

Troop 1911 Orienteering Course – Ft. Missoula

Course created by Tony Higuera

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Scouts, this information will get you ready to accomplish Requirement 4a of the First Class Scout requirements. Now that you have accomplished requirements 1a and 1b from the Second Class Rank requirements, you should be feeling comfortable using a compass. This First Class requirement will serve as a reinforcing activity on how to take bearings and navigate with your compass. Remember to review Chapter 11 “Navigation” of your scout book, if necessary.

“Orienteering, the use of map and compass to find locations and plan a journey, has been a vital skill for humans for thousands of years. Orienteering is also a recognized sport at the Olympic Games, and thousands of people participate in the sport each year in local clubs and competitions.”

([Scouting.org/scoutsource/BoyScouts/AdvancementandAwards/MeritBadges/mb-ORIE](https://www.scouting.org/scoutsource/BoyScouts/AdvancementandAwards/MeritBadges/mb-ORIE)).

Maybe your interest will grow and you may want to earn the Orienteering Merit Badge at a later time.



Sure this is the age of technology - we have pretty cool GPSs now that we can use. Most of our Cell phones even have GPSs you can use to navigate. So why learn how to use a regular compass? Learning how to use a compass is an important outdoor skill. Any electronic equipment can and, at some point, will either break or lose battery power, which at that time it is nothing but dead weight. Also, if you are under a thick canopy of trees, the satellite reception to your GPS will be hampered. In my 27 year career as an US Air Force aviator, we carried a pretty cool GPS system in our survival kit, but we also carried a good ole basic compass, as well, as a backup. Like I said, GPS run on batteries and they don't last forever, and they are also electronic equipment susceptible to damage. No one should venture for a wilderness trip without a map and a compass. Also, as a good scout, you should always practice your navigation skills without a compass. Nature provides you with a variety of ways of finding directions. Even when a map and compass are available, knowing how to interpret the signs of nature during the day and night is critically important.

This course at Ft. Missoula was created with ten legs. Some legs are longer than others, but you should be able to accomplish the entire course in no more than one hour. You should do the course with the aid of a parent, not another scout. The intent is that each scout works the ten legs of the course independently from other scouts. This will give plenty of experience shooting a bearing with a specific distance. It will be a great idea for you to watch the youtube video listed below before you head out to work the course.

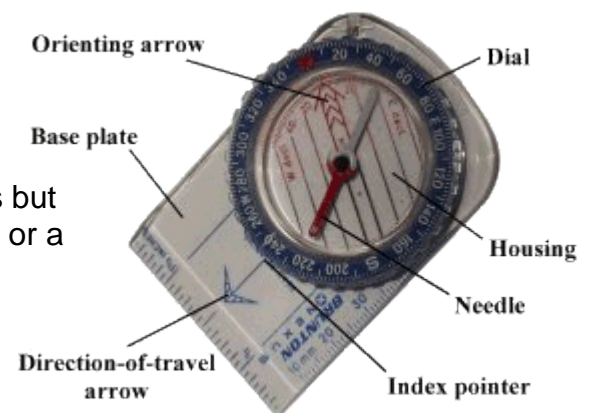
BSA - Orienteering Course 13:52 minutes long

By Michael Leavitt

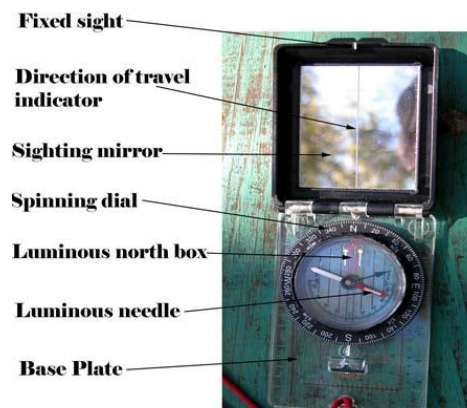
<https://www.youtube.com/watch?v=2CTHk7QwKwM>

You either have a “Basic” Compass or and “Advanced” Compass. Either one will work on this course. In either case, remember to “Box” the needle i.e. **The red needle is inside the outline arrow in the base plate**, and make sure you don’t have a cell phone close to the compass or it is going to affect your compass needle and you may end up in Hamilton!

Basic compasses: These are good, inexpensive choices for beginning adventurers, day hikers, and backpackers who stick to trails. They have all the essential components but lack some bonus features, such as declination adjustment or a mirror. Example: **Suunto A10 Compass.**

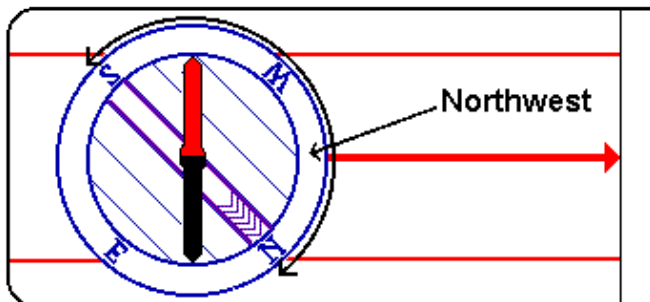


Advanced compasses: These are full-featured models with many extras (e.g., mirror, magnifier) that improve accuracy and make navigation easier. They are well worth the added cost if you regularly travel off-trail or deep into the backcountry. Example: **Silva Ranger CL Compass.**

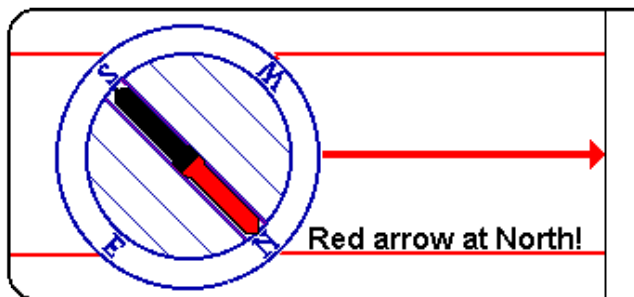


Orienting a Basic compass

Remember to “Box the needle”!



Let's use that as an example: You want to go northwest. What you do, is that you find out where on the compass housing northwest is. Then you turn the compass housing so that northwest on the housing comes exactly there where the large *direction of travel*-arrow meets the housing.



Hold the compass in your hand. And you'll have to hold it quite flat, so that the compass needle can turn. Then turn yourself, your hand, the entire compass, just make sure the compass housing doesn't turn, and turn it until the compass needle is aligned with the lines inside the compass housing. This is called **Box the needle**.

Orienting an advance compass

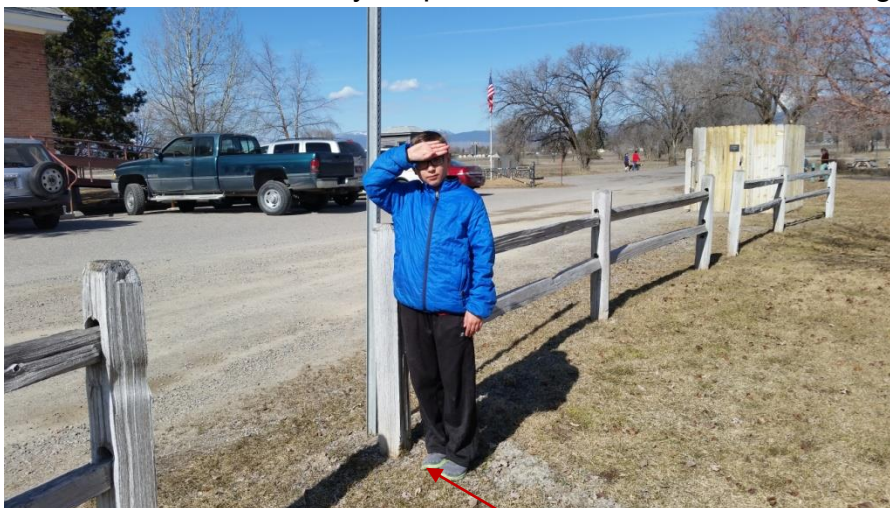
Hold the compass at eye level and position the mirror so that opens to an angle of 50° — 70° . You'll see the compass dial reflected in the mirror as shown below. While looking at the mirror, position your sighting eye so that you see the sighting line on the mirror intersect the white points at above and below the compass dial. Still looking in the mirror, turn the compass dial so that the compass needle is lined up in the engraved arrow. Double check to make sure compass is perfectly flat so the compass needle can pivot freely.



This method is preferred by many orienteers because they can be assured that the compass is perfectly aligned with the landmark. The notch on top of the compass, as shown above, allows you to do that. The process is more involved than that of the first method since you need to line up the white dots and then turn the compass dial while keeping the compass at eye level.

Now back to Ft Missoula and your orienteering course:
Make sure you have a copy of the [Orienteering Course worksheet](#)

1. You need to get your pace count for 100 Ft. The pictures below show where the 100' markers are. Count your pace on 100 Ft three times and get the average.





Small
sign
on
metal

Beginning line

End of the 100ft.



The start of the course. Where you should be standing taking you first bearing. It is the same place as the beginning of the 100ft marker.