

## Handicapped for Success: How is My Handicap Index Calculated?

### How is My Handicap Index Calculated?

It's time to dive into the math behind a **Handicap Index**! Wait, don't stop reading yet! I can imagine your glazed expression, but stick with me here. Knowing the **Index** formula will really help with your understanding of how a handicap works.

Our last article covered some common handicapping terms including **Course Rating** and **Slope Rating**. Now we will add another term to the mix: **Handicap Differential**. If you've ever looked closely at your scoring record, you will notice an extra number, similar to an **Index**, next to your scores. This number is the **Handicap Differential**. Each score you post is "translated" to reflect the relative difficulty of the course you played. As you look at the scoring record below, you may ask yourself, "Why are the highlighted scores used?" Simple answer, the lowest differentials are used to determine or calculate your handicap index, but we will cover that later in the article.

| Highlighted scores below were used in calculating the Index.               |           |                                  |       |      |       |      |      |
|--|-----------|----------------------------------|-------|------|-------|------|------|
|  | Date      | Course                           | Score | CR   | Slope | Diff | Type |
| 1  | 5/29/2012 | University of Maryland Golf Club | 92    | 69.6 | 118   | 21.5 | CI   |
| 2  | 5/17/2012 | Falls Road Golf Course           | 94    | 66.5 | 109   | 28.5 | CI   |
| 3  | 5/1/2012  | University of Maryland Golf Club | 96    | 69.6 | 118   | 25.3 | CI   |
| 4  | 8/26/2011 | Eisenhower Golf Club             | 94    | 66.4 | 117   | 26.7 | AI   |
| 5  | 8/21/2011 | Sligo Creek Golf Club            | 86    | 67.5 | 112   | 18.7 | CI   |
| 6  | 8/19/2011 | East Potomac Golf Course (Blue)  | 100   | 71.2 | 114   | 28.5 | AI   |
| 7  | 8/10/2011 | Paint Branch Golf Club           | 84    | 57.4 | 80    | 37.6 | AI   |
| 8  | 8/9/2011  | Paint Branch Golf Club           | 73    | 57.4 | 80    | 22.0 | AI   |
| 9  | 8/8/2011  | Paint Branch Golf Club           | 77    | 57.4 | 80    | 27.7 | AI   |
| 10   | 8/5/2011  | Sligo Creek Golf Club            | 100   | 67.5 | 112   | 32.8 | CI   |
| 11   | 8/2/2011  | University of Maryland Golf Club | 100   | 70.9 | 121   | 27.2 | AI   |
| 12   | 8/1/2011  | Paint Branch Golf Club           | 89    | 63.2 | 98    | 29.7 | CI   |
| 13   | 7/27/2011 | Glenn Dale Golf Club             | 100   | 73.3 | 123   | 24.5 | AI   |
| 14   | 7/23/2011 | Sligo Creek Golf Club            | 85    | 61.4 | 94    | 28.4 | CI   |
| 15   | 7/19/2011 | University of Maryland Golf Club | 98    | 70.2 | 118   | 26.6 | CI   |
| 16   | 7/13/2011 | Paint Branch Golf Club           | 82    | 58   | 82    | 33.1 | AI   |
| 17   | 7/6/2011  | Paint Branch Golf Club           | 93    | 64.1 | 100   | 32.7 | CI   |
| 18   | 7/6/2011  | Paint Branch Golf Club           | 83    | 58   | 82    | 34.5 | AI   |
| 19   | 6/29/2011 | Paint Branch Golf Club           | 81    | 58   | 82    | 31.7 | AI   |
| 20   | 6/28/2011 | Northwest Golf Course            | 87    | 60.6 | 96    | 31.1 | CI   |
| Score Types: A=Away, C=Combined Nines, I=Internet, P=Penalty, T=Tournament |           |                                  |       |      |       |      |      |

The **Handicap Differential** formula is: **(Adjusted Gross Score\* – Course Rating) x 113 / Slope Rating**

\*Oh no, another new term. Don't worry, we will cover this in depth in future article. But for right now, in simple terms the Slope Rating indicates the courses relative degree of difficulty as compared to all other golf courses. A golf course of standard playing difficulty has a Slope Rating of 113. Slope Ratings range from 55 to 155.

Here's a comparison of three hypothetical rounds played on courses with the same **Course Rating** but different **Slope Ratings**. Notice the difference in the **Handicap Differentials**. This is due to the difference in the **Slope Ratings** of the three courses.

| EASIER COURSE<br>West Hill GC, NY | Buena Vista Golf Course, CA<br>Handicap Differential Formula               | HARDER COURSE<br>Winber Country Club, PA |
|-----------------------------------|--|--|
| $98 - 71.8 = 26.2$                | 1. Adjusted Gross Score – Course Rating<br>$98 - 71.8 = 26.2$              | $98 - 71.8 = 26.2$                       |
| $26.2 \times 113 = 2960.60$       | 2. Difference x Standard Slope Rating (113)<br>$26.2 \times 113 = 2960.60$ | $26.2 \times 113 = 2960.60$              |
| $2960.60 / 118 = 25.09$           | 3. Result / Slope Rating<br>$2960.60 / 120 = 24.67$                        | $2960.60 / 136 = 21.76$                  |
| 25.1                              | 4. Handicap Differential (rounded)<br>24.7                                 | 21.8                                     |

Now that we have an understanding of a **Handicap Differential**, let's move on to calculating your **Handicap Index**. For this we will assume that you've posted twenty 18-hole scores to your record, each with it's own **Handicap Differential**. The **Handicap Index** formula uses the average of your 10 lowest **Handicap Differentials** to compute your **Index**.

The formula is: Sum of 10 lowest **Differentials** / 10 x .96\*, drop all digits after the tenths, no rounding

Using the scoring record example above, here's how the **Handicap Index** would be calculated:

| HANDICAP INDEX CALCULATION   |                                     |             |        |       |       |      |  |
|--|-------------------------------------|-------------|--------|-------|-------|------|--|
| You have 20 scores available. Each score produces a differential that is calculated as follows: (Score - Rating) x 113 / Slope. Based on your available scores, the lowest 10 score differentials are used in calculating your official USGA Handicap Index. |                                     |             |        |       |       |      |  |
| Date   | Course                              | Score       | Rating | Slope | Diff  | Type |  |
| 1 5/29/2012  | University of Maryland Golf Club    | 92          | 69.6   | 118   | 21.5  | CI   |  |
| 2 5/1/2012   | University of Maryland Golf Club    | 96          | 69.6   | 118   | 25.3  | CI   |  |
| 3 8/26/2011  | Eisenhower Golf Club                | 94          | 66.4   | 117   | 26.7  | AI   |  |
| 4 8/21/2011  | Sligo Creek Golf Club               | 86          | 67.5   | 112   | 18.7  | CI   |  |
| 5 8/9/2011   | Paint Branch Golf Club              | 73          | 57.4   | 80    | 22.0  | AI   |  |
| 6 8/8/2011   | Paint Branch Golf Club              | 77          | 57.4   | 80    | 27.7  | AI   |  |
| 7 8/2/2011   | University of Maryland Golf Club    | 100         | 70.9   | 121   | 27.2  | AI   |  |
| 8 7/27/2011  | Glenn Dale Golf Club                | 100         | 73.3   | 123   | 24.5  | AI   |  |
| 9 7/23/2011  | Sligo Creek Golf Club               | 85          | 61.4   | 94    | 28.4  | CI   |  |
| 10 7/19/2011   | University of Maryland Golf Club    | 98          | 70.2   | 118   | 26.6  | CI   |  |
|  | Sum of all differentials:           | 248.5       |        |       | 248.5 |      |  |
|  | Average based on 10 differentials:  | 24.85       |        |       |       |      |  |
|  | Average multiplied by .96:          | 23.853      |        |       |       |      |  |
|  | Delete all digits after tenths:     | 23.8        |        |       |       |      |  |
|  | <b>Official USGA Handicap Index</b> | <b>23.8</b> |        |       |       |      |  |

In order to reflect your current potential ability, the **Handicap Index** formula always uses the 10 lowest **Differentials** of your *20 most recent scores*. This is why your **Index** changes over time, depending on where you play and how you score. But what if you have less than 20 scores in your scoring record? The following chart is used to determine how many scores are used in your calculation:

| NUMBER OF<br>ACCEPTABLE SCORES | DIFFERENTIAL(S)<br>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                     |

So now that you know the details, here are the basic concepts you should remember.

- 1) A **Handicap Differential** is a number generated from a formula which takes into consideration course difficulty. Remember the lowest 10 **Handicap Differentials** are used to calculate your **Handicap Index**.
- 2) A **Handicap Index** can be used at any golf course and is converted to a specific **Course Handicap** to ensure a level playing field of all competitors.
- 3) There is really no need to memorize the formulas. Just ensure that you post your scores with **accurate Course Ratings & Slope Ratings**.

Now you are an expert on **Handicap Index** calculations! Stay tuned for our next article in the Handicapped for Success series where we will tackle **Course Handicaps and Adjusted Gross Scores**!