



Backcountry Navigation Course Equipment

Below is a comprehensive list we recommend for CMC's backcountry navigation course. **All items in red are required items for your field day.** Please let me know if you have any question or concerns about the required equipment list. See the online Course E-Manual for more info on clothing and equipment recommendations.

Clothing System

Avoid using cotton fabrics in the layering system. When cotton is wet, it loses its insulation properties and takes a long time to dry out.

Shorts & T-shirts

Shorts & T-shirts can be brought for short courses (day courses) when the weather is supposed to be sunny & hot. We still recommend that you avoid cotton & instead bring nylon that will dry quickly if you get wet from sweating or a passing thunderstorm.

Baselayer (Top & Bottoms):

Capilene, silk, wool or polypropylene. This is your wicking layer that pulls sweat away from your body. Comes in lightweight, midweight and heavyweights. No cotton.

Insulation (Top & Bottoms): Breathable & wind/water resistant layer

Fleece, wool or synthetic fill sweaters & jackets. Wear this layer above your base layer. This is the layer that keeps you warm. Most adventures will have several different types of insulation layers: 1) A breathable layer for when your exercising & moving. The breathability will help dissipate heat, so you sweat less. 2). A wind & waterproof resistant layer, for times when you are inactive, and you want to hold in your body's heat.

Waterproof Shell (Top & Bottoms):

Stormproof jacket should be windproof & waterproof. Breathable fabric jackets (Gore-tex) with armpit vents work best. Recommend purchasing non-insulated shells so you can use the jacket in warmer conditions. These technical shells are sold in a variety of weights with minimal to multiple features depending on your needs & activity.

Belay parka (heavyweight insulation layer):

A down or synthetic down parka style super warm jacket that fits over all your top layers. This jacket can be donned in cold conditions when you stop your activity (when eating, resting, belaying). This parka can also serve as an emergency jacket in survival situations or for extra insulation when sleeping or to insulate a hypothermic patient. Make sure jacket will fit over all your other layers including your helmet. If you don't have a belay parka bring an extra midweight layer with you that can wear. *This item may not be needed for summer courses.*

Winter Hat

An insulated wool or synthetic hat that covers your ears for cold, windy environments. *Have a second hat or hood on an insulation or base layer that can be worn under helmets if your course involves skiing or snowboarding.*

Sunhat or visor

A baseball hat, sun hat, visor or sun hood that will protect you from the fierce high altitude UV rays that may cause skin cancer.

Gloves

MANDATORY 2 PAIR OF GLOVES:

- 1). Students need supply thin gloves for course and mapwork in this course.
- 2). A second pair of larger warmer gloves or mitts for colder conditions and as an emergency back-up.

Socks

Wool or synthetic hiking, skiing, or backpacking socks. Lightweight to heavyweight depending on season and boot selection. Recommend carrying 2nd pair for emergencies.

Hiking boots

Recommend waterproof leather or synthetic hiking boots with ankle support for off trail hiking. Often, we hike through wet muddy conditions or through some snow.

Gaiters

Gaiters help keep rocks & dirt out of your boots. Some technical hiking pants come with gaiters built into them. *We will be hiking off trail with possible wet, snowy, muddy conditions in backcountry navigation.*

Sunglasses

UVA & UVB protection for fair weather when not wearing goggles.

Buff

Synthetic buff to protect face from wind and UV rays.

Equipment

Recommend carrying equipment in waterproof stuff sacks in modular components (first aid kit, survival kit, sleeping module, electronics, repair kit, tech kit)

Essential Items:

Backpack (day pack)

A daypack to carry your food, water & extra clothing. For day trips recommend 30-45 liters carrying capacity.

Water bottles

2 wide mouth style containers. Durable plastic or metal recommended. Hydration bladders ok for summer but avoid for winter courses or if you may experience freezing temperatures during your outing.

Lunch

Pack a lunch that you can eat in the field. You will have 30 minutes for lunch. You cannot leave the field for lunch.

Sunscreen

Sunscreen & lip protection are essential at high altitude. Recommend SPF of 30+ (sweatproof).

Pocket knife or multi-tool

Good for repairs, lunch, etc....

First Aid Kit

Personal medications, gloves & CPR mask, bleeding control, splinting supplies

Headlamp

Primary headlamp for nighttime travel and emergency signaling. Smaller, lightweight compact secondary light in survival kit.

Electronics

Phone, extra battery pack, batteries for non-rechargeable devices, power cords.

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Map & Compass

For general navigation to back up your GPS or smart phone app. CMC will have maps & compasses for you if you don't have your own.

Survival Kit

More essential items like fire starter, cordage, water purification, whistle, signal mirror, saw

Repair kit

Designed specifically for your mode of travel (ski, snowboard, snowmobile). *You may not need this in summer courses.*

Emergency Food

In addition to carrying planned meals for your day trip, carry supplemental emergency rations for an unexpected night out. Carry a combination of carbohydrates, proteins and fats. Carbs metabolize quickly into energy. Proteins and fats will provide you with long lasting energy. Recommended emergency rations include: trail bars, nuts, dried fruit, jerky, peanut butter, canned fish, dehydrated prepared meals.

Stove & Fuel

Mostly for emergencies. Gives you the ability to boil water for heat & water purification, ability to melt snow into water & to cook hot meals, tea, hot cocoa for calories. Also great for hot lunches and tea on cold days.

Group Equipment

Emergency Communication*

At least 1 member per group should carry a satellite text messenger, satellite phone or PLB. Each instructor will carry a satellite text messenger and radio. Some backcountry users will carry small handheld radios to enhance communication while in the field. *Each team will have a handheld radio & whistle for the backcountry navigation course.*

Emergency Bivy Kit

Camp pad, vapor barrier, emergency sleeping bag & bivy bag. Bothy bag or tarp for overhead shelter. Minimum 1 per group of 6. Instructor will carry this.