Maximum Goal Differential = 7

RANK TEAM W L T GmPerf Sched Total Last 5

 1,Lindenwood,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 0 1, 4.1, 9.2, 13.26, 12.03

 2,Minot State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 14 2 1, 2.8, 9.7, 12.47, 10.49

 3,Liberty,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13 4 1, 2.6, 8.8, 11.37, 11.75

 4,Iowa State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 16 3 3, 2.4, 8.9, 11.28, 10.46

 5,Adrian,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 4 1, 3.5, 7.8, 11.23, 11.88

 6,Nevada-Las Vegas,\_\_\_\_\_\_\_\_\_ 14 3 2, 1.7, 9.4, 11.13, 11.67

 7,Central Oklahoma,\_\_\_\_\_\_\_\_\_ 17 4 2, 2.4, 8.3, 10.72, 11.83

 8,Jamestown,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 6 2, 0.9, 9.2, 10.07, 12.07

 9,Maryville,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 5 3, 1.6, 8.4, 9.97, 11.29

 10,Missouri State,\_\_\_\_\_\_\_\_\_\_\_ 14 6 0, 1.1, 8.7, 9.82, 8.05

 11,Stony Brook,\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 14 4 2, 2.5, 7.3, 9.82, 7.69

 12,Indiana Tech,\_\_\_\_\_\_\_\_\_\_\_\_\_ 18 2 0, 3.4, 6.4, 9.76, 9.07

 13,Illinois,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 12 1, -0.0, 9.6, 9.57, 10.61

 14,Ohio,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13 7 2, 1.7, 7.8, 9.52, 8.87

 15,Arizona,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 7 2, 0.6, 8.8, 9.39, 10.56

 16,Michigan-Dearborn,\_\_\_\_\_\_\_\_ 12 6 2, 1.4, 7.5, 8.91, 9.18

 17,Pittsburgh,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 3 2, 2.1, 6.7, 8.80, 8.85

 18,Utah,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 7 3, -0.4, 9.1, 8.61, 8.65

 19,Aquinas,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 4 1, 1.9, 6.4, 8.28, 7.71

 20,Niagara,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 14 3 4, 2.6, 5.6, 8.19, 7.94

 21,Lawrence Tech,\_\_\_\_\_\_\_\_\_\_\_\_ 13 6 2, 1.9, 6.2, 8.13, 8.18

 22,Midland,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 9 2, -0.1, 8.1, 8.04, 7.63

 23,Arizona State,\_\_\_\_\_\_\_\_\_\_\_\_ 5 12 0, -1.5, 9.5, 8.00, 6.34

 24,Colorado,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 8 5, -0.8, 8.6, 7.86, 7.60

 25,Rhode Island,\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 8 2, 0.6, 7.1, 7.65, 9.33

 26,Oklahoma,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 11 3, -0.4, 7.9, 7.54, 8.14

 27,Illinois State,\_\_\_\_\_\_\_\_\_\_\_ 12 10 0, 0.1, 7.4, 7.54, 7.00

 28,Delaware,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 8 5, 0.1, 7.4, 7.51, 8.74

 29,Grand Canyon,\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 10 2, -1.9, 9.4, 7.50, 8.99

 30,Davenport,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 7 1, 0.6, 6.8, 7.40, 6.46

 31,Colorado State,\_\_\_\_\_\_\_\_\_\_\_ 1 11 4, -1.9, 9.1, 7.26, 7.40

 32,Robert Morris,\_\_\_\_\_\_\_\_\_\_\_\_ 13 4 4, 1.3, 5.4, 6.74, 7.47

 33,Alabama,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 9 2, -1.1, 7.7, 6.53, 5.97

 34,Oswego State,\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 5 4, 0.6, 5.8, 6.46, 4.73

 35,New York,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 6 4, 0.2, 6.3, 6.44, 5.50

 36,Drexel,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 7 6, -0.9, 7.2, 6.38, 6.27

 37,John Carroll,\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 5 2, 0.9, 5.4, 6.27, 7.77

 38,Indiana Pennsylvania,\_\_\_\_\_ 12 6 3, 0.4, 5.8, 6.21, 7.16

 39,Navy,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 8 4, -0.2, 6.4, 6.21, 6.74

 40,Waldorf,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 13 1, -1.8, 7.9, 6.13, 5.46

 41,Grand Valley State,\_\_\_\_\_\_\_ 8 12 2, -0.6, 6.5, 5.86, 6.60

 42,William Paterson,\_\_\_\_\_\_\_\_\_ 9 4 1, 0.9, 4.9, 5.86, 5.83

 43,Villanova,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 4 3, 0.3, 5.5, 5.83, 3.83

 44,Kent State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 7 2, 1.0, 4.7, 5.71, 6.68

 45,West Chester,\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 4 2, 0.8, 4.6, 5.38, 5.47

 46,Concordia Ann Arbor,\_\_\_\_\_\_ 5 12 2, -1.4, 6.7, 5.36, 5.09

 47,Calvin,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 5 2, 0.6, 4.7, 5.34, 4.92

 48,Buffalo,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 9 3, -0.5, 5.8, 5.33, 5.06

 49,McKendree,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 11 1, -3.1, 8.1, 4.92, 5.21

 50,Roosevelt,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 16 1, -3.3, 8.1, 4.81, 4.55

 51,Lehigh,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 9 2, -0.6, 5.3, 4.71, 4.24

 52,Rutgers,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 9 1, -1.1, 5.8, 4.67, 5.18

 53,Cleary,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 14 1, -2.4, 7.1, 4.63, 5.61

 54,Toledo,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 7 1, -0.6, 5.0, 4.41, 6.18

 55,Temple,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 7 2, -0.6, 5.0, 4.39, 4.86

 56,Northern Illinois,\_\_\_\_\_\_\_\_ 3 14 1, -2.4, 6.6, 4.20, 3.95

 57,Western Michigan,\_\_\_\_\_\_\_\_\_ 5 14 2, -1.6, 5.7, 4.12, 3.40

 58,Syracuse,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 14 1, -3.7, 7.5, 3.84, 3.09

 59,Canisius,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 15 4, -2.0, 5.8, 3.83, 3.60

 60,West Virginia,\_\_\_\_\_\_\_\_\_\_\_\_ 7 15 1, -2.2, 6.0, 3.83, 2.74

 61,George Mason,\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 9 2, -1.9, 5.4, 3.52, 3.92

 62,Towson,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 9 0, -1.3, 4.8, 3.51, 3.69

 63,Duquesne,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 11 4, -1.6, 5.0, 3.42, 3.70

 64,Mercyhurst,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1 15 3, -2.6, 5.9, 3.31, 1.47

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

 66,Rochester,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 14 0, -4.8, 7.2, 2.39, 2.04

 67,Oakland,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 8 1, -4.1, 5.3, 1.24, 0.69

 68,Eastern Michigan,\_\_\_\_\_\_\_\_\_ 0 10 1, -4.9, 5.3, 0.37, 1.11

**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, 8.36, 8.11**

 **2,Minot State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 14 2 1, 0.7, 7.5, 8.22, 8.03**

 **3,Nevada-Las Vegas,\_\_\_\_\_\_\_\_\_ 14 3 2, 0.6, 7.5, 8.08, 8.25**

 **4,Iowa State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 16 3 3, 0.6, 7.4, 7.95, 7.62**

 **5,Liberty,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13 4 1, 0.5, 7.4, 7.90, 7.74**

 **6,Central Oklahoma,\_\_\_\_\_\_\_\_\_ 17 4 2, 0.6, 7.2, 7.79, 8.08**

 **7,Missouri State,\_\_\_\_\_\_\_\_\_\_\_ 14 6 0, 0.4, 7.3, 7.68, 7.16**

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

 **9,Jamestown,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 6 2, 0.2, 7.4, 7.56, 7.86**

 **10,Maryville,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 5 3, 0.3, 7.3, 7.55, 7.68**

 **11,Pittsburgh,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 3 2, 0.5, 7.0, 7.55, 7.68**

 **12,Stony Brook,\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 14 4 2, 0.5, 7.0, 7.54, 7.09**

 **13,Indiana Tech,\_\_\_\_\_\_\_\_\_\_\_\_\_ 18 2 0, 0.8, 6.7, 7.51, 7.35**

 **14,Illinois,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 12 1, -0.1, 7.6, 7.49, 8.10**

 **15,Arizona,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 7 2, 0.2, 7.3, 7.48, 7.74**

 **16,Ohio,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13 7 2, 0.3, 7.2, 7.46, 7.71**

 **17,Utah,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 7 3, -0.1, 7.4, 7.36, 7.47**

 **18,Michigan-Dearborn,\_\_\_\_\_\_\_\_ 12 6 2, 0.3, 7.0, 7.28, 7.56**

 **19,Niagara,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 14 3 4, 0.5, 6.7, 7.26, 7.14**

 **20,Robert Morris,\_\_\_\_\_\_\_\_\_\_\_\_ 13 4 4, 0.4, 6.8, 7.19, 7.35**

 **21,Rhode Island,\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 8 2, 0.1, 7.0, 7.18, 7.58**

 **22,Aquinas,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 4 1, 0.4, 6.7, 7.18, 7.25**

 **23,Midland,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 9 2, 0.0, 7.2, 7.17, 7.21**

 **24,Indiana Pennsylvania,\_\_\_\_\_ 12 6 3, 0.3, 6.9, 7.14, 7.27**

 **25,Arizona State,\_\_\_\_\_\_\_\_\_\_\_\_ 5 12 0, -0.4, 7.5, 7.13, 6.66**

 **26,Delaware,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 8 5, 0.0, 7.1, 7.13, 7.42**

 **27,Illinois State,\_\_\_\_\_\_\_\_\_\_\_ 12 10 0, 0.1, 7.0, 7.12, 6.85**

 **28,Lawrence Tech,\_\_\_\_\_\_\_\_\_\_\_\_ 13 6 2, 0.3, 6.8, 7.11, 6.91**

 **29,John Carroll,\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 5 2, 0.4, 6.7, 7.09, 7.46**

 **30,Davenport,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 7 1, 0.2, 6.9, 7.05, 7.16**

 **31,Grand Canyon,\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 10 2, -0.5, 7.5, 7.05, 7.22**

 **32,Oswego State,\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 5 4, 0.2, 6.8, 7.00, 6.47**

 **33,Colorado,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 8 5, -0.2, 7.2, 6.99, 6.93**

 **34,New York,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 6 4, 0.1, 6.8, 6.96, 6.59**

 **35,West Chester,\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 4 2, 0.4, 6.5, 6.96, 7.03**

 **36,William Paterson,\_\_\_\_\_\_\_\_\_ 9 4 1, 0.4, 6.6, 6.96, 6.80**

 **37,Drexel,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 7 6, -0.1, 7.1, 6.93, 7.28**

 **38,Villanova,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 4 3, 0.2, 6.7, 6.89, 6.55**

 **39,Buffalo,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10 9 3, 0.0, 6.8, 6.85, 6.91**

 **40,Oklahoma,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 11 3, -0.3, 7.2, 6.84, 7.08**

 **41,Alabama,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 9 2, -0.3, 7.1, 6.83, 6.43**

 **42,Navy,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 8 4, -0.2, 7.0, 6.79, 6.86**

 **43,Kent State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 7 2, 0.2, 6.5, 6.79, 7.09**

 **44,Colorado State,\_\_\_\_\_\_\_\_\_\_\_ 1 11 4, -0.6, 7.4, 6.75, 6.65**

 **45,Waldorf,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 13 1, -0.5, 7.1, 6.63, 6.61**

 **46,Grand Valley State,\_\_\_\_\_\_\_ 8 12 2, -0.2, 6.8, 6.62, 6.55**

 **47,Calvin,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 5 2, 0.1, 6.4, 6.58, 6.56**

 **48,Temple,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 7 2, -0.1, 6.6, 6.57, 6.79**

 **49,Roosevelt,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 16 1, -0.7, 7.2, 6.57, 6.35**

 **50,West Virginia,\_\_\_\_\_\_\_\_\_\_\_\_ 7 15 1, -0.3, 6.9, 6.53, 6.44**

 **51,McKendree,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 11 1, -0.6, 7.2, 6.53, 6.70**

 **52,Concordia Ann Arbor,\_\_\_\_\_\_ 5 12 2, -0.4, 6.8, 6.47, 6.40**

 **53,Towson,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 9 0, -0.2, 6.7, 6.45, 6.32**

 **54,Canisius,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 15 4, -0.5, 6.9, 6.41, 6.46**

 **55,George Mason,\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 9 2, -0.4, 6.8, 6.38, 6.57**

 **56,Duquesne,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 11 4, -0.4, 6.7, 6.36, 6.37**

 **57,Toledo,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 7 1, -0.3, 6.6, 6.35, 6.92**

 **58,Cleary,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 14 1, -0.6, 6.9, 6.32, 6.27**

 **59,Rutgers,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 9 1, -0.6, 6.9, 6.29, 6.24**

 **60,Northern Illinois,\_\_\_\_\_\_\_\_ 3 14 1, -0.6, 6.9, 6.29, 6.71**

 **61,Lehigh,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 9 2, -0.5, 6.8, 6.26, 6.11**

 **62,Western Michigan,\_\_\_\_\_\_\_\_\_ 5 14 2, -0.4, 6.7, 6.25, 6.08**

 **63,Syracuse,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 14 1, -0.9, 7.2, 6.23, 6.07**

 **64,Rochester Inst of Tech,\_\_\_ 0 4 2, -0.7, 6.9, 6.19, 6.17**

 **65,Mercyhurst,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1 15 3, -0.7, 6.9, 6.18, 5.89**

 **66,Rochester,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 14 0, -1.0, 6.9, 5.94, 6.18**

 **67,Oakland,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 8 1, -0.9, 6.7, 5.78, 5.75**

 **68,Eastern Michigan,\_\_\_\_\_\_\_\_\_ 0 10 1, -0.9, 6.6, 5.67, 5.53**

 **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=1642094671122000&usg=AOvVaw3-EGeOuqf8SXYFXraqmZ9O)**, 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=1642094671122000&usg=AOvVaw3-EGeOuqf8SXYFXraqmZ9O)**.**

 **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.**