

# Wessex Night League Scoring 2023–2024

All events shall have a maximum score of 500 points with a time limit of 60 minutes.

## Open League (Best 7 scores to count)

**Event Score = Control Points + Time Bonus – Lateness Penalty**

Time Bonus is 10 points/min per full minute under time

Lateness Penalty is 10 points per minute or part minute over time

All event scores will be scaled up or down so that the event winner gets a league score of 500 points.

**League Score = Event Score \* (500 / Maximum Event Score)**

For typical distances, this ensures that a runner of a consistent standard should expect to receive a similar league score each event regardless of event difficulty - assuming that the speed of the fastest runner is similar across events.

Examples:

		Course Distance (km)			
		14	12	10	9
Speed (km/h)	12	430	500	600	650
	10	360	420	500	560
	8	290	330	400	440
	6	210	250	300	330

		Course Distance (km)			
		14	12	10	9
Speed (km/h)	12	500	500	500	500
	10	419	420	417	431
	8	337	330	333	338
	6	244	250	250	254

## Age Graded League (Best 7 scores to count)

**Event Score = Control Points – Lateness Penalty**

**Points per minute = Event Score / Time Taken**

Note: If a runner has not collected all controls, their time will be set to 60 minutes. This is to prevent optimising points per minute by targeting a smaller group of high value controls and finishing early.

**Age Graded Score = Points per minute / Speed Ratio**

**League Score = Age Graded Score \* (500 / Maximum Age Graded Score)**

This corrects the effect of differing course difficulty and ensures that the competitor who performs best relative to their expected speed gets 500 points. All other competitors get a score that is scaled by how good their Age Graded score is relative to the winner.

Example for an event with an optimum distance of 10 km:

Runner	Speed Ratio	Expected Speed	Actual Speed	Relative Performance	Event Score	Time	Points Per Minute	Age Graded Score	League Score
1	1.0	12.0	11.5	0.96	500	52.1	9.6	9.6	455
2	0.9	10.8	9.9	0.92	500	60.0	8.3	9.2	439
3	0.8	9.6	10.0	1.04	500	60.0	8.3	10.4	494
4	0.7	8.4	8.5	1.01	420	60.0	7.0	10.0	474
5	0.6	7.2	7.7	1.07	380	60.0	6.3	10.6	500
6	0.5	6.0	5.4	0.90	270	60.0	4.5	9.0	426
7	0.4	4.8	4.9	1.01	240	60.0	4.0	10.0	474

Note: Different speed ratios may be used for urban events vs forest events. Speed ratios will be based on year of birth to prevent disproportionate effects where two competitors are only a year apart but are in different age bands (e.g. W70 and W75).