PHOTOGRAPHY 101
(or how I think about it, anyway)
Part I

Three Simple Rules
Rule 1

Learn

Kind of like knowing Photoshop, understanding how your camera works is a technical skill. It is essential to good photography, but only because you need the tool to participate... the fanciest lenses and features won't help a crap image become a good one. So don't let the tech intimidate you, and know that anyone who gets snobby about technical jargon is being a dick (and everyone else who understands photography knows it).

Learn your tools.
Rule 2

**Play**

Photography is the art of looking around and capturing what you see... which is to say, you have to look around freely to see something new. The more you experiment and shoot random things, the more you'll come to appreciate the beauty around you... and how you can capture that beauty for your audience.

Explore what works by shooting... everything.
Rule 3

Plan

Nature being what it is, the best compositions are usually discovered when conditions are less than perfect. The only way to capture a view at its best is to visit often. Learn how the light, time of day and weather changes the composition, and plan accordingly.

Become an expert on your scene to make the most of it.
Part II

Aperture
Shutter Speed
Film Speed (ISO)
Light + Exposure
Lenses
Aperture

In photography and digital photography, aperture is the unit of measurement that defines the size of the opening in the lens that can be adjusted to control the amount of light reaching the film or digital sensor. The size of the aperture is measured in F-stop.
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Large apertures are great for close-up shots where your subject is sharp but everything beyond them is blurry.

Small apertures are great for landscape photography, where you usually are trying to capture detail evenly across a scene.
Shutter Speed

In photography and digital photography the shutter speed is the unit of measurement which determines how long shutter remains open as the picture is taken. **The slower the shutter speed, the longer the exposure time.**

The shutter speed and aperture together control the total amount of light reaching the sensor. Shutter speeds are expressed in seconds or fractions of a second. A shutter speed of 100 means your shutter will be open for 1/100th of a second to snap your photo.

You can generally shoot by hand all the way down to a shutter speed of 60 without images becoming fuzzy. Anything slower than that and a tripod becomes necessary.
**Film Speed** *(ISO)*

In traditional (film) photography ISO (or ASA) was the indication of how sensitive a film was to light. It was measured in numbers (you’ve probably seen them on films – 100, 200, 400, 800 etc). The lower the number the lower the sensitivity of the film and the finer the grain in the shots you’re taking.

In Digital Photography ISO measures the sensitivity of the image sensor. The same principles apply as in film photography – the lower the number the less sensitive your camera is to light and the finer the grain. Higher ISO settings are generally used in darker situations to get faster shutter speeds. For example an indoor sports event when you want to freeze the action in lower light. However the higher the ISO you choose the noisier shots you will get.

100 ISO  
250 ISO  
1000 ISO

These are representative examples — actual camera results will differ
Light + Exposure

Exposure is the quantity of light reaching a photographic film, as determined by shutter speed and lens aperture.

Too Dark  Balanced Exposure  Too Bright
Aperture

Small Aperture
(higher number)

Light

Large Aperture
(smaller number)
Shutter Speed

- **Fast Shutter Speed** (higher number)
- **Slow Shutter Speed** (lower number)

Light
Film Speed

Slow Film Speed / ISO
(lower number)

Higher Film Speed / ISO
(higher number)

Light
Lenses

Camera lenses are defined by their focal length (such as 50mm). The focal length tells us the angle of view—how much of the scene will be captured—and the magnification—how large individual elements will be. The longer the focal length, the narrower the angle of view and the higher the magnification. The shorter the focal length, the wider the angle of view and the lower the magnification.
Field of View
Field of View

shot w/ 50mm

shot w/ 85mm
Prime vs. Zoom

A prime lens is fixed to a single focal distance, requiring the user to physically move closer to or farther from their subject in order to change their field of view. While this can be a disadvantage in some types of photography, the lack of zooming allows the prime lens to focus (no pun intended) on providing the best possible image for its select focal range. Prime lenses have often been said to provide crisper images and finer focus than telephoto lenses, making them excellent for landscape photography.

A zoom lens can shift between focal lengths, allowing the user to zoom in and out and change their field of view without having to physically move closer or farther away from their subject. Telephoto lenses are more or less essential for video work and motion photography, but may be less relevant to static photography such as landscapes and portraits.

The finer the lens (of either type), the better the image. Cheap glass delivers cheap results. Unfortunately the cost of said lenses usually follows a similar curve.
Part III

Go take some photos.
Go take some photos.
Seriously.
(There is no part III)
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