

# Makalu Expedition Required Equipment

## BASE LAYERS

- Synthetic Short Underwear** (2-3 pair)  
non-cotton style underwear  
recommended: [Patagonia Men's Capilene Daily Boxer Brief](#)
- Lightweight Long Underwear** (2-3 pair)  
long sleeve shirt and long pants  
recommended: [Mountain Hardware Ghee Long Sleeve 1/2 Zip top](#), [Ghee Tight](#) bottoms
- Heavyweight Long Underwear** (1 pair)  
recommended: [Mountain Hardware Diamond Peak 1/2 Zip top](#), [Diamond Peak Thermal Tight](#) bottoms
- Short Sleeve Synthetic Shirt** (1-2 pair)  
recommended: [Mountain Hardware Diamond Peak Short Sleeve T-Shirt](#)

## MID LAYERS

- Soft Shell Jacket**  
to be worn over other layers  
recommended: [Mountain Hardware Stretch Ozonic Jacket](#)
- Soft Shell Pants**  
very breathable and water repellent  
recommended: [Mountain Hardware Stretch Ozonic Pant](#)
- Lightweight Nylon Pants** (1-2 pair)  
recommended: [Mountain Hardware Chockstone/2 Pant](#)

## WINDPROOF/RAIN LAYERS

- Hard Shell Jacket with hood**  
waterproof and breathable shell jacket  
recommended: [Mountain Hardware Exposure/2 Gore-Tex 3L Active Jacket](#)
- Hard Shell Pants**  
waterproof and breathable shell pants  
recommended: [Mountain Hardware Exposure/2 Gore-Tex Active Pant](#)

## INSULATION LAYERS

- Heavyweight Insulated Down Jacket with hood**  
we primarily wear this when climbing below Camp 2  
recommended: [Mountain Hardware Absolute Zero Parka](#) or [Nilas Jacket](#)
- Insulated Pants**  
worn primarily when climbing below Camp 2  
recommended: [Mountain Hardware Compressor Pant](#)
- Down Suit**  
worn when climbing above Camp 2  
recommended: [Mountain Hardware Absolute Zero Suit](#)

## HEADWEAR

- Warm Hat**  
synthetic or wool hat (ski hat)  
recommended: [Mountain Hardware Dome Perignon Pro](#)

**Balaclava**  
to protect your neck and face in high winds  
recommended: [Mountain Hardwear Alpine Balaclava](#)

**Baseball Cap or other sun hat**  
to shade your face/neck from the sun on a hot day  
recommended: [Madison Mountaineering Cap](#)

**Bandana or Buff**  
to protect your neck/face from the sun  
recommended: [BUFF UV Multifunctional Headwear](#)

## EYEWEAR

**Glacier Glasses**  
full protection with side covers or wrap around  
recommended: [Julbo Shield Sunglasses](#)

**Ski Goggles**  
to be worn on summit day in the event of high winds – (2<sup>nd</sup> pair optional)  
recommended: [Scott USA LCG Goggle](#)

## GLOVES

**Lightweight Synthetic Base Layer Gloves**  
for wearing on a hot day  
recommended: [Mountain Hardwear Power Stretch Stimulus Glove](#)

**Soft Shell Gloves**  
to wear for moderate cold/wind  
recommended: [Mountain Hardwear Route Setter Alpine Work Glove](#)

**Shell Glove with Insulated Liner**  
to wear for severe cold/strong wind  
recommended: [Mountain Hardwear Exposure/2 Gore-Tex Glove](#)

**Expedition Mitts**  
large enough to fit a liner glove inside  
recommended: [Mountain Hardwear Absolute Zero Gore-Tex Down Mitt](#)

**Heated Gloves (optional)**  
Battery-powered heated gloves  
recommended: [Outdoor Research Capstone Heated Gloves](#)

## FOOTWEAR

**Liner Socks (3 pairs)**  
recommended: [Spyder Pro Liner Sock](#)

**Wool or Synthetic Socks (6 pairs)**  
recommended: [Smartwool Mountaineering Extra Heavy Crew Sock](#)

**Heated Socks (optional)**  
recommended: [Lenz 4.0 Heat Socks](#)

**Mountaineering Boots**  
recommended: [La Sportiva Olympus Mons Evo](#)

**Hiking Boots/Shoes**  
comfortable boots or shoes for the trek to base camp

**Camp Boots**

comfortable boots for wearing in camp  
recommended: [Sorel Caribou Boot](#)

**Gaiters (optional)**

recommended: [Outdoor Research Expedition Crocodile Gaiters](#)

**Booties (optional)**

recommended: [Feathered Friends Down Booties](#)

## SLEEPING EQUIPMENT

**Sleeping Bag (for high camps)**

rated to at least -40°F. Goose down or synthetic  
recommended: [Mountain Hardwear Phantom Gore-Tex -40 Sleeping Bag](#)

**Sleeping Bag (for base camp)**

rated to at least -20°F  
recommended: [Mountain Hardwear Lamina -30 Sleeping Bag](#)

**Self-inflating Sleeping Pads (2)**

full length is preferred, 1 for base camp and 1 for high camps  
recommended: [Therm-a-Rest NeoAir XTherm](#)

**Closed-cell Foam Pad**

to be used in conjunction with the inflating pad for warmth and comfort when sleeping  
recommended: [Therm-a-Rest RidgeRest SOLite](#)

**Earplugs**

recommended: [Eagle Creek Travel Ear Plug Set](#)

## MOUNTAINEERING GEAR

**Expedition Backpack**

approximately 105L  
recommended: [Mountain Hardwear AMG 105 Backpack](#)

**Compression Stuff Sacks**

for reducing the volume of the sleeping bag, down parka, etc., in your pack  
recommended: [Sea to Summit Compression Sacks](#) and [Sea to Summit eVAC Dry Sacks](#)

**Trash Compactor Bags**

to line backpack and stuff sacks as well as for separating gear

**Backpack Rain Cover (optional)****Trekking Backpack**

to carry on the trek to base camp. Simple and light.  
recommended: [Mountain Hardwear Scrambler 35 Backpack](#)

**Trekking Poles with Snow Baskets**

adjustable poles  
recommended: [Black Diamond Alpine Carbon Z Trekking Poles](#)

**Ice Axe**

general mountaineering tool (65cm)  
recommended: [Petzl Summit Ice Axe](#)

**Crampons**

general mountaineering crampons  
recommended: [Petzl Sarken Leverlock Crampon](#)

**Climbing Helmet**  
must be able to fit over your warm hat  
recommended: [Petzl Sirocco Helmet](#)

**Ascender**  
1 right or left-hand ascender  
recommended: [Petzl Ascension Ergonomic Ascender](#)

**Accessory Cord**  
30 feet (9m) of 6mm accessory cord  
recommended: [New England 6mm Accessory Cord](#)

**Alpine Climbing Harness**  
mountaineering harness, with adjustable leg loops. Not a rock-climbing “sport” harness  
recommended: [Petzl Altitude](#)

**Carabineers**  
3 regular and 3 locking  
recommended: [Black Diamond Oval](#) (regular) and [Black Diamond Positron Screwgate](#) (locking)

**Carabineer for progression lanyard**  
1 locking  
recommended: [Petzl Vertigo Wire-Lock](#)

**Belay/Rappel Device**  
recommended: [Black Diamond Super 8 Belay/Rappel Device](#)

**Headlamp**  
with 2 extra sets of new batteries  
recommended: [Petzl Tactikka Core Headlamp](#)

## TRAVEL ITEMS

**Large Duffel Bags with Locks (2)**  
for transporting gear  
recommended: [The North Face Base Camp Duffel](#)

**Carry-on Backpack**  
can use trekking backpack, approximately 18” x 16” x 10” (46cm x 41cm x 26cm)

**Travel Clothes**  
for days in cities and towns

**Lightweight journal, sketchbook, pencils, pen**

**U.S. cash**  
for currency exchange to purchase SIM cards or merchandise in cities and villages

## ADDITIONAL FOOD ITEMS

**Snack Food**  
bring a few days’ supply of your favorite climbing snack food such as bars, gels, nuts, beef jerky, etc.  
variety of salty and sweet is good  
recommended: [GU Roctane Energy Gel](#)

## OTHER EQUIPMENT

**Cup**  
plastic 16 oz. minimum cup or mug

**Bowl**  
large plastic bowl for eating dinner or breakfast

**Spoon**  
plastic spoon (Lexan)

**Water Bottles** (2 or 3)  
wide mouth bottles with 1-liter capacity  
recommended: [Nalgene 1L bottle](#)

**Water Bottle Parkas** (2)  
fully insulated with zip opening  
recommended: [Outdoor Research Water Bottle Parka #1](#)

**Water Treatment** (optional)  
recommended: [SteriPEN Ultra](#), [Aquamira](#), tablets, etc.

**Thermos**  
1 liter  
recommended: [Hydro Flask 32oz Wide Mouth Insulated Bottle](#)

**Heated Insoles** (optional)  
recommended: [Hotronic Custom S4 Heating Elements Foot Warmer Kit](#)

**Hand Warmers**  
recommended: [Yaktrax Hand Warmer](#)

**Sunscreen**  
SPF 50 or better

**Lip Screen** (2 sticks)  
SPF 30 or better

**Toiletry Bag**  
include toilet paper and hand sanitizer

**Pee Bottle**  
1-liter minimum bottle for convenience at night in the tent

**Female Urination Device (FUD)**  
recommended: [Sani-Fem Freshette](#)

**Knife or Multi-tool** (optional)

**Small Personal First-aid Kit**  
include athletic tape, band-aids, Ibuprofen, blister care, cough drops, etc.

**Medications and Prescriptions**  
bring antibiotics (Azithromycin, etc.), and altitude medicine such as Diamox and dexamethasone

**Handkerchiefs/Bandanas** (optional)

## OPTIONAL ELECTRONICS



**Country-appropriate power plug adapters and power transformers**



**Avalanche Transceiver**

recommended: [Backcountry Access Tracker 2 Avalanche Beacon](#)



**Adventure Sports Watch**

recommended: [Garmin fēnix 6](#)



**GPS/Personal Satellite Communicator**

recommended: [Garmin inReach Mini](#)



**Personal Power System**

recommended: [Goal Zero Nomad 28 Plus Solar Panel](#) and [Sherpa 100AC Power Bank](#)



**Digital Entertainment**

movies, tv shows, music, books loaded on to smartphone, iPad, Kindle



**Camera**

bring extra batteries, charger, and memory cards



**Portable Travel Humidifier**

battery powered