

Introduction to *Mathematica*: PlotStyle

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The **PlotStyle** option inside of a **Plot** command is used to specify the characteristics of the plotted object. For a curve, this includes its thickness, color and dashing. For example:

```
Plot[x^2, {x, -2, 2}, Background -> RGBColor[1, 1, 0], PlotStyle ->
{Thickness[0.01], RGBColor[0, 0.3, 0.7], Dashing[{0.01, 0.05, 0.05, 0.05}]}];
```

If we load the `<<Graphics`Colors`` package, we can call the colors by name. For more information see the help menu or Colors.nb

```
<< Graphics`Colors`  
  
Plot[x^2, {x, -2, 2}, Background -> Yellow,
PlotStyle -> {Thickness[0.01], Blue, Dashing[{0.01, 0.05, 0.05, 0.05}]}];
```

The **PlotStyle** option can be used to declare the style for separate curves.

```
Plot[{x^2, 4 - x^2}, {x, -2, 2}, Background -> Yellow,
PlotStyle -> {{Thickness[0.01], Blue}, {Thickness[0.02], Red}}];
```

We can also declare the style before plotting the functions.

```
ThickRed = {Thickness[0.02], Red};
ThinBlue = {Thickness[0.01], Blue};
Plot[{x^2, 4 - x^2}, {x, -2, 2},
Background -> Aquamarine, PlotStyle -> {ThickRed, ThinBlue}];
```

If we specify 6 functions to graph but only specify two plotstyles, the plotsyles are used cyclically.

```
Plot[{x, x + 1, x + 2, x + 3, x + 4, x + 5}, {x, 0, 10},
Background -> Banana, PlotStyle -> {ThickRed, ThinBlue}];
```