Laboratory 1 – Introduction to Climate Data Analysis: Temperature

1.

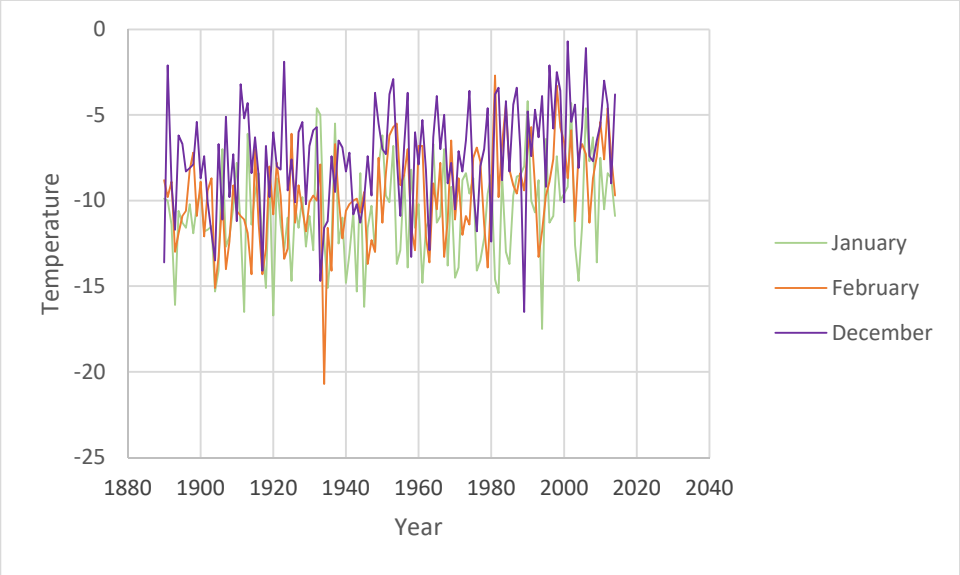

Figure 1a. Mean monthly temperature for the winter months in Ottawa.

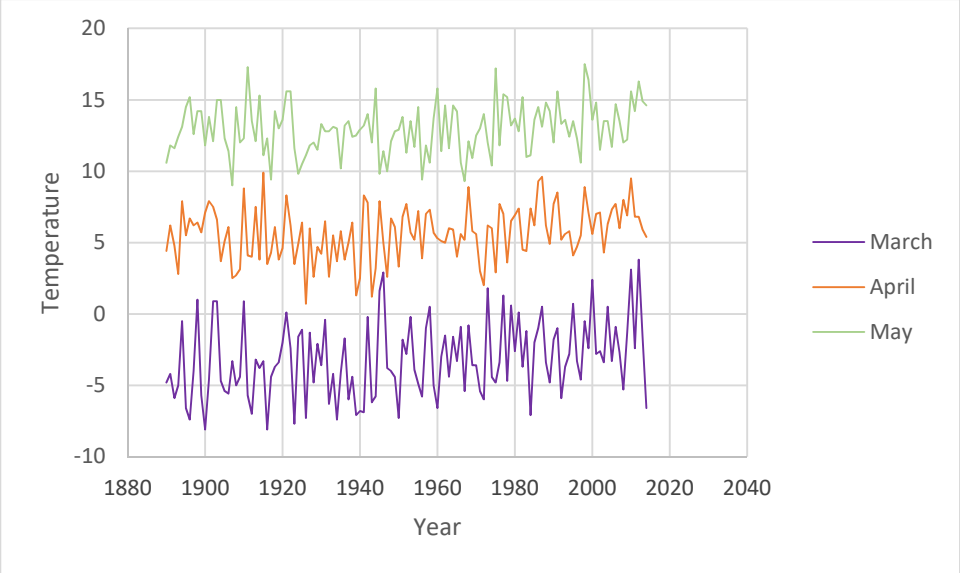

Figure 1b. Mean monthly temperature for the spring months in Ottawa.

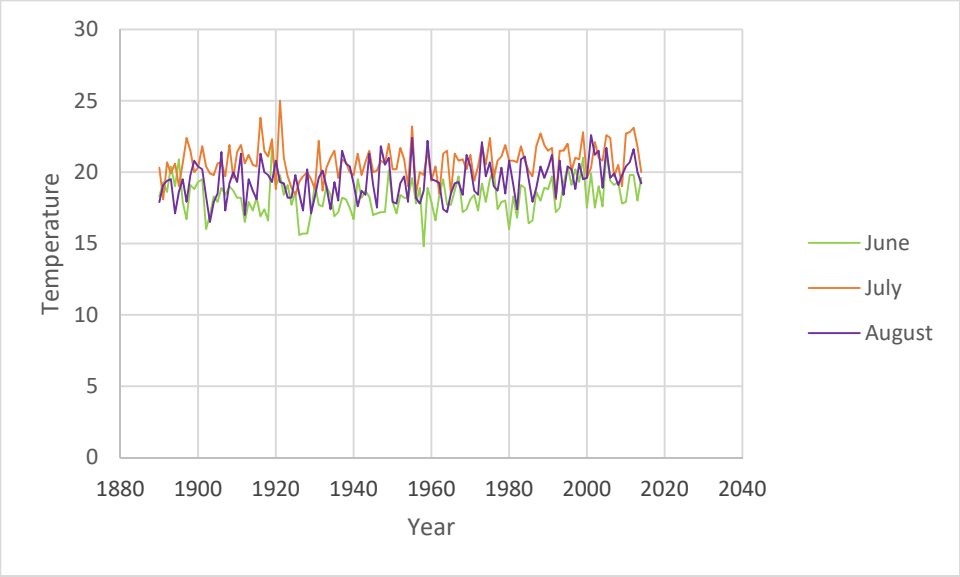

Figure 1c. Mean monthly temperature for the summer months in Ottawa.

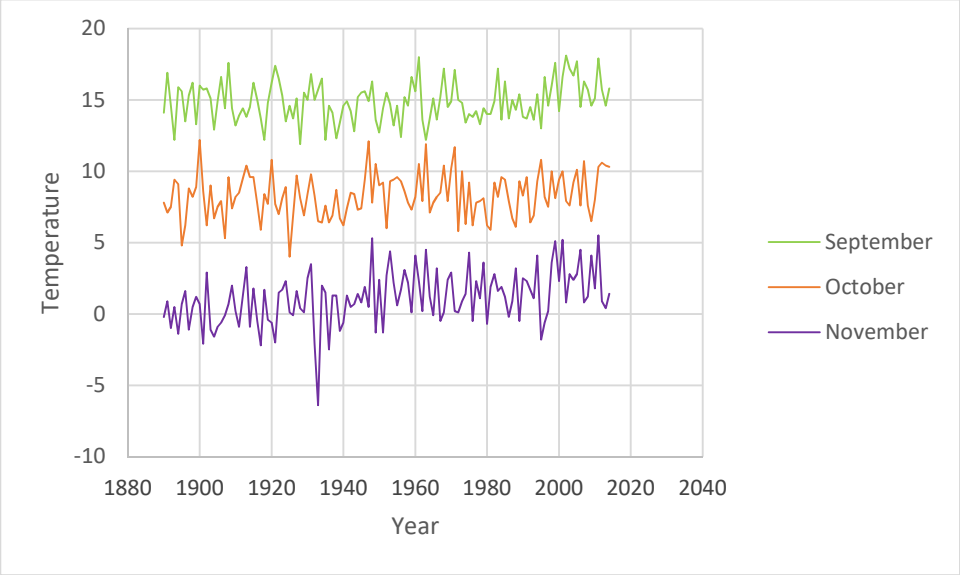

Figure 1d. Mean monthly temperature for the fall months in Ottawa.

2.

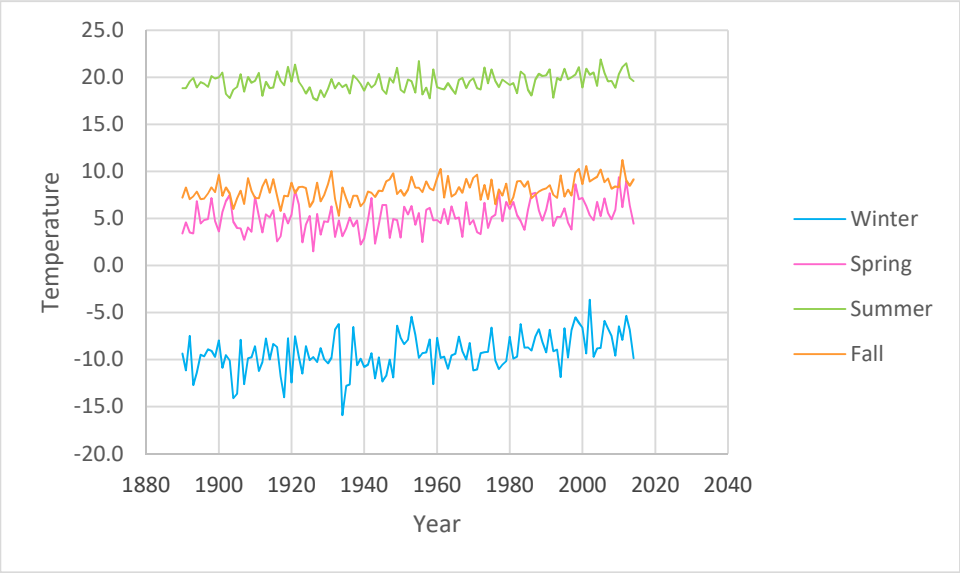

Figure 2. Mean seasonal temperatures for Ottawa.

3.

By analyzing the five graphs above, it is clear that some seasons have a wider variety of temperatures than others in Ottawa. The winter months, December to February, have similar temperatures in that the plots of each month intersect with one another. Compared to that of the spring months, March to May, where there is a clear distinction between each month's average temperature each year. The summer months, June to August, follow a similar pattern to that of the winter months. Over each of the summers the temperature seemed to have remained constant throughout the season each year, resulting in a graph where the plot lines intersect. The fall months, September to November, are similar to the spring months in that there is a clear distinction between each month's average temperatures. In figure 2, it is easier to see trends in the season over the years. The winters in Ottawa generally go back and forth year to year as being colder or warmer than the previous year. However, over all the winters in Ottawa have a slight temperature increase, no longer reaching below -10°C after the early 1990's. The average of the summer and fall months has hardly changed over the years, with the exception of summer being cooler in the 1920's, and fall being warmer in the early 2000's. The average of the spring months gradually decreased from 1900 to about 1980, when it has very gradually increased since. Spring has been notably warmer since the late 2000's.