



# CRESCENZAGO

REJUVENATION AND URBAN RECONNECTION  
OF CRESCENZAGO METRO STATION AREA IN  
LINE WITH #MILANO2030 VISION





# MULTI COMFORT STUDENTS CONTEST

Draft technical task – Crescenzago, Milan 2019 4/4

## CLIMATE CONTEXT SUMMARY

Milan's climate is similar to much of Northern Italy's inland plains, with hot, sultry summers and cold, foggy winters. However, the mean number of days with precipitation per year is one of the lowest in Europe. The Alps and Apennine Mountains form a natural barrier that protects the city from the major circulations coming from northern Europe and the sea.

Climate data for Milan (Linate Airport, 1971–2000, Extremes 1946–present)													[hide]
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Record high °C (°F)	21.7 (71.1)	23.8 (74.8)	26.9 (80.4)	32.4 (90.3)	35.5 (95.9)	36.6 (97.9)	37.2 (99)	36.9 (98.4)	33.0 (91.4)	28.2 (82.8)	23.0 (73.4)	21.2 (70.2)	37.2 (99)
Average high °C (°F)	5.9 (42.6)	9.0 (48.2)	14.3 (57.7)	17.4 (63.3)	22.3 (72.1)	26.2 (79.2)	29.2 (84.6)	28.5 (83.3)	24.4 (75.9)	17.8 (64)	10.7 (51.3)	6.4 (43.5)	17.7 (63.9)
Daily mean °C (°F)	2.5 (36.5)	4.7 (40.5)	9.0 (48.2)	12.2 (54)	17.0 (62.6)	20.8 (69.4)	23.6 (74.5)	23.0 (73.4)	19.2 (66.6)	13.4 (56.1)	7.2 (45)	3.3 (37.9)	13.0 (55.4)
Average low °C (°F)	-0.9 (30.4)	0.3 (32.5)	3.8 (38.8)	7.0 (44.6)	11.6 (52.9)	15.4 (59.7)	18.0 (64.4)	17.6 (63.7)	14.0 (57.2)	9.0 (48.2)	3.7 (38.7)	0.1 (32.2)	8.3 (46.9)
Record low °C (°F)	-15.0 (5)	-15.6 (3.9)	-7.4 (18.7)	-2.5 (27.5)	-0.8 (30.6)	5.6 (42.1)	8.4 (47.1)	8.0 (46.4)	3.0 (37.4)	-2.3 (27.9)	-6.2 (20.8)	-13.6 (7.5)	-15.6 (3.9)
Average precipitation mm (inches)	58.7 (2.311)	49.2 (1.937)	65.0 (2.559)	75.5 (2.972)	95.5 (3.76)	66.7 (2.626)	66.8 (2.63)	88.8 (3.496)	93.1 (3.665)	122.4 (4.819)	76.7 (3.02)	61.7 (2.429)	920.1 (36.224)
Average precipitation days (≥ 1.0 mm)	6.7	5.3	6.7	8.1	8.9	7.7	5.4	7.1	6.1	8.3	6.4	6.3	83.0
Average relative humidity (%)	86	78	71	75	72	71	71	72	74	81	85	86	77
Mean monthly sunshine hours	58.9	96.1	151.9	177.0	210.8	243.0	285.2	251.1	186.0	130.2	66.0	58.9	1,915.1

Source: Servizio Meteorologico<sup>[62][63][64]</sup>

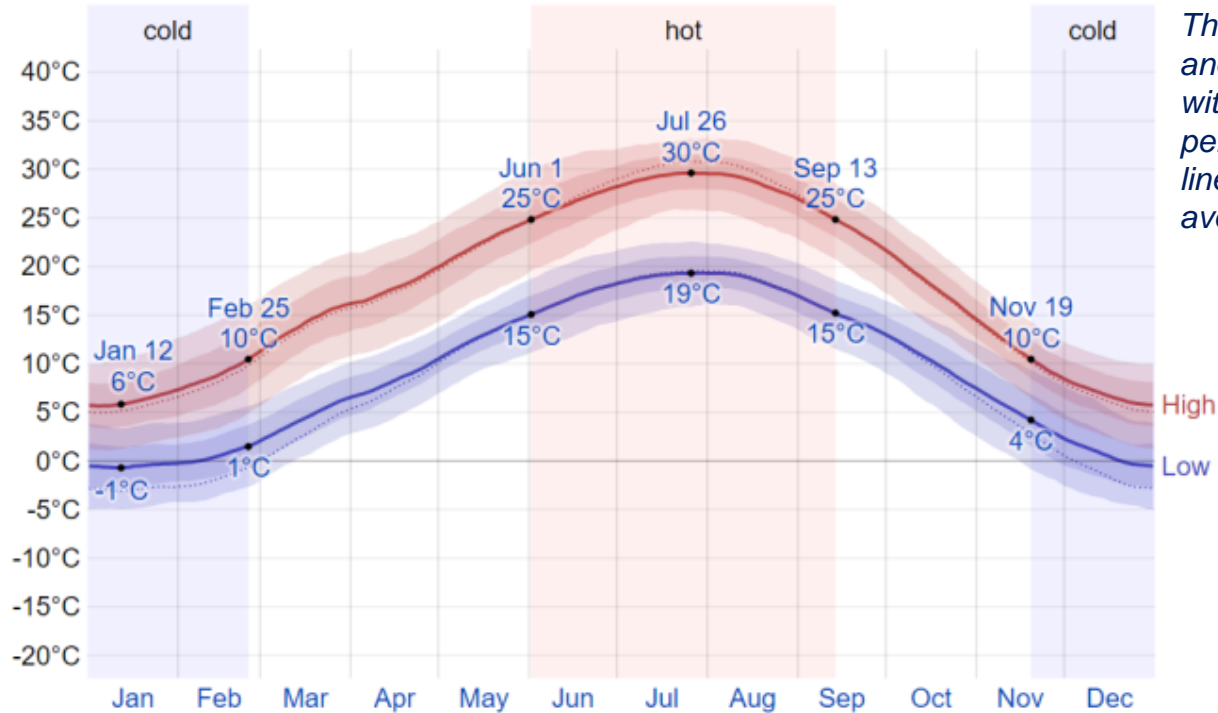




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## Climate data – Temperature Range 1/2

Average High and Low Temperature



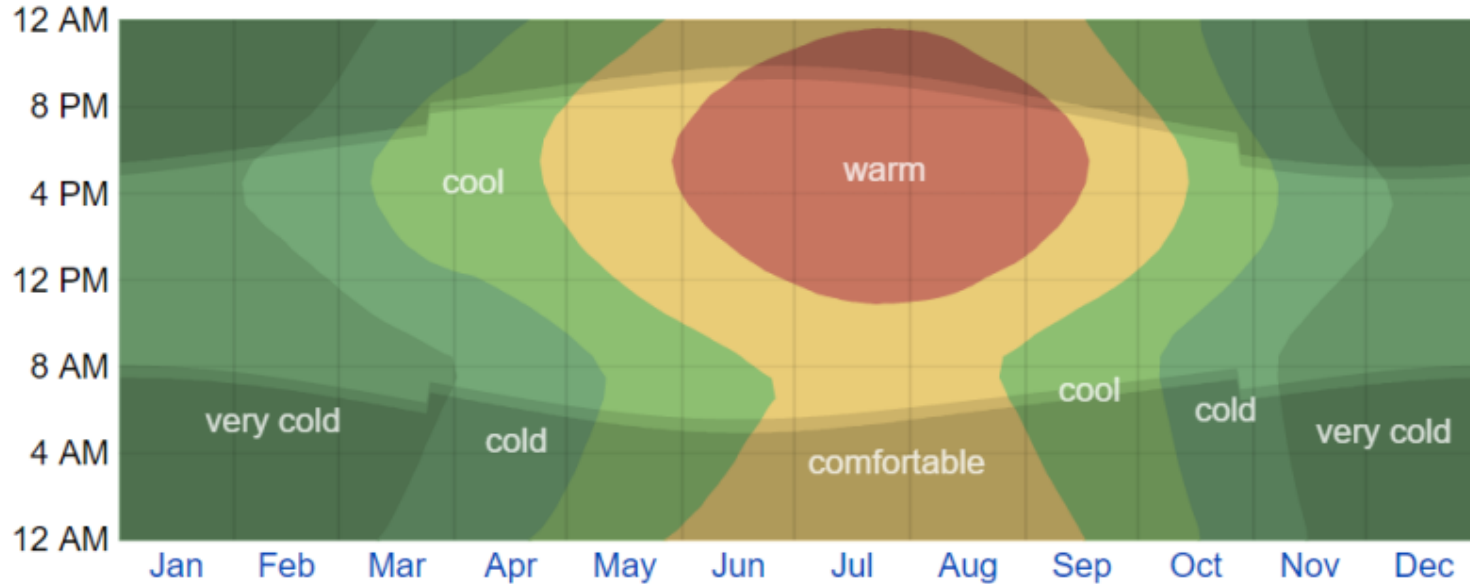
The daily average high (red line) and low (blue line) temperature, with 25th to 75th and 10th to 90th percentile bands. The thin dotted lines are the corresponding average perceived temperatures.

Source: weatherspark.com

# TASK – CRESCENZAGO, MILAN 2019

## Climate data – Temperature Range 2/2

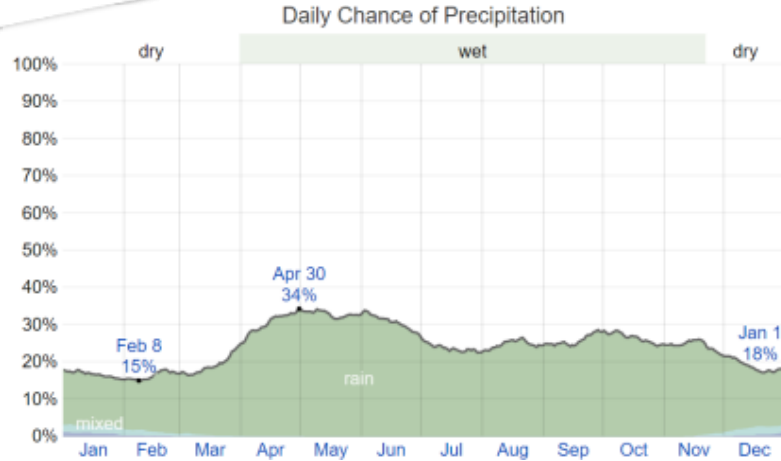
### Average Hourly Temperature



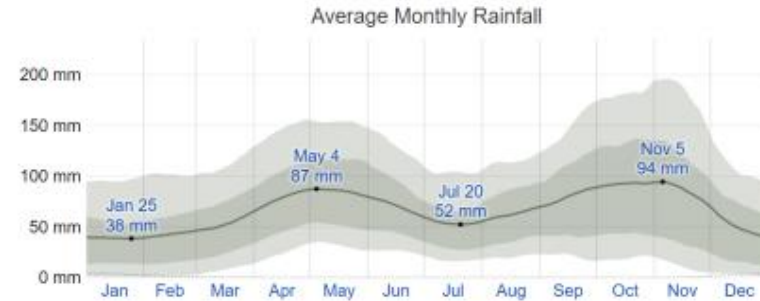
The average hourly temperature, color coded into bands: frigid <  $-9^{\circ}\text{C}$  < freezing <  $0^{\circ}\text{C}$  < very cold <  $7^{\circ}\text{C}$  < cold <  $13^{\circ}\text{C}$  < cool <  $18^{\circ}\text{C}$  < comfortable <  $24^{\circ}\text{C}$  < warm <  $29^{\circ}\text{C}$  < hot <  $35^{\circ}\text{C}$  < sweltering. The shaded overlays indicate night and civil twilight.

# TASK – CRESCENZAGO, MILAN 2019

## Climate data – Precipitation



The percentage of days in which various types of precipitation are observed, excluding trace quantities: rain alone, snow alone, and mixed (both rain and snow fell in the same day).

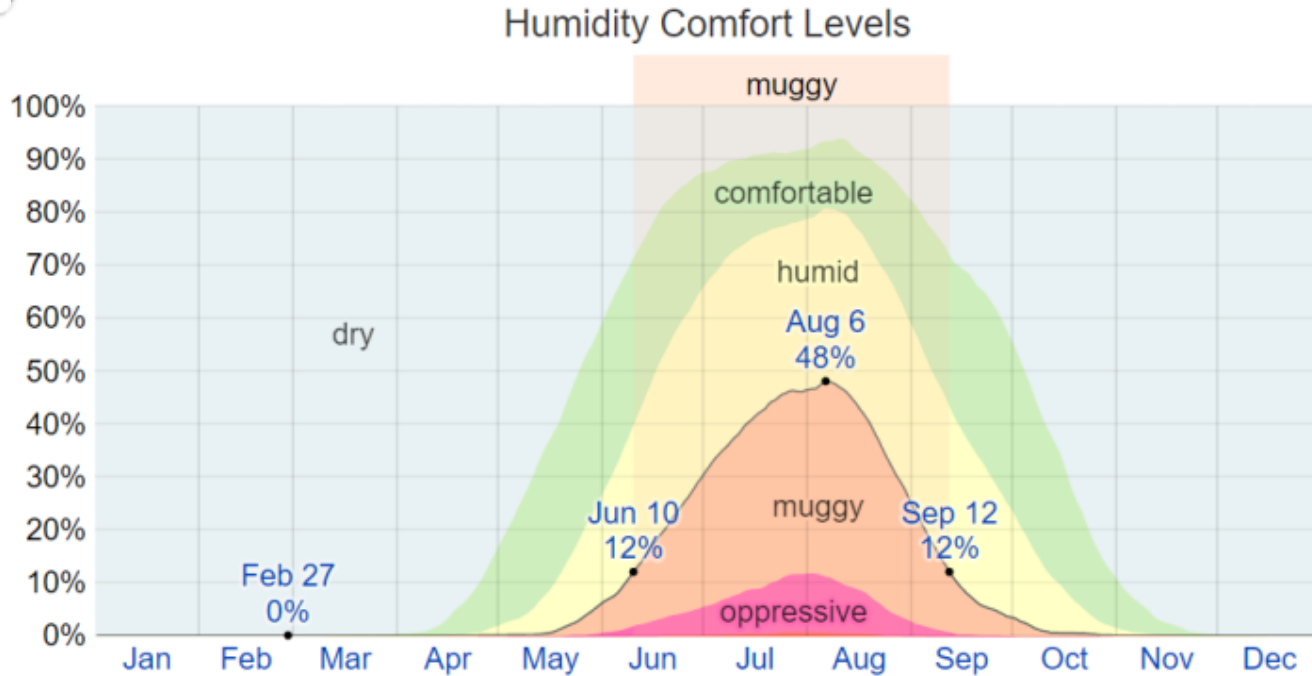


The average rainfall (solid line) accumulated over the course of a sliding 31-day period centered on the day in question, with 25th to 75th and 10th to 90th percentile bands. The thin dotted line is the corresponding average liquid-equivalent snowfall.

Source: weatherspark.com

# TASK – CRESCENZAGO, MILAN 2019

## Climate data – Humidity

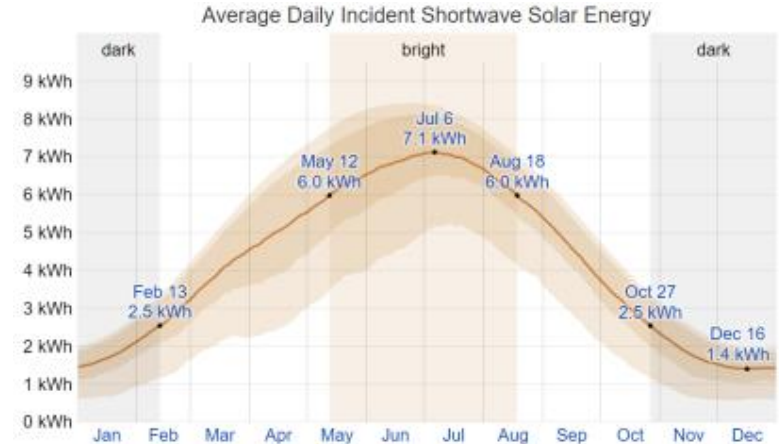
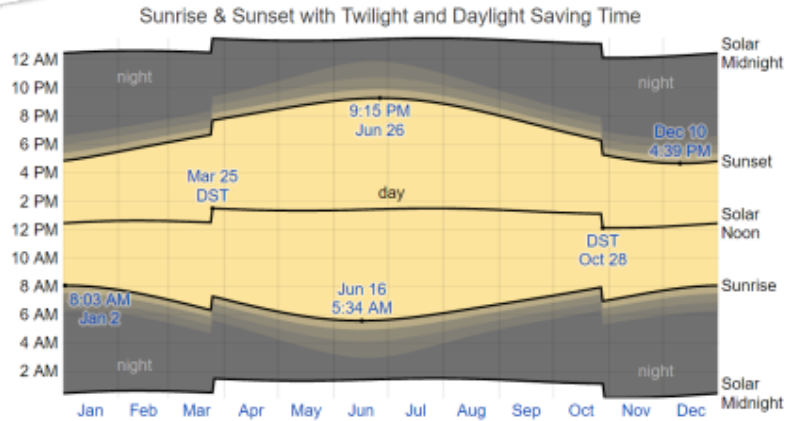


The percentage of time spent at various humidity comfort levels, categorized by dew point: dry < 13°C < comfortable < 16°C < humid < 18°C < muggy < 21°C < oppressive < 24°C < miserable.

Source: weatherspark.com

# TASK – CRESCENZAGO, MILAN 2019

## Climate data – Sun Load



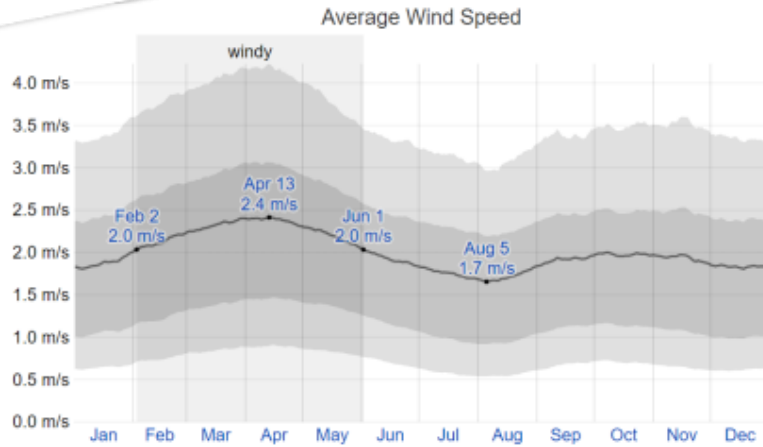
The solar day over the course of the year 2018. From bottom to top, the black lines are the previous solar midnight, sunrise, solar noon, sunset, and the next solar midnight. The day, twilights (civil, nautical, and astronomical), and night are indicated by the color bands from yellow to gray. The transitions to and from daylight saving time are indicated by the 'DST' labels.

Source: weatherspark.com

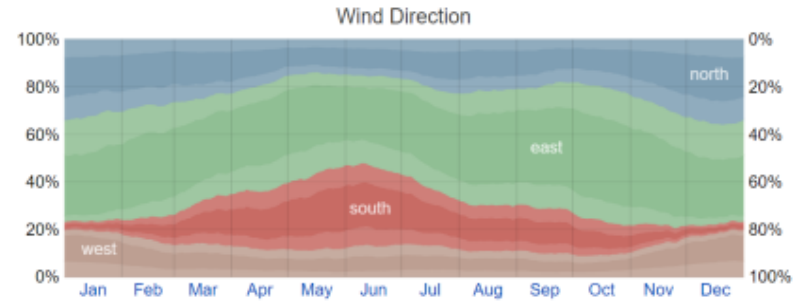
The average daily shortwave solar energy reaching the ground per square meter (orange line), with 25th to 75th and 10th to 90th percentile bands.

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## Climate data – Wind



The average of mean hourly wind speeds (dark gray line), with 25th to 75th and 10th to 90th percentile bands.



The percentage of hours in which the mean wind direction is from each of the four cardinal wind directions (north, east, south, and west), excluding hours in which the mean wind speed is less than 0 m/s. The lightly tinted areas at the boundaries are the percentage of hours spent in the implied intermediate directions (northeast, southeast, southwest, and northwest).

Source: weatherspark.com