from over 1400 holes.
- ♣ The more closely the Tournament Director adheres to these guidelines, the more effective par will likely be.

Total par from any of these methods should generate scores that:

- ♣ Fall between the last-cash and winning score for a large field of Open players, and
- ♣ Minimize the deviations from par for the players in contention in a large field of Open players
- ♣ Produce a Round Rating in the range of 990 to 1030 for players at even par.

These guidelines are not a substitute for the judgement of the Tournament Director.

- ♣ No single method can account for all the diversity of holes found in disc golf.
- ♣ The results of any of these methods should be reviewed.
- ♣ Results from more than one method should be compared, when possible.
- ♣ Often, one or two holes per course should have a different par than these methods produce.

Par by Scoring Distribution of 1000-Rated Players

Set Par by choosing the first row that applies to the scoring distribution of a set of players that average a 1000 rating.

| |
|--|
| Par 2 if more than 60% score 2 or better |
| Par 3 if more than 47% score 3 or better |
| Par 4 if more than 37% score 4 or better |
| Par 5 if more than 28% score 5 or better |
| Par 6 if more than 22% score 6 or better |

Par by Average Score of 1000-rated players

Set Par by choosing the row that applies to the average score of a set of players that average a 1000 rating.

| | Average Score |
|-------|---------------|
| Par 2 | Up to 2.50 |
| Par 3 | 2.51 to 3.75 |
| Par 4 | 3.76 to 5.00 |
| Par 5 | 5.01 to 6.25 |
| Par 6 | 6.26 and up |

Par to Balance the Value of Bogeys vs. Birdies for 1000-rated players

Set par by choosing the score where the percent of 1000-rated players who got a higher score is most nearly equal (in absolute terms, not ratio) to the percent of players who got a lower score.

Par by Expectations of Expert Players

Set par by soliciting opinions from players rated 1000 and up as to what score they would expect to get with errorless play under ordinary weather conditions. "What's your target score on this hole? What score does your competition expect on this hole? What's it going to take to keep up with the field on this hole?"

Calibrated Close Range Par

Set Par by adding 2 to the number of throws a player would expect to make to get within close range of the target, based on effective length of the hole. Effective length is actual length plus or minus 1.5 times the change in elevation (up or down). For doglegs or other situations where throw length is constrained, count the constrained throw as a full-length throw.

| |
|---|
| Tee Throw = up to 400 feet or 102 meters |
| Fairway Throws = up to 330 feet or 100 meters |
| Close Range = 215 feet or 66 meters |

Par by Hole Length

Set par by choosing the row that applies to the effective length and foliage of the hole. Effective length is actual length plus or minus 1.5 times the change in elevation (up or down). For doglegs or other situations where throw length is constrained, count the constrained throw as a full-length throw, and add to the effective length accordingly.

| | Light Foliage | | Heavy Foliage | |
|-------|---------------|-----------|---------------|-----------|
| Par 2 | 0-280 ft | 0-85 m | 0-230 ft | 0-70 m |
| Par 3 | 281-660 ft | 86-200 m | 231-540 ft | 71-165 m |
| Par 4 | 661-1045 ft | 201-320 m | 541-855 ft | 166-260 m |
| Par 5 | 1046-1425 ft | 321-435 m | 856-1165 ft | 261-355 m |
| Par 6 | 1426-1805 ft | 436-550 m | 1166-1475 ft | 356-450 m |

Allocating Total Course Par

Set par by coming up with an appropriate total par for the course, and then allocating to individual holes according to a placeholder par for each hole.

Appropriate course par is:

- ☛ At - or one or two throws below - the average score for an expert.
- ☛ If a tournament has been held on the course, appropriate course par would be the score that would have produced a round rating of in the range of 990 to 1030, with the higher end of the range for courses with the most risk.

To allocate total course par to individual holes:

- ☛ Set all tentative pars to 2.
- ☛ For whichever hole has the greatest difference between placeholder par and tentative par, adjust the tentative par up by 1.
- ☛ Repeat until the sum of tentative pars equals the appropriate course par.

Placeholder pars can be computed by length or by average score. Do not round placeholder pars.

- ☛ By length: use $(2 + \text{feet}/385)$ or $(2 + \text{meters}/117)$.
- ☛ By average score: use $(\text{Average Score On Each Hole}) \times (\text{Appropriate Course Par})$ divided By $(\text{Sum Of Average Scores})$. Average scores can be from any source, and do not need to be based on highly rated players, but that is preferable.

Other Methods

Other methods of setting par are also acceptable, provided that the total par would result in a round rating in the range of 990 to 1030 and the relative difficulty of each getting par on each hole is fairly equal.

Par for Other Divisions

Par for the Open division should be based on the Gold (1000-rated) skill level, and may simply be called "Par". It could also correctly be called "Open Par" or "Gold Par", but that would be redundant.

All divisions can use the same par as the Open division. However, using a par more suited to the skill level of the division can improve the experience, and will assign more appropriate penalties for missed holes.

Anytime a par other than Open Par is used, it should be clearly labelled as a modified par. The name of the division, or the color of the skill level, or the rating the par is set for, may be used as the modifier. For example, par for the Recreational Division should be based on the Red skill level and should be called "Recreational Par" or "Red Par" or "850 Rated Par".

Appropriate Skill Levels for PDGA Divisions:

1000 MP40 (Pro Master 40+), MPO (Pro Open), RPA (Gold)

950 MA1 (Advanced), MA40 (Amateur Master 40+), MJ18 (Junior ≤18), MP50 (Pro Master 50+), MP55 (Pro Master 55+), MP60 (Pro Master 60+), MP65 (Pro Master 65+), RAH (Blue)

925 FPO (Pro Open Women)

900 FJ18 (Junior Girls ≤18), FP40 (Pro Master Women 40+), MA2 (Intermediate), MA50 (Amateur Master 50+), MA55 (Amateur Master 55+), MA60 (Amateur Master 60+), MA65 (Amateur Master 65+), MJ15 (Junior ≤15), MP70 (Pro Master 70+), RAD (White)

850 FA1 (Advanced Women), FA40 (Amateur Master Women 40+), FJ15 (Junior Girls ≤15), FP50 (Pro Master Women 50+), FP55 (Pro Master Women 55+), FP60 (Pro Master Women 60+), FP65 (Pro Master Women 65+), MA3 (Recreational), MA70 (Amateur Master 70+), MJ12 (Junior ≤12), MP75 (Pro Master 75+), MP80 (Pro Master 80+), RAE (Red)

800 FA2 (Intermediate Women), FA3 (Recreational Women), FA4 (Novice Women), FA50 (Amateur Master Women 50+), FA55 (Amateur Master Women 55+), FA60 (Amateur Master Women 60+), FA65 (Amateur Master Women 65+), FA70 (Amateur Master Women 70+), FJ06 (Junior Girls ≤6), FJ08 (Junior Girls ≤8), FJ10 (Junior Girls ≤10), FJ12 (Junior Girls ≤12), FP70 (Pro Master Women 70+), MA4 (Novice), MJ06 (Junior ≤6), MJ08 (Junior ≤8), MJ10 (Junior ≤10), RAF (Green), RAG (Purple)

Par by Scoring Distribution, Par by Average Score, Par to Balance the Value of Bogeys vs. Birdies, and Par by Player Expectations

Each of these three methods can be applied to the other skill levels by using players of the appropriate rating instead of 1000-rated players.

Calibrated Close Range Par

Here are the parameters for all skill levels.

| Skill Level | Tee Throw | Fairway Throws | Close Range |
|-------------|----------------|----------------|---------------|
| Gold | 400 ft = 122 m | 330 ft = 101 m | 215 ft = 66 m |
| Blue | 340 ft = 104 m | 270 ft = 82 m | 190 ft = 58 m |
| White | 300 ft = 91 m | 240 ft = 73 m | 170 ft = 52 m |
| Red | 260 ft = 79 m | 210 ft = 64 m | 150 ft = 46 m |
| Green | 210 ft = 64 m | 170 ft = 52 m | 130 ft = 40 m |

Par by Hole Length

Here are the maximum lengths for each par for all skill levels:

| Light Foliage | Par 2 | Par 3 | Par 4 | Par 5 | Par 6 |
|---------------|---------------|----------------|-----------------|-----------------|-----------------|
| Gold | 280 ft = 85 m | 660 ft = 201 m | 1045 ft = 319 m | 1425 ft = 434 m | 1805 ft = 550 m |
| Blue | 200 ft = 61 m | 545 ft = 166 m | 885 ft = 270 m | 1230 ft = 375 m | 1575 ft = 480 m |
| White | 140 ft = 43 m | 455 ft = 139 m | 770 ft = 235 m | 1085 ft = 331 m | 1400 ft = 427 m |
| Red | 95 ft = 29 m | 385 ft = 117 m | 680 ft = 213 m | 945 ft = 295 m | 1220 ft = 381 m |
| Green | 65 ft = 20 m | 325 ft = 98 m | 555 ft = 173 m | 765 ft = 239 m | 985 ft = 308 m |
| Heavy Foliage | Par 2 | Par 3 | Par 4 | Par 5 | Par 6 |
| Gold | 230 ft = 70 m | 540 ft = 165 m | 855 ft = 261 m | 1165 ft = 355 m | 1475 ft = 450 m |
| Blue | 165 ft = 50 m | 445 ft = 136 m | 725 ft = 221 m | 1005 ft = 306 m | 1285 ft = 392 m |
| White | 115 ft = 35 m | 370 ft = 113 m | 630 ft = 192 m | 885 ft = 270 m | 1145 ft = 349 m |
| Red | 75 ft = 23 m | 315 ft = 96 m | 555 ft = 173 m | 770 ft = 241 m | 1000 ft = 313 m |
| Green | 50 ft = 15 m | 270 ft = 82 m | 450 ft = 141 m | 625 ft = 195 m | 810 ft = 253 m |

Allocating Total Course Par

Appropriate course pars would be based on the scores that would result in approximately the following round ratings:

| | |
|-------|------|
| Gold | 1010 |
| Blue | 965 |
| White | 920 |
| Red | 875 |
| Green | 830 |

Placeholder pars by hole length are calculated from the following parameters.

| Skill Level | Constant+ | Feet / | Or Meters / |
|-------------|-----------|--------|-------------|
| Gold | 2 | 385 | 117 |
| Blue | 2 | 315 | 96 |
| White | 2 | 275 | 84 |
| Red | 2 | 230 | 71 |
| Green | 2 | 205 | 63 |

Or compute placeholder pars by: (Average Score On Each Hole) times (Appropriate Course Par) divided By (Sum Of Average Scores) Average scores can be from any source, and do not need to reflect the target skill level, but that is preferable.