



MAT Student Information Package 2022

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Introduction

Your backcountry safety education continues with our **Managing Avalanche Terrain** course! The MAT is a focused one-day field-based course designed to expand on the terrain management taught in the AST 1 course and to develop more advanced winter backcountry travel skills. This course will help you mitigate your risk by honing your terrain evaluation and travel skills.

You need to have completed the AST 1 course in order to take this course.

We recommend that you have at least one full season of backcountry travel under your belt before taking a MAT course. This course is rated as **Blue Square** for both [Fitness and Ski Skills](#) unless you signed up for our expert-only course (where it is a black diamond for each). You should feel confident with your transition and movement skills to take this course.

What you will learn in an MAT:

- Intermediate level trip planning and group decision making
- Identify how to move through avalanche terrain.
- Use the avalanche bulletin and Avaluator to make decisions that relate to the terrain.
- How to ski and ride as a group
- Track setting

Pre-course Material

We have created an online course for you that will help you prepare for your day. If you have taken our AST-1 course, this will mostly be a review for you, however, there are some new concepts introduced. If you are new to KBGuides and how we run our courses, we recommend that you do the whole online course. It will only take an hour or two and you will get more out of your day if you complete the course.

Meeting Times & Location

MAT Courses will be held in either Kootenay Pass or Whitewater Ski Resort Backcountry. We will notify you a minimum of 2 weeks before the date of the course as to where exactly the course will be held.

Courses at Whitewater Ski Resort Backcountry:

- **DAY ONE:** 7:30 am Meet your guide in the **Nelson Visitor Centre Parking Lot** and go over the plans for the day.
 - Please note our guides will be meeting you outdoors please ensure you have a mask. Bundle up - come dressed in warm clothing and warm footwear. We will be standing outside for 15-20 for the morning debrief.
 - We will be going over the plans for the day and head into the backcountry. Please ensure arrive ready to go - your car is fully gassed up, or you are buying beers at the end of the day!
 - We plan on being back in town between 4:00 pm and 4:30 pm.

Courses at Kootenay Pass:

Coming from the West (Salmo) Side of Kootenay Pass

- **Location:** Meet at **8:15 am PST** in the parking lot across the highway from the **Dragonfly Cafe, 413 Railway Ave, Salmo, British Columbia**. We are heading to Kootenay Pass.

Coming from the East (Creston) Side of Kootenay Pass

- **Location:** Please meet us at **9:00 am** PST time in the parking lot on the **east side of Bridal Lake** at the top of the summit <https://goo.gl/maps/4yrKEVmjcxMDaftM9>

*****Please note our time zone is PST**

EQUIPMENT LIST

Having the proper gear will allow you to maximize your learning on this course. Please follow this list to make sure that you have all of the proper equipment.

ALPINE TOURING BINDINGS.

These are downhill skis with a touring binding. Bindings come in a couple of styles:

1. **Tech bindings.** This binding has pins that connect with holes in the toe of your boots. You need to have Tech Toe boots for these bindings to work. See [this image](#) for an idea of what we are describing. If you want a lightweight tech binding, the [Dynafit Radical](#) is a great example. The [Marker KingPin](#) is a decent choice that combines a regular releasable heel with a tech style toe piece. There are many options available for different tech bindings and boot combinations. One challenge with tech bindings is that they do not adhere to the DIN system and can be hard to operate. The [Solomon Shift](#) binding has tried to deal with the DIN issue by making a regular binding that turns into a tech binding for climbing. There are others coming on the market that do the same.
2. **Frame Bindings.** This is where there is a regular toe and heel piece but the heel can unlock. See [this image](#) for details. One challenge with frame bindings is that they are heavy. We do not recommend heavy frame bindings like the Marker Duke. These bindings are designed for very short tours of less than 45min in duration. We have seen many people unable to finish their days because they have heavy bindings.

TELEMARK SKIS:

These are becoming less and less popular as the world of alpine ski touring equipment has changed with innovation. This system can be challenging. Releasable bindings are highly recommended as this is a major safety advantage.

SPLITBOARDING:

This is the most effective and lightweight way to snowboard in the backcountry. As technology has improved over the last 5 years splitboarding has been the go-to for all snowboarders in the backcountry. You need to purchase splitboard bindings. The [Spark Binding](#) set up or the [Burton Hitchhiker](#) are the most popular. Check out [Tribute Board Shop](#) in Nelson for your splitboarding needs.

SKI BOOTS:

Those who choose an Alpine Touring set up will want to have Alpine Touring Boots with Vibram Soles. Please make sure that if you have a tech binding and that you buy boots with a tech toe. See the (Alpine Touring skis/bindings section for details).

Alpine Touring boots are designed for walking and skiing. They have a walk mode that allows your ankle to flex and a rockered sole for easy walking. **Downhill Alpine boots are not recommended**, even ones with a walk mode as these boots are significantly heavier and less comfortable than an Alpine Touring boot. We have seen many people unable to finish their days because they bring heavy boots.

SPLITBOARDING BOOTS:

Pretty much all snowboarding boots work with Splitboard bindings. Make sure you get boots that are designed for long walks.

BACKPACK:

Having a properly fitting backpack is crucial to having a comfortable day in the backcountry. We recommend a pack between 30 and 45L. The best packs have compartments for your avalanche safety gear. Having a helmet holder is also important.

PLEASE ENSURE YOU KNOW HOW TO USE YOUR GEAR BEFORE YOUR 1ST FIELD DAY

Please note that although we will do our best to help you learn how to use your equipment, you should show up to the course knowing how to put together your splitboards, clicking into your bindings and placing your skins on your skis or splitboards. There are other students looking to maximize their days learning about avalanche safety, you do not want to hold anyone up struggling with your gear.

AVALANCHE SAFETY GEAR

TRANSCEIVERS:

You need to have a **modern triple antenna digital transceiver**, we do not allow analogue or dual antenna transceivers on our trips or courses. All new modern triple antenna transceivers are good. Select one that you think fits your needs.

You should be very suspect of purchasing transceivers on Facebook Marketplace or from other used gear sources. You do not know how that transceiver has been treated or how old it is.

See [this video](#) for an overview of what to look for in transceivers.

If you are looking for a good site to check out all the different transceivers and what features are available. Go to <https://beaconreviews.com/>

PIEPS DSP SPORT OR PRO

Please note that if you have a Pieps DSP Sport or Pro, these transceivers have issues with their lock buttons. Please take them to your local gear shop to get them checked out.

What model is your beacon?

Your beacon should have the model name printed somewhere on the body.

Below are examples of the most common PIEPS and Black Diamond Equipment beacon models on the market today:

**SHOVEL:**

Shops offer a wide range of excellent shovels. Do not buy plastic or super lightweight shovels. Check out [this video](#) for what to look for in a shovel.

PROBE:

Make sure you are buying a high-quality probe that is easy to put together.

See [this video](#) for what to look for in a probe. All new models have a quick snap to lock the probe in place, we do not recommend screw in tops for avalanche probes. BCA makes great probes at a reasonable price. We recommend that your probe is 300cm or longer.

SKINS:

Choose a skin that is appropriate for your skis or splitboard. Make sure to follow the instructions carefully when setting them up. G3 Alpinist Skins are a really great easy skin to set up, they make them for both skis and splitboards.

AIRBAG PACKS:

Avalanche airbags are not mandatory on our courses or trips. European studies show they significantly reduce your chances of being buried in an avalanche. There are many different makes and models to choose from and range from \$700 to \$1800. These can be rented from [Roam Shop](#) in Nelson B.C.

OUTERWEAR:

- High quality waterproof breathable shell and pants.
- Warm toque.
- Ski boots or snowboard boots.
- Helmet, which should be lightweight for carrying
- 2 pair of water-resistant gloves or mitts

- High-quality ski or snowboard socks
- Long underwear top and bottom
- A warm Puffy Thinsulate or down jacket
- Goggles and sunglasses

Required Resources

- **A map of the local area.** [Backcountry Skiing Canada](#) makes excellent maps for Kootenay Pass, Whitewater and the Rossland Range. These maps can be found at ROAM or Valhalla Pure in Nelson. This will be very valuable after you complete the course as well.
- **A compass.** Try to find one with an inclinometer on it, both Roam and Valhalla Pure have high-quality compasses. It is still strongly recommended to have a dedicated compass as smartphone compasses are unreliable.
- **Download this inclinometer** at [Google Play](#) or [Apple Store](#). A hand held inclinometer will work as well.
- **Download the Avalanche Canada App.** [Google Play](#) [Apple Store](#)
- **Navigation App.**
 - We recommend getting [Gaia GPS](#) and purchasing the membership. This is not necessary but will greatly enhance your backcountry experience. [Google Play](#) or [Apple Store](#).
 - Avenza or FATMAP will work as well.

Other Recommended Gear (but not required for this course)

- It is recommended you have a snow saw for snow profiles or making emergency shelters or getting firewood. Check out the [G3 Bone Saw](#) or this [BCA snow saw](#).
- A magnifying loop to look at snow crystals is also recommended
- A thermometer is recommended for taking air and snow temperatures.
- If you have a communication system like an Inreach, Spot or Radio, please bring it as we will cover how you can use these as emergency communication systems.
- Headlamp and batteries
- Extra batteries for your Transceiver
- First Aid kit

RENTING GEAR

At Kootenay Backcountry Guides we have a limited supply of backcountry rental equipment. If you would like to rent from us please ensure you include that information when making your booking.

- Shovel (\$7.50/day)
- Probe (\$7.50/day)

- Transceiver (\$27.50/day)
- **Plus taxes**

ROAM Shop Nelson

- Rents transceivers, shovels, and probes. They also rent tech binding equipped touring skis, boots, poles and a wide selection of splitboards. Check their rental fleet [HERE](#) and fill out the [Winter Rental Waiver Form](#) as soon as possible.
- We have teamed up with [ROAM Shop](#) to offer all registered program participants renting gear to take one day's cost of renting off the purchase price of new gear. This means you can test out gear you are thinking of buying.
- Also, **you get a 10% discount on rentals and 5% discount all purchases** of new gear at [ROAM Shop](#). Please make sure you let them know you are a registered participant in a KBG program at the time of purchase!

[Tribute Boardshop](#) rents splitboards. They offer to take the cost of any splitboarding gear rented off of the purchase price of new gear.

[Sacred Ride](#) in Nelson has a good selection of skis and splitboards.