Maximum Goal Differential = 7

 RANK TEAM W L T GmPerf Sched Total Last 5

 1,Lindenwood,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 0 1, 4.3, 9.2, 13.53, 12.56

 2,Minot State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 0 1, 3.9, 9.6, 13.45, 14.28

 3,Iowa State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 14 2 2, 2.4, 9.3, 11.73, 12.60

 4,Adrian,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 2 1, 4.1, 7.4, 11.55, 13.73

 5,Liberty,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 3 1, 1.8, 9.6, 11.36, 11.09

 6,Nevada-Las Vegas,\_\_\_\_\_\_\_\_\_ 7 3 2, 1.1, 9.7, 10.81, 11.93

 7,Central Oklahoma,\_\_\_\_\_\_\_\_\_ 10 4 1, 1.9, 8.8, 10.74, 9.68

 8,Stony Brook,\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 2 1, 2.9, 7.6, 10.56, 10.23

 9,Missouri State,\_\_\_\_\_\_\_\_\_\_\_ 12 4 0, 1.4, 9.0, 10.46, 9.12

 10,Ohio,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 7 0, 1.8, 8.2, 9.95, 10.68

 11,Indiana Tech,\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 2 0, 2.9, 7.0, 9.93, 9.70

 12,Maryville,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 4 3, 1.1, 8.6, 9.70, 8.87

 13,Arizona State,\_\_\_\_\_\_\_\_\_\_\_\_ 5 5 0, 0.4, 9.1, 9.53, 10.18

 14,Illinois,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 11 1, -0.4, 9.9, 9.44, 9.97

 15,Jamestown,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 4 2, -0.2, 9.6, 9.44, 9.05

 16,Arizona,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 5 2, 0.7, 8.6, 9.36, 9.49

 17,Utah,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 6 3, -0.4, 9.6, 9.19, 8.81

 18,Michigan-Dearborn,\_\_\_\_\_\_\_\_ 8 6 2, 1.0, 8.0, 9.02, 8.67

 19,Pittsburgh,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 3 1, 2.2, 6.6, 8.80, 9.35

 20,Aquinas,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 4 0, 1.5, 7.1, 8.64, 8.93

 21,Niagara,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 3 1, 2.9, 5.7, 8.53, 8.57

 22,Lawrence Tech,\_\_\_\_\_\_\_\_\_\_\_\_ 8 2 2, 1.7, 6.7, 8.46, 7.73

 23,Midland,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 9 1, -0.8, 8.8, 8.07, 7.65

 24,Davenport,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 5 0, 1.5, 6.6, 8.03, 5.87

 25,Colorado,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 8 2, -1.2, 9.1, 7.96, 8.37

 26,Illinois State,\_\_\_\_\_\_\_\_\_\_\_ 9 7 0, -0.2, 8.0, 7.82, 7.43

 27,Oklahoma,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 7 1, -0.5, 8.2, 7.67, 8.11

 28,Colorado State,\_\_\_\_\_\_\_\_\_\_\_ 1 8 3, -2.0, 9.2, 7.22, 6.66

 29,Grand Canyon,\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 6 2, -2.2, 9.4, 7.17, 6.95

 30,Delaware,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 6 3, 0.3, 6.8, 7.11, 5.30

 31,Rhode Island,\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 6 1, 0.0, 7.0, 7.04, 8.05

 32,Villanova,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 2 2, 1.1, 5.9, 6.98, 6.63

 33,Alabama,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 6 2, -0.5, 7.5, 6.97, 5.99

 34,New York,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 3 3, 0.5, 6.4, 6.92, 6.93

 35,Robert Morris,\_\_\_\_\_\_\_\_\_\_\_\_ 10 3 3, 1.3, 5.2, 6.53, 6.11

 36,Oswego State,\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 4 4, 0.7, 5.7, 6.46, 4.76

 37,Waldorf,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 8 0, -1.0, 7.3, 6.34, 5.99

 38,Drexel,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1 5 6, -0.2, 6.5, 6.29, 6.60

 39,John Carroll,\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 4 1, 0.5, 5.6, 6.04, 7.19

 40,Grand Valley State,\_\_\_\_\_\_\_ 5 8 2, -1.1, 6.9, 5.84, 6.18

 41,Navy,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 7 3, -0.7, 6.5, 5.80, 5.06

 42,Indiana Pennsylvania,\_\_\_\_\_ 9 4 3, 0.6, 5.1, 5.68, 6.35

 43,William Paterson,\_\_\_\_\_\_\_\_\_ 7 3 1, 0.9, 4.7, 5.61, 5.88

 44,Concordia Ann Arbor,\_\_\_\_\_\_ 4 7 1, -1.2, 6.8, 5.61, 5.18

 45,Kent State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 5 2, 1.2, 4.3, 5.52, 4.42

 46,Calvin,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 3 2, 0.9, 4.5, 5.44, 4.98

 47,Buffalo,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 9 1, -0.9, 6.3, 5.32, 5.78

 48,Roosevelt,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 9 1, -3.4, 8.2, 4.83, 6.09

 49,McKendree,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 8 1, -2.9, 7.6, 4.74, 6.28

 50,West Chester,\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 4 2, 0.2, 4.5, 4.72, 4.54

 51,Western Michigan,\_\_\_\_\_\_\_\_\_ 3 8 2, -1.5, 6.0, 4.57, 2.83

 52,Lehigh,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 9 2, -0.6, 5.1, 4.51, 3.99

 53,Cleary,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 10 1, -2.2, 6.6, 4.41, 5.14

 54,Toledo,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 6 1, -0.7, 5.0, 4.26, 5.56

 55,Syracuse,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 10 1, -4.0, 8.3, 4.26, 4.13

 56,Northern Illinois,\_\_\_\_\_\_\_\_ 1 10 1, -2.3, 6.6, 4.24, 4.39

 57,Temple,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 6 2, -0.4, 4.6, 4.19, 5.26

 58,Rutgers,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 5 0, -0.9, 5.0, 4.15, 3.85

 59,Canisius,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 11 2, -1.8, 5.8, 4.01, 3.47

 60,West Virginia,\_\_\_\_\_\_\_\_\_\_\_\_ 6 10 1, -1.2, 5.2, 3.93, 5.04

 61,Duquesne,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 9 4, -1.4, 4.9, 3.54, 5.11

 62,Rochester Inst of Tech,\_\_\_ 0 3 2, -2.4, 5.7, 3.27, 3.27

 63,Mercyhurst,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1 12 3, -2.4, 5.5, 3.16, 1.82

 64,George Mason,\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 9 2, -2.2, 5.2, 3.06, 2.56

 65,Towson,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 8 0, -1.5, 4.4, 2.82, 1.87

 66,Rochester,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 9 0, -4.1, 6.9, 2.75, 2.70

 67,Oakland,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 8 0, -4.6, 6.0, 1.41, 1.26

 68,Eastern Michigan,\_\_\_\_\_\_\_\_\_ 0 8 0, -5.5, 6.2, 0.71, 1.69

**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,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 0 1, 0.9, 7.5, 8.39, 8.18**

 **2,Minot State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 0 1, 0.9, 7.5, 8.38, 8.40**

 **3,Iowa State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 14 2 2, 0.7, 7.4, 8.08, 8.34**

 **4,Liberty,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 3 1, 0.5, 7.5, 7.97, 7.99**

 **5,Nevada-Las Vegas,\_\_\_\_\_\_\_\_\_ 7 3 2, 0.3, 7.6, 7.91, 8.44**

 **6,Missouri State,\_\_\_\_\_\_\_\_\_\_\_ 12 4 0, 0.5, 7.4, 7.88, 7.68**

 **7,Central Oklahoma,\_\_\_\_\_\_\_\_\_ 10 4 1, 0.4, 7.4, 7.78, 7.21**

 **8,Stony Brook,\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 2 1, 0.6, 7.1, 7.73, 7.57**

 **9,Adrian,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 2 1, 0.6, 7.0, 7.66, 8.04**

 **10,Jamestown,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 4 2, 0.0, 7.5, 7.51, 7.37**

 **11,Arizona,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 5 2, 0.2, 7.3, 7.51, 7.94**

 **12,Pittsburgh,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12 3 1, 0.6, 6.9, 7.51, 7.57**

 **13,Maryville,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 4 3, 0.2, 7.3, 7.49, 7.13**

 **14,Indiana Tech,\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 2 0, 0.6, 6.8, 7.49, 7.54**

 **15,Ohio,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 7 0, 0.2, 7.3, 7.48, 7.76**

 **16,Utah,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 6 3, -0.1, 7.5, 7.47, 7.25**

 **17,Arizona State,\_\_\_\_\_\_\_\_\_\_\_\_ 5 5 0, 0.0, 7.5, 7.46, 7.51**

 **18,Illinois,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 11 1, -0.3, 7.6, 7.35, 7.56**

 **19,Lawrence Tech,\_\_\_\_\_\_\_\_\_\_\_\_ 8 2 2, 0.5, 6.8, 7.33, 7.19**

 **20,Niagara,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 11 3 1, 0.5, 6.8, 7.32, 7.17**

 **21,Illinois State,\_\_\_\_\_\_\_\_\_\_\_ 9 7 0, 0.1, 7.2, 7.30, 7.49**

 **22,Michigan-Dearborn,\_\_\_\_\_\_\_\_ 8 6 2, 0.1, 7.1, 7.22, 7.01**

 **23,Midland,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 9 1, -0.2, 7.4, 7.17, 6.97**

 **24,Aquinas,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 4 0, 0.3, 6.9, 7.17, 7.25**

 **25,Robert Morris,\_\_\_\_\_\_\_\_\_\_\_\_ 10 3 3, 0.4, 6.7, 7.14, 6.96**

 **26,Villanova,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 2 2, 0.3, 6.8, 7.13, 7.22**

 **27,New York,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 3 3, 0.3, 6.9, 7.11, 6.82**

 **28,Grand Canyon,\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 6 2, -0.4, 7.5, 7.08, 6.79**

 **29,Rhode Island,\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 6 1, 0.1, 7.0, 7.07, 7.61**

 **30,Indiana Pennsylvania,\_\_\_\_\_ 9 4 3, 0.3, 6.7, 7.06, 7.14**

 **31,Davenport,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 5 0, 0.2, 6.8, 7.06, 6.50**

 **32,Colorado,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 8 2, -0.4, 7.4, 7.03, 7.12**

 **33,Alabama,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 6 2, -0.1, 7.1, 7.02, 6.48**

 **34,Delaware,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 6 3, 0.1, 6.9, 6.99, 6.44**

 **35,Oswego State,\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 4 4, 0.2, 6.8, 6.98, 6.53**

 **36,John Carroll,\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 4 1, 0.3, 6.7, 6.97, 7.04**

 **37,William Paterson,\_\_\_\_\_\_\_\_\_ 7 3 1, 0.4, 6.6, 6.96, 6.98**

 **38,Oklahoma,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 7 1, -0.4, 7.2, 6.87, 6.93**

 **39,Colorado State,\_\_\_\_\_\_\_\_\_\_\_ 1 8 3, -0.6, 7.4, 6.87, 6.67**

 **40,West Chester,\_\_\_\_\_\_\_\_\_\_\_\_\_ 8 4 2, 0.3, 6.5, 6.83, 6.81**

 **41,Buffalo,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 9 1, -0.1, 6.9, 6.81, 7.10**

 **42,Drexel,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1 5 6, -0.2, 6.9, 6.73, 6.86**

 **43,Waldorf,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 8 0, -0.3, 7.0, 6.69, 6.78**

 **44,Kent State,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9 5 2, 0.3, 6.4, 6.68, 6.55**

 **45,Grand Valley State,\_\_\_\_\_\_\_ 5 8 2, -0.2, 6.9, 6.66, 6.95**

 **46,Calvin,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 3 2, 0.2, 6.4, 6.65, 6.69**

 **47,Roosevelt,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 9 1, -0.6, 7.2, 6.64, 6.99**

 **48,Navy,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 7 3, -0.3, 6.9, 6.64, 6.22**

 **49,Concordia Ann Arbor,\_\_\_\_\_\_ 4 7 1, -0.3, 6.8, 6.58, 6.31**

 **50,Temple,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6 6 2, 0.0, 6.6, 6.56, 6.77**

 **51,McKendree,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 8 1, -0.5, 7.1, 6.51, 6.81**

 **52,West Virginia,\_\_\_\_\_\_\_\_\_\_\_\_ 6 10 1, -0.2, 6.7, 6.46, 6.69**

 **53,Canisius,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 11 2, -0.4, 6.8, 6.41, 6.16**

 **54,Duquesne,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 9 4, -0.3, 6.7, 6.39, 6.85**

 **55,Syracuse,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 10 1, -0.9, 7.3, 6.39, 6.52**

 **56,Towson,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5 8 0, -0.2, 6.6, 6.35, 6.15**

 **57,Western Michigan,\_\_\_\_\_\_\_\_\_ 3 8 2, -0.4, 6.7, 6.34, 5.96**

 **58,Cleary,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 10 1, -0.5, 6.8, 6.32, 6.38**

 **59,Rutgers,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 5 0, -0.4, 6.7, 6.32, 6.14**

 **60,Toledo,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 6 1, -0.3, 6.6, 6.28, 6.80**

 **61,Lehigh,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 9 2, -0.5, 6.8, 6.23, 6.05**

 **62,George Mason,\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 9 2, -0.5, 6.8, 6.22, 6.22**

 **63,Rochester Inst of Tech,\_\_\_ 0 3 2, -0.6, 6.8, 6.22, 6.22**

 **64,Mercyhurst,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1 12 3, -0.7, 6.8, 6.15, 5.87**

 **65,Northern Illinois,\_\_\_\_\_\_\_\_ 1 10 1, -0.8, 6.9, 6.11, 6.23**

 **66,Rochester,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 9 0, -1.0, 6.9, 5.87, 5.85**

 **67,Eastern Michigan,\_\_\_\_\_\_\_\_\_ 0 8 0, -1.0, 6.8, 5.76, 5.82**

 **68,Oakland,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0 8 0, -1.0, 6.7, 5.74, 5.81**

 **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.**

 **There are two different rankings listed below. The first is as described**

**above with the maximum goal differential used per game set at 7. his ordering ends up similar to** [**CCHP**](https://www.google.com/url?q=http://rpihockey.net/misc.rank1.shtml&source=gmail-html&ust=1638545911610000&usg=AOvVaw3LddBtZV45O2EPdt1-tAH9)**, 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).**

 **Currently, teams with as few as 3 scores are ranked. The more games that gointo a team's ranking, the more accurate their ranking will be.**