Section 10 USGA HANDICAP FORMULA

Definitions

Within each section, all defined terms are in *italics* and are listed alphabetically in Section 2 - Definitions.

Potential ability is defined by the term *Handicap Index* and is measured through a calculation using the player's best scores. These best scores are determined by calculating the *Handicap Differential* for each score. The *Handicap Index* is calculated by taking 96 percent of the average of the best *Handicap Differential(s)*, and applying Section 10-3 for players with two or more *eligible tournament scores*.

10-1. Calculation of Handicap Differentials

A *Handicap Differential* is computed from four elements: *adjusted gross score*, *USGA Course Rating*, *Slope Rating,* and 113 (the *Slope Rating* of a course of standard difficulty). To determine the *Handicap Differential*, subtract the *USGA Course Rating* from the *adjusted gross score*; multiply the difference by 113; and divide the resulting number by the *Slope Rating*. Round the final number to the nearest tenth.

Handicap Differential = (*Adjusted Gross Score* - *USGA Course Rating*) x 113 / *Slope Rating*

■a. Plus Handicap Differential

When the *adjusted gross score* is higher than the *USGA Course Rating*, the *Handicap Differential* is a positive number. The following is an example for determining a *Handicap Differential* using an *adjusted gross score* of 95 made on a course with a *USGA Course Rating* of 71.5 and a *Slope Rating* of 125:

Adjusted Gross Score - *USGA Course Rating*:	95 - 71.5 = 23.5
Difference x Standard *Slope Rating*:	23.5 x 113 = 2655.5
Result / *Slope Rating*:	2655.5 / 125 = 21.24
Handicap Differential (rounded):	21.2

■b. Minus Handicap Differential

When the *adjusted gross score* is lower than the *USGA Course Rating*, the *Handicap Differential* is a negative number. The following is an example for

determining a *Handicap Differential* using an *adjusted gross score* of 69 made on a course with a *USGA Course Rating* of 71.5 and a *Slope Rating* of 125:

Adjusted Gross Score - *USGA Course Rating*:	69 - 71.5 = -2.5
Difference x Standard *Slope Rating*:	-2.5 x 113 = -282.5
Result / *Slope Rating*:	-282.5 / 125 = -2.26
Handicap Differential (rounded):	-2.3

10-2. Handicap Index Formula

The *Handicap Index* formula is based on the best *Handicap Differential(s)* in a player's *scoring record*. If a player's *scoring record* contains 20 scores, the best 10 *Handicap Differentials* of the most recent 20 scores are used to calculate the *Handicap Index*. As the number of scores in the *scoring record* decreases, the percentage of scores used in a *scoring record* decreases from the maximum of the best 50 percent. If the *scoring record* contains 9 or 10 scores, only the best three scores (30 to 33 percent) in the *scoring record* will be used. Thus, the accuracy of a player's *Handicap Index* is directly proportional to the number of acceptable scores posted. A *Handicap Index* must not be issued to a player who has returned fewer than five acceptable scores. The following procedures illustrate how an *authorized golf association, golf club,* and computation services calculate a player's *Handicap Index*.

The procedure for calculating a *Handicap Index* is as follows:

Step 1: Use the table below to determine the number of *Handicap Differential(s)* to use:

NUMBER OF ACCEPTABLE SCORES	DIFFERENTIAL(S) TO BE USED
5 or 6	Lowest 1
7 or 8	Lowest 2
9 or 10	Lowest 3
11 or 12	Lowest 4
13 or 14	Lowest 5
15 or 16	Lowest 6
17	Lowest 7
18	Lowest 8
19	Lowest 9
20	Lowest 10

Step 2: Determine *Handicap Differential(s);*

Step 3: Average the *Handicap Differential(s)* being used;

Step 4: Multiply the average by .96*;

Step 5: Delete all numbers after the tenths' digit (truncate). Do not round to the nearest tenth.

Example 1: Fewer than 20 scores (11 scores available).

Total of lowest 4 *Handicap Differentials*:	104.1
Average (104.1 / 4):	26.025
Multiply average by .96:	24.984
Delete all numbers after the tenth digit (truncate). Do not round to the nearest tenth:	24.9
Handicap Index:	24.9

* Bonus for Excellence is the incentive for players to improve their golf games that is built into the *USGA Handicap System*. It is the term used to describe the small percentage below perfect equity that is used to calculate a *Handicap Index* (96 percent). As a *Handicap Index* improves (gets lower), the player has a slightly better chance of placing high or winning
a handicap event.

Example 2: Twenty scores available. The following is an example of a *Handicap Index* calculation for a player with 20 scores.

Total of 10 lowest *Handicap Differentials*:	154.8
Average (154.8 / 10):	15.48
Average multiplied by .96:	14.861
Delete all digits after tenths:	14.8
Handicap Index:	14.8

Step 6: Apply Section 10-3 for players with two or more *eligible tournament scores*.

DATE	ADJUSTED GROSS SCORE	SCORE TYPE	USGA COURSE RATING	SLOPE RATING	HANDICAP DIFFERENTIAL
1/15/08	90	H	70.1	116	19.4
1/11/08	91	H	70.1	116	20.4
1/5/08	94	A	72.3	123	19.9
1/3/08	*88	H	70.1	116	17.4
1/1/08	89	H	70.1	116	18.4
12/25/07	*90	A	72.3	123	16.3
12/13/07	*91	A	72.3	123	17.2
12/1/07	91	I	70.1	116	20.4
11/18/07	91	I	70.1	116	20.4
11/7/07	86	A	68.7	105	18.6
11/2/07	90	H	70.1	116	19.4
10/30/07	*92	AI	72.3	123	18.1
10/23/07	*85	T	68.0	107	18.0
10/13/07	*78	T	68.7	105	10.0
10/4/07	*82	H	70.1	116	11.6
9/30/07	*84	H	70.1	116	13.5
9/29/07	94	A	72.3	123	19.9
9/21/07	93	A	72.3	123	19.0
9/17/07	*89	A	72.3	123	15.3
9/12/07	*88	H	70.1	116	17.4
*10 scores with lowest Handicap Differentials					
Two Lowest Eligible Tournament Scores					
Date	USGA Adjusted Score	Score Type	USGA Course Rating	Slope Rating	Handicap Differential
10/13/07	78	T	68.7	105	10.0
7/4/07	83	T	70.1	116	12.6

10-3. Reduction of Handicap Index Based on Exceptional Tournament Scores

Using the definition of a *tournament score* (see *tournament score* and Decisions 10-3/1 through 10-3/6), the committee (preferably the *Handicap Committee* in consultation with the committee in charge of the competition) must determine in advance whether a score is to be designated as a *tournament score* that is to be identified by the letter "T" when posted (e.g., 82T). These scores are often referred to as "T-Scores" as in Section 10-3c.

■a. Procedure

The following procedure must be used as an alternate calculation of a *Handicap Index* for players with two or more *eligible tournament scores*. A player's *Handicap Index* may be reduced under this procedure when a player has a minimum of two *eligible tournament score* differentials that are at least 3.0 better than the player's *Handicap Index* calculated under Section 10-2.

The *Handicap Committee* or handicap computation service must apply the following steps to determine if there is a reduction in *Handicap Index* calculated under Section 10-2.

◾b. Steps

Example: A player with a *Handicap Index* of 17.3 has three eligible *tournament scores*, an 82T, 83T and 85T. Two of these eligible *tournament scores*, an 82T and 83T, produce the lowest *tournament score* differentials. They were made on a course with a *USGA Course Rating* of 70.6 and a *Slope Rating* of 130.
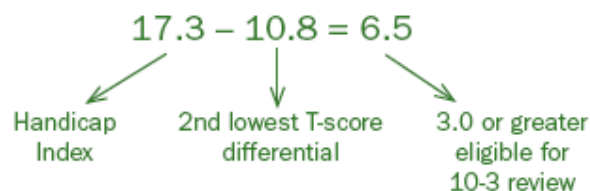
Step 1: Calculate *tournament score* differentials by subtracting the *USGA Course Rating* from each *eligible tournament score*; multiply the result by 113, and divide by the *Slope Rating* for each course played. Select the two lowest *eligible tournament score* differentials.
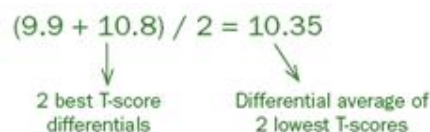
$$82T - (82 - 70.6) \times 113 / 130 = 9.9$$

$$83T - (83 - 70.6) \times 113 / 130 = 10.8$$

$$85T - (85 - 70.6) \times 113 / 130 = 12.5$$

Step 2: Subtract the second lowest differential from the *Handicap Index* under Section 10-2. Continue with the next step if the result is 3.0 or greater.
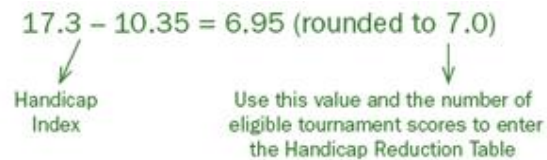
$$17.3 - 10.8 = 6.5$$

Handicap Index → 2nd lowest T-score differential → 3.0 or greater eligible for 10-3 review

Step 3: Average the two lowest *tournament score* differentials.

$$(9.9 + 10.8) / 2 = 10.35$$

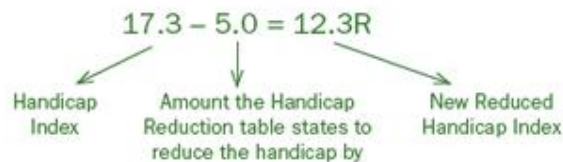2 best T-score differentials → Differential average of 2 lowest T-scores

2 best T-score Differential average of
differentials 2 lowest T-scores

Step 4: Subtract that average from the player's *Handicap Index*.

17.3 – 10.35 = 6.95 (rounded to 7.0)

Handicap
Index

Use this value and the number of
eligible tournament scores to enter
the Handicap Reduction Table

Step 5: Using the number (rounded to the nearest tenths place (7.0) from step 4 and the total number of *tournament scores* in the player's record (3), use the Handicap Reduction Table to determine the amount the player's *Handicap Index* is to be reduced.

Step 6: Subtract the table value from the player's *Handicap Index*. The result of that subtraction will be the player's reduced *Handicap Index*, provided that it is at least 1.0 less than the *Handicap Index* based on the formula in Section 10-2. The reduced *Handicap Index* is to be identified with the letter R when displayed in handicap reports or on the computer screen, e.g., 12.3R.

17.3 – 5.0 = 12.3R

Handicap
Index

Amount the Handicap
Reduction table states to
reduce the handicap by

New Reduced
Handicap Index

HANDICAP REDUCTION TABLE

AVERAGE OF BEST TWO T-SCORE DIFFERENTIALS BELOW HANDICAP INDEX	NUMBER OF ELIGIBLE TOURNAMENT SCORES							
	2	3	4	5-9	10-19	20-29	30-39	≥ 40
3.0 to 3.4	*	*	*	*	*	*	*	*
3.5 to 3.9	*	*	*	*	*	*	*	*
4.0 to 4.4	1	*	*	*	*	*	*	*
4.5 to 4.9	1.8	1	*	*	*	*	*	*
5.0 to 5.4	2.6	1.9	1	*	*	*	*	*
5.5 to 5.9	3.4	2.7	1.9	1	*	*	*	*
6.0 to 6.4	4.1	3.5	2.8	1.9	1	*	*	*
6.5 to 6.9	4.8	4.3	3.7	2.9	2	1	*	*
7.0 to 7.4	5.5	5.0	4.5	3.8	3	2.1	1	*
7.5 to 7.9	6.2	5.7	5.3	4.7	3.9	3.1	2.2	1
8.0 to 8.4	6.8	6.4	6	5.5	4.8	4.1	3.2	2.2
8.5 to 8.9	7.4	7.1	6.7	6.2	5.7	5	4.2	3.3
9.0 to 9.4	8.1	7.8	7.4	7	6.5	5.9	5.2	4.4
9.5 to 9.9	8.7	8.4	8.1	7.7	7.3	6.7	6.1	5.4
10.0 to 10.4	9.2	9.0	8.8	8.4	8	7.6	7	6.4
10.5 to 10.9	9.8	9.5	9.4	9.1	8.7	8.3	7.8	7.2
11.0 to 11.4	10.4	10.2	10	9.7	9.4	9.1	8.6	8.1
11.5 to 11.9	11.0	10.8	10.6	10.4	10.1	9.8	9.4	8.9
12.0 to 12.4	11.5	11.4	11.2	11	10.7	10.5	10.1	9.7
12.5 to 12.9	12.1	11.9	11.8	11.6	11.4	11.1	10.8	10.5
13.0 to 13.4	12.6	12.5	12.4	12.2	12	11.8	11.5	11.2
13.5 to 13.9	13.2	13.1	12.9	12.8	12.6	12.4	12.2	11.9
14.0 or more	13.7	13.6	13.5	13.4	13.2	13.0	12.8	12.6

Example:

Value from Handicap Reduction Table 5.0

Handicap Index -- Table Value: 17.3 - 5.0 = 12.3

Reduced *Handicap Index*: 12.3R

■c. Counting Tournament Scores

(i) T-Score Counter -- The number of *eligible tournament scores* will be counted on a revolving twelve-month basis. In order to keep track of the counter, but not save every T-Score, a counter for each month is needed. The T-Score counter will contain the sum of the latest twelve monthly counters plus any T-Scores older than one year that are a part of the twenty score history. The monthly counter will increase based on the date a score is processed, not the date of the score.

(ii) Best T-Score File -- Up to the best six *eligible tournament scores* are saved in a

"Best T-Score File," separate from the player's handicap record of the latest 20 scores.

(iii) Adding T-Scores -- When a new *tournament score* is posted, it becomes part of the player's normal handicap record as a score and *Handicap Differential*. If the "Best T-Score File" has fewer than six *eligible tournament scores*, the new T-Score is added to that file. If the file already has six T-Scores, the new T-Score, if better than any T-Score in the file, is added to the file and the worst T-Score in the file is deleted, regardless of the date of the T-Score.

(iv) Discarding Old T-Scores -- At each handicap revision, each T-Score in the "Best T-Score File" is checked to see if the score is older than one year and no longer part of the player's current twenty score history. If so, the score is deleted from the file. Deleted T-Scores are replaced by the best *eligible tournament score* (if any) in the player's handicap record that are not already in the "Best T-Score File."

■d. Duration and Variation of Reduction

Handicap Index reduction for exceptional *tournament scores* is calculated at each handicap revision and may vary from revision to revision based on a number of factors. These factors may include the following:

˝ Additional *tournament scores;*

˝ Expiration of *eligible tournament scores;*

˝ Variation in 10-2 calculation;

˝ Fluctuation of 10-2 calculation in relation to the two lowest T-Scores.

■e. Handicap Committee Review of Reduction

The *Handicap Committee* must review all reductions. As a result of review, the *Handicap Committee* may:

˝ Continue to allow the reduction to run its normal course, as described in Section 10-3d, or

˝ Further reduce the *Handicap Index.* For example, the committee may conclude that the player's performance continues to be better than the potential ability indicated by the 10-3 reduction. In that case, the committee replaces the reduced *Handicap Index* with an even lower reduced *Handicap Index,* continuing to review the reduction after each revision period (See Section 8-4e), or

˝ *Override* the reduction. For example, the committee may cancel the reduction to a *Handicap Index* for a player who has been injured and whose reduction was based on early *tournament scores* prior to the injury. In that case, the reduction is

inconsistent with the player's *scoring record.* The committee replaces the reduced *Handicap Index* with the *Handicap Index* calculated under 10-2 and ceases designating it with an R. The committee will have the option to continue to *override* after each revision period for as long as at least two exceptional *tournament scores* continue to trigger a 10-3 reduction. Once the player's *scoring record* contains fewer than two exceptional *tournament scores,* the committee must cease overriding and rely on the normal calculation under 10-2.

˝ Adjust the amount of the reduction. The *Handicap Committee* may decide that the player's full 10-3 reduction does not reflect their potential ability, but a reduction is still necessary. In this case, the *Handicap Committee* may modify the amount of the reduction and the player's *Handicap Index* as calculated by Section 10-2. For example, if the player's 10-3 calculation is a 10.0R, but the 10-2 calculation is 15.0, the *Handicap Committee* could change the player's reduced value to a value of 12.5M. This does not completely *override* the player's reduction.

■f. Reporting Requirement

Authorized golf associations and handicap computation services must report any *Handicap Index* reductions under this procedure (Section 10-3b) to the *golf club*. If computational reports are provided to the *authorized golf association*, the handicap computation service must also report any *Handicap Index* reductions to the *authorized golf association*. When a *Handicap Index* is reduced under this section, it must be identified with the letter R (e.g., 12.3R).

10-4. Course Handicap

A player's *Course Handicap* is determined by multiplying a *Handicap Index* by the *Slope Rating* of the course played and then dividing by 113. (See Section 3-3.) The resulting figure is rounded off to the nearest whole number (.5 or more is rounded upward).

10-5. Nine-Hole Handicaps-Handicap Index (N)

■a. Nine-Hole Handicap Use and Identification

A nine-hole handicap is a *Handicap Index* (N) if the club follows the *USGA Handicap System*. A nine-hole handicap, or *Handicap Index* (N), may be used in inter-club play against other players with nine-hole handicaps. If a competition requires a *Handicap Index,* a *Handicap Index* (N) may be doubled for 18-hole play.

A player with both a *Handicap Index* and a *Handicap Index* (N) should use the *Handicap Index* (N) in inter-club nine-hole competition and the *Handicap Index* in 18-hole competition.

A player with only a *Handicap Index* playing in a nine-hole competition halves the *Handicap Index* and rounds the decimal upward to the nearest tenth, then converts it to a *Course Handicap* using the nine-hole *Slope Rating* from the *Course Handicap*

Table for the tees being played.

■ b. Method of Computation

Golf clubs compute a *Handicap Index* (N) by applying nine-hole *adjusted gross scores* to the *USGA Course Rating* and *Slope Rating* of the nine holes played to determine *Handicap Differentials*.

Note: Players with a *Handicap Index* (N) who play an 18-hole round, must post two nine-hole scores to their *scoring record* (N).

Example: For a nine-hole *adjusted gross score* of 45 with a nine-hole *USGA Course Rating* of 36.2 and a *Slope Rating* of 121, the nine-hole *Handicap Differential* is (45 - 36.2) x 113 / 121 = 8.2. If the average of the best ten nine-hole *Handicap Differentials* is 8.9, then the *Handicap Index* (N) is 8.9 x .96 = 8.5. It is posted as "8.5N."

■ c. Nine-hole Equitable Stroke Control

See definition of *Equitable Stroke Control.*

EQUITABLE STROKE CONTROL

NINE-HOLE COURSE HANDICAP	MAXIMUM NUMBER ON ANY HOLE
4 or less	Double Bogey
5 through 9	7
10 through 14	8
15 through 19	9
20 or more	10

Example: A player with a nine-hole *Course Handicap* of 12 must adjust to a maximum score of 8 for any hole, regardless of *par*.

■ d. Maximum Nine-Hole Handicap

The maximum *Handicap Index* (N) is 18.2 for men and 20.2 for women.

Note: A maximum *Handicap Index* will convert to a *Course Handicap* that exceeds these numbers on golf courses with a *Slope Rating* greater than 113.

A player may have a *local handicap* above these limits, but it must be identified as a *local handicap* by the letters "NL" following the number on a handicap card or report (e.g., 24.5NL). (See *handicap type*.) When such a *local handicap* is used for inter-club play, the USGA recommends that it be reduced to the maximum *Handicap Index* (N) specified above.