



AST 1 Refresher Student Information Package 2023-24

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AST 1 Refresher Course: Elevate Your Avalanche Safety Skills

Welcome back to the world of avalanche safety! If you've completed your AST 1 course and are eager to bolster your skills, our AST 1 Refresher Course is tailored just for you. This one-day field experience combines hands-on practice and online learning to ensure you're equipped with the latest avalanche safety knowledge and techniques.

Course Highlights:

- **Hands-On Field Course:** Immerse yourself in a full day of practical learning led by experienced instructors. Refresh your avalanche safety skills, practice rescue techniques, and enhance your ability to make informed decisions in the backcountry.
- **Comprehensive Online Learning:** Gain access to our renowned online learning platform, thoughtfully curated by Judson Wright. This platform covers the entire AST 1 curriculum, allowing you to focus on specific lessons that you wish to review.

- **Flexible Learning:** Our AST 1 Refresher Course offers flexibility. Work through the online material at your own pace before and after the field day. You'll have continued access to the content to ensure you absorb the material thoroughly.
- **Skill Enhancement:** Beyond refreshing your knowledge, the AST 1 Refresher Course is an opportunity to refine your skills, gain fresh perspectives, and strengthen your foundation of avalanche safety know-how.

Learning Outcomes:

- **Field Trip Planning:** Develop the skills to plan safe and successful backcountry trips, considering factors like terrain, weather, and group dynamics.
- **Understanding the Avalanche Bulletin:** Interpret and analyze the avalanche bulletin to make informed decisions about current avalanche conditions.
- **Companion Rescue Skills:** Hone your skills in companion rescue techniques, ensuring you're prepared to respond effectively in the event of an avalanche incident.
- **Avalanche Formation and Release:** Deepen your understanding of how avalanches form and release, empowering you to identify potential hazards.
- **Avalanche Terrain Recognition and Management:** Learn how to recognize avalanche-prone terrain and make informed decisions to manage risk.
- **Mountain Weather:** Gain insights into mountain weather patterns and their impact on avalanche conditions and backcountry travel.

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. If you are new to KBGuides and how we run our courses, we recommend that you do the whole online course. The course is structured so you can pick and choose what lessons you would like to refresh your knowledge on.

Meeting Times & Location

AST 1 Refresher Courses will be held at Kootenay Pass.

Coming from the West (Salmo) Side of Kootenay Pass

- **Location:** Meet at **8:00 am PST** inside the **Dragonfly Cafe, 413 Railway Ave, Salmo, British Columbia**. Feel free to grab a coffee or quick snack if the line up is short, but do not order a big breakfast as we need to on the road.

Coming from the East (Creston) Side of Kootenay Pass

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

Schedule: We aim to back at our vehicles between 3:30 pm and 4:30 pm.

*****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, CalTopo 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](#). They are not necessary for the course.
- 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.