

| Team | Year | W | L | T | Pct |
|---------------------|------|----|---|---|-------|
| Cornell | 1970 | 29 | 0 | 0 | 1.000 |
| Maine | 1993 | 42 | 1 | 2 | .956 |
| Cornell | 1967 | 27 | 1 | 1 | .948 |
| Boston University | 1978 | 30 | 2 | 0 | .938 |
| RPI | 1985 | 35 | 2 | 1 | .934 |
| Cornell | 1968 | 27 | 2 | 0 | .931 |
| Cornell | 1969 | 27 | 2 | 0 | .931 |
| Boston University | 1971 | 28 | 2 | 1 | .919 |
| Harvard | 1989 | 31 | 3 | 0 | .912 |
| Michigan Tech | 1962 | 27 | 3 | 0 | .900 |
| Denver | 1968 | 25 | 3 | 0 | .893 |
| Clarkson | 1966 | 23 | 3 | 0 | .885 |
| Clarkson | 1962 | 22 | 3 | 1 | .865 |
| Maine | 1992 | 31 | 4 | 2 | .865 |
| Michigan State | 1985 | 38 | 6 | 0 | .864 |
| Clarkson | 1971 | 28 | 4 | 1 | .864 |
| Denver | 1978 | 31 | 5 | 0 | .861 |
| Michigan | 1997 | 35 | 4 | 4 | .860 |
| Michigan | 1949 | 20 | 2 | 3 | .860 |
| Boston University | 1972 | 26 | 4 | 1 | .855 |
| Wisconsin | 1977 | 37 | 6 | 1 | .852 |
| Boston University | 1967 | 25 | 4 | 1 | .850 |
| Merrimack | 1988 | 34 | 6 | 0 | .850 |
| Notre Dame | 1988 | 27 | 4 | 2 | .848 |
| Northern Michigan | 1991 | 37 | 5 | 4 | .848 |
| Cornell | 2003 | 30 | 5 | 1 | .847 |
| Harvard | 1963 | 21 | 3 | 2 | .846 |
| Michigan | 1952 | 22 | 4 | 0 | .846 |
| Michigan | 1964 | 24 | 4 | 1 | .845 |
| Michigan | 1951 | 24 | 4 | 1 | .845 |
| Bowling Green | 1979 | 37 | 6 | 2 | .844 |
| Lake Superior State | 1991 | 36 | 5 | 4 | .844 |
| Colorado College | 1957 | 27 | 5 | 0 | .844 |
| RPI | 1984 | 32 | 6 | 0 | .842 |
| Northern Michigan | 1980 | 34 | 6 | 1 | .841 |
| North Dakota | 1987 | 40 | 8 | 0 | .833 |
| Boston University | 1976 | 25 | 5 | 0 | .833 |
| Michigan State | 2001 | 33 | 5 | 4 | .833 |
| Army | 1984 | 27 | 5 | 1 | .833 |
| Colorado College | 1996 | 33 | 5 | 4 | .833 |
| Boston University | 1994 | 34 | 7 | 0 | .829 |
| Colgate | 1990 | 31 | 6 | 1 | .829 |
| Boston University | 1975 | 26 | 5 | 1 | .828 |
| Ohio State | 1972 | 24 | 5 | 0 | .828 |
| Denver | 1960 | 21 | 4 | 1 | .827 |
| Quinnipiac | 2016 | 32 | 4 | 7 | .826 |
| North Dakota | 1999 | 32 | 6 | 2 | .825 |
| Harvard | 1987 | 28 | 6 | 0 | .824 |
| Boston University | 2009 | 35 | 6 | 4 | .822 |
| Michigan | 1950 | 23 | 5 | 0 | .821 |
| Michigan | 1956 | 20 | 4 | 1 | .820 |
| North Dakota | 2016 | 34 | 6 | 4 | .818 |
| Michigan | 1994 | 33 | 7 | 1 | .817 |
| Air Force | 1975 | 24 | 5 | 1 | .817 |
| Michigan State | 1990 | 36 | 7 | 3 | .815 |
| Harvard | 1962 | 22 | 5 | 0 | .815 |
| Cornell | 1971 | 22 | 5 | 0 | .815 |
| Cornell | 1966 | 22 | 5 | 0 | .815 |

| Team | Year | W | L | T | Pct |
|-------------------|------|----|---|---|------|
| Cornell | 2005 | 27 | 5 | 3 | .814 |
| Michigan | 2008 | 33 | 6 | 4 | .814 |
| Michigan | 1996 | 34 | 7 | 2 | .814 |
| Notre Dame | 2009 | 31 | 6 | 3 | .813 |
| Boston University | 1995 | 31 | 6 | 3 | .813 |
| Union | 2014 | 32 | 6 | 4 | .810 |
| Harvard | 1957 | 21 | 5 | 0 | .808 |
| Air Force | 1972 | 25 | 6 | 0 | .806 |
| Boston University | 1965 | 25 | 6 | 0 | .806 |
| Boston College | 1965 | 25 | 6 | 0 | .806 |
| Harvard | 2017 | 28 | 6 | 2 | .806 |
| St. Lawrence | 1989 | 29 | 7 | 0 | .806 |
| Merrimack | 1987 | 29 | 7 | 0 | .806 |
| Maine | 1999 | 31 | 6 | 4 | .805 |
| Denver | 1959 | 22 | 5 | 1 | .804 |
| St. Lawrence | 1955 | 19 | 4 | 2 | .800 |