

# PSIA - ROCKY MOUNTAIN – AASI ADAPTIVE CERTIFICATION STANDARDS Adaptive Alpine Exam Material Level 1 & 2

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*Local and program regulations and safety guidelines take precedence over this information. It is in your best interest to exercise due diligence in determining the appropriateness of the information for your particular circumstances. In addition, please take into account any and all factors that may affect your lesson. This includes but is not limited to the health, well-being and fitness of the guest; weather conditions; terrain; other people on the slope; your own abilities, as well as those of your guest and anyone who may accompany you.*

*This guideline provides links to other resources as well as websites owned by or maintained on behalf of third parties. The content of any such third-party source or site is not within our control, and we cannot and will not take responsibility for the information in them, nor should any references to them be considered any endorsement by PSIA-RM.*

*Note: The Americans with Disabilities Act (ADA) requires that testing entities such as PSIA-RM-AASI make "reasonable accommodations" for qualified candidates with disabilities (whether physical or cognitive) and to the extent that they would not "fundamentally alter" the services being provided. Members with disabilities who are considering applying for an education course or certification exam must contact PSIA-RM-AASI at 970-879- 8335 at least four weeks in advance of a scheduled course or exam to provide notice of their requested reasonable accommodation and discuss their situations. This allows PSIA-RM-AASI to assess your request for a reasonable accommodation and to plan for reasonable accommodations, if necessary. Requests for accommodations will be considered on a case-by-case basis.*

*The essential eligibility requirements for each Adaptive Alpine Level 1 and 2 course and exam are presented in this exam material. The standards are national in scope and their maintenance is necessary in the interests of public safety, effectiveness, value for the consumer, and guest/employer expectations.*

*The ADA does not require reasonable accommodations for a transitory or minor disability. A transitory disability is an impairment with a duration of six months or less, such as one caused by illness or injury. If this applies to you, you may contact the PSIA-RM-AASI office to receive or refund or to transfer to a future clinic or exam.*

*You may refer to the PSIA-RM-AASI Americans with Disabilities Act (ADA) Policy for further information.*

## **Table of Contents**

Adaptive Alpine Level 1 & 2 Path to Certification	3
Adaptive Alpine 1-2 Teaching, Technical, and Skiing Applications Clinic	8
Adaptive Functional Skiing Exam	10
Adaptive Alpine Module Exams	11
Guest Centered Teaching (GCT)	12
Movement Analysis Filter	16
Diagnoses and Medications to Study for Your Level 1 & 2 Exam	17
Practice Evaluation Scenarios	19
Appendix A: Resource List	23
Appendix B: Study References for Adaptive Alpine Level 1 & 2 Exam Outcomes	25

# Adaptive Alpine Level 1 & 2 Path to Certification

## Adaptive Alpine Level 1 Certification

### Prerequisites

- Minimum 16 years of age.
- Be an employee or volunteer of a recognized ski school or adaptive ski program and complete a minimum of ten hours of in-house and on-hill training and actual on-hill adaptive teaching.
- Be current in dues & credit hours.
- Attend the Level 1 E-Learning Course, required for anyone not Level 1 Alpine certification or higher; free at <https://www.psia-rm.org/e-learning-module-lms/>.
- Attend the Adaptive Alpine 1-2 Teaching, Technical, and Skiing Applications Clinic (highly encouraged, but not mandatory if you have Alpine Level 1 certification).
- Complete and pass the Online Module Exam for the corresponding on-hill exam you will be taking at least one week before the exam:
  - Bi-Ski & Mono-Ski;
  - Cognitive & Visually Impaired; or
  - 3-Track, 4-Track, & Slider.

### Requirements

- Complete the Adaptive Alpine Functional Skiing Professional Development Log.
- Attend and pass the Adaptive Alpine Functional Skiing Exam at a minimum of a Level 1. (See *Further Information for Adaptive Alpine* located on the next page for additional information.)
- Complete the Adaptive Alpine Professional Development Log for the Module Exam you will be taking:
  - Bi-Ski & Mono-Ski;
  - Cognitive & Visually Impaired; or
  - 3-Track, 4-Track, & Slider.
- Attend and pass the corresponding on-hill Module Exam.

## Adaptive Alpine Level 2 Certification

### Prerequisites

- PSIA-RM Adaptive Alpine Level 1 Certified.
- Be current on Dues & Credit Hours.
- Complete and pass both remaining online exams at least one week before the corresponding on-hill exams.

### Requirements

- Complete and pass the Adaptive Alpine Functional Skiing Exam at a Level 2. (See *Further Information for Adaptive Alpine* located on the next page for additional information.)
- Bring completed Adaptive Alpine Professional Development Log for the corresponding Module Exams.
- Attend and pass the remaining Module Exams.

- Pass at least one of the Module Exams at a Level 2 (Note: This is true regardless of when you have taken previous Module Exams. If you are taking your last exam and your previous Module Exams were not scored as a Level 1 or Level 2, then your last exam must be passed at a Level 2. If you have passed an earlier Module Exam and scored as a Level 2, the last exam can be passed at a Level 1 or 2. For details on the Level 1 and 2 scoring, see the Adaptive Alpine Level 1 and 2 Certification Scorecard on the <https://www.psia-rm.org/> website.

## Further Information for Adaptive Alpine

- The PSIA-RM-AASI Office typically sends a notice of all other participants in your exam. It is your responsibility to work with your fellow examinees and bring all equipment that is needed for your on-hill exams. Reach out to the RM office to learn about others attending your exam and coordinate equipment.
- If you received your certification(s) at a PSIA division other than RM, and the division tested on an individual discipline versus Module (i.e., VI versus Cog/VI) then you must attend and pass each Module Exam. In order to receive your Level 2 certification in RM you must pass at least one Module Exam at Level 2 and the Functional Ski Exam at Level 2. If you have further questions, please contact the PSIA- RM office to determine how to proceed with your certification path.
- As of the 2014-15 season, you may pass the Functional Skiing Exam at a Level 1 or Level 2. If you took your Functional Skiing exam prior to the 2014-15 season and passed at a Level 1 and now wish to achieve the Level 2 Adaptive Alpine certification, you must retake the Functional Skiing Exam and pass at a Level 2. For details on the Level 1 and 2 scoring, see the Adaptive Alpine Functional Skiing Scorecard on the Adaptive Alpine Reference Materials link on the [psia-rm.org](http://psia-rm.org) website.
- If you are already PSIA-RM Alpine Level 1 certified and wish to attain Adaptive Alpine Level 1 Certification, you may choose to skip the Adaptive Alpine 1-2 Teaching, Technical, and Skiing Applications Clinic. All other prerequisites and requirements remain the same to achieve your Adaptive Alpine Level 1 Certification.
- If you are already PSIA-RM Alpine Level 2 Certified and wish to attain Adaptive Alpine Level 1 Certification, you may choose to skip the Adaptive Alpine 1-2 Teaching, Technical, and Skiing Applications Clinic and the Exam. All other prerequisites and requirements remain the same to achieve your Adaptive Level 1 Certification.
- Exams (whether passed or failed) count towards a member's credit hour requirement.



## PSIA - Rocky Mountain – AASI ADAPTIVE CERTIFICATION



# ADAPTIVE ALPINE LEVEL 1 & 2 CERTIFICATION STANDARDS

The standards listed below are the minimum requirements for Level 1 & 2 Adaptive Certification. These standards are general and can be applied to each aspect of Adaptive Certification Modules. This includes the following adaptive exam modules: Functional Skiing; Cognitive/Visually Impaired; Bi-Ski/Mono-Ski; 3-Track, 4-Track, and Slider.

### General Standards

#### “Exam Candidates should be able to...”

- Effectively teach adaptive skiers, Levels 1 – 6.
- Present a safe environment for the student and others.
- Ski at a minimum Level 7 (open stance parallel) on all green, blue/blue bumps and easy black terrain.
- Demonstrate basic knowledge & understanding of specific diagnoses and specialized equipment.
- Complete and pass the Online Module Exam for the corresponding on-hill exam you will be taking at least one week before the exam. The Online Module Exam needs to be completed with an 80% pass rate.
- Turn in a completed professional development log for the examiner to review. A development log that is not filled out will indicate that the candidate has not put in the effort for studying. If there is any question regarding the candidate’s knowledge, the professional development log and take-home exam are secondary tools to interview the candidate and to evaluate whether or not the candidate passes or fails a section of the exam.

### Movement Analysis/Technical Understanding

#### “Exam Candidates should be able to...”

- Identify basic movement needs of a skier from a video or real guest.
- Use the Guest Centered Teaching Model as a template to identify one skill and associated movements in all phases of the turn.
- Demonstrate technical knowledge of Movement Analysis based on discussion and applications used during on-hill teaching demonstration.

### Equipment Setup

#### “Exam Candidates should be able to...”

- Describe equipment commonly used by students with specific diagnoses.
- Set-up specialized adaptive equipment based on individual need of student.
- Load and unload specialized adaptive equipment from a variety of lifts based on ski area procedures, correct handling of equipment and guest, and common safety practices.
- Handle specialized adaptive equipment on-hill utilizing specific skiing techniques to enhance student learning, overall experience, and safety.

## **Teaching**

### **“Exam Candidates should be able to...”**

- Identify student profile based on specific diagnosis, movement analysis, and other special needs.
- Apply student profile to the development of individualized lesson goals.
- Create lesson content based upon development of Alpine Skiing Fundamentals.
- Use the Teaching/Learning Cycle to structure and deliver the lesson plan.

## **Diagnosis Knowledge**

### **“Exam Candidates should be able to...”**

- Define and describe specific diagnoses listed in the diagnosis profile located in the Exam Module being examined.
- Describe general mediation categories and their common side effects .
- Implement guest-centered assessments based upon the characteristics of the person and his diagnosis.

## **Exam Scoring Criteria**

All exam candidates will be evaluated on a pass/fail. Scoring criteria is as follows:

### **The first three scores are considered not meeting the standard:**

- Essential elements were not observed or not present
- Essential elements are beginning to appear.
- Essential elements appear, but not with consistency

### **The next three scores are considered meeting the standard:**

- Essential elements appear regularly at a satisfactory level
- Essential elements appear frequently, above required level
- Essential elements appear continuously, at a superior level

# Adaptive Alpine 1-2 Teaching, Technical, and Skiing Applications Clinic

This clinic is a prerequisite to Level 1 & 2 Adaptive Certification. Participants are introduced to the functional skiing tasks and movements needed to effectively teach adaptive lessons. Additional discussions regarding adaptive teaching and lesson planning enhance understanding. Candidates should bring their professional development logs and this document to the clinic.

Note: This is a sample agenda only. Each examiner sets a schedule based on weather, terrain, snow conditions and the people taking the clinic.

## Approximate Timing – Day One

All day. On snow, dressed and ready to ski.

8:00 – 8:30	Sign in
8:30 – 9:00	Introductions – People / Logistics / Clinic format / Clinic & group safety / What do you want from the clinic? Set goals for teaching / Technical / Movement Analysis
9:00 – 11:30	Functional skiing maneuvers, movement analysis, and teaching practice
11:30 – 12:30	Lunch
12:45 – 3:15	Functional skiing maneuvers, movement analysis, and teaching practice
3:45	Summarize Q&A Feedback

## Approximate Timing – Day Two

All day. On snow, dressed and ready to ski.

8:30 – 9:00	Introduction to the day Check for questions
9:00 – 12:00	Functional skiing maneuvers, movement analysis, and teaching practice
12:00 – 12:40	Lunch – summarize the morning
1:00 – 3:30	Review all tasks for Functional Skiing Exam personal skiing Review clinic topics / Discussion of exam format and content / Feedback and discussion
3:30 – 4:00	Summarize

4:00            Individual feedback

As you can see, there is a lot to get done. Please plan accordingly and help utilize the time wisely. Have equipment readily available and set for your use.

## **Adaptive Functional Skiing Exam**

*This is a one-day validation of skiing, teaching and technical understanding for levels 1-6 as they apply to guests with disabilities. Candidates are evaluated in the Functional Skiing Tasks used in teaching adaptive lessons.*

*Upon successful completion of the Adaptive Functional Skiing Exam, candidates may take one of the following adaptive alpine specialty exams: 3-Track, 4-Track and Slider, Bi-Ski/Mono-Ski; Cognitive/Visually Impaired.*

*Successful completion of the Functional Skiing Exam and one of the adaptive alpine specialty exams equals Level 1 Certification.*

*Note: This is a sample agenda only. Each examiner sets a schedule based on weather, terrain, snow conditions and the candidates taking the exam.*

### **Approximate Timing**

- |               |   |
|---------------|---|
| 8:00 – 8:30   | Sign in – Collect professional development logs   |
| 8:30 – 9:00   | Introductions – People / Logistics / Exam format / Exam event / Group safety                      |
| 9:00 – 10:00  | Indoor Movement Analysis – video with worksheet and discussion. (When finished, put on ski gear.) |
| 10:00 – 12:00 | Ski tasks on hill   |
| 12:00 – 1:00  | Working lunch   |
| 1:00 – 3:30   | Continue ski tasks on hill  |
| 3:30 – 4:30   | Examiner scores and prepares result packets   |

As you can see, there is a lot to get done. Please plan accordingly and help utilize the time wisely. Have equipment readily available and set for your use.

## Adaptive Alpine Module Exams

*There are three different Adaptive Alpine Module Exams: Adaptive 3-Track, 4-Track, and Slider Exam; Adaptive Bi-ski/Mono-ski Exam; and Adaptive Cognitive/Visually Impaired Exam. Each of these Module Exams is a one-day event in which candidates are tested in their skiing, teaching, medical & technical knowledge and competent use of adaptive equipment relative to the discipline. The exam is scored in three categories: Teaching, Technical and Safety.*

*Successful completion of the Functional Skiing Exam and one of the Adaptive Alpine Module Exams equals Level 1 Certification. Successful completion of the remaining two Module Exam equals Level 2 Certification.*

*Note: This is a sample agenda only. Each examiner sets a schedule based on weather, terrain, snow conditions and the candidates taking the exam.*

### Approximate Timing

- |               |  |
|---------------|--|
| 8:00 – 8:30   | Sign in – Collect professional development logs  |
| 8:30 – 9:00   | Introductions – People / Logistics / Exam format / Exam event / Group safety   |
| 9:00 – 10:00  | Indoor Movement Analysis – adaptive-specific video with worksheet and discussion. (When finished, put on ski gear.)  |
| 10:00 – 12:00 | Safety, loads, & unloads out on hill – riding the lift and safety / assists, loads, unloads, teaching segments.<br>*You are expected to teach safely and to conduct your sample lesson scenario with safety as your first priority!* |
| 12:00 – 12:30 | Lunch  |
| 12:30 – 1:00  | Discuss – Diagnoses, medications, & guest assessment / Teaching/Learning Cycle / Teaching styles / Recap Movement Analysis sheets  |
| 1:00 – 3:15   | Adaptive teaching – teaching progressions; sharing information on skill development and exercises; on-hill movement analysis and prescription for change   |
| 3:15 – 3:30   | Summarize - Any questions / Issues prior to finishing exam / Meeting place for results   |
| 3:30 – 4:30   | Examiner scores and prepares result packets  |

As you can see there is a lot to get done. Please plan accordingly and help utilize the time wisely. Have equipment (personal and adaptive), readily available and set for your use. If you are sharing adaptive equipment with anyone else, make sure that you know your personal settings so that you can quickly set it up for yourself.

# Guest Centered Teaching (GCT)

Guest centered skiing and snowboarding lessons are positive skiing and riding experiences. By understanding the basic needs of your students and fulfilling those needs, you can create the most positive learning experiences possible.

Most successful instructors have something in common: they consistently exceeded their students' expectations! This is because they pay close attention to all of the needs of their students, both spoken and unspoken. These successful instructors understand that 70% of communication is non-verbal and they look and listen for clues as they formulate a plan for each individual.

As an instructor, you also need to be conscious of your own desires and agendas—these personal desires or agendas can minimize your capacity to meet your guest's needs.

## Your Guest

Your students bring a variety of needs to a lesson. They may need to stay warm and safe; know about pole use; look good; not work so hard or keep up with a friend or loved one. Your students' needs fall into one of these three categories:

- Motivational Needs
- Understanding Needs
- Movement Needs

Fulfilling **Motivational Needs** is the most powerful thing you can do to create a positive experience and yet Motivational Needs can sometimes be the most challenging for you to meet. Perhaps this is because of the intensely personal nature of what motivates an individual. While there are times when Motivational Needs are the same as movement and understanding needs, they may also be the underlying reason for the Movement and Understanding Needs. Occasionally, Motivational Needs have nothing to do with the Movement and Understanding Needs; perhaps a student merely desires company or an orientation to a new part of the mountain.

**Understanding Needs** include a student's awareness and understanding of his/her current ability or inability. Working in this category offers you an opportunity to clear up misunderstandings. It also allows you to relate what the student is learning to his/her other GCT needs.

**Movement Needs** are the most technical aspect of GCT. Through movement analysis, you must first discover which movements are hindering your student's skiing/snowboarding performance and then determine the single most important movement (SMIM), which will improve his/her experience. After s/he has become proficient in that SMIM, you can then select the next SMIM which will improve his/her experience. You also need to remember that movement needs can be impacted by the student's equipment, so make equipment adjustments as necessary throughout the lesson.

Keep in mind that while most students describe Movement Needs as the reason for taking a lesson, they are generally only on the surface of the deeper Understanding and Motivational Needs.

## Instructor Behavior

**Identification Activities** help you determine the needs of your students. The foundation of a positive skiing/snowboarding experience rests on your ability to accurately identify their Motivational, Understanding, and Movement Needs. You can identify these needs by asking questions, making observations, and verifying any assumptions.

**Facilitation Activities** are your lesson planning activities, which include anything you do or say in response to an identified need. They can be as simple as answering a question, going in to warm up, explaining a new task or just plain skiing/riding a lot! What is most important for your students determines the activities you choose.

# Rocky Mountain • GCT™ Lesson Planning Worksheet

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<b>Guest Profile</b>									
<p>Name:</p> <p>Age:</p> <p>Equipment:</p> <p>Physical:</p> <ul style="list-style-type: none"> <li>■ Diagnosis?</li> <li>■ Medications?</li> <li>■ Side effects, if any?</li> <li>■ How healthy?</li> <li>■ How energetic?</li> <li>■ State of mind?</li> </ul> <p>State of Mind:</p> <ul style="list-style-type: none"> <li>■ Comfortable?</li> <li>■ Aggressive? Intimidated? Etc?</li> </ul> <p>Background:</p> <ul style="list-style-type: none"> <li>■ Interests/Hobbies?</li> <li>■ Other sports?</li> </ul> <p>Skiing Experience</p> <ul style="list-style-type: none"> <li>■ Sliding on snow?</li> <li>■ Skier level?</li> <li>■ What type of turns?</li> <li>■ Other lessons?</li> <li>■ Other areas skied?</li> </ul>	<ul style="list-style-type: none"> <li>■ What does the guest <b>say</b> s/he wants?</li> <li>■ What do you <b>think</b> (infer or assume) the guest needs?</li> <li>■ Why do you think that? (Be specific—words, non-verbal cues, background information.)</li> <li>■ How will you probe more deeply and verify your conclusions and assumptions (questions, observations)</li> <li>■ What non-skiing background can you bring into the lesson (hobbies, passions, athletic activities, skills, learning styles, career choices, education, family, fitness, energy, personality, equipment; positive &amp; negative transfer)?</li> </ul>	<ul style="list-style-type: none"> <li>■ What does the guest <b>understand</b> about skiing?</li> <li>■ What might the guest <b>misunderstand</b> about skiing?</li> <li>■ How does the guest's understanding and/or misunderstanding affect his/her Movements and Motivational Needs?</li> <li>■ How important is the guest's NEED for understanding? (Is better understanding for its own sake a Motivational Need for this guest?)</li> <li>■ Identify the guest's Learning Preferences.</li> <li>■ Why do you draw these conclusions?</li> <li>■ How will you verify your conclusions?</li> </ul>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">Ski Performance "Effect"</th> <th style="width: 50%; text-align: center;">Body Performance "Cause"</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: center;"> <p><b>MA: One skill through the phases of the turn.</b></p> <ul style="list-style-type: none"> <li>■ Identify ability level and type of turn</li> <li>■ Overall picture—what stands out?</li> <li>■ Assess stance</li> <li>■ Assess equipment setup &amp; alignment issues</li> <li>■ Identify <b>intent</b> (defensive, offensive, other)</li> <li>■ Describe rotational control movements &amp; effects Describe edge control movements &amp; effects Describe pressure control movements &amp; effects Describe "rhythm &amp; flow"</li> <li>■ Identify/prioritize movement need(s)</li> </ul> </td> </tr> <tr> <td colspan="2" style="text-align: center;"> <p><b>Prescription for Change &amp; Lesson Plan</b></p> <ul style="list-style-type: none"> <li>■ Which activities/progressions/exercises will meet your guest's movement needs?</li> <li>■ How will you present these activities? (Teaching styles, terrain, pacing, etc.) Why?</li> <li>■ How will these activities specifically address the prioritized movement need(s)?</li> <li>■ Based on cause &amp; effect analysis, how will these changes affect <b>other movements</b> and <b>ski performance</b>?</li> <li>■ How are these activities and changes relevant to the guest's Motivational and Understanding Needs?</li> <li>■ How will these new movements help your guest meet his/her goals/outcome?</li> </ul> </td> </tr> </tbody> </table>	Ski Performance "Effect"	Body Performance "Cause"	<p><b>MA: One skill through the phases of the turn.</b></p> <ul style="list-style-type: none"> <li>■ Identify ability level and type of turn</li> <li>■ Overall picture—what stands out?</li> <li>■ Assess stance</li> <li>■ Assess equipment setup &amp; alignment issues</li> <li>■ Identify <b>intent</b> (defensive, offensive, other)</li> <li>■ Describe rotational control movements &amp; effects Describe edge control movements &amp; effects Describe pressure control movements &amp; effects Describe "rhythm &amp; flow"</li> <li>■ Identify/prioritize movement need(s)</li> </ul>		<p><b>Prescription for Change &amp; Lesson Plan</b></p> <ul style="list-style-type: none"> <li>■ Which activities/progressions/exercises will meet your guest's movement needs?</li> <li>■ How will you present these activities? (Teaching styles, terrain, pacing, etc.) Why?</li> <li>■ How will these activities specifically address the prioritized movement need(s)?</li> <li>■ Based on cause &amp; effect analysis, how will these changes affect <b>other movements</b> and <b>ski performance</b>?</li> <li>■ How are these activities and changes relevant to the guest's Motivational and Understanding Needs?</li> <li>■ How will these new movements help your guest meet his/her goals/outcome?</li> </ul>	
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<p>What will you do specifically to address the guest's expressed desires?</p> <p>What will you do specifically to address the guest's inferred motivational needs (underlying needs)?</p> <p>If what they say they want (expressed desires) and what you think they need (inferred needs) are not the same, how will you address this?</p> <p>What specific non-movement &amp; non-understanding activities can you bring into the lesson, to help make it a success for this individual?</p> <p>How are your Understanding and Movement activities relevant to the guest's Motivational needs?</p> <p>How will you create this relevance in the guest's mind?</p>	<p>How will you address the guest's learning styles?</p> <p>What explanations will you give, and how will you give them? (How extensive, what teaching styles, why?)</p> <p>Will you address potential misunderstandings? Why, or why not? How?</p> <p>How will addressing these Understanding Needs affect Movement and Motivational Needs?</p>								

# PSIA-Rocky Mountain • GCT™ Lesson Planning Worksheet

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<u>Guest Profile</u>		MOTIVATIONAL NEEDS	UNDERSTANDING NEEDS	MOVEMENT NEEDS
Name:	<b>IDENTIFICATION ACTIVITIES</b>	<i>What does your guest want (expectation) and why do they want it?</i>	<i>What does your guest know about skiing and what are their learning preferences?</i>	Ski Performance      Body Performance "Effect" "Cause"
Age:				
Equipment:				
Physical:				<b>MA: One skill through the phases of the turn.</b>  Initiation:
State of Mind:				Shaping/Control:  Finish:
Background:				
Skiing Experience	<b>FACILITATION ACTIVITIES</b>	<i>How will the activities of the lesson be relevant to your guest's motivational needs?</i>	<i>How will you create a new understanding of skiing for your guest?</i>	<b>Prescription for Change &amp; Lesson Plan</b>  <i>Which activities will meet your guest's movement needs?</i>  <i>How will these new movements help your guest meet their goals/outcome?</i>

# Movement Analysis Filter

**Skis Performance**  
"Effect"

**Body Performance**  
"Cause"

**Description**  
"Where, What & How"

<b>Bend (Pressure)</b>
<b>Fore/Aft</b>
<b>Ski/Ski</b>
<b>Maintenance/Change</b>
<b>Twist (Rotary)</b>
<b>Edge (Edge)</b>

<b>Flexion /Extension (Pressure Control Movements)</b>
<b>Front/Back</b>
<b>Foot/Foot</b>
<b>CM Closer to/farther from Skis</b>
<b>Turning (Rotary) Movements</b> Rotation, Counter Rotation, Feet & Leg Turning, Outside Force
<b>Tipping (Edging) Movements</b> CM moves laterally relative to base CM does not move laterally

<b>Transition / Initiation</b>	<b>Shaping</b>	<b>End / Finish</b>

**DIRT – "How"**

**Duration**

**Intensity**

**Rate**

**Timing**

the length of time something continues or exists

magnitude, as of energy or a force per unit of area, volume, time, etc.

degree of speed, progress, etc. Pace.

the sequential relations that any even has to any other, as past, present or future

**Step 1: Describe the skis' performance in a specific location of the turn.**

**Step 2: Describe the body parts and their specific movements in that specific location of the turn that creates the skis' performance**

**Step 3: Construct Cause & Effect Relationships (4) and describe how they affect skier's balance/stance throughout turn.**

# Diagnoses and Medications to Study for Your Level 1 & 2 Exam

As an adaptive instructor, you are expected to know the common diagnoses that might require the use of adaptive ski equipment or techniques, as well as the medication classes that these individuals might be taking. You may be tested verbally on the following diagnoses and medications throughout the course of your Level 1 & 2 exam or as part of your online exam.

It is expected that you have basic knowledge of each of the diagnoses listed for your Module Exam, including symptoms and the teaching considerations for skiing. For each class of medication, you should know the uses and side effects. You are not expected to know specific brand names for each classification of medicine.

## Level 1 & 2: Bi-Ski & Mono-Ski Exam

- Amputation
- Balance impairment
- Brain injury
- Cerebral palsy
- Cerebrovascular accident
- Epilepsy
- Intellectual disability
- Multiple sclerosis
- Muscular dystrophy
- Neuromuscular disorder
- Paralysis & Paresis
- Poliomyelitis
- Post-polio syndrome
- Spina bifida
- Spinal cord injury

## Level 1 & 2: 3-Track, 4-Track & Slider Exam

- Amputation
- Balance impairments
- Brain injury
- Cancer
- Cerebral palsy
- Cerebrovascular Accident
- Congenital anomaly of hip/leg/foot
- Epilepsy
- Multiple sclerosis
- Muscular dystrophy
- Paralysis & Paresis
- Poliomyelitis
- Post-polio syndrome
- Spina bifida
- Spinal cord injury

## Level 1 & 2: Cognitive & Visual Impairment Exam

In addition to knowing the following diagnoses for the Cog/VI exam, you must also understand vision terms (acuity, depth of perception, field of vision, legal blindness and tunnel vision) and be able to describe how the eye works.

- Alzheimer's disease
- Attention deficit/hyperactivity disorder
- Autism spectrum disorders
- Brain injury
- Cataracts
- Cerebral palsy
- Cerebrovascular accident
- Cognitive disability
- Corneal disease
- Developmental disability
- Diabetes
- Diabetic retinopathy
- Down syndrome
- Epilepsy
- Fetal alcohol syndrome
- Fragile X syndrome
- Friedreich's ataxia
- Glaucoma
- Hemiplegia
- Intellectual disability
- Learning disabilities
- Light damage
- Lupus
- Macular degeneration
- Multiple sclerosis
- Myasthenia gravis
- Myopia
- Posttraumatic stress disorder
- Retinal detachment
- Retinitis pigmentosa
- Strabismus
- Sensory processing disorder
- Tumors
- Vascular disease

## Medications – All Module Exams

- Analgesics
- Anti-anxiety
- Antibacterial
- Antibiotics
- Anticholinergics
- Anticoagulants
- Anticonvulsants
- Antidepressants
- Antidiabetics
- Antiemetics
- Antihypertensives
- Anti-inflammatory
- Antimalarials
- Anti-Parkinson's
- Antipsychotics
- Antispasmodics
- Chemotherapy
- Diuretics
- Gold treatments
- H2 Blockers
- Immunosuppressive
- Psychostimulants
- Sedatives
- Stool Softeners

# Practice Evaluation Scenarios

## Guest Profiles

1. A woman in her mid-fifties with macular degeneration.
2. 13-year-old boy with Down syndrome whose parents want him to “go for it” in Special Olympics but he would rather watch Spiderman cartoons.
3. A man doing “wheelies” in front of the ski school desk asks to receive a ski lesson.
4. College coed who had retinal blastoma, the most common type of eye cancer which starts in the retina, who is currently taking a semester off from school due to a recurrence of malignant cells. Never skied before, wants to learn.
5. Teenage girl with full leg metal leg braces on both legs who walks with forearm crutches and uses a wheelchair.
6. A young boy with spastic level 3 CP affecting all four limbs travels slowly up to the desk to confirm his lesson.
7. College student who lost his eyesight in a violent car accident two years ago and has not skied since the accident.
8. Guest has a T5 SCI.
9. At Christmas, a well-known model who has a BK amputation asks for lessons so that she can ski in France after a February fashion show in Paris.

## Questions for Profiles

1. What are the possible cognitive, affective, and physical manifestations associated with a student’s diagnosis?
2. How would a cognitive assessment be conducted? Affective assessment? Physical assessment?
3. Where is the assessment conducted?
4. What aids does the student use? Why are they used? How will they impact skiing?
5. What could be going on that is hidden? Medications?
6. What type of equipment may be used? Is there more than one possibility, and if so how would one determine which to use? Does it always have to remain the same? What factors determine this? What methods can be used to educate/convince a student to change equipment?
7. Who uses guiding systems? What type of guiding system might be used? Define the system.
8. What are the safety concerns with this student?
9. Explore learning styles the student may prefer. Discuss teaching styles that support the learning preference.

## Extended Study Questions

These study questions are designed to make you think, pursue answers, discuss issues with trainers and friends as you broaden your knowledge of adaptive skiing. Additional resources to answer these questions can be found in Appendix A.

### Equipment

1. List the different makes of mono- and bi-skis. Describe their parts with associated functions.
2. Discuss the advantages/disadvantages of the different makes of mono- and bi-skis.
3. Describe how to fit a skier into the seat of a mono- or bi-ski.
4. How is a dowel test performed? What is its purpose? As a result, is weight ever added to a sit-down ski? When? Where? Why?
5. Fit outriggers for a skier mono-skiing, bi-skiing, 3-tracking, and 4-tracking. Including handheld and fixed riggers for the skier using a bi-ski. What is/are the function(s) of outriggers for each of these skiers?
6. List other equipment a skier 3- or 4-tracking may use including ski and boot types, as well as, appliances for obtaining a flat ski, fore/aft balance, equalizing fore/aft pressure, and lateral control.
7. What other equipment may the instructor use to help with a skier who is 4-tracking? Why?
8. Describe different types of hip/leg/back braces worn by skier 4-tracking. How do these devices work? What is done with the braces during a lesson? What is their impact on the skier?
9. Discuss methods to restrain and/or pad the residual limb of a skier 3-tracking.
10. What equipment may a guest with a visual or cognitive diagnosis use? Why?
11. Discuss different types of communication equipment a skier who is blind or visually impaired and guide may use.
12. List physical aids that may be used by an instructor of students with a visual or cognitive diagnosis. Why might these aids be used?
13. List, from head to toe, clothing and accessories that may be used by students with a visual or cognitive diagnosis.

### Safety

1. Discuss safety issues connected with outrigger use. Consider handheld and fixed outriggers, as well as stand-up and sit-down outriggers.
2. Discuss the challenges to both the instructor and student when physical assists are used. This includes loading, unloading, helping the student up after a fall, as well as skiing assists.
3. Investigate how to help a student transfer to and from mono- and bi-skis. For the stand-up skier, in and out of bindings.
4. Discuss the challenges to both the instructor and student when working on crowded slopes, hard or icy conditions, or amid active snow guns.
5. What can an instructor do to prevent being separated from students with visual or cognitive diagnoses?
6. What should an instructor do if separated from his or her student with visual or cognitive diagnoses? What should the student do if s/he becomes separated from his or her instructor?

### Teaching & Technical

1. List several reasons for teaching a straight run (even in a bi-ski). This emphasizes which

- fundamental(s) and skill(s)?
2. What role do outriggers play in a straight run? In beginning turns? Where are they positioned?
  3. What fundamental(s) and skill(s) are emphasized in making a beginning turn? What body mechanics are used to develop this skill? What is/are the ski(s) doing at the beginning phase of the turn?
  4. Answer question 3 for wedge turns, wedge Christie, and open parallel.
  5. Cite the fundamentals. How do the fundamentals interact?
  6. How do the fundamentals, skills, and the movement pools relate to each other?
  7. Describe the differences/similarities between teaching with fixed and handheld riggers.
  8. Describe the positioning of a skier in the seat of a sit-ski. What advantages/disadvantages does this give?
  9. Describe the placement of a residual limb while skiing. Why is the placement important? What can happen if the limb is in the improper alignment?
  10. Where do rotary forces originate with a skier 4-tracking? Is it the same for all skiers 4-tracking?
  11. What are the similarities/differences between teaching any adaptive discipline and 2-track skiing?
  12. What determines whether a turn will be skidded or carved, especially in a bi-ski?
  13. What adaptations of the alpine skiing model are used with the different specialties of adaptive skiing?
  14. What are the common learning styles for students with visual or cognitive diagnoses? What type of teaching styles work with these learning styles?
  15. Describe the different communication styles an instructor may employ (especially a student with a cognitive diagnosis). What are the advantages/disadvantages of each?
  16. What type of behavior challenges may occur with students with a cognitive diagnosis? What methods can you use to deal with these behaviors effectively?
  17. What purpose does dragging a pole hold for a skier who has a visual impairment?
  18. Describe different types of guiding systems.
  19. Describe different positions from which a guide may work. What are the advantages/disadvantages of each position?

## **Diagnoses & Medications**

1. Who is a student who may be candidate for bi-skiing? Mono-skiing? 3-tracking? 4-tracking? VI guiding? Cognitive diagnosis lesson? Why?
2. How is a potential skier assessed for skiing?
3. What questions should be asked about the student's diagnosis, medications, treatments, medical needs, and athletic abilities?
4. For each adaptive module/diagnosis, cite classes of medications that may be used and their associated side effects.
5. List the vertebrae and their associated nerves, muscles and body functions.
6. Define autonomic dysreflexia. List the signs/symptoms; when it occurs; and the level of injury with which it is typically associated. What steps should be taken if a student experiences autonomic dysreflexia?
7. What precautions must one take if the guest has spinal stabilizers? Think about skiers both standing up as well as those sitting down.
8. How does an amputation affect balance and strength? Make sure this is answered for mono- and bi-ski as well as 3- and 4-track.

9. What precautions must one take to protect a residual limb? A brace? A prosthesis worn while skiing? Should skiers with amputations wear their prosthesis while 3-tracking? Why or why not?
10. Define and describe as much as you can about various diagnoses associated with each of the six individual adaptive modules – mono- ski, bi-ski, cognitive, visually impaired, 3-track, and 4-track.

## Appendix A: Resource List

This document has been developed to provide you with some of the basic materials you need to prepare for your Adaptive Alpine Level 1 & 2 exams. However, it is by no means comprehensive and you should study and be very familiar with the following resources.

PSIA-RM-AASI Level 1 & 2 Exam Material (this document)  
PSIA-RM-AASI Adaptive Common Gaits in Adaptive Students (free download)  
PSIA-RM-AASI Adaptive Exam Guide for 3-track / 4-track (free download)  
PSIA-RM-AASI Adaptive Exam Guide for Bi-Ski (free download)  
PSIA-RM-AASI Adaptive Exam Guide for Cognitive Disabilities (free download)  
PSIA-RM-AASI Adaptive Exam Guide for Mono-Ski (free download)  
PSIA-RM-AASI Adaptive Exam Guide: Slider (free download)  
PSIA-RM-AASI Adaptive Exam Guide for Visually Impaired (free download)  
<https://www.psia-rm.org/education/adaptive-alpine/#1539010390285-10c2e42a-77d1>

PSIA-AASI Movement Matrix (Must be a PSIA member): <http://www.thesnowpros.org>

Professional Ski Instructors of America & American Association of Snowboard Instructors.  
*Fundamental Mechanics of Alpine Skiing Across Adaptive Disciplines*. The Professional Ski Instructors of America Education Foundation. Free download:  
[http://www.thesnowpros.org/Portals/0/Images/Publications%2C%20Video%20%26%20Resources/PSIA\\_AdaptiveFundamentals\\_Final\\_web.pdf](http://www.thesnowpros.org/Portals/0/Images/Publications%2C%20Video%20%26%20Resources/PSIA_AdaptiveFundamentals_Final_web.pdf)

Professional Ski Instructors of America. *Adaptive Alpine Technical Manual*. Lakewood, CO: The American Snowsports Education Association, Inc., 2017.

Professional Ski Instructors of America, *Adaptive Alpine Technical Manual, Diagnoses and Medication Classification Supplement*, Lakewood, CO: The American Snowsports Education Association, Inc., 2019.

Professional Ski Instructors of America . *Adult Alpine Teaching Handbook*. Lakewood CO: American Snowsports Education Association Education Foundation, 2015.

Professional Ski Instructors of America. *Alpine Technical Manual*. Lakewood, CO: The American Snowsports Education Association, Inc., 2015.

Professional Ski Instructors of America. *Teaching Snowsports Manual*. Lakewood, CO: The American Snowsports Education Association, Inc., 2018.

For lesson observation, contact a PSIA-RM Member School: <http://www.psia-rm.org/ski-ride-schools>

For PSIA-RM Education Clinics and Certification Courses: <http://www.psia-rm.org>

For Smart Style (Freestyle Terrain Safety Initiative): <http://www.nsaa.org/nsaa/safety/smart%2Dstyle/>

For Your Responsibility Code: <http://www.nsaa.org/safety-programs/responsibility-code/>

For Demonstration equivalencies (part of the PSIA Adaptive Alpine Standards Exam Supplement):  
<http://www.thesnowpros.org/Portals/0/Documents/National%20Standard/PSIA%20Adaptive%20Alpine%20Exam%20Supplement%20Final%206.4.14.pdf?ver=2016-09-06-113404-923>

For functional skiing tasks/demonstrations, some videos are available online:

Basic parallel turns: <https://vimeo.com/channels/148252/16748430>

Dynamic parallel turns: <https://vimeo.com/channels/148252/16748980>

Fall-line bumps: <https://vimeo.com/channels/148252/16748715>

Falling leaf: <https://vimeo.com/16749125>

Free skiing on black terrain: <https://vimeo.com/channels/148252/16749384>

Free skiing on groomed terrain: <https://vimeo.com/channels/148252/16749636>

Hourglass turns: <https://vimeo.com/16749835>

Medium radius in bumps: <https://vimeo.com/channels/148252/16749990>

Pivot slips: <https://vimeo.com/channels/148252/16750399> & <https://www.youtube.com/watch?v=k5lt-ieahW4>

Sideslip to a stop: <https://vimeo.com/channels/148252/16750688>

Short turns: <https://vimeo.com/channels/148252/16750628>

Stem turns: <https://vimeo.com/channels/148252/16750871>

Synchronized skiing: <https://vimeo.com/16751099>

Traverse sideslip traverse: <https://vimeo.com/16751317>

Wedge Christie: <https://vimeo.com/channels/148252/16751517>

## Appendix B: Study References for Adaptive Alpine Level 1 & 2 Exam Outcomes

<b>General Standards</b>	
Adaptive Alpine Level 1 & 2 Exam Outcomes	Study References & Resources
Adaptive functional skiing tasks	Adaptive Alpine 1-2 Teaching, Technical, and Skiing Applications Clinic
	School trainer or TTP trainer
	PSIA-RM-AASI Adaptive Alpine Level 1 & 2 Exam Material (this document)
	Demonstration videos (see Appendix A)
Your Responsibility Code	<a href="http://www.nsaa.org/safety-programs/responsibility-code/">http://www.nsaa.org/safety-programs/responsibility-code/</a>
Smart Style (Freestyle Terrain Safety Initiative)	<a href="http://www.nsaa.org/nsaa/safety/smart%2Dstyle/">http://www.nsaa.org/nsaa/safety/smart%2Dstyle/</a>
Diagnoses	Adaptive Alpine 1-2 Teaching, Technical, and Skiing Applications Clinic
	School trainer or TTP trainer
	PSIA-RM-AASI Adaptive Alpine Level 1 & 2 Exam Material (this document)
	<i>Adaptive Alpine Technical Manual</i> (PSIA-AASI)
	<i>Adaptive Alpine Technical Manual, Diagnoses and Medication Classification Supplement</i> (PSIA-AASI)
	PSIA-RM-AASI Common Gaits in Adaptive Students
	<a href="https://nei.nih.gov/kids/about_the_eye">https://nei.nih.gov/kids/about_the_eye</a>
	<a href="https://nei.nih.gov/healthyeyes/howwesee">https://nei.nih.gov/healthyeyes/howwesee</a> <a href="https://www.nei.nih.gov/sites/default/files/nehpdfs/EyeHandout_508.pdf">https://www.nei.nih.gov/sites/default/files/nehpdfs/EyeHandout_508.pdf</a>
Adaptive Alpine ski equipment	School trainer or TTP trainer
	<i>Adaptive Alpine Technical Manual</i> (PSIA-AASI)
	PSIA-RM-AASI Adaptive Exam Guide for 3-track / 4-track
	PSIA-RM-AASI Adaptive Exam Guide for Bi-Ski
	PSIA-RM-AASI Adaptive Exam Guide for Cognitive Disabilities
	PSIA-RM-AASI Adaptive Exam Guide for Mono-Ski
	PSIA-RM-AASI Adaptive Exam Guide: Slider
	PSIA-RM-AASI Adaptive Exam Guide for Visually Impaired
<b>Movement Analysis/Technical Understanding</b>	
Adaptive Alpine Level 1 & 2 Exam Outcomes	Study References & Resources
Physics of Skiing	<i>Alpine Technical Manual</i> (PSIA-AASI)
Student Assessment	School trainer or TTP trainer
	<i>Adaptive Alpine Technical Manual</i> (PSIA-AASI)
	<i>Adaptive Alpine Technical Manual, Diagnoses and Medication Classification Supplement</i> (PSIA-AASI)

Movement Analysis	Adaptive Alpine 1-2 Teaching, Technical, and Skiing Applications Clinic
	PSIA-RM-AASI Adaptive Alpine Level 1 & 2 Exam Material (this document)
	<i>Alpine Technical Manual</i> (PSIA-AASI)
Guest-Centered Teaching	Level 1 & 2 Exam Material (this document)
<b>Equipment Setup</b>	
Adaptive Alpine Level 1 & 2 Exam Outcomes	Study References & Resources
Diagnoses	School trainer or TTP trainer
	PSIA-RM-AASI Adaptive Alpine Level 1 & 2 Exam Material (this document)
	<i>Adaptive Alpine Technical Manual</i> (PSIA-AASI)
	<i>Adaptive Alpine Technical Manual, Diagnoses and Medication Classification Supplement</i> (PSIA-AASI)
	PSIA-RM-AASI Common Gaits in Adaptive Students
	<a href="https://nei.nih.gov/kids/about_the_eye">https://nei.nih.gov/kids/about_the_eye</a>
	<a href="https://nei.nih.gov/healthyeyes/howwesee">https://nei.nih.gov/healthyeyes/howwesee</a>
	<a href="https://www.nei.nih.gov/sites/default/files/nehep-pdfs/EyeHandout_508.pdf">https://www.nei.nih.gov/sites/default/files/nehep-pdfs/EyeHandout_508.pdf</a>
Student Assessment	School trainer or TTP trainer
	<i>Adaptive Alpine Technical Manual</i> (PSIA-AASI)
	<i>Adaptive Alpine Technical Manual, Diagnoses and Medication Classification Supplement</i> (PSIA-AASI)
Adaptive Equipment	<i>Adaptive Alpine Technical Manual</i> (PSIA-AASI)
	<i>Adaptive Alpine Technical Manual, Diagnoses and Medication Classification Supplement</i> (PSIA-AASI)
	PSIA-RM-AASI Adaptive Exam Guide for 3-track / 4-track (free download)
	PSIA-RM-AASI Adaptive Exam Guide for Bi-Ski
	PSIA-RM-AASI Adaptive Exam Guide for Cognitive Disabilities
	PSIA-RM-AASI Adaptive Exam Guide for Mono-Ski
	PSIA-RM-AASI Adaptive Exam Guide: Slider
	PSIA-RM-AASI Adaptive Exam Guide for Visually Impaired
<b>Teaching</b>	
Adaptive Alpine Level 1 & 2 Exam Outcomes	Study References & Resources
Student Assessment	School trainer or TTP trainer
	<i>Adaptive Alpine Technical Manual</i> (PSIA-AASI)
Teaching/Learning Cycle	<i>Teaching Snowsports Manual</i> (PSIA-AASI)
Maslow's Hierarchy of Needs	<i>Teaching Snowsports Manual</i> (PSIA-AASI)
VAK Learning Styles	<i>Teaching Snowsports Manual</i> (PSIA-AASI)
Teaching for Transfer	<i>Teaching Snowsports Manual</i> (PSIA-AASI)

Lateral Learning	<i>Teaching Snowsports Manual</i> (PSIA-AASI)
<b><u>Diagnosis Knowledge</u></b>	
Adaptive Alpine Level 1 & 2 Exam Outcomes	Study References & Resources
Diagnoses	School trainer or TTP trainer
	PSIA-RM-AASI Adaptive Alpine Level 1 & 2 Exam Material (this document)
	<i>Adaptive Alpine Technical Manual</i> (PSIA-AASI)
	<i>Adaptive Alpine Technical Manual, Diagnoses and Medication Classification Supplement</i> (PSIA-AASI)
	PSIA-RM-AASI Common Gaits in Adaptive Students
	<a href="https://nei.nih.gov/kids/about_the_eye">https://nei.nih.gov/kids/about_the_eye</a>
	<a href="https://nei.nih.gov/healthyeyes/howweseesee">https://nei.nih.gov/healthyeyes/howweseesee</a>
<a href="https://www.nei.nih.gov/sites/default/files/nehcp-pdfs/EyeHandout_508.pdf">https://www.nei.nih.gov/sites/default/files/nehcp-pdfs/EyeHandout_508.pdf</a>	
Medications	School trainer or TTP trainer
	<i>Adaptive Alpine Technical Manual</i> (PSIA-AASI)
	<i>Adaptive Alpine Technical Manual, Diagnoses and Medication Classification Supplement</i> (PSIA-AASI)
	PSIA-RM-AASI Common Gaits in Adaptive Students