Maximum Goal Differential = 7

RANK TEAM W L T GmPerf Sched Total Last 5

1,Liberty University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 15 0 0, 4.2, 8.9, 13.09, 12.33

2,Minot State University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 19 4 0, 2.8, 7.9, 10.73, 11.14

3,Adrian College,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 22 7 0, 3.2, 7.5, 10.68, 10.38

4,Midland University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 14 6 1, 2.0, 8.3, 10.29, 11.74

5,Indiana Tech,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 19 7 1, 2.4, 7.6, 9.99, 10.00

6,Lindenwood University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 16 6 0, 0.6, 9.0, 9.66, 9.65

7,University of Massachusetts-Amherst,\_\_\_\_\_\_ 14 5 0, 2.4, 6.8, 9.23, 9.10

8,McKendree University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 7 0, 0.3, 8.7, 8.99, 8.34

9,Maryville University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 14 1, 0.3, 8.3, 8.58, 7.25

10,Miami University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 10 0, 0.4, 7.6, 7.97, 8.61

11,Arizona State University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 14 7 0, 1.7, 6.0, 7.64, 6.89

12,University of Michigan-Dearborn,\_\_\_\_\_\_\_\_\_\_ 11 6 2, 0.8, 6.1, 6.99, 7.64

13,University of Michigan,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 7 2, 0.4, 6.1, 6.51, 6.36

14,Michigan State University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 7 0, -0.3, 6.6, 6.31, 4.93

15,University of Colorado,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 11 2, 0.6, 5.7, 6.25, 6.04

16,Grand Canyon University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 7 3, -0.2, 6.4, 6.24, 6.35

17,Grand Valley State University,\_\_\_\_\_\_\_\_\_\_\_\_ 9 8 1, -0.3, 6.0, 5.71, 5.65

18,University of Minnesota,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 8 1, -2.7, 8.3, 5.61, 5.44

19,University of Rhode Island,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 11 1, -2.0, 7.5, 5.52, 5.40

20,University of Utah,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 7 1, 0.9, 4.6, 5.45, 6.23

21,Aquinas College,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 14 2, -1.6, 6.6, 5.00, 4.93

22,Penn State University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 14 0, -2.7, 7.1, 4.47, 6.38

23,Colorado State University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 11 1, -0.6, 4.8, 4.28, 4.61

24,Concordia University-Ann Arbor,\_\_\_\_\_\_\_\_\_\_\_ 2 20 0, -3.8, 7.1, 3.28, 3.69

25,Davenport University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 10 1, -3.2, 6.2, 3.08, 1.40

\* ,University of Wisconsin,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 2 0, -3.5, 5.6, 2.11

27,Roosevelt University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 7 0, -7.0, 8.6, 1.62, 2.86

28,University of Denver,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1 12 0, -5.5, 5.1, -0.34, -0.86

29,United States Air Force Academy,\_\_\_\_\_\_\_\_\_\_ 0 10 0, -7.0, 5.3, -1.69, -1.47

**Maximum Goal Differential = 1 (i.e. just considers W, L, T and schedule strength)**

**RANK TEAM W L T GmPerf Sched Total Last 5**

**1,Liberty University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 15 0 0, 1.0, 7.4, 8.39, 8.16**

**2,Minot State University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 19 4 0, 0.7, 7.2, 7.81, 7.93**

**3,Lindenwood University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 16 6 0, 0.5, 7.3, 7.79, 7.45**

**4,Adrian College,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 22 7 0, 0.5, 7.2, 7.67, 7.51**

**5,Midland University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 14 6 1, 0.4, 7.2, 7.62, 8.20**

**6,Indiana Tech,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 19 7 1, 0.4, 7.1, 7.58, 7.43**

**7,University of Massachusetts-Amherst,\_\_\_\_\_\_ 14 5 0, 0.5, 7.0, 7.43, 7.33**

**8,McKendree University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 7 0, 0.1, 7.3, 7.37, 7.13**

**9,Arizona State University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 14 7 0, 0.3, 6.8, 7.16, 7.01**

**10,University of Michigan-Dearborn,\_\_\_\_\_\_\_\_\_\_ 11 6 2, 0.3, 6.8, 7.08, 7.40**

**11,Maryville University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 14 1, -0.2, 7.2, 7.08, 6.69**

**12,Miami University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 10 0, -0.2, 7.2, 7.00, 7.05**

**13,Michigan State University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 7 0, 0.1, 6.9, 6.98, 6.56**

**14,University of Michigan,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 7 2, 0.1, 6.8, 6.93, 7.07**

**15,Grand Valley State University,\_\_\_\_\_\_\_\_\_\_\_\_ 9 8 1, 0.1, 6.8, 6.83, 6.96**

**16,University of Colorado,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 11 2, 0.0, 6.8, 6.81, 6.96**

**17,University of Rhode Island,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 11 1, -0.4, 7.1, 6.74, 6.91**

**18,Grand Canyon University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 7 3, -0.1, 6.9, 6.74, 6.71**

**19,University of Minnesota,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 8 1, -0.5, 7.2, 6.68, 6.59**

**20,University of Utah,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 7 1, 0.0, 6.6, 6.56, 6.93**

**21,Penn State University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 14 0, -0.6, 7.1, 6.49, 6.99**

**22,Aquinas College,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 14 2, -0.5, 6.9, 6.40, 6.30**

**23,Colorado State University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 11 1, -0.3, 6.6, 6.35, 6.10**

**24,Davenport University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 10 1, -0.6, 6.9, 6.26, 5.89**

**25,Roosevelt University,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 7 0, -1.0, 7.3, 6.25, 6.50**

**26,Concordia University-Ann Arbor,\_\_\_\_\_\_\_\_\_\_\_ 2 20 0, -0.8, 7.0, 6.19, 6.17**

**27,University of Denver,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1 12 0, -0.8, 6.6, 5.75, 5.69**

**\* ,University of Wisconsin,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 2 0, -1.0, 6.7, 5.68**

**29,United States Air Force Academy,\_\_\_\_\_\_\_\_\_\_ 0 10 0, -1.0, 6.6, 5.62, 5.60**

**- \* in place of rank indicates team whose rank is based on fewer than 3 scores.**

**The program starts all teams with an equal arbitrary value and then**

**adjusts them all recursively based on game scores until the lowest cumulative**

**error between expected goal differentials and actual goal differentials is**

**reached (convergence). One effect often noticed is that a team's rating can**

**change slightly without playing due to previous opponents playing which affects**

**their rating and their opponent's rating, etc.**

**The Total column is in goal units and the difference in this value between**

**any two teams is the predicted goal differential for a game played at a**

**neutral site between those two teams.**

**It should be noted that these rankings are an average performance value**

**for each team for the entire season, all games are equally weighted, so a team's**

**latest game may make up only 1/40th of a teams rating at the end of the season.**

**Games that go to shootouts for decision are considered ties for ratings purposes.**

**Actually, there are two different rankings listed below. The first is as described**

**above with the maximum goal differential used per game set at 7.**

**This ordering ends up similar to** [**CCHP**](https://www.google.com/url?q=http://www.uafhockey.com/hratings.html&source=gmail-html&ust=1645126976675000&usg=AOvVaw0v11Ul__GeiqwD-eIp-mk3)**, although differences do arise due to CCHP**

**considering home ice advantage and CCHP not using a goal differential limit.**

**The second ranking sets maximum goal differential at 1, thereby just considering**

**whether the game was won, lost, or tied (and strength of opponent). Note that the Total column in the GD=1 ranking is therefore in win percentage units rather than goal units. A rated .01 ahead of B can be interpreted as saying that if these two teams played exclusively against each other, A's predicted winning percentage is 1 percentage point higher than B's(i.e. A's predicted winning percentage vs. B would be .495, B's against A would be .505). However, since the teams do not play exclusively against the other it is actually a little bit more complex than above as teams can be ranked as high as 1.0 nabove their average opponent (if they were undefeated and untied) and as low as 1.0nbelow their average opponent (if they lost all of their games). Not surprisingly, the ordering ends up very similar to** [**KRACH**](https://www.google.com/url?q=http://rpihockey.net/misc.rank1.shtml&source=gmail-html&ust=1645126976675000&usg=AOvVaw2yWz9TJoXuSd7pBkxV4Dpz)**.**

**Currently, teams with as few as 3 scores are ranked. The more games that go**

**into a team's ranking, the more accurate their ranking will be.**