Why use Illustrator?

Adobe Illustrator is the brother of the more famous Photoshop. Like Photoshop it is a program intended for graphics, but Illustrator is vector-based; meaning it deals with shapes and lines in space rather than pixels on a canvas. What this means for you is that the way graphics are created and manipulated is quite different from how you learned in Photoshop. You cannot just paint on the canvas, smudge things here and there, add color filters or the like. You must work in line, shape, fill, and text independently that have a set structure on how you can manipulate them. The result is a file not of pixels with specific colors assigned, but a system of equations that specify the parameters of these shapes and their relation to one another in space. Yes, Illustrator is the nerdy brother.

While this may sound constricing, in a way it actually gives you more options when it comes to modifying specific shapes within an image. It also gives you a final image that can be blown up or shrunk to any size and still look good. In addition, vectors do not break down over time like bitmaps. It’s a forever-young image!

Getting Started

Find the Adobe CS 6 icon on the lower-left taskbar, or by going to start > programs > adobe creativesuite CS6 and launch the Illustrator application from there. The greeting window features the options of opening a recent document or creating one from scratch. You will generally be creating a web or print document, but this choice can be changed at any time while working. Let’s select create new print document. Default settings will work just fine, but those can be changed whenever by going to file > document setup... or under edit > preferences.

Technology Assistants & Consultants
The Work Area

This is the upper-toolbar with traditional functions. The options change depending on which tool you select to use. You’ll notice the setup is quite similar to Photoshop. In Illustrator the canvas is referred to as an artboard, and remember you can change the document’s size and settings anytime as stated in the previous page (edit > preferences). This is important if you need specific unit measurements.

Under **view** you will find the various ruler and grid options available to maintain consistent layout and measurements. You can toggle between hiding and showing margins and the bounding box, among other things. Enabling **Smart Guides** will allow your drawings and shapes to snap to one another and makes lines connect easier.

Your primary toolbar, just like the one in Photoshop, with a few new tools.

These panels can be expanded, added to, and changed using the upper toolbar.
The Selection and Direct Selection Tools

The **select tool** is the cursor you want when trying to shift and move an entire shape. You have the option when selecting the shape to transform it by scaling, rotating, freetransforming, or the like.

The **direct select** tool will allow you to modify specific components of the shape/path. As seen in the image to the right, when you direct select a path little squares pop up on it, and these **anchors** are the points at which you can modify the shape.

Drawing

🌟To create these shapes and paths we’ve been talking about you have several tools to use. The pencil lets you draw irregular lines, the shape tool when clicked allows you to create various closed shapes, and the line tool allows you to draw lines. The pen tool is a bit more complex, but with it you can click to make points that will form line segments, or when clicking and dragging you can create curves in the way that the above-right image shows.

The illustrator drawing to the left was created with the paintbrush tool (see next page) and you can see its properties in the upper-toolbar of Illustrator, as demonstrated below: the pink square shows the **fill color**, the black is the **line color**, stroke is the line’s **thickness**, and brush is the **style** of brush applied to this drawing. All of these components can be changed at any time.
Drawing, continued

When drawing lines with whatever tool you choose, there are many brush options to give your images an extra dimension in looks. The shapes on the right are all the same path, but with different brush styles applied to them. You can access these with the brushes panel on the far right of the screen.

Now that you’ve been introduced to the many drawing tools, the best way to learn and be familiar with it all is to just doodle with them and see what happens. You’ll find it to be easier than you think. If you make a mistake you can always undo what you’ve done without using the history panel as you had to in Photoshop. Just click edit > undo or ctrl+z!

Bonuses: Try the warp tools (icons shown left) to take vectors to an even crazier level. Here the same shape has been modified by the various warping tools. Get creative with your shapes!
Text in Illustrator

In Photoshop you may recall that when it came to using text, things were a little strange and that it did not behave the same way your other layers would. That’s because text itself is comprised of vector shapes. As such, one can see why text is ideal for use in Illustrator, and there are more things you can do with your words here...

With the regular Type tool, you may type out text just as this very text box is seen, and the formatting you are accustomed to is present on the upper-toolbar including text size, style, color, etc. You will also find text-related tabs to the right of the art board including character, paragraph (if they’re not on the tabs you can make them appear by going to window > type & tables).

With the Path and Area type tools, simply click on a path (closed path if using the area tool) and begin typing. The images to the upper-right demonstrate the basic idea.

The Vertical Text tools work in exactly the same way, the only difference being, obviously, that the text is vertical.
Trace and Convert an Image Into a Vector

While not the best path to take, if you do desire to take a photograph and turn it into an ‘illustration’ ie. a vector image, you will use the Live Trace function. A button for it will show on your upper-toolbar when a bitmap is selected, or you can go to object > live trace. You can try out the presets for tracing listed in the menu, or for a custom look choose the tracing options... This will open a new dialogue box and my suggestion is to simply enable the preview button and fiddle around with the toggles until your tracing result is what you want or the closest thing to it.

A photo will never have perfect results, but the Live Trace is ideal for simple shapes and logos that may have at one time been vectors, and that you’d like to turn back into. The Mount Holyoke logo is a good example--it could be easily converted and retain its graphic (which already looks like a vector). When it’s finished you click the expand button to open the illustration up for further editing.

Bonus: Select a whole area of segments/lines/shape and create a Live Paint Group (object > live paint) This will work on any vector image, and turns your selection into the equivalent of a coloring book. To the left you see me filling in parts of my face with the paint group bucket . Try this with diagrams/schematics and you can easily fill them in with any colors.
Finishing Up

When you are ready with your image and wish to save it or export it for use beyond Illustrator, there are a few key things to keep in mind. First, just as you would in Photoshop make sure you keep an original of your project in the local file format (in Photoshop you used .psd) That means you should retain an .psd file of your work. As to which format to export you have several choices. The following are the most common types you’ll be using, so pick according to your relative need. Simply go to file > save as and save.

Take it Further...

Don’t limit yourself to this introductory tutorial! Explore the program on your own, read Adobe’s help files (very nice and online, they have videos to watch as well) or even just Google if you’re having trouble. The more you use it, the easier it gets and you’ll always be discovering something new. Best of luck!

PDF: format Adobe recommends for use in other programs and printing. Can be printed and maintains vector data that can be edited in Illustrator again after saving (will not work in Photoshop as a vector)
*copy from illustrator and paste into Photoshop, however, will keep it as a vector

JPG: Use for web images, or everyday use. Keep in mind these lose quality over time and every time you save them. Will rasterize the vectors

EPS: older format similar to PDF, will work on multi-platforms and retain vector editability with Illustrator like the .pdf

PNG: Use this instead of GIF. Will give loss-less transparency and viewing on the web, rasterized