

# Required Compass Features: Wilderness Navigation & Staying Found

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1. **Adjustable declination:** This feature simplifies map and compass work. Most compasses with adjustable declination have an adjustment screw, usually brass or copper-colored, and a small key attached to the lanyard. Some have a 'tool-less', pinch-to-adjust feature.

- All students **MUST** have a compass with adjustable declination. The presence of a declination scale does not guarantee that it can be adjusted.
- Even if you already have a compass without adjustable declination, you may not use it in this course. Experience indicates that such compasses detract from the learning experience.

2. A **transparent rectangular base plate** with a direction of travel arrow or a sighting mirror.

- Transparency allows map features to be seen underneath the compass.
- A rectangular shape provides straight edges and square angles to plot on the map.

3. A **0 to 360 bezel** (the rotating housing) marked clockwise from 0 to 360 degrees in increments of two degrees or less. Bezels should be large to allow use with gloves - the larger size also improves accuracy. **Do not** get one marked in 0-90 degree quadrants OR one marked in 0-6400 mils!

4. **Meridian lines:** Parallel 'meridian lines' on the bottom of the interior of the circular compass housing rotate with the bezel when it is turned. Longer lines are better. Meridian lines run parallel to the north-south axis of the bezel, however turned, for use with a topo map.

5. A **ruler and/or gradient scale** engraved on one of the straight edges, used for measuring distances. In the U.S. 1:24000 scales (rather than 1:25000) are preferred. Both are acceptable.

6. A **3 to 4-inch base plate**. A longer straight edge, on one or both sides, makes map work easier.

## Additional recommendations

- A sighting mirror in the cover: May reduce error introduced when moving compass from eye-level after sighting to waist-level for reading the dial. Protects the bezel.
- A liquid-filled housing: Reduces erratic needle movement (common on better compasses). In some cases, steadying the compass needle can be difficult
- An inclinometer: A gravity driven arrow that allows you to measure slope angle.

**Current favorites:** Silva, Suunto, and Brunton are favorites. All have adjustable declination. Their quality and usability varies, so **keep any receipt**. We have unfortunately seen many defective compasses in the past.

Maker	Models	Features +	Features -	Vendors	Cost
<b>Silva of Sweden (China)</b>	Ranger CL515 Ranger 2.0	Slope card, New, more features	Still available?	Cabela's, Online	~\$55 ~\$50
<b>Suunto of Finland (Finland)</b>	MC-2 M3-D Leader MC-2G Navigator	Northern Hemisphere Mirrorless 20 degree tilt margin	Lacks clinometer	REI, Online	~\$40-64 ~\$44 ~\$95
<b>Brunton of Colorado (USA)</b>	TRUARC 15* TRUARC 5	*Global needle, mirror Global needle, 51 Grams Luminous	Bezel may pop out Bubbles? Mirrorless	REI, Cabela's, Online	~\$50-60 ~\$20-30

Manufacturers make continuing improvements and corrections in models. Model variations and designations proliferate - insist on features 1 to 6 above.

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