Advice on binoculars:

Binoculars are required for the course. You should not get the cheapest possible pair, but that being said, you can often do well for around $100.00 - $150.00.

Binocular specifications:

The first number on a pair of binoculars (e.g., suppose you get **8 x 32**) gives you the magnification (in this example **8** times). You really shouldn't go much over 8 or 10.

It becomes increasingly difficult to hand-hold binoculars if you go much higher than 8 or 10 (the image will become jittery). The exception might be if you get image stabilized binoculars - but they can be very expensive.

Somewhere between 7 and 10 is probably ideal.

The second number on a pair of binoculars (e.g., the **32** above) tells you how well "bright" the image will be (think of it as how well the binoculars will do at night).

The higher this number, the better they will do when it gets dark. But, the higher this number, the bigger (and *heavier*) the binoculars will get.

This second number can also make binoculars *much* more expensive.

Zoom binoculars are usually not very good unless you get really expensive ones (seriously).

Finally, considering how dusty it gets in Kenya, getting a pair that is weather sealed is probably a good idea.

As usual, you get what you pay for. More expensive binoculars will usually give you a sharper image with more clarity and less distortion.

Advice on photography:

This is an academic course, but you will almost certainly want to take pictures. Lots of pictures. While cell phones have improved a lot, taking pictures of animals at a distance is ***not*** their strong point.

Buying a camera:

Unless photography is your hobby (it is for me), don't buy too much camera equipment. If it is your hobby, you probably don't need to read this. Remember, you need to carry it with you everywhere, and you'll probably want to keep an eye on it.

Basically you have two choices: a "point and shoot" camera or an "interchangeable lens" camera:

Point and shoot cameras: unfortunately these have become less common over the years, but they are still available. These cameras have a lens that is fixed (you can't take it off). Usually this is a zoom lens (you *want* a zoom for Africa - see specifications below). Since they're not that popular anymore, they've become more expensive, but are still cheaper than the other kind of camera and

are probably more than good enough for most people. You can also try to get a good used one on ebay or KEH (KEH is a site that specializes in used camera equipment).

Interchangeable lens cameras: on these cameras you can change the lenses (put on different lenses). They're generally more expensive but generally give you a better quality of picture than a point and shoot. But for a lot of things you may not see a big difference. Notice that you have to pay not just for the camera, but also for the lenses, which are often sold separately (really good lenses are almost always sold separately). They come in two flavors: DSLR or Mirrorless. Mirrorless has become much more popular over the years, but which one you get is pretty much up to you. Both will do very well.

Specifications:

Regardless of what kind of camera you get, you should look for something that can give you the equivalent of about 300mm (minimum) at the long (telephoto) end. More is better, although it also gets more expensive, particularly on interchangeable lens cameras. If you like scenic shots, go for 28mm equivalent or less at the wide (wide angle) end.

On a point and shoot, the lens specifications will be on the box (or merchant web page).

For a DSLR or Mirrorless you may need to look at the lenses separately. You should try to get at least a "standard" zoom and a telephoto zoom. You can sometimes find kits that sell the camera with one or two lenses. All in one zooms are nice too, but their quality usually isn't quite as good as getting two separate lenses.

Taking pictures:

Learn how the +/- buttons (or dial) works on your camera. This can really make a big difference in getting your exposure right (getting your subject to have the right "brightness").

Setting everything to fully automatic doesn't always give you the best pictures. Learn how your camera works and experiment. This is particularly true when you see animals that you've already seen and taken pictures of: take your time and try different things (but don't forget to reset everything).

Try to keep your camera clean. Keep your fingers out of the lenses. Try to keep the lens cap on when you're not using the camera (it's VERY (**VERY!**) dusty). Put your camera away when your not using it for longer periods. Dust gets into everything! **NEVER(!!)** change lenses when it's dusty or you could seriously mess up your camera.

Don't always zoom in all the way - some animal pictures are much better if you can see the surroundings or make out what the animal is doing.