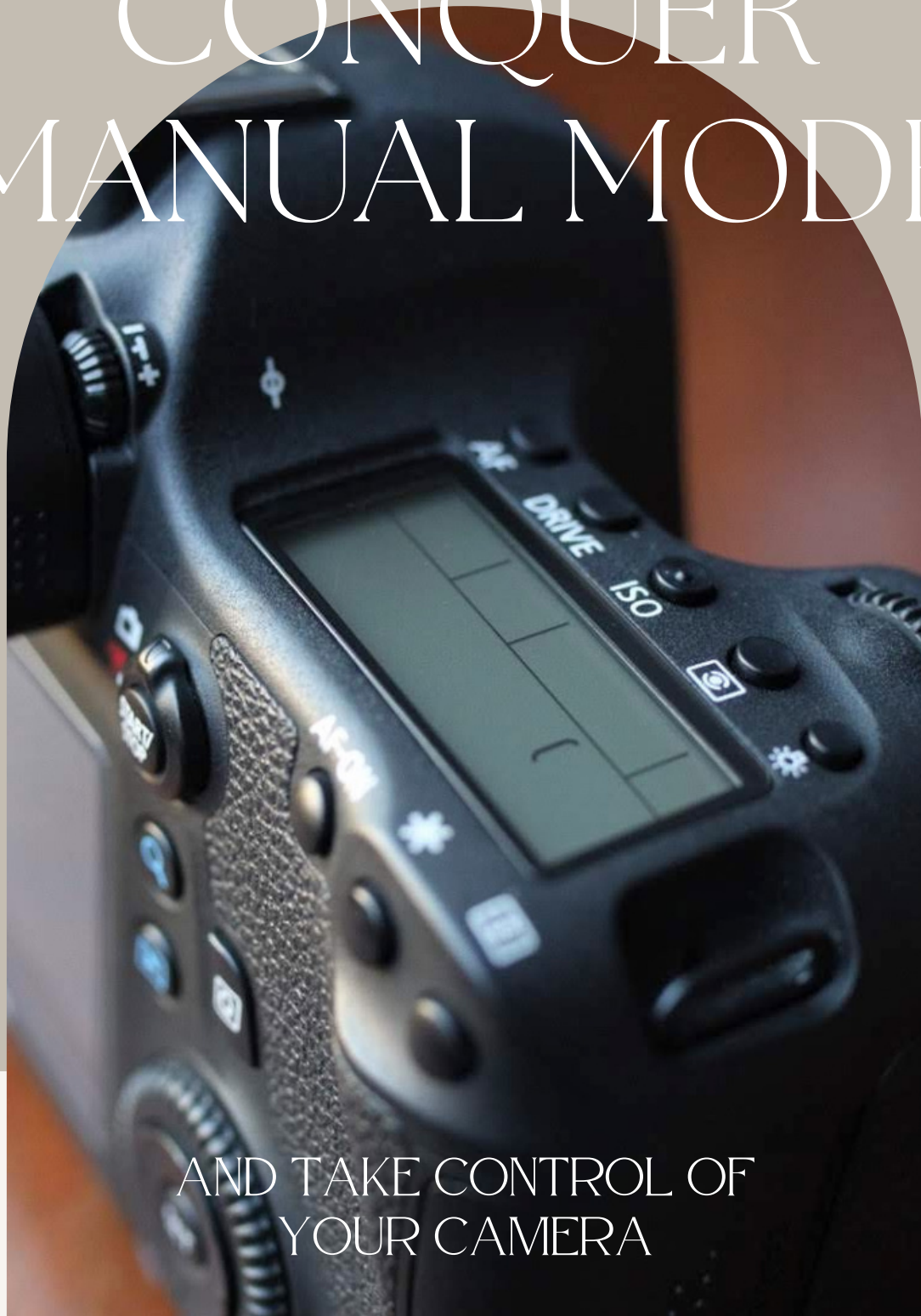


CONQUER MANUAL MODE



AND TAKE CONTROL OF
YOUR CAMERA



ABOUT THE AUTHOR

Hey! I'm Maeta from Maeta Grace Photography and creator of the course *Your Complete Guide to Manual Mode*.

Let's talk about why I'm here. After having my second baby in 2016, I left a job I was passionate about for a better work-life balance. I needed a hobby to help replace the passion I had lost for my career and in 2017 purchased a Canon Rebel with the goal to simply take nice photos of my kids. Auto mode wasn't cutting it, aperture priority wasn't either! I just wasn't getting the results I wanted and was determined to learn manual mode. The internet was not very helpful. Even YouTube didn't walk me through the steps to learn it like I had hoped it would. Frustrated with the lack of resources, I persevered and bit by bit became comfortable with manual mode, eventually getting to the place where I couldn't use anything but manual.

In 2018, I started my own photography business, and have grown each year since. Now, it's my turn to give back and I'm excited to provide you with a resource that will help give you the foundation you need to create the images you want by knowing exactly what to do and to change in-camera.

I'm so excited you're here & ready to learn!

WHAT WILL YOU LEARN?

1. THE EXPOSURE TRIANGLE

What the exposure triangle is and how it is the foundation to photography.

2. LIGHTING

Once you know what the exposure triangle is, now you need to learn how to adjust it based on your lighting.

3. COMPOSITION

Lay out your photographs to create interest and dimension and learn how we, as humans, look at photos.

4. LENSES & FOCAL LENGTHS

Your choice of lens will greatly change the overall appearance of your photos.



FIRST THINGS FIRST

VOCABULARY

Manual mode: using and adjusting shutter speed, aperture, and ISO to adjust the exposure of your image.

Exposure: how light or dark your image is

Under-exposed: Darker than it should be. Was not exposed to enough light.

Over-exposed: Brighter/lighter than it should be. Was exposed to too much light.

Exposure Triangle: Using aperture, shutter speed, and ISO together to set proper exposure.

Shutter Speed: The length of time your shutter, or the part of your camera that opens and closes to take a photograph, stays open.

Aperture: The opening to a lens's diaphragm through which light passes. Determines depth of field. Also called the f-stop.

ISO: Your camera's sensor's sensitivity to light.

Depth of Field: The focal depth. How deep your focus will fall.

Focus: Part of the photograph that is sharp and clear. Focus falls $\frac{2}{3}$ back, and $\frac{1}{3}$ forward from where your focus point lands.

Bokeh: Lens blur, out-of-focus points of light

01.

THE

EXPOSURE

TRIANGLE

01. THE EXPOSURE TRIANGLE

How shutter speed, aperture, and ISO relate to one another. We'll go in-depth for each one.

SHUTTER SPEED

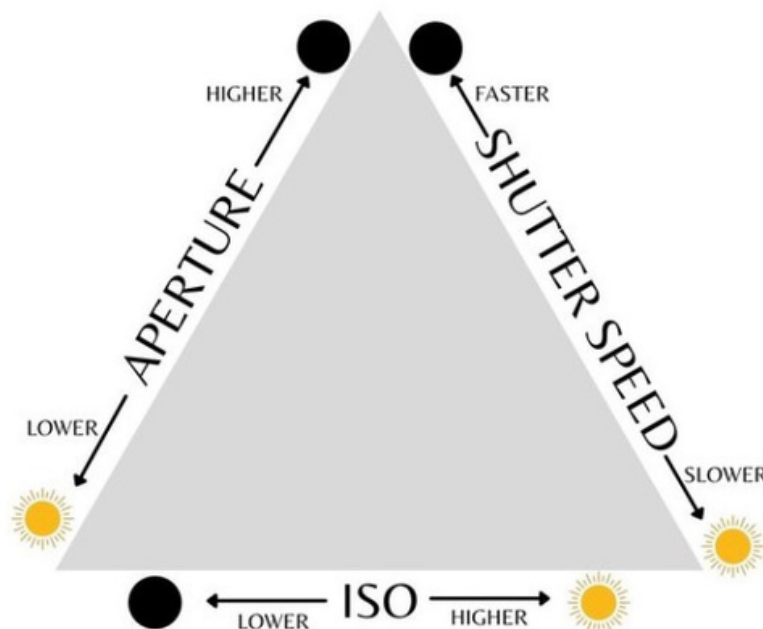
Shutter speed is how long your shutter, the part of your camera that opens and closes to take a photograph, stays open. Essentially, it determines how long you're taking a photo for.

APERTURE

Aperture is the opening to a lens's diaphragm through which light passes. So your aperture capabilities - how low or high you can set your aperture - is going to depend on your LENS, not on your camera.

ISO

ISO is your camera's sensitivity to light and affects overall exposure. The higher the number, the more sensitive your camera's sensor becomes to light, the lighter the exposure.



SHUTTER SPEED

Shutter speeds determines a couple of things -

- How much light is being let into the camera - the slower the shutter speed, the longer the shutter remains open, the more light is allowed in.
- It is also the major factor in whether your photos will have motion blur or not. Fast shutter speeds (like 1/500-1/8000) will freeze movement, while slow shutter speeds will cause blur if there is either shaking/movement of the photographer or movement of subject.

To help prevent motion blur when hand-holding your camera, I recommend a shutter speed no slower than 1/125, though this will depend on your subject, your stability, as well as the length of the lens.

With the photo below, a fast shutter speed (1/500) was used to capture movement without blur.



APERTURE

Aperture settings can vary from 1.2 to 22. The lower the number, the wider your aperture, and the more light you are letting into your lens. The higher the number, the more narrow the opening, and the less light you are letting in. Aside from light, aperture also determines your depth of field, or how deep your focus will fall, and how much will be in focus.

- Low number = wide aperture = more light = narrow depth of field
- High number = narrow aperture = less light = deeper depth of field

For this photo, I used a low aperture of 2.2 to give me that creamy, out of focus background.



ISO

- ISO is a number that can range from 60-25,000+, depending on your camera.
- The higher the number, the more sensitive your camera's sensor becomes to light, the more exposure you will have.
- If you're in a dark room, you would need to raise your ISO to allow your camera to find more light.
- In the bright sun, your ISO will be low.
- One thing to consider when raising your ISO, is that the higher your ISO, the more grain your images will have. The more grain, the more fuzziness your photos will have and they will appear less sharp.
- The photo on the left was taken in a client's home on a dark day, and my ISO was set at 2500 to get proper exposure.
- The right photo was taken on a bright, sunny evening, so my ISO was 160.



HOW DO WE PUT IT ALL TOGETHER?

DEPTH OF FIELD

First, let's look at our aperture. This will be the main setting that will really determine the overall appearance and artistic look to your images. So let's set that first.

If you want a creamy background, and you don't have many subjects, you can set this pretty low. Start around $f/2.5-3.2$ to start, then adjust as needed/desired as you get more confident.

If you have multiple subjects you want in focus, you'll need to raise the aperture.

Aperture preference will be primarily determined by artistic style.

SUBJECT & MOVEMENT

Next, let's look at our shutter speed. To determine our needs here, let's look at what we're photographing.

Stationary objects don't require as high of a shutter speed. Start around $1/125$ and move up as needed. (There are, of course, times when slower shutter speeds are used for intentional blur. We're going to focus on getting sharp images first)

Moving subjects - kids, animals, etc - require a faster shutter speed. Start at $1/400$ or higher.

AVAILABLE LIGHT

Now, let's set our ISO. Where does it need to be to get proper exposure?

This will 100% depend on your lighting situation. If you are outdoors on a bright date, it will remain low. If you're indoors, it's going to vary based on your light availability.

You are you going to adjust your ISO settings to get proper exposure of your image.

HOW DO WE PUT IT ALL TOGETHER?

ADJUST AS NEEDED

Ok, you have your starting point.

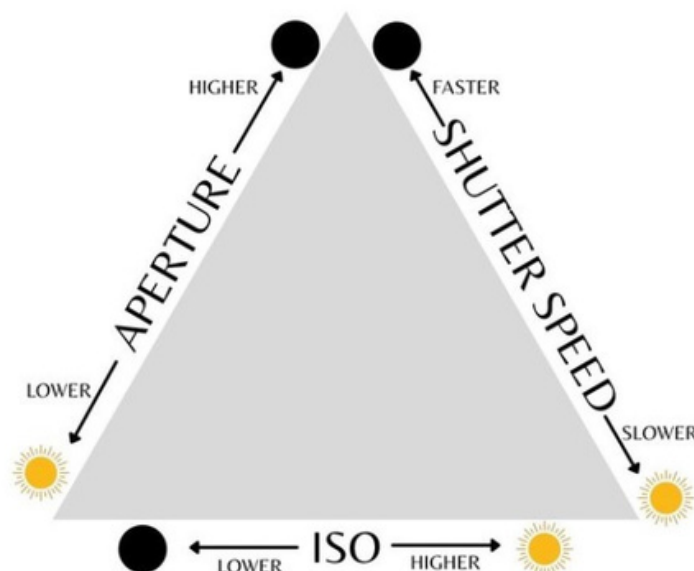
Keep in mind your settings are going to change every single time you touch your camera, because your lighting is never going to be exactly the same. With experience, you will learn what a good starting point is, based on the available light, but there is no one setting that fits all.

So... you've got your settings but your image isn't properly exposed. Now what? What do you change?

Let's look back at that triangle. You're going to adjust each side of it, lowering and increasing each setting, until you get proper exposure.

If your images are underexposed - too dark - try lowering your shutter speed (staying 1/125 or faster to prevent blur from your own movement holding the camera) or raising your ISO (keeping in mind that higher ISOs will cause grain). Or perhaps your aperture is high, try lowering that.

If your images are overexposed - too bright - try the opposite. Lower your ISO, raise your shutter speed, or increase your aperture.



CONSIDERATIONS

APERTURE: CONSIDER THE NUMBER OF SUBJECTS

Remember, aperture is primarily going to be decided by your artistry. If you have multiple subjects and you want them all in focus, you have a couple of options:

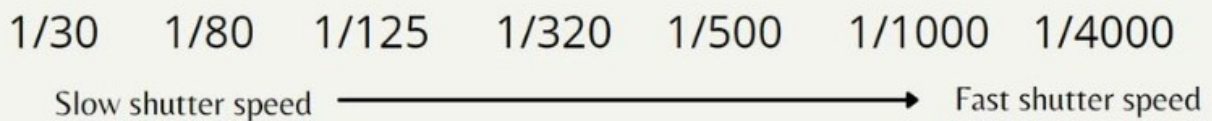
- Put them all on the same focal plane. Put them all in a single row, approximately all the same distance from the camera.
- Raise your aperture. If you have several subjects you want in focus, you may want to increase your aperture for a deeper depth of field.
 - Keep in mind that focus falls on a horizontal plane, and the further from that focal plane your subject is, the less in focus they will be. If you can keep everyone close to that focal plane, your aperture does not need to be very high.
- Accept that not everyone will be in focus. This is NOT the way to do things if everyone is looking at the camera for a formal portrait. If you have multiple subjects and they're all looking at each other, or playing, and not paying any attention to you, determine if it's important for them all to be totally in focus, or if it's ok to have some of them blurred. Again, this is going to depend on your style and artistry.
- Back up. The further away you are from your subject, the deeper your depth of field will be.

CONSIDERATIONS

SHUTTER SPEED: CONSIDER MOVEMENT

Remember, the main consideration when setting your shutter speed is the potential for movement of yourself or your subject. If you have shaky hands or a moving subject, you will want a faster shutter speed.

- Keep in mind, there is no harm in having a fast shutter speed!
- Below is a chart of shutter speed examples and where they fall on the slow to fast speed list.



ISO: LIGHT & EXPOSURE

There is no magic go-to setting for ISO. Your ISO will depend on your available light 100% of the time.

- Remember high ISOs will cause grain in your images. Higher end cameras will have better sensors and therefore handle much higher ISOs without developing much grain at all.
- There are, however, times when raising your ISOs to uncomfortable levels is better than keeping it low:
 - If you are shooting in a low-light situation, it is better to raise your ISO to get proper exposure, than to limit your ISO to a lower number and be underexposed. Raising that exposure in post-processing (editing) will cause more grain than if you had just raised your ISO and exposed properly from the start.

02.

LET'S

TALK

LIGHTING

02. LIGHTING

Light is the most important aspect to photography. What do those 3 settings we just discussed all have in common? They're determined and adjusted based on your available lighting. Without light, no matter how little there may be, you simply cannot take a photograph.

TYPES OF LIGHT

There are various types of light, a few that we'll discuss further:

- **Direct light:** Light falls directly onto the subject without anything between the light source and the subject.
- **Back light:** The subject is lit from behind.
- **Side light:** Light hits the subject from the subject's side.
- **Diffused Light:** The light source is dispersed and interrupted. Light can be diffused by clouds or trees, for example.
- **Low Light:** Minimal light available to light your subjects.
- **Open Shade:** Placing your subject in a shady area to avoid direct light from falling on them

DIRECT LIGHT

Sun/light source falls directly on subject without any obstruction or filter.

- Watch for harsh shadows and blown highlights.
- Meter for the subject's highlights so they don't get blown out.
- High shutter speed, low ISO.



BACK LIGHT

Light source is behind subject. Expose for your subject.

- Watch for dark faces/eyes, sun flares (which can be beautiful or excessive), and pay attention to where your light is in relation to your subject.
- Flares can be used intentionally to add interest to a photo, or can completely wash out your subject.



SIDE LIGHT

Light source is to one side of the subject.

- Avoid blowing out highlights - expose for bright part of image/subject.
- Angle of light can be played with to create more or less shadows on subject and use shadows for drama or dimension.



DIFFUSED LIGHT

Light source is a soft light, passing through something to disperse it more evenly and avoids direct light.

- Natural diffusers include clouds, trees, or even the subject themselves.
- Diffused lighting can be used in combination with other lighting situations such as back light or side light.



LOW LIGHT

Minimal light available.

- May be indoors, a very dark cloudy day, or during blue hour when the sun has already set below the horizon.
- Use the light available to light your subject - face them towards the light and avoid backlighting.
- Meter for your subject's highlights and play with the light - shadows can be harsh or gradual depending on how you direct your light source.
 - Low shutter speed, high ISO, low aperture.



OPEN SHADE

Avoid direct light by using available shade

- Can be trees, buildings, etc.
- Great for when sun is high in sky and you want to avoid direct light or harsh shadows.
- Watch lighting vs shadows and face subject towards available light when possible.



03.

COMPOSITION

03. COMPOSITION

Now that you've got your settings figured out, it's time to be intentional with how you create your images.

What makes a photograph interesting? What draws you in?

It's not just about your settings or your gear. It's about composing a beautiful photograph using angles and composition.

TYPES OF COMPOSITION

Just a few examples of composition styles are listed below. Remember that these can be used individually or in combination with one another:

Rule of thirds: instead of putting your subject in the center of your photograph, you place them in the outer 1/3 of the frame, off-center.

Filling the frame: Completely filling the field of view with your subject can be a fun way to utilize your space and add some interest to a grouping of photos.

Leading lines: lines that appear in a photograph that have been framed and positioned by the photographer to draw the viewer's eye towards a specific point of interest.

Symmetry: Exactly what it sounds like - the image is symmetrical on either side.

COMPOSITION MISTAKES

What not to do:

- Limb Chopping: If cutting off part of a body, avoid doing so at a joint, but instead try at the mid-upper arms, mid-lower arms, waist rather than hips, thighs, or calves. Avoid cutting off toes and fingers, or at the neck.
- Horizons/Objects Through Subject's Head:
 - Avoid having the horizon run through your subject's head. Try to push them up above the horizon, or shoot from higher so the horizon is below their head. This can be difficult to avoid, depending on subject's height and where the horizon falls, but pay attention to it.
 - Also avoid having trees or other vertical objects coming out from subject's head.
- Busy Backgrounds: If there is too much going on in an image, it can distract your viewer from your subject, or confuse the mind enough to not know where they should be looking. Pay attention to your surroundings and if a busier background is unavoidable, perhaps try a longer lens to blur it out more, lower your f/stop, or move closer to your subject so less of the busyness is present.
- Sloped Horizons: Straighten your horizons so it is level. Unlevel horizons are distracting and can confuse the viewer's eye.

04.
LENSES
AND
FOCAL LENGTH

04. LENSES & FOCAL LENGTHS

Your choice of lens can make a major difference in your images. While high quality lenses are faster, sharper, and creamier, there are lower priced options that will work wonderfully as well! Let's go over the options.

LENS OPTIONS

- **Kit lenses:** A kit lens is a lens that comes with your camera when you buy it new. It is typically a zoom lens with a variable aperture, which means that the aperture will change on its own when you zoom in and out. These are generally not great quality lenses. I recommend avoiding kit lenses altogether, even as a beginner.
- **Fixed aperture zoom lenses:** These are zoom lenses with an aperture that does not change when zooming. They will typically have a lower aperture capability than the kit lenses, like down to f/2.8. Examples would be a 24-70mm 2.8, 70-200mm 2.8, 17-40mm 4.0.
- **Prime lenses:** These are lenses that do not zoom. They have a fixed aperture, usually lower than a zoom lens allows, down to f/1.2. Examples would be 35mm 1.4, 50mm 1.2, 85mm 1.8, 135mm 2.0, etc.

Either of these last two options are wonderful lenses to work with! There are some great low-price options to invest in that will dramatically change your results!

FOCAL LENGTH

What does focal length matter?

- Focal length, or the mm of the lens (24, 35, 50, 85, 135mm, etc) will change how you shoot, what your settings are, and the overall appearance of your photos.
- The lower the number focal length (24mm for example), the wider the lens. That is, the more area you will see through your viewfinder.
- The higher the number (85mm for example), the longer the lens, and the further from your subject you will need to be to see the same area you would in a wider lens. These longer lenses naturally give a creamy background and bokeh and a narrower depth of field, but require more space to work with due to the distance you need to be from your subject.

What would different focal lengths be used for?

- Wider lenses are great for tight spaces, like indoors. They do naturally produce some distortion, so be aware of that when shooting people.
- Wider lenses are also used for landscape photography since you can get a lot of land area within one photo.
- Long lenses can also be used for landscape/wildlife photography since you can be far away from your subject, like wild animals, for example.
- Long lenses are also wonderful portrait lenses since they don't have distortion and provide that naturally smooth, creamy background.

READY
TO
LEARN
MORE?



TAKE THE FULL COURSE

This PDF just touches on the very basics of manual mode and photography. If you want to learn more, hear a more in-depth conversation, get a verbal description, and learn more about each individual subject. Your Complete Guide to Manual Mode may be exactly what you need.

[CLICK HERE TO START RIGHT AWAY](https://www.maetagracephotography.com/manual-mode-course)

<https://www.maetagracephotography.com/manual-mode-course>

TAKE THE FULL COURSE

In addition to a more in-depth covering of what you've learned here, as well as video/verbal explanations throughout the education, the full course also covers:

- Metering - how to know what your exposure is and how to know how to adjust your settings
 - Focus
 - White balance
 - How to really see lighting scenarios
 - Composition examples and mistakes
 - How to create interesting photographs to captivate your viewer
 - Comparing the different focal lengths and what their images look like in comparison to one another.
 - Other considerations when choosing your lens.
 - Putting everything together to take the best photos possible.
-
- And a fun challenge after each of the four sections to put what you've learned to the test!

But wait, there's more!

- Join the educational Facebook group to share your challenges, ask questions, share your wins.
- You'll also get first notice of any new educational opportunities and a \$100 discount on virtual mentorships with me!

[CLICK HERE TO START RIGHT AWAY](#)