

# Race Organizer Guide: Guidelines for Sit Ski Courses



This document contains information and general guidelines to consider when designing Nordic ski courses for sit skiers. Good beginner sit ski terrain is also great for new and recreational skiers, so designing a trail within these guidelines can have a great positive impact on your club growth and the skier-friendliness of your trails.

The International Ski & Snowboard Federation (FIS) has compiled standards for World Cup courses, which can be found in the [Cross-Country Homologation Manual](#) (p. 32) on the FIS website:

[https://assets.fis-ski.com/image/upload/v1648564366/fis-prod/assets/FIS\\_homologation\\_manual\\_draft\\_October2021.pdf](https://assets.fis-ski.com/image/upload/v1648564366/fis-prod/assets/FIS_homologation_manual_draft_October2021.pdf)

Keep in mind that these guidelines are intended for the best skiers in the world. If you are designing a course appropriate for the other 99.9%, we recommend scaling back from what is recommended by FIS. If you are interested in hosting sit ski races in conjunction with your citizens' races or regional/national competitions, these guidelines will still help you create great course options.

## Here are a few points to keep in mind:

- For someone who is in a wheelchair or uses assistive devices, the “start” of their ski experience is where they park, not necessarily the trailhead or stadium. Is there accessible parking that is regularly cleared of snow? How are they going to get to snow? Are there steep ups/downs, large snowbanks, or large unplowed or snowy areas they will have to get around to get to snow? Thinking through this will help inform where you want to start your sit ski trails.
- Sit skiers should be able to get to the stadium in their wheelchair or easily and safely in a sit ski from wherever they start skiing.
- Flat courses are not necessarily the best; sit skiers can and should have mild hills and technical elements.
- Make sure there is terrain that is sit skiable in and around the stadium. We recommend short loop options with no steep uphill (not greater than 10%) and only gradual turns. Additionally, off-camber trails can be tricky for sit skiers, especially on corners.
- If you are interested in hosting races, designing a 750-1000m course around the stadium that follows the above guidelines will give you a good start. It is better to have a short, well-designed course on which sit skiers can ski multiple laps, than longer, less optimal courses.
- Before you design a course, spend some time in a sit ski to gain appreciation for the significant challenges of the sport. Try skiing without using your core muscles, as many sit skiers must do. Terrain that you may not have registered as an uphill when skiing standing up may prove to be quite a serious challenge in a sit ski. Also, try maneuvering in the sit ski to get an idea of the radius and types of turns that may or may not work on a sit ski course.

## Considerations for biathlon courses and range:

- Make a biathlon range entry and exit that works for sit skiers (easy grades and gradual turning radius).
- Ideally, create biathlon sit ski race loops of 1km, 1.5km, 2km, & 2.5km with a 100-150m penalty loop. Use the guidelines above for the design of the courses.
- Paralympic biathlon uses 10m ranges and .177 caliber air rifles. If possible, use the same shooting line as the 50m range so they can be used at the same time. Air rifle shooting points can double as 50m shooting points, if you design a method for targets to be hosted at 10m and removed when they are not needed, or when all 30 points of the 50m range are needed.

**For more information, contact FIS TD Eileen Carey: [eileen.carey@usopc.org](mailto:eileen.carey@usopc.org).  
Additional resources are available at [teamusa.org/usparanordicskiing/resources](http://teamusa.org/usparanordicskiing/resources)**