Sierra Avalanche Center
Avalanche Level 2 for Motorized Users
Course Syllabus

Course Summary

This +24hr course presents advanced concepts of recreational avalanche risk management for motorized users. Learning will occur through a mix of pre-course reading and videos, a brief classroom session, and three days of field practice. This course follows the guidelines for Recreational Level 2 Avalanche Training as established by the American Avalanche Association.

Schedule

All three days will run from 9am-5pm. The first day will begin with a classroom session before transitioning to the field. The following two days will be entirely in the field. Instructors will communicate specific plans prior to and throughout the class. Attendance and participation in the full class is mandatory.

Course Requirements

Participants must:

- Be an advanced rider, comfortable side-hilling to both sides while making adjustments around obstacles, and able to self-extricate from basic stucks. Riding ability is much more important on the Level 2 compared to other classes - please do not overestimate your riding ability.
- Bring a functioning beacon, shovel, and probe. Beacons should be modern three-antennae, shovels should be made specifically for avalanche rescue, and probes should be 270cm or longer. Avalanche gear must be worn/carried on self, and not in tunnel bag. An extra shovel in tunnel bag is recommended.
- Ride a reliable, well maintained snowmobile/snowbike, capable of off-trail travel. Machines must be registered with visible registration markings. Spare belts and repair kits are strongly recommended. Poorly maintained machines and/or machines not intended for off-trail travel may jeopardize the experience of others.
- Read the required materials, watch the required videos, and apply the Daily Flow and Alerts stickers to machines for easy reference while riding.
- Bring a radio capable of operating on FRS/GMRS frequencies.

Required Text and Materials

- The SAC Daily Flow user guide and videos.
- Student-supplied Rite in the Rain #373 or equivalent
- Daily Flow and Alerts stickers, available for free at most regional powersports dealers. Additional stickers will be provided in class.
- Watch the following videos prior to class:
    - Throttle Decisions Weather https://vimeo.com/181683512
    - Throttle Decisions Snowpack https://vimeo.com/181683838
    - Throttle Decision Terrain https://vimeo.com/181684036
    - Snowpack Tests https://vimeo.com/79904128
    - Fracture Character https://vimeo.com/30996756
    - Instability vs Stability https://vimeo.com/479569510

Learning Outcomes

The successful student will:

- Become familiar with the structure and oversight of avalanche education in the U.S.
- Consider the impact that advanced avalanche training has on group dynamics.
- Manage risk for peers in an informal setting using a repeatable process.
- Use relationships between weather, snowpack, and avalanches to form an opinion about avalanche hazard independent of a regional forecast.
- Facilitate discussions with riding partners to create safety margins using terrain and/or timing.
- Confirm details with riding partners and develop a simple plan as a group contract.
- Manage the riding group by using techniques to lead through non-avalanche and avalanche terrain.
- Use the SAC Conditions and Terrain Alerts stickers to maintain awareness and communicate changes and/or concerns to the riding group.
- Use industry standard techniques to make observations by digging below the snow surface, including use of small and large column snowpack tests appropriate for current conditions.
- Become familiar with concepts of fracture character and propagation potential.
- Link seasonal weather history with snowpack structure and avalanche problems. Anticipate distribution over terrain. Acknowledge uncertainty about spatial variability.
- Communicate weather, snowpack, and avalanche conditions to others.
- Lead group discussions that link observed conditions to terrain use.
- Encourage partners to learn from each day by using daily debriefs.
- Submit observations to SAC using technical language and/or images and videos.
- Recognize the limitations of a Level 2 class, and the perishable nature of skills learned. Identify next steps in avalanche education and related fields for lifelong learning.