**Maximum Goal Differential = 7**

RANK TEAM W L T GmPerf Sched Total Last 5

 1,Lindenwood,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 0 1, 4.1, 9.3, 13.38, 12.30

 2,Minot State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 1 1, 3.4, 9.7, 13.09, 12.67

 3,Iowa State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 16 2 2, 2.9, 8.8, 11.68, 12.42

 4,Liberty,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13 4 1, 2.6, 8.8, 11.40, 11.87

 5,Adrian,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 4 1, 3.5, 7.8, 11.27, 11.95

 6,Nevada-Las Vegas,\_\_\_\_\_\_\_\_\_ 12 3 2, 1.2, 9.4, 10.67, 11.62

 7,Central Oklahoma,\_\_\_\_\_\_\_\_\_ 13 4 1, 2.2, 8.1, 10.30, 10.75

 8,Maryville,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 5 3, 1.6, 8.5, 10.08, 11.36

 9,Indiana Tech,\_\_\_\_\_\_\_\_\_\_\_\_\_ 13 2 0, 3.2, 6.8, 10.04, 10.99

 10,Stony Brook,\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 4 2, 2.5, 7.4, 9.89, 8.63

 11,Ohio,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13 7 2, 1.7, 8.0, 9.70, 9.18

 12,Illinois,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 12 1, -0.0, 9.7, 9.66, 10.52

 13,Missouri State,\_\_\_\_\_\_\_\_\_\_\_ 14 6 0, 1.1, 8.4, 9.59, 8.00

 14,Jamestown,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 5 2, 0.0, 9.3, 9.30, 8.73

 15,Pittsburgh,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 3 2, 2.1, 6.9, 8.95, 8.96

 16,Arizona,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 5 2, 0.9, 8.1, 8.95, 9.67

 17,Michigan-Dearborn,\_\_\_\_\_\_\_\_ 10 6 2, 1.1, 7.6, 8.71, 8.22

 18,Niagara,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13 3 3, 2.8, 5.9, 8.71, 9.32

 19,Aquinas,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 4 0, 1.9, 6.8, 8.68, 7.95

 20,Lawrence Tech,\_\_\_\_\_\_\_\_\_\_\_\_ 11 4 2, 2.0, 6.4, 8.37, 8.10

 21,Utah,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 7 3, -0.4, 8.8, 8.32, 8.34

 22,Arizona State,\_\_\_\_\_\_\_\_\_\_\_\_ 5 10 0, -1.0, 9.1, 8.06, 6.16

 23,Midland,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 9 2, -0.1, 8.1, 8.05, 7.92

 24,Delaware,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 6 5, 0.4, 7.2, 7.63, 7.99

 25,Illinois State,\_\_\_\_\_\_\_\_\_\_\_ 10 10 0, -0.2, 7.8, 7.60, 7.04

 26,Rhode Island,\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 8 2, 0.3, 7.2, 7.56, 8.82

 27,Colorado,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 8 5, -0.8, 8.3, 7.54, 7.12

 28,Davenport,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 7 1, 0.6, 6.8, 7.45, 6.44

 29,Grand Canyon,\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 9 2, -1.8, 8.9, 7.16, 7.61

 30,Oklahoma,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 9 3, -0.6, 7.6, 6.98, 6.47

 31,Colorado State,\_\_\_\_\_\_\_\_\_\_\_ 1 11 4, -1.9, 8.7, 6.85, 7.05

 32,Alabama,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 6 2, -0.5, 7.4, 6.83, 5.84

 33,Robert Morris,\_\_\_\_\_\_\_\_\_\_\_\_ 12 4 4, 1.2, 5.6, 6.83, 7.04

 34,New York,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 4 4, 0.6, 6.2, 6.76, 6.53

 35,Oswego State,\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 5 4, 0.6, 5.9, 6.57, 4.85

 36,Drexel,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 7 6, -0.9, 7.3, 6.46, 6.33

 37,Waldorf,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 11 1, -1.1, 7.6, 6.43, 7.06

 38,Navy,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 8 4, -0.2, 6.5, 6.29, 6.80

 39,Indiana Pennsylvania,\_\_\_\_\_ 12 6 3, 0.4, 5.8, 6.22, 6.79

 40,John Carroll,\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 5 2, 0.5, 5.6, 6.11, 5.57

 41,Villanova,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 4 3, 0.3, 5.6, 5.95, 3.92

 42,William Paterson,\_\_\_\_\_\_\_\_\_ 9 4 1, 0.9, 4.9, 5.88, 5.77

 43,Grand Valley State,\_\_\_\_\_\_\_ 6 10 2, -0.9, 6.7, 5.78, 6.81

 44,Concordia Ann Arbor,\_\_\_\_\_\_ 4 9 1, -1.4, 7.1, 5.63, 4.76

 45,Kent State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 7 2, 0.8, 4.7, 5.56, 5.21

 46,West Chester,\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 4 2, 0.8, 4.7, 5.51, 5.59

 47,Calvin,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 5 2, 0.6, 4.8, 5.44, 5.08

 48,Buffalo,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 9 3, -0.5, 5.8, 5.34, 4.99

 49,Roosevelt,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 13 1, -3.8, 8.8, 5.03, 5.72

 50,McKendree,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 11 1, -3.1, 8.1, 4.91, 4.97

 51,Lehigh,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 9 2, -0.6, 5.4, 4.81, 4.35

 52,Cleary,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 14 1, -2.4, 7.2, 4.77, 5.61

 53,Toledo,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 7 1, -0.6, 5.1, 4.48, 6.36

 54,Temple,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 7 2, -0.6, 5.0, 4.37, 4.80

 55,Western Michigan,\_\_\_\_\_\_\_\_\_ 5 10 2, -0.9, 5.3, 4.34, 3.75

 56,Northern Illinois,\_\_\_\_\_\_\_\_ 2 13 1, -2.6, 6.9, 4.32, 4.07

 57,West Virginia,\_\_\_\_\_\_\_\_\_\_\_\_ 7 12 1, -1.6, 5.9, 4.29, 6.47

 58,Canisius,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 13 4, -1.7, 5.9, 4.21, 4.03

 59,Rutgers,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 8 0, -1.2, 5.2, 4.00, 4.55

 60,Syracuse,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 14 1, -3.7, 7.6, 3.97, 3.28

 61,George Mason,\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 9 2, -1.9, 5.6, 3.66, 3.93

 62,Towson,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 9 0, -1.3, 4.9, 3.60, 3.74

 63,Duquesne,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 11 4, -1.6, 5.1, 3.57, 3.90

 64,Mercyhurst,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1 15 3, -2.6, 6.1, 3.50, 1.87

 65,Rochester Inst of Tech,\_\_\_ 0 4 2, -2.7, 5.9, 3.20, 3.10

 66,Rochester,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 12 0, -4.8, 7.3, 2.48, 2.11

 67,Oakland,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 8 1, -4.1, 5.5, 1.38, 0.71

 68,Eastern Michigan,\_\_\_\_\_\_\_\_\_ 0 10 1, -4.9, 5.3, 0.41, 1.21

**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,Lindenwood,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 0 1, 0.9, 7.5, 8.38, 8.18**

 **2,Minot State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 1 1, 0.8, 7.5, 8.25, 8.05**

 **3,Nevada-Las Vegas,\_\_\_\_\_\_\_\_\_ 12 3 2, 0.5, 7.5, 8.03, 8.55**

 **4,Iowa State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 16 2 2, 0.7, 7.3, 8.00, 7.97**

 **5,Liberty,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13 4 1, 0.5, 7.4, 7.90, 7.77**

 **6,Central Oklahoma,\_\_\_\_\_\_\_\_\_ 13 4 1, 0.5, 7.2, 7.68, 7.68**

 **7,Adrian,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 4 1, 0.5, 7.1, 7.61, 7.70**

 **8,Missouri State,\_\_\_\_\_\_\_\_\_\_\_ 14 6 0, 0.4, 7.2, 7.61, 7.12**

 **9,Pittsburgh,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 3 2, 0.5, 7.1, 7.58, 7.71**

 **10,Indiana Tech,\_\_\_\_\_\_\_\_\_\_\_\_\_ 13 2 0, 0.7, 6.8, 7.58, 7.88**

 **11,Maryville,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 5 3, 0.3, 7.3, 7.54, 7.63**

 **12,Ohio,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13 7 2, 0.3, 7.2, 7.51, 7.80**

 **13,Illinois,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 12 1, -0.1, 7.6, 7.51, 8.06**

 **14,Stony Brook,\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 4 2, 0.4, 7.1, 7.49, 6.91**

 **15,Arizona,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 5 2, 0.3, 7.2, 7.46, 8.00**

 **16,Jamestown,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 5 2, 0.1, 7.3, 7.42, 7.34**

 **17,Niagara,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13 3 3, 0.5, 6.8, 7.36, 7.39**

 **18,Utah,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 7 3, -0.1, 7.4, 7.32, 7.43**

 **19,Aquinas,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 4 0, 0.4, 6.8, 7.27, 7.18**

 **20,Michigan-Dearborn,\_\_\_\_\_\_\_\_ 10 6 2, 0.2, 7.0, 7.23, 7.24**

 **21,Robert Morris,\_\_\_\_\_\_\_\_\_\_\_\_ 12 4 4, 0.4, 6.8, 7.22, 7.37**

 **22,Delaware,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 6 5, 0.1, 7.1, 7.20, 7.53**

 **23,Lawrence Tech,\_\_\_\_\_\_\_\_\_\_\_\_ 11 4 2, 0.4, 6.8, 7.20, 6.82**

 **24,Indiana Pennsylvania,\_\_\_\_\_ 12 6 3, 0.3, 6.8, 7.13, 7.16**

 **25,Rhode Island,\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 8 2, 0.1, 7.1, 7.12, 7.11**

 **26,Midland,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 9 2, 0.0, 7.1, 7.11, 7.16**

 **27,Arizona State,\_\_\_\_\_\_\_\_\_\_\_\_ 5 10 0, -0.3, 7.4, 7.10, 6.58**

 **28,New York,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 4 4, 0.3, 6.8, 7.08, 6.98**

 **29,John Carroll,\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 5 2, 0.3, 6.8, 7.06, 6.96**

 **30,Davenport,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 7 1, 0.2, 6.9, 7.06, 7.16**

 **31,Illinois State,\_\_\_\_\_\_\_\_\_\_\_ 10 10 0, 0.0, 7.1, 7.05, 6.61**

 **32,Oswego State,\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 5 4, 0.2, 6.8, 7.02, 6.49**

 **33,Grand Canyon,\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 9 2, -0.4, 7.4, 6.99, 6.96**

 **34,West Chester,\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 4 2, 0.4, 6.6, 6.99, 7.06**

 **35,William Paterson,\_\_\_\_\_\_\_\_\_ 9 4 1, 0.4, 6.6, 6.98, 6.80**

 **36,Drexel,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 7 6, -0.1, 7.1, 6.95, 7.26**

 **37,Alabama,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 6 2, -0.1, 7.0, 6.95, 6.43**

 **38,Villanova,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 4 3, 0.2, 6.8, 6.92, 6.58**

 **39,Colorado,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 8 5, -0.2, 7.1, 6.91, 6.82**

 **40,Buffalo,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 9 3, 0.0, 6.8, 6.86, 6.91**

 **41,Navy,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 8 4, -0.2, 7.0, 6.82, 6.87**

 **42,Kent State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 7 2, 0.2, 6.6, 6.75, 6.92**

 **43,Roosevelt,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 13 1, -0.7, 7.4, 6.70, 6.65**

 **44,Oklahoma,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 9 3, -0.4, 7.1, 6.66, 6.81**

 **45,Colorado State,\_\_\_\_\_\_\_\_\_\_\_ 1 11 4, -0.6, 7.3, 6.66, 6.56**

 **46,Grand Valley State,\_\_\_\_\_\_\_ 6 10 2, -0.2, 6.9, 6.64, 6.86**

 **47,Calvin,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 5 2, 0.1, 6.5, 6.63, 6.60**

 **48,West Virginia,\_\_\_\_\_\_\_\_\_\_\_\_ 7 12 1, -0.3, 6.9, 6.62, 7.12**

 **49,Temple,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 7 2, -0.1, 6.6, 6.58, 6.79**

 **50,Waldorf,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 11 1, -0.4, 7.0, 6.56, 6.42**

 **51,Concordia Ann Arbor,\_\_\_\_\_\_ 4 9 1, -0.4, 6.9, 6.55, 6.23**

 **52,Towson,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 9 0, -0.2, 6.7, 6.48, 6.34**

 **53,Canisius,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 13 4, -0.4, 6.9, 6.47, 6.51**

 **54,McKendree,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 11 1, -0.6, 7.1, 6.47, 6.62**

 **55,George Mason,\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 9 2, -0.4, 6.8, 6.41, 6.58**

 **56,Duquesne,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 11 4, -0.4, 6.8, 6.39, 6.42**

 **57,Toledo,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 7 1, -0.3, 6.6, 6.37, 6.97**

 **58,Cleary,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 14 1, -0.6, 7.0, 6.36, 6.27**

 **59,Western Michigan,\_\_\_\_\_\_\_\_\_ 5 10 2, -0.3, 6.6, 6.31, 6.23**

 **60,Lehigh,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 9 2, -0.5, 6.8, 6.30, 6.14**

 **61,Syracuse,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 14 1, -0.9, 7.2, 6.26, 6.13**

 **62,Mercyhurst,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1 15 3, -0.7, 7.0, 6.21, 5.96**

 **63,Northern Illinois,\_\_\_\_\_\_\_\_ 2 13 1, -0.7, 6.9, 6.21, 6.57**

 **64,Rutgers,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 8 0, -0.6, 6.8, 6.19, 6.22**

 **65,Rochester Inst of Tech,\_\_\_ 0 4 2, -0.7, 6.9, 6.19, 6.16**

 **66,Rochester,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 12 0, -1.0, 7.0, 5.98, 6.21**

 **67,Oakland,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 8 1, -0.9, 6.7, 5.83, 5.76**

 **68,Eastern Michigan,\_\_\_\_\_\_\_\_\_ 0 10 1, -0.9, 6.6, 5.69, 5.56**

 **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.**

 **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://rpihockey.net/misc.rank1.shtml&source=gmail-html&ust=1639539611812000&usg=AOvVaw0MVSXq9zctupKnU1Q69t5K)**, 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**

**above their average opponent (if they were undefeated and untied) and as low as 1.0**

**below 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=1639539611812000&usg=AOvVaw0MVSXq9zctupKnU1Q69t5K)**.**

 **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.**