

Kansas

| Year | Seed | Opponent | Seed | Score | Opp Score | W | L | OT | Round |
|------|------|----------------------|------|-------|-----------|----|----|----|-----------------------|
| 1940 | | Rice | | 50 | 44 | 1 | 0 | 0 | Elite Eight |
| | | Southern California | | 43 | 42 | 2 | 0 | 0 | National Semifinals |
| | | Indiana | | 42 | 60 | 2 | 1 | 0 | National Championship |
| 1942 | | Colorado | | 44 | 46 | 2 | 2 | 0 | Elite Eight |
| | | Rice | | 55 | 53 | 3 | 2 | 0 | Regional Third Place |
| 1952 | | Texas Christian | | 68 | 64 | 4 | 2 | 0 | Sweet Sixteen |
| | | St. Louis | | 74 | 55 | 5 | 2 | 0 | Elite Eight |
| | | Santa Clara | | 74 | 55 | 6 | 2 | 0 | National Semifinals |
| | | St. John's, New York | | 80 | 63 | 7 | 2 | 0 | National Championship |
| 1953 | | Oklahoma City | | 73 | 65 | 8 | 2 | 0 | Sweet Sixteen |
| | | Oklahoma State | | 61 | 55 | 9 | 2 | 0 | Elite Eight |
| | | Washington | | 79 | 53 | 10 | 2 | 0 | National Semifinals |
| | | Indiana | | 68 | 69 | 10 | 3 | 0 | National Championship |
| 1957 | | Southern Methodist | | 73 | 65 | 11 | 3 | 1 | Sweet Sixteen |
| | | Oklahoma City | | 81 | 61 | 12 | 3 | 0 | Elite Eight |
| | | San Francisco | | 80 | 56 | 13 | 3 | 0 | National Semifinals |
| | | North Carolina | | 53 | 54 | 13 | 4 | 3 | National Championship |
| 1960 | | Texas | | 90 | 81 | 14 | 4 | 0 | Sweet Sixteen |
| | | Cincinnati | | 71 | 82 | 14 | 5 | 0 | Elite Eight |
| 1966 | | Southern Methodist | | 76 | 70 | 15 | 5 | 0 | Sweet Sixteen |
| | | Texas-El Paso | | 80 | 81 | 15 | 6 | 2 | Elite Eight |
| 1967 | | Houston | | 53 | 66 | 15 | 7 | 0 | Sweet Sixteen |
| | | Louisville | | 70 | 68 | 16 | 7 | 0 | Regional Third Place |
| 1971 | | Houston | | 78 | 77 | 17 | 7 | 0 | Sweet Sixteen |
| | | Drake | | 73 | 71 | 18 | 7 | 0 | Elite Eight |
| | | UCLA | | 60 | 68 | 18 | 8 | 0 | National Semifinals |
| | | Western Kentucky | | 75 | 77 | 18 | 9 | 0 | National Third Place |
| 1974 | | Creighton | | 55 | 54 | 19 | 9 | 0 | Sweet Sixteen |
| | | Oral Roberts | | 93 | 90 | 20 | 9 | 1 | Elite Eight |
| | | Marquette | | 51 | 64 | 20 | 10 | 0 | National Semifinals |
| | | UCLA | | 61 | 78 | 20 | 11 | 0 | National Third Place |
| 1975 | | Notre Dame | | 71 | 77 | 20 | 12 | 0 | Round of 32 |
| 1978 | | UCLA | | 76 | 83 | 20 | 13 | 0 | Round of 32 |

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| 1981 | 7 | Mississippi | 10 | 69 | 66 | 21 | 13 | 0 | Round of 64 |
| | 7 | Arizona State | 2 | 88 | 71 | 22 | 13 | 0 | Round of 32 |
| | 7 | Wichita State | 6 | 65 | 66 | 22 | 14 | 0 | Sweet Sixteen |
| 1984 | 5 | Alcorn State | 12 | 57 | 56 | 23 | 14 | 0 | Round of 64 |
| | 5 | Wake Forest | 4 | 59 | 69 | 23 | 15 | 0 | Round of 32 |
| 1985 | 3 | Ohio | 14 | 49 | 38 | 24 | 15 | 0 | Round of 64 |
| | 3 | Auburn | 11 | 64 | 66 | 24 | 16 | 0 | Round of 32 |
| 1986 | 1 | North Carolina A&T | 16 | 71 | 46 | 25 | 16 | 0 | Round of 64 |
| | 1 | Temple | 9 | 65 | 43 | 26 | 16 | 0 | Round of 32 |
| | 1 | Michigan State | 5 | 96 | 86 | 27 | 16 | 1 | Sweet Sixteen |
| | 1 | North Carolina State | 6 | 75 | 67 | 28 | 16 | 0 | Elite Eight |
| | 1 | Duke | 1 | 67 | 71 | 28 | 17 | 0 | National Semifinals |
| 1987 | 5 | Houston | 12 | 66 | 55 | 29 | 17 | 0 | Round of 64 |
| | 5 | Missouri State | 13 | 67 | 63 | 30 | 17 | 0 | Round of 32 |
| | 5 | Georgetown | 1 | 57 | 70 | 30 | 18 | 0 | Sweet Sixteen |
| 1988 | 6 | Xavier, Ohio | 11 | 85 | 72 | 31 | 18 | 0 | Round of 64 |
| | 6 | Murray State | 14 | 61 | 58 | 32 | 18 | 0 | Round of 32 |
| | 6 | Vanderbilt | 7 | 77 | 64 | 33 | 18 | 0 | Sweet Sixteen |
| | 6 | Kansas State | 4 | 71 | 58 | 34 | 18 | 0 | Elite Eight |
| | 6 | Duke | 2 | 66 | 59 | 35 | 18 | 0 | National Semifinals |
| | 6 | Oklahoma | 1 | 83 | 79 | 36 | 18 | 0 | National Championship |
| 1990 | 2 | Robert Morris | 15 | 79 | 71 | 37 | 18 | 0 | Round of 64 |
| | 2 | UCLA | 7 | 70 | 71 | 37 | 19 | 0 | Round of 32 |
| 1991 | 3 | New Orleans | 14 | 55 | 49 | 38 | 19 | 0 | Round of 64 |
| | 3 | Pittsburgh | 6 | 77 | 66 | 39 | 19 | 0 | Round of 32 |
| | 3 | Indiana | 2 | 83 | 65 | 40 | 19 | 0 | Sweet Sixteen |
| | 3 | Arkansas | 1 | 93 | 81 | 41 | 19 | 0 | Elite Eight |
| | 3 | North Carolina | 1 | 79 | 73 | 42 | 19 | 0 | National Semifinals |
| | 3 | Duke | 2 | 65 | 72 | 42 | 20 | 0 | National Championship |
| 1992 | 1 | Howard | 16 | 100 | 67 | 43 | 20 | 0 | Round of 64 |
| | 1 | Texas-El Paso | 9 | 60 | 66 | 43 | 21 | 0 | Round of 32 |
| 1993 | 2 | Ball State | 15 | 94 | 72 | 44 | 21 | 0 | Round of 64 |
| | 2 | Brigham Young | 7 | 90 | 76 | 45 | 21 | 0 | Round of 32 |

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| 1993 | 2 | California | 6 | 93 | 76 | 46 | 21 | 0 | Sweet Sixteen |
| | 2 | Indiana | 1 | 83 | 77 | 47 | 21 | 0 | Elite Eight |
| | 2 | North Carolina | 1 | 68 | 78 | 47 | 22 | 0 | National Semifinals |
| 1994 | 4 | Chattanooga | 13 | 102 | 73 | 48 | 22 | 0 | Round of 64 |
| | 4 | Wake Forest | 5 | 69 | 58 | 49 | 22 | 0 | Round of 32 |
| | 4 | Purdue | 1 | 78 | 83 | 49 | 23 | 0 | Sweet Sixteen |
| 1995 | 1 | Colgate | 16 | 82 | 68 | 50 | 23 | 0 | Round of 64 |
| | 1 | Western Kentucky | 8 | 75 | 70 | 51 | 23 | 0 | Round of 32 |
| | 1 | Virginia | 4 | 58 | 67 | 51 | 24 | 0 | Sweet Sixteen |
| 1996 | 2 | South Carolina State | 15 | 92 | 54 | 52 | 24 | 0 | Round of 64 |
| | 2 | Santa Clara | 10 | 76 | 51 | 53 | 24 | 0 | Round of 32 |
| | 2 | Arizona | 3 | 83 | 80 | 54 | 24 | 0 | Sweet Sixteen |
| | 2 | Syracuse | 4 | 57 | 60 | 54 | 25 | 0 | Elite Eight |
| 1997 | 1 | Jackson State | 16 | 78 | 64 | 55 | 25 | 0 | Round of 64 |
| | 1 | Purdue | 8 | 75 | 61 | 56 | 25 | 0 | Round of 32 |
| | 1 | Arizona | 4 | 82 | 85 | 56 | 26 | 0 | Sweet Sixteen |
| 1998 | 1 | Prairie View | 16 | 110 | 52 | 57 | 26 | 0 | Round of 64 |
| | 1 | Rhode Island | 8 | 75 | 80 | 57 | 27 | 0 | Round of 32 |
| 1999 | 6 | Evansville | 11 | 95 | 74 | 58 | 27 | 0 | Round of 64 |
| | 6 | Kentucky | 3 | 88 | 92 | 58 | 28 | 1 | Round of 32 |
| 2000 | 8 | DePaul | 9 | 81 | 77 | 59 | 28 | 1 | Round of 64 |
| | 8 | Duke | 1 | 64 | 69 | 59 | 29 | 0 | Round of 32 |
| 2001 | 4 | California State-Northridge | 13 | 99 | 75 | 60 | 29 | 0 | Round of 64 |
| | 4 | Syracuse | 5 | 87 | 58 | 61 | 29 | 0 | Round of 32 |
| | 4 | Illinois | 1 | 64 | 80 | 61 | 30 | 0 | Sweet Sixteen |
| 2002 | 1 | Holy Cross | 16 | 70 | 59 | 62 | 30 | 0 | Round of 64 |
| | 1 | Stanford | 8 | 86 | 63 | 63 | 30 | 0 | Round of 32 |
| | 1 | Illinois | 4 | 73 | 69 | 64 | 30 | 0 | Sweet Sixteen |
| | 1 | Oregon | 2 | 104 | 86 | 65 | 30 | 0 | Elite Eight |
| | 1 | Maryland | 1 | 88 | 97 | 65 | 31 | 0 | National Semifinals |
| 2003 | 2 | Utah State | 15 | 64 | 61 | 66 | 31 | 0 | Round of 64 |
| | 2 | Arizona State | 10 | 108 | 76 | 67 | 31 | 0 | Round of 32 |
| | 2 | Duke | 3 | 69 | 65 | 68 | 31 | 0 | Sweet Sixteen |

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| 2003 | 2 | Arizona | 1 | 78 | 75 | 69 | 31 | 0 | Elite Eight |
| | 2 | Marquette | 3 | 94 | 61 | 70 | 31 | 0 | National Semifinals |
| | 2 | Syracuse | 3 | 78 | 81 | 70 | 32 | 0 | National Championship |
| 2004 | 4 | Illinois-Chicago | 13 | 78 | 53 | 71 | 32 | 0 | Round of 64 |
| | 4 | Pacific, California | 12 | 78 | 63 | 72 | 32 | 0 | Round of 32 |
| | 4 | UAB | 9 | 100 | 74 | 73 | 32 | 0 | Sweet Sixteen |
| | 4 | Georgia Tech | 3 | 71 | 79 | 73 | 33 | 1 | Elite Eight |
| 2005 | 3 | Bucknell | 14 | 63 | 64 | 73 | 34 | 0 | Round of 64 |
| 2006 | 4 | Bradley | 13 | 73 | 77 | 73 | 35 | 0 | Round of 64 |
| 2007 | 1 | Niagara | 16 | 107 | 67 | 74 | 35 | 0 | Round of 64 |
| | 1 | Kentucky | 8 | 88 | 76 | 75 | 35 | 0 | Round of 32 |
| | 1 | Southern Illinois | 4 | 61 | 58 | 76 | 35 | 0 | Sweet Sixteen |
| | 1 | UCLA | 2 | 55 | 68 | 76 | 36 | 0 | Elite Eight |
| 2008 | 1 | Portland State | 16 | 85 | 61 | 77 | 36 | 0 | Round of 64 |
| | 1 | Nevada-Las Vegas | 8 | 75 | 56 | 78 | 36 | 0 | Round of 32 |
| | 1 | Villanova | 12 | 72 | 57 | 79 | 36 | 0 | Sweet Sixteen |
| | 1 | Davidson | 10 | 59 | 57 | 80 | 36 | 0 | Elite Eight |
| | 1 | North Carolina | 1 | 84 | 66 | 81 | 36 | 0 | National Semifinals |
| | 1 | Memphis | 1 | 75 | 68 | 82 | 36 | 1 | National Championship |
| 2009 | 3 | North Dakota State | 14 | 84 | 74 | 83 | 36 | 0 | Round of 64 |
| | 3 | Dayton | 11 | 60 | 43 | 84 | 36 | 0 | Round of 32 |
| | 3 | Michigan State | 2 | 62 | 67 | 84 | 37 | 0 | Sweet Sixteen |
| 2010 | 1 | Lehigh | 16 | 90 | 74 | 85 | 37 | 0 | Round of 64 |
| | 1 | Northern Iowa | 9 | 67 | 69 | 85 | 38 | 0 | Round of 32 |
| 2011 | 1 | Boston | 16 | 72 | 53 | 86 | 38 | 0 | Round of 64 |
| | 1 | Illinois | 9 | 73 | 59 | 87 | 38 | 0 | Round of 32 |
| | 1 | Richmond | 12 | 77 | 57 | 88 | 38 | 0 | Sweet Sixteen |
| | 1 | Virginia Commonwealth | 11 | 61 | 71 | 88 | 39 | 0 | Elite Eight |
| 2012 | 2 | Detroit | 15 | 65 | 50 | 89 | 39 | 0 | Round of 64 |
| | 2 | Purdue | 10 | 63 | 60 | 90 | 39 | 0 | Round of 32 |
| | 2 | North Carolina State | 11 | 60 | 57 | 91 | 39 | 0 | Sweet Sixteen |
| | 2 | North Carolina | 1 | 80 | 67 | 92 | 39 | 0 | Elite Eight |
| | 2 | Ohio State | 2 | 64 | 62 | 93 | 39 | 0 | National Semifinals |

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|------|------|------------------|------|-------|-----------|-----|----|----|-----------------------|
| 2012 | 2 | Kentucky | 1 | 59 | 67 | 93 | 40 | 0 | National Championship |
| 2013 | 1 | Western Kentucky | 16 | 64 | 57 | 94 | 40 | 0 | Round of 64 |
| | 1 | North Carolina | 8 | 70 | 58 | 95 | 40 | 0 | Round of 32 |
| | 1 | Michigan | 4 | 85 | 87 | 95 | 41 | 1 | Sweet Sixteen |
| 2014 | 2 | Eastern Kentucky | 15 | 80 | 69 | 96 | 41 | 0 | Round of 64 |
| | 2 | Stanford | 10 | 57 | 60 | 96 | 42 | 0 | Round of 32 |
| 2015 | 2 | New Mexico State | 15 | 75 | 56 | 97 | 42 | 0 | Round of 64 |
| | 2 | Wichita State | 7 | 65 | 78 | 97 | 43 | 0 | Round of 32 |
| 2016 | 1 | Austin Peay | 16 | 105 | 79 | 98 | 43 | 0 | Round of 64 |
| | 1 | Connecticut | 9 | 73 | 61 | 99 | 43 | 0 | Round of 32 |
| | 1 | Maryland | 5 | 79 | 63 | 100 | 43 | 0 | Sweet Sixteen |
| | 1 | Villanova | 2 | 59 | 64 | 100 | 44 | 0 | Elite Eight |
| 2017 | 1 | California-Davis | 16 | 100 | 62 | 101 | 44 | 0 | Round of 64 |
| | 1 | Michigan State | 9 | 90 | 70 | 102 | 44 | 0 | Round of 32 |
| | 1 | Purdue | 4 | 98 | 66 | 103 | 44 | 0 | Sweet Sixteen |
| | 1 | Oregon | 3 | 60 | 74 | 103 | 45 | 0 | Elite Eight |
| 2018 | 1 | Pennsylvania | 16 | 76 | 60 | 104 | 45 | 0 | Round of 64 |
| | 1 | Seton Hall | 8 | 83 | 79 | 105 | 45 | 0 | Round of 32 |
| | 1 | Clemson | 5 | 80 | 76 | 106 | 45 | 0 | Sweet Sixteen |
| | 1 | Duke | 2 | 85 | 81 | 107 | 45 | 1 | Elite Eight |
| | 1 | Villanova | 1 | 79 | 95 | 107 | 46 | 0 | National Semifinals |