

**The Professional Ski Instructors of America
Eastern Division**



**Nordic Downhill
Level I Exam Guide**

PSIA-E Nordic Downhill Level I Exam Guide

Introduction	2
Preparing for Level I	3
The National Standards	4
Certification Path	5
The Level I Exam Process	6
The Level I Assessment: What to Expect	7
Certified Level I Prerequisites	9
Certified Level I Standards: Nordic Downhill.....	10
Americans with Disabilities Act (ADA).....	13
Overview of PSIA/PSIA-E	14
What Every New Instructor Should Know About Customer Service.....	17
A Brief History of Nordic Downhill Ski Teaching Profession and PSIA.....	18
Safety and Risk Management	20
American Teaching System	21
A Simple Plan for Delivering and Effective Lesson	22
Skiing Model for a New Millennium	23
Developing Working Relationships	26
Overview of Childhood Development.....	27
Appreciating Diversity.....	29
Biomechanics Basics for Level I.....	31
Ski Equipment - Design and Function.....	32
Stance Balancing.....	34
Personal Development Plan.....	36
Nordic Downhill Course Descriptions.....	37
Level I Written Exam	41
Recommended Reading List.....	43

Published by: Professional Ski Instructors of America – Eastern Division
1-A Lincoln Ave., Albany, NY 12205
Printed in the United States of America
Revised - September 2006

Introduction

This manuscript contains information about the Nordic Downhill Certification Program of the Professional Ski Instructors of America - Eastern Division. It outlines exam procedures, content, and standards. This manual also includes essential study material excerpted from the *PSIA Core Concepts Manual*, *ATS: Nordic*, *National Website*, and *the Eastern Nordic Website*.

The basic purpose of the PSIA-E Nordic Downhill Certification Program is to evaluate a candidate's knowledge and skills relative to established standards of professional ski teaching and other related information. PSIA-E, like other divisions, certifies ski teachers in the American Teaching System (ATS), our national model. Candidates are expected to demonstrate a comprehensive, working knowledge of ATS throughout the examination process. Certification is awarded to those who demonstrate the required level of proficiency in skiing, teaching, and professional knowledge during the examination and have met the prerequisite requirements. Training and continuing education in these three areas are acquired through PSIA-E educational programs, ski school clinics, personal study, and experience.

The PSIA-E certification pin identifies highly qualified instructors to the ski industry and the skiing public. It is an assurance that a specific level of knowledge and competency are present in such areas as skiing, teaching technology and methodology, guest service, and safety/risk awareness.

As a desirable credential, certification becomes an expressed goal for many ski teachers, thus raising the overall standards of professional ski teaching in the United States. Ongoing educational requirements for retaining certification assist in assuring that high standards of performance are maintained. Most professionals view certification as a foundation, rather than an end in itself, and continue to grow and develop far beyond the minimum standards.

PSIA offers certification events as a member benefit. Certification is encouraged but not required. Most of the organization's events are primarily educational in content. It is quite acceptable for members to attend only the required educational events. If you are interested in certification, be assured that PSIA-E strives to deliver fair, consistent, and relevant certification events. It is our goal to examine for success in as relaxed an atmosphere as possible within a structured and meaningful evaluation environment.

Preparing for Level I

Level I events are primarily educational and are designed to provide participants with basic information about *many different facets* of skiing, ski instruction, and the ski industry. In addition to being a comprehensive educational experience, the Level I event is also an **assessment**. The manuscript is very important in helping you to prepare for this assessment.

Read each section of this manuscript carefully. This will provide an overview of many different areas of information. During the Level I event you will be assessed on your familiarity and knowledge of this information. You will also be provided with more information about the topics in this guide, as part of the educational process of the Level I event.

Complete the Level I Written Exam before attending the event. Use each section of the Study Guide as a reference to help you complete the exam. **Remember to bring the finished exam to the event.**

The Level I Education/Certification Standards (on the following pages) describe the requirements for becoming Certified Level I. These Standards are an essential checklist in successfully preparing for a Level I event. They define areas of knowledge, as well as specific skiing and teaching activities that should be practiced before attending a Level I event. Understanding and utilizing the American Teaching System will be essential for the professional development of your teaching career.

Becoming a Certified Level I member of PSIA-E/PSIA is the first major step in your development as a professional ski instructor. Commitment and conscientious preparation, on your part, will ensure you of a quality experience at the Level I event, and the best possible opportunity for success. Create a plan to prepare yourself to meet the following standards. Expect areas of ownership and begin to understand the areas you are unfamiliar with. Have fun, and good luck!

If you are currently a Level I or higher member in another discipline and are crossing over to Nordic Downhill some of the information will be a review for you. However, the best foundation for your Nordic Downhill development will be received in a Level I event. The applications of the Teaching and Skiing models will be different, as are many of the categories under Professional Knowledge (found in the Standards section). Reading this manuscript and completing the questions on the written exam will enhance your base of knowledge in both Nordic Downhill and your current discipline.

The National Standards

The National Standards (Education/Certification Outcomes) provide an extensive list of the exact things that a candidate is expected to be able to do and know to meet certification requirements. The standards have been written so that they give the member a picture of the skiing, teaching, and professional knowledge expectations of the examiner(s) conducting the exam. The standards are what examiners use to determine whether or not a candidate meets all criteria for the desired level of certification.

The current PSIA Education/Certification Standards are referenced to PSIA/AASI's Core Concepts, National and Eastern Websites and ATS Nordic Skiing; terminology consistent with these manuals is used throughout these documents. The standards provide a training focus, and represent a minimum competency for each level of certification.

The premise of the certification standards is based upon the concepts of "levels of understanding" which define stages of learning in degrees of understanding. As certification is a measure of understanding, levels of certification represent stages of understanding. Candidates will be held to the knowledge and performance standards of the level at which they are testing as well as the criteria for all preceding levels.

All references to skills and skill blending refer to balancing movements, rotary movements, edge-control movements, and pressure-control movements. In addition, references to telemark components and the mixing of them refer to standing and moving on tele skis, twisty turny rotational movements, release mechanisms and turn entry, lead changes, shaping, and poling/timing movements. The variety of turn shapes refers to short, medium, and long-radius turns. While specific trail difficulty designations are stated in the National Standards, it is important to note that trail difficulty is often designated relative to the other trails at a given area. Skiing activities during certification exams will be performed on terrain that is deemed appropriate for the task being evaluated. The PSIA-E Education/Certification Standards are based on the PSIA National Standards. Slight modifications from the National Standards exist to better meet the unique needs and job responsibilities of members in the Eastern Division. Candidates with disabilities, see "A.D.A. Considerations" elsewhere in this manual.

Certification Path

Nordic Downhill Certification is a linear path.

Becoming a new Registered member: Registered is the entry level of membership. Registered members receive all divisional and national publications, a membership card and registered lapel pin. Prerequisites for becoming Registered are the same as listed below for Level I, with the exception that it is not required that one attend and pass a Level I event. Your ski school director can provide more details, or call the PSIA-E/AASI office at (518) 452-6095 for more information on how to join.

Becoming a new member: Take a Nordic Downhill Event that allows you to obtain Level I Certification and pay Level I dues to the Association. Due to the nature of Nordic Downhill you may not have a Ski School Director or a training program. If not you still can participate in a Level I Event (review the Standards and come prepared) and place your name in the Ski School Directors' section. If you are part of a school, please have your Director sign your card.

Transferring from another Discipline: It is suggested you take one of the Nordic Downhill events that outlines the beginner/novice zones FIRST. If you are trained and have a background in telemarking you may pick any of the upgrade events.

Level II Exam Prerequisite: May be taken in the FIRST year of membership or transferring. Please see the Level II Exam Prerequisite explanation elsewhere in this guide for complete information on courses that qualify as exam prerequisites.

Level II Exam: may be taken in the first year of becoming a new member. You first need to take a prerequisite upgrade. See level II for listings. Further details are in the Level II exam guide.

Level III Exam Prerequisite: May be taken your second year. See Level III for listings of events.

Level III Exam: may be taken the second year after the fulfilling the prerequisite. If you are Level III Alpine you are allowed to challenge the Level III exam. First, you need to take a prerequisite prior to the exam that season. Further details are in the Level III exam guide.

The Level I Exam Process

The Certified Level I process consists of primarily *an educational* workshop that includes an assessment of *basic* skiing skills, teaching skills, and professional knowledge (which refers to technical and mechanical knowledge as well as to knowledge of customer service, PSIA, the ski industry, and risk management). The event is two days in duration; it is an educational event that will be highly interactive for all. Our goal is to share the information in the categories with you in different activities. We will practice these, check for understanding, share your ideas/experiences and ski different types of turns, conditions, terrain and drills.

It is *extremely important* that candidates for Level I membership complete the required pre-work before coming to a Level I event. This includes reading and studying this "*Level I Study Guide*", completing the written exam found in the back of the guide, and reviewing the website information on [Level I Beginner Zone](#). It is recommended that candidates have 25 hours of teaching, skiing and/or training experience within the Nordic Downhill discipline, to make their participation more meaningful. If not, no worries, just make sure you check the criteria and you feel comfortable meeting the standards after some coaching.

The National Level I Standards should serve as a guide for training for the Level I event. It is not expected that Level I candidates will have in-depth knowledge and experience in each of the areas of competence listed in the Standards. It is expected, however, that candidates will be able to show basic competence and knowledge in all of these areas.

Since most Nordic Downhill candidates are crossovers from other disciplines we incorporate a level I in most of our upgrades. Remember that upgrades are on mostly Blue Square terrain (rarely Green unless otherwise noted) and some Black Terrain with diverse topics and challenges. **If you are just starting out it is Strongly, recommended that you participate in any of the Level I Only, Learn to Tele or Tele for Alpine Crossovers events.** These events are structured to take a slower pace, teach the turn and practice more of the beginning movements on proper terrain. The groups tend to be more homogenous in the skills they bring to the event.

Registration begins promptly at 8:00 (until approximately 8:30) and on the hill no later than 9:00 on Day 1 of the event. Please be on time. If you are late, go to the ski school desk or information area. The time frame for the two days will be from 8:30-4:00, with an hour break for lunch. Approximately 75% of the time will be outside.

Scoring is done by one course conductor. In order to become a Certified Level I member, you must "meet requirements" (standards) in each of four main categories: WRITTEN, SKIING, TEACHING, and PROFESSIONAL KNOWLEDGE. A scale from 1-6 is utilized. In scoring: 6 = Outstanding; 5 = Excellent; 4= Satisfactory; 3 = Needs Improvement; 2 = Unsatisfactory and 1 = Lack of Understanding. You must score an average of 4 in each category to pass Level I.

Results will be announced on Day 2. An awards ceremony will be held for each group, at which course conductors will hand out new member packets, Level I pins and scoring sheets to successful participants. Please remember we are here to coach, show, explain and create the best atmosphere for your learning. The learning and assessment environment will be fun, interactive, activity based with lots of sharing of information. The goal is to have everyone learn, question, practice and meet the standard. You probably won't even know it is an assessment.

The Level I Assessment: What to Expect

Skiing

Skiing activities should be performed as if the candidate were leading a student down the slope and enjoying the terrain. You should practice and master the following activities before coming to the Level I event. Due to the nature of Nordic Downhill and the training available at areas, clubs etc. this may not be obtainable. There is ample time and coaching available if you need the time at the event to prepare.

Level I Skiing tasks

- *Balanced stance appropriate for terrain and conditions with consistent speed control in all skiing tasks.
- *Basic Telemark Turns-groomed/ungroomed .
- *Basic Parallel Turns-short/medium/long radius.
- *Telemark Sideslip-Edge Engagement/Release.
- *Delayed Lead Change-Fall Line Telemark Turn
- *Basic Diagonal Stride
- *Basic Diagonal Skate
- *Climbing Maneuver of Choice
- *Wedge Turns
- *Wedge Christie Turns

Teaching

A trend of beginning guests at ski resorts is that students are arriving on a variety of equipment, with scores of different motivations for being there and with diverse backgrounds of related activities and experiences. This is true for all the disciplines. Nordic Downhill students come from a high percentage of previous snowsport backgrounds. Sometimes you do get the first timer that has no experience on snow. Be prepared for guests who are unaccustomed to the resort environment. Often times telemark skiers are use to the wooded lots and the freedom of the outdoors without lifts.

Ski equipment is changing all the time. Ski companies are constantly altering the shapes and sizes of their skis to offer the public excitement and ease on the snow. The ski industry has figured out that varying side cut, length and width makes skiing easier in variable conditions and terrain. Beginning skiers can make more expert moves at slower speeds because the skis provide some of their own turning forces. Beginner progressions have moved away from necessarily using a wedge to teach a person how to ski. The linear progressions of the past are not as easy to apply across the board. Skiing a basic telemark is frequently an achievable goal for a first time skier with the right mix of available terrain, equipment, athletic background and coaching guidance. Assessing and then understanding a student's profile is critical to the success of guests, particularly at the beginning level. As such, the options for developing a teaching plan for beginning skiers is quite broad and is dependant upon appropriate selection of activities (Stepping Stones) that will lead to the development of a skilled blend of movements. In real life, you must prepare for any student and be ready to offer coaching and solutions specific to the guest's profile, skills and background. At the exam, you will be asked to address a student profile of your choice and to provide a series of activities to lead that student toward development of skilled movement. In front of the group, you must demonstrate awareness of a basic teaching process (i.e. introduce an activity, develop that activity, offer feedback, and summarize). You must be able to do this for students in the Beginner/Novice zone.

Here are examples of different student profiles. What path through the Stepping Stones will lead each student to develop the skills necessary to ski basic telemark turns?

- A 16-year-old boy who has never skied. He is athletic, and lives in North Carolina where he spends all his time in-line skating and surfing. What is the path you might take to get him to telemark? He has rented a pair of leather ankle high boots with an intermediate alpine ski with three pin bindings 175cm
- A 62-year-old man who is taking up skiing after a career as a backpacker. He has not been very active recently as his wife has been sick and he has been caring for her. What is the path you might take to get him to telemark? He is on a pair of short shaped skis and plastic boots for his lesson.
- A 42-year-old woman who has never skied before and has no affiliation with any other sports. She and her boyfriend are going on a ski trip out West. He bought her the 160cm shaped skis and plastic boots that she has brought for her lesson.

Rely on your experiences as a ski teacher for this portion of the exam.

Professional Knowledge

- Identify how your lesson activities relate to the development of the Telemark Components (in a very **basic** sense).
- Demonstrate an awareness of good safety practices relative to all lesson activities and to your own personal skiing within the group.
- Describe how to change lesson activities in consideration of student age, the weather, or snow conditions.
- State the basic options, solutions, and benefits that modern ski designs provide.

PROFESSIONAL SKI INSTRUCTORS OF AMERICA EASTERN DIVISION	
CERTIFIED LEVEL I EVALUATION SHEET	
AREA _____	
NAME _____	NO. _____
EVALUATOR _____	DATE _____
SKIING SKILLS:	AVERAGE SCORE <input type="text"/>
TEACHING SKILLS:	<input type="text"/>
PROFESSIONAL KNOWLEDGE:	<input type="text"/>
<small>Scoring is on a 1-6 basis. You must score at least 4 in each category to become Level I.</small>	
OVERALL RESULT:	MEETS REQUIREMENTS <input type="checkbox"/> <small>Candidate has attained Level I.</small> NEEDS IMPROVEMENT <input type="checkbox"/>

Certified Level I Prerequisites

Certified Level I is the primary entry point for new members to enter the education and certification track. This level is where new members build a solid foundation of information and experience, necessary to be an effective, skilled ski teacher. The broad base of education received at this level will also help new members to identify future goals. The following prerequisites must be met in order to become a Certified Level I member:

- ☑ Be 16 years of age or older at time of application.
- ☑ Be an employee or volunteer of a recognized Ski School, Nordic Program, club, organized group or recreational facility.
- ☑ Complete an in-house training and on-snow teaching program (if it is available to you). This should familiarize the candidate with an introduction to ATS teaching and skiing concepts. If this is not available, the candidate must have some understanding of ATS concepts, PSIA, and safety education (visit the National website or the Eastern one, www.psia.org or www.psia-e.org). Candidates are expected to conduct themselves in an organized and professional manner.
- ☑ Fill out an event registration form (available online for download; go to www.psia-e.org, then click on Events). Note if you do not have a ski school director or major organizer due to the uniqueness of your group, you may sign your name in the ski school director's section. Also include a check (PSIA-E), credit card or money order for the proper amount by the deadline on the event schedule. The event schedule can also be obtained by calling the division office at 518-452-6095.
- ☑ Attend a PSIA-E Level I event and pass the assessment criteria stated in the National Level I Outcomes (below).

Certified Level I members must maintain their membership by attending a credit event at least once every two seasons and by paying dues to the Association on an annual basis. They may hold committee seats, and after three years of continuous membership may vote.

Certified Level I Standards: Nordic Downhill

All references to ATS refer to "*American Teaching System; Nordic Skiing*". Terminology consistent with the ATS is used throughout the Level I Outcomes. Additional sources of reference are the *Core Concepts Manual*, *Nordic Website from National and the East*. All references to class level refer to class levels of beginner, intermediate and advanced. All references to skills and skill blending refer to balancing, rotary, edge control and pressure control movements (including poling for propulsion). There are also references to the Telemark Components, which blend the skills concept into specific movements for Nordic Downhill. The variety of turn shapes refers to short, medium and long radius turns.

Certified Level I members demonstrate a solid foundation of information and experience necessary to be an effective ski teacher. The Certified Level I instructor possesses an understanding of *basic* skiing skills, teaching skills, and professional knowledge. It is not expected that Certified Level I candidates will have *in-depth* knowledge and experience in each of the areas of competence listed in these Standards. It is expected, however, that candidates will be able to show *basic* competence and knowledge in all of these areas. In addition, it is expected that candidates will be able to demonstrate a *significant* level of competency with the skiing and teaching tasks listed specifically for assessment at a Certified Level I event.

Category A: Skiing

Certified Level I teachers must be able to ski all green and groomed blue terrain demonstrating consistent balance and control of speed through turn shape. Demonstrations must display an "understandable picture" of the technical elements of beginner/novice zone skiing. The turn dynamics are limited by the speeds and terrain appropriate for Beginner/Novice zone skiing and tasks.

The instructor is able to...

1. General Characteristics

- a. Maintain a balanced stance throughout a series of turns
- b. Maintain consistent speed by controlling the shape of a turn
- c. Reduce speed without interrupting overall flow and rhythm
- d. Consistently link turns with sustained rhythm
 - Combine the movement of the body and poles
 - Adequately direct the Com in the direction of travel
 - Use poles
- e. Demonstrate an appropriate blend of skills (with consideration for the snow conditions, equipment, terrain, etc.)
- f. Ski a variety of turn sizes within a series of turns while maintaining speed control
- g. Demonstrate the *visual cues to effective telemark skiing** relative to edging, rotary and pressure control movements in demonstrations and tasks common to Beginner/Novice zone skiers

**Visual Cues Effective Telemark Skiing*, from the *Nordic Technical Manual* do not address alpine stances. For these please refer to the *Visual Cues to Effective and Ineffective Skiing* in the *Alpine Technical Manual*, (PSIA, 2002).

The instructor is able to...

2. Telemark Certification Skiing Standards

- a. Balance & Stance
 - Maintain lateral and fore-aft balance with hips between feet throughout the entire turn
 - Weight the whole front foot and ball of the back foot (Tele) and over both feet (alpine)
 - Round the lower back slightly, keep elbows in front of the spine and look ahead
- b. Lead Change
 - Blend lead change movements with edge release movements
 - Perform a lead change that allows the skier to edge, turn and pressure both feet effectively
- c. Edging Movements
 - Show tipping of the skis starting from the feet to match edge angles in the finish phase of the turn
 - Demonstrate the use of ski design
- d. Rotary Movements
 - Turn both feet to assist in turn initiation and shaping
 - Maintain a parallel relationship with the skis in the finish phase of the turn
- e. Pressure Control
 - Demonstrate flexion and extension movements during the finishing phase of the turn
 - Maintain pressure on both feet through the shaping phase

Category B: Teaching

Certified Level I teachers demonstrate a solid foundation of information, and experience necessary to be an effective teacher of beginner/novice zone skiers. A basic understanding of how to manage the learning environment for different age and gender situations is required.

The instructor is able to...

1. Awareness, Understanding and Knowledge

- a. Understand the coach/student relationship and how to develop trust between them.
- b. Recall the components of the learning environment and discuss how to incorporate them into a lesson that will create memorable experiences.
- c. Identify the components of good teaching.
- d. Categorize teaching, skiing, and guest service principles of ATS, relative to Beginner/Novice zone students.
- e. Understand student needs of specific groups (i.e., adults, children, women, seniors, beginners, etc.)
- f. List considerations for managing the learning environment for children at different stages of development.

2. Application

- a. Teach the public through the Beginner/Novice zone.
- b. Demonstrate an ability to develop a relationship of trust between teacher and students.
- c. Identify learning styles and preferences and cite examples of how to use them in a lesson.
- d. Recognize the stepping stones concept and identify a pathway to learning based on the needs of students specific to the instructors home area.
- e. Handle a class based on group energy level, conditions, safety, and lesson content.
- f. Predict and meet the needs of specific groups (i.e. children, seniors, men).

Category III: Professional Knowledge

Professional knowledge requirements for Certified Level I teachers reflect a practical awareness of general terms and concepts, and an ability to use these concepts in basic lesson situations for beginner/novice zone students. Decision-making and lesson content will most likely follow preplanned options, with consideration for different skill development emphasis.

The instructor is able to...

1. Terminology

- a. Define and explain basic skiing terminology as described in the *Nordic Technical Manual*.
- b. Use language that is appropriate for the guest, but understand the terminology behind your meanings.

2. Equipment

- a. Identify equipment needs for skiers through the Beginner/Novice zone.
- b. Categorize the basic options and benefits of modern ski designs.
- c. Identify common equipment safety issues.

3. Skills Concept

- a. Discuss the role of balance relative to the other skill categories and movements
- b. Identify effective movements and skill development through the beginner/novice zone
- c. Understand the concept of skill blending, and identify how different skill blends create different outcomes regarding ski performance for a beginner/novice zone skier
- d. Teach a traditional skill blend for beginner/novice zone skiers (*wedge to telemark stepping stones*)
- e. Develop beginner/novice zone skiers along a track to telemark skiing that is not based on the foundation of a wedge (*parallel to telemark or direct to telemark stepping stones*)
- f. Create an activity list for each skill category.

4. Movement Analysis

- a. Recognize general movement patterns relative to skill categories in beginner/novice zone skiers
- b. Identify desired skill and movement outcomes in various types of beginner/novice zone skiing including beginner telemark, parallel and wedge turn progressions
- c. List exercises and tasks that address a student's needs, the equipment being used, terrain options, etc.

5. Personal Mastery

- a. Identify and develop a vision for personal growth as a snowsports teacher.
- b. Understand the pathways for personal and professional growth by identifying the resources available both inside and outside of PSIA-AASI.
- c. Plan short- and long-range schedules for training and certification goals.

Americans with Disabilities Act (A.D.A.) Considerations for PSIA-E Certification Exams

The A.D.A. requires testing entities such as PSIA-E to make “*reasonable modifications*” in testing procedures for candidates with disabilities who need such modifications in order to take the test. Only certain types of modifications are “*reasonable.*” **Under the A.D.A., PSIA-E is not required to make any change to testing procedures that would “*fundamentally alter*” the test; that is, to change what is being tested.**

It is imperative that members with disabilities, who are considering applying for a certification exam, contact the Albany office to discuss their situations.

What is being tested is clearly presented in this guide. 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.

As examples, PSIA-E certification tests a candidate’s ability to “Telemark consistently with appropriate blending of the components through a series of turns” and “Demonstrate matching of the skis in a variety of places in the turn, depending on speed, terrain or intention. Matching should be accomplished by steering the inside ski.”

These test requirements cannot be modified without changing what is being tested. All candidates will, therefore, be tested on their ability to perform these and other stated standards. PSIA-E recognizes that these specific standards, and others similar to them, require candidates to ski upright, on two skis, and that this is not possible for some skiers with disabilities. While PSIA-E cannot fundamentally alter what is being tested by removing or modifying these standards, it does offer two alternatives to candidates who are unable to meet these standards due to disability.

First, candidates may consider PSIA-E/EF Adaptive certification. While there are still physical standards to meet, and the required level of professional knowledge is high, the Adaptive process and the Adaptive examining staff are geared to accommodate most disabilities. In 2004/5 we will have a specific Nordic/Adaptive Level I Certification.

Second, candidates unable to meet the skiing skill requirements of the exam due to disability, may take the non-skiing skill portions of the PSIA-E certification exams along with other candidates, and be tested on their teaching ability and professional knowledge. If successful in these two categories, they will receive a Certificate of Accreditation.

The Teaching and Professional Knowledge portions of PSIA-E certification exams test candidates on their ability to observe students skiing and advise them accordingly. PSIA-E recognizes that such observation may not be possible for visually impaired candidates. PSIA-E is not required to change what is being tested by removing or modifying this requirement.

Candidates who are deaf, or otherwise hearing or speaking impaired, such that they are not able to hear and/or speak independently to students, are not necessarily precluded from taking an exam, and may meet the communication requirements through the use of an interpreter. Of course, all candidates, including those with hearing or speaking disabilities will be held to the same standard of substantive knowledge, and their ability to “get the point across” with maximum accuracy and clarity.

See the “PSIA-E Adaptive Education Workbook & Exam Guide” for further information about Adaptive Certification standards and format.

Overview of PSIA / PSIA-E

PSIA (**Professional Ski Instructors of America**) is a professional organization of full-time and part-time ski instructors who are dedicated to reaching the highest levels of professionalism and performance within the skiing industry. The national PSIA organization is an alliance of its nine geographical divisions (**over 30,000 members**), and its affairs are governed by representatives of each of those divisions. When you pay your dues each year, you are billed once for membership in two associations, your local division of PSIA and PSIA itself.

PSIA's nine divisions differ from each other in size and geography. They range from a few hundred members in a single state, to several thousand in a multi-state area. Some divisional offices are part time operations, with budgets of only a few thousand dollars; others are fully staffed, year-round business offices with budgets well over \$1,500,000.00. **PSIA-E is one of nine geographical divisions of PSIA. It is the *Eastern* division. It covers sixteen states and has the largest membership (about 11,000) of any division. Nordic members nationally number 2000, with approximately 400 in the Eastern division. Members are counted according to their first discipline they were certified in. Instructors are certified at different levels and sometimes two or more disciplines. If we counted these crossover members Nordic would be above 650.**

Divisional dues are used locally to fund such administrative functions as staffing and maintaining an office, keeping membership records, board of directors and committee activities, publishing a newsletter and manuals, marketing, and supporting educational functions. In general, the divisions provide most of the direct membership services of both associations because they are PSIA's membership base. In addition, they maintain a personal touch through their events and communications. All divisions generate revenue from sources other than dues. Clinics, exams and educational material sales are examples. Some divisions, such as PSIA-E, have tax-exempt, non-profit education foundations that bring in funds from grants, sponsorships, and corporate or private donations.

In contrast to the divisions, with their local focus and high visibility, PSIA's focus is national and international, and its efforts are often not readily visible to the membership. Dues represent roughly only 37% of PSIA's total revenue; the remainder is largely generated through advertising and the sale of accessories and educational materials. PSIA also has a non-profit education foundation and a capacity to procure grant money. National has a full time Marketing Director who works continually to bring in money from outside the organization and to market PSIA and its members to the public. Like the divisions, part of PSIA's total revenue is used to support administrative functions, such as running an office, computer systems, funding a board of directors and various committees, and supporting educational projects. After this, PSIA's focus diverges from that of the divisions.

PSIA publishes teaching manuals and produces instructional films and other materials. PSIA's dollars have underwritten the development of ATS, assuring teaching consistency across the country for instructors and ski school customers alike. PSIA has been the catalyst in the adoption of uniform certification standards and membership categories in all nine divisions. This has led to reciprocity, which means that you, as a PSIA member, can transfer your credentials to any part of the country.

PSIA funds the selection and training of the Alpine Demonstration Team, as well as the Nordic and Snowboard Educational Teams. Members of these teams represent the U.S. internationally, and also train divisional clinic leaders and examiners. That process is designed to assure consistency in the delivery of our message to every ski instructor, from the international forum to your local ski school. Every four years, members of our demo and

PSIA-E Nordic Downhill Level I Exam Guide

educational teams represent this country at INTERSKI, an international ski-teaching symposium, where they have earned us world-wide respect and a leadership role.

Your PSIA dollars are also used to represent the interest of ski instruction to legislative bodies and other national ski industry groups, such as the United States Ski Coaches Association, the National Ski Patrol System, the National Ski Areas Association, and Ski Industries of America. Risk management materials, including manuals and films developed in cooperation with NSAA, have assisted in promoting consistent, professional, and visible risk awareness programs.

Communication with the membership is one of PSIA's highest priorities. Each year they produce three issues of *The Professional Skier*, a comprehensive journal for ski instructors. National committee meetings also help to facilitate a healthy exchange of ideas and information among the divisions. Ongoing research and development activities assure this country's place as a leader in international skiing. Children, seniors, and the disabled are examples of populations being given special consideration. Nordic Downhill has grown tremendously in popularity. Snowboarding has grown and evolved to where PSIA has founded a subsidiary organization, the American Association of Snowboard Instructors (AASI), to represent that discipline and its members. PSIA continues to play an increasing role in the entire ski industry.

Members pay dues both divisionally and nationally. The divisions conduct and administer regional events, provide membership services, and day-to-day administration. PSIA provides unity and a means of achieving unification; it focuses on those areas where it is necessary to rally the collective talents and resources of the entire country and to speak with one voice. Both associations exist because ski instructors, ski schools, lesson customers, the ski industry, and the skiing countries of the world require it.

PSIA-Eastern, to whom your divisional dues are paid, is a not-for-profit organization, governed by a Board of Directors, and serving 14 states, from Maine to North Carolina. There are currently over 11,000 active members, served by a full time, year round administrative staff of 9, located in Albany, NY. In addition, there are several part time/seasonal employees, and a per-diem staff of over 175 Alpine, Adaptive, Nordic, and Snowboard course conductors and examiners who conduct the educational programs and certification exams. Operating on a \$1.5 million budget, PSIA-E provides numerous member benefits and services. They publish five divisional newsletters (*Snow Pro*) each year, offer a job placement service, consulting and in-house services, educational resource materials, and a diverse menu of over 400 events to satisfy the needs and goals of members in all the disciplines. In addition, development and administration of certification programs is a divisional responsibility.

Purpose:

To promote the sport of skiing through:

- * Determining educational needs of its members.
- * Providing educational leadership.
- * Developing and providing educational material for its members.
- * Caring about the sport of skiing and those who participate in it, now and in the future.

Goals:

- * To serve its present clientele.
- * To help create new clients.
- * To make its programs:
 - As safe as possible for an active sport.
 - Fun for the customer and instructor.
 - Centered on learning.
- * To serve the ski areas where members work.
- * To serve the ski industry.

PSIA Seeks To:

- * Promote the sport of skiing.
- * Encourage participation in ski instruction.
- * Promote recognition of its members.
- * Enhance opportunities for self-improvement.
- * Help instructors to be valued members of the ski industry.

PSIA and PSIA-E Education And Certification Programs:

- * Training for Registered and Certified Level I members is provided first by ski schools, clubs, colleges, and organized groups and then enhanced by participation in divisional (PSIA-E) educational functions.
- * Continuing education and development is provided at the divisional level for all membership levels. This includes all skiing disciplines and all student populations.
- * Validation that qualifications and standards are met for achieving Level I, II, or III certification is done by the division.
- * Advanced training is provided at the National Academy and National Symposiums under the direction of the PSIA staff and the PSIA Steering Committee, with National Demonstration Team as trainers.

What Every New Instructor Should Know About Guest Service

by Paul Brown; edited by Mickey Stone for Nordic

Your Role in Customer Service

A Level I ski teacher should understand that you serve as an ambassador for the mountain, resort or organization for which you work. You are highly visible and are probably, for the most part; unaware of the influence you may have on the image of the resort. You should be aware that the immediate and future success and prosperity of the resort depends on the customers and how they are treated.

Ski instructors are different from other employees because of the scope of influence they have on the guest. Other mountain employees such as parking attendants or lift loaders may spend only a few seconds with a guest. An instructor, however, spends a minimum of one hour with a guest; and may spend days or weeks. While ski industry statistics indicate that something like 10% of skiers actually take lessons, many resorts see percentages of 20% or higher at peak times. That means that one out of every four or five skiers at a given resort may be swayed one way or the other by the ski school.

Since Nordic areas are often small, and other duties may be part of your job description, you might see the customer in other departments. This adds more incentive to keep a friendly personality and insure your guests a pleasant experience.

Financial

A ski resort is a business. Skiing is only the medium of that business. A ski area must make money or it is destined to go out of business. The ski school is a profit center and is expected to contribute substantially to the "bottom line". Customer service and profitability is a real challenge to most ski schools; it is often difficult to achieve a satisfactory balance between the two. However, the better the profit that a ski school produces, the better life usually is for its instructors (new tuning area, higher wages, new programs, props and costumes for festivals, etc.). Providing excellence in guest service and high quality lessons for ski school customers usually means a higher volume of lessons and return business, and thus a greater profit for the ski school.

Due to our diverse market Nordic represents many types of businesses, some for profit and non-profit. Girl/Boy Scouts, college outing clubs, recreational town clubs, backcountry areas and organized groups that put on telemark festivals are all part of the Nordic Downhill market. Whatever the case we are in the service and educational business. The more you can meet your guest's needs in a safe manner the more repeat business you will have.

Industry Trends

Growth in our industry seems to be flat right now. There have been some growth blips with snowboarding and that basically is what most areas are showing growth in. That means each resort is fighting for a greater market share; capturing skiers from one another. Because of higher operating costs each year, ski resorts need to increase their skier visit count in order to remain profitable and successful. Those who do not do this successfully, yet are an attractive property, often end up being purchased by large conglomerates. This trend will continue, as larger groups can operate more efficiently by economics of scale. Areas that cannot survive, and are not attractive properties, are destined to lie dormant as time-worn memorials to a ski boom era now gone. In the 90's, snowmaking has become almost a necessity in the East, in order for areas to survive our less snowy years.

A lot of Nordic areas do not lie within a snowbell. There are well over 125 Nordic areas in the East. The number of areas that operate for at least 80-100 days is probably in the 50's. Compounded with the fact that Nordic Downhill rentals are sometimes scarce at resorts due to the ease of numbers with snowboarding and alpine. It makes for a lot of challenges as a Nordic Downhill instructor. As a new instructor, you can help keep skiers coming to your area by providing a fun, safe, and exciting skiing experience each time you give a ski lesson. Often times there are discrepancies with your equipment and what levels you can teach on your telemark gear when servicing alpine guests. The best approach is to ski with your manager or trainer and show them your understanding of skiing and how you can parallel. They will make the decision for you. Support them and strive to parallel as well as you can tele. Normally openings in children's programs are available. The ease of walking and climbing is very advantageous

and easier on your body in telemark gear. Working with local shops and your rental shop to get a few rentals can be a big plus to get telemarkers into your area. The industry trend now is anything slidable is ok so take advantage of this timing and help sell telemarking.

A Brief History of the Ski Teaching Profession and PSIA

(Compiled and edited from several sources)

The history of skiing goes back thousands of years. It provided a means of transportation over snow and was useful in both hunting and warfare. There are many accounts to indicate that it has long been viewed as a sport, as a basis for competition, and as a skill that required instruction. Petroglyphs (rock carvings on cave walls) date back to over 4500 years ago in Russia depicting three men with poles and skis proving the use of skis for life skills. In Norway above the Arctic Circle on an island in a cave there is a single man depicted on long runners with a hunting implement, dating back over 4000 years ago. There have been skis found in bogs in Finland and Sweden that have also been dated back about 4500 years ago. There are theories and artifacts that support China having the first skiers dating back from 5000-9000 years ago. Due to the size and isolation of China it has been hard to research the area. It is thought that some of the first trans Siberian people moved across on skis or primitive snowshoes.



The “Modern era” might be said to have begun when skiing evolved to more closely resemble our current sport; when it became more organized and publications on the subject started to appear. The first organized ski teaching occurred in 1713 in Norway within the military, and a handbook for the Norwegian troops was written in 1733. The first “ski club” was founded in 1813, also in Norway.

Some of the more notable early pioneers of skiing and ski teaching were:

- Fridtjof Nansen a Norwegian polar explorer crossed Greenland and published *Crossing Greenland on Skis* in 1890. It was published in three languages and what was Norwegian text was now public knowledge.
- Sondre Nordheim, Norwegian. Developed jumping; developed the Osier binding; popularized the telemark turn from the 1850's to 1866. In 1868 he combined a waisted ski (shaped ski) with a birch heel and midfoot wrap (Osier Binding) and won slalom races and taught his band of Norwegians to stop by using a “parallel stop turn” or “parallel telemark turn”. This technique was then used in all the races. The age of telemarking was now sharing the stage with the “christiana” or modern parallel skiing. Sondre is known as the “Father of Modern Day Skiing”
- Mathias Zdarsky, Austrian. Considered the “Father of Alpine Skiing”. Founded one of the first organized military ski schools and taught thousands of new skiers. Developed equipment and a technique. (1890's-early 1900's). Created the rift between the binding war of Nordic and alpine.
- Bilgeri Austrian Colonel, creates a skidded angle technique with check turns and got rid of Zadarsky's one pole and used two poles.
- Hannes Schneider popularizes Bilgeri's book and



PSIA-E Nordic Downhill Level I Exam Guide

technique and the Arlberg reigned for the next 35 years. 1912 telemark was done as far as instruction and new equipment. Arlberg for downhill and telemark for tourers.

- 1841 The first skiers immigrate to the US from Norway and settle in Illinois. Knudsen brothers and Nattestad.
- 1856 Knudsen/Nattestad wrote the Thorensen family and they immigrated to the US in Illinois also. John the youngest joins the gold rush and begins delivering mail on “Norwegian Snowshoes” and is coined the name Snowshoe Thompson.
- 1861 first ski races held in Sierra Nevada, California. 12-foot skis and strap toe bindings. Other races in the Midwest and Utah along with jumping also were organized at this time. Sondre’s binding did not arrive until late in the 19th century.
- 1901 first eastern ski club organized in Berlin, NH. Nansen Ski Club (earlier ones out west 1867 on)
- 1914 the telemark turn was still widely used out west and in jumping contests in Utah, Midwest and even in the east at the first intercollegiate ski meet.
- Rick Borkevec from Crested Butte, Co. skipatroller writes articles on telemarking and high peak touring descents. Ski companies start making metal edge tele skis and plastic in the boots.
- 1983 PSIA National Demo Team introduces the modern American Telemark to the world and teaching progressions at Interski in Sesto, Val Pusteria, Italy.
- 1987 Spring the first Nordic Downhill Certification Exam for PSIA-E.



At this point you can refer to the Alpine Study Guide for further alpine history. Between 1910 and early 1970's there is not a lot documented on telemark skiing. The next publishing and popularity came about in the stronghold areas of the 19th century. Utah (Wasatch region), California, Crested Butte and surrounding areas in Colorado are all the birthplaces for the resurgence of modern telemarking. In the east Wildcat, NH. and the Mount Washington Valley; Mad River Glen, Vt. and the surrounding Green Mountains; Adirondacks in NY.; and a small pocket in West Virginia have had the longest history of telemark skiers around. Each of these eastern areas has accessible backcountry and off-piste skiing, which is the “center” for telemark skiers.

Currently, the rage is to be able to slide on anything anywhere and telemarking shares this with many other disciplines. Racing is still somewhat popular but the days of the “Extreme and New School” are upon us. Watch the most popular events and you will see all disciplines represented but the backcountry still is where telemarking is popular as it was in the early days of Scandinavia.

Safety and Risk Management

To be a success, you must be aware of safety issues, live up to students' expectations, provide value, and understand your responsibilities. Mountain sports are inherently risky. People who choose to explore the alpine environment must accept this fact. However, when they do so under the care and guidance of a resort professional, the risks are minimized. Creating an atmosphere of risk awareness and providing basic information on safety are among your responsibilities as an instructor. By following seven simple rules – the “do’s” of safe skiing – and sharing them with your students at frequent intervals, you’ll be doing yourself and everyone else on the slopes a big favor. Those rules are known as Your Responsibility Code, and are endorsed by National Ski Areas Association, PSIA/AASI, and the National Ski Patrol.

Your Responsibility Code

1. Always stay in control.
2. People ahead of you have the right of way.
3. Stop in a safe place for you and others.
4. Whenever starting downhill or merging, look uphill and yield.
5. Use devices to help prevent runaway equipment.
6. Observe signs and warnings and keep off closed trails.
7. Know how to use the lifts safely

Other guidelines to make for fun, hazard-free skiing:

Body Basics

- Use minimum 15 SPF broad-spectrum sunscreen, regardless of cloudiness or sun.
- Drink frequently to avoid the dehydrating effects of high altitude.
- Layer with breathable, water-wicking layers that can be added or subtracted with changes in the weather.

Learn Your Limits

- Don't take that last run when your legs have turned to Jell-O.
- Ski at your own level. Test your skills to improve, but know when you're crossing over into dangerous territory. Ski patrollers say this is the number one safety issue at resorts.
- Control your speed. Respect others on the mountain, especially in high-traffic areas where trails are merging.

Skiing Off-Piste

- Always ski with a partner and keep each other in visual/audio contact.
- Remove pole straps to deter catching trees/limbs.
- Wear eye protection and a helmet.
- Test snow conditions first.

The American Teaching System

Principles of American Skiing

The American way of skiing is simply effective and versatile skiing based upon skiing principles. Versatile skiing can have many images, but it has a core that starts with basic movements and skills. These movements and skills evolve with time and practice and take into account a variety of body shapes, terrain, equipment choices, and snow conditions. We get to functional skiing by starting with a desire, an outcome and an image of what we want to do and where we want to go. We make the ski bend, engage, twist and release by building a solid base of movements and skills that have purpose and direction. We teach skiing effectively by developing and using strong movement assessment skills and understanding how to translate our observations into helpful teaching that is valuable to our students. Below is a list of skiing principles that define American ski teaching and the characteristics upon which our philosophies are based.

The Principles of American Skiing include:

1. Having outcomes and images of contemporary skiing

Everyone has an outcome in his or her head of what they want their skis to do and an image of what they want to look like while they are skiing. The skiing image that PSIA aspires to be is efficient, functional, precise, clean, elegant, fresh, effective, accurate, exciting, contemporary, and incorporates full use of the equipment available.

2. Evolving Skills Concept to Telemark Components

A skill is a specific movement sequence that accompanies a given task or group of tasks. The PSIA-E Telemark Components offer a versatile template of fundamental skiing movements and skills. If you understand the concepts of how balancing on tele skis, twisty turny rotational movements, release mechanisms/turn entry, lead changes, shaping and timing and poling movements lead to proficient skiing, then you are on your way to becoming a successful ski teacher.

Fundamental skiing movements are the essential movements your body makes which allow you to create and manage reactions between your skis and the snow. If you build a strong base through movements, you will have the ability to control the interactions that your skis have with the snow and the ability to adapt your movement patterns into skills. With a base of skills, you and your students can choose outcomes and goals and you can understand what blend of skills is needed to achieve the results that you or they desire.

3. Making the skis perform

Understanding the interface between your skis and the snow will allow you to not only get the results that you desire, you will be able to help others understand how to get the results that they crave.

It is crucial to understand how skills affect the performance of your skis in and on the snow. Remember that the movements that you teach are not the 'end result' of your lesson. The 'end result' of your lesson is to get the skis to do what your student wants them to do.

4. Understanding skiing movements

As a teacher, the ability to assess movements (MA) is a key factor to improving other people's skiing. MA is a process of identifying and reinforcing the strengths of your students and recognizing and targeting areas that need development. Once you can assess what your student's needs are, you can tailor your feedback and teaching to each individual's needs. Knowing 'where we want to go' and 'how we get there' are important keys to the MA puzzle. The ability to observe and describe what you see is one piece of the puzzle. Utilizing the Telemark Components as a template will be an useful tool. Another piece of MA involves recognizing and understanding the movements that you see in others and how those movements affect the ski as it passes over and through the snow. Sharing the correct information with your students and coming up with a game plan for reaching desired outcomes allows you to create valuable experiences for your students.

A Simple Plan for Delivering an Effective Lesson

by Mermer Blakeslee

Managing a class effectively takes organization, awareness and skill. Remember that one of the most important things is simply to provide for a lot of skiing time. The article below is an example of how the Teaching Model can be integrated into a useful, yet simple plan for delivering an effective lesson.

Teaching a Lesson

Introduction (Goal Setting)

- * Introduce yourself.
- * Open a dialogue with your student so that you create the feeling that learning is easy and fun.
- * Ask questions so you learn about your student and what (s)he wants from you.
- * Watch your student so you can discern his skill level (and what (s)he needs the most).
- * Plan what to do to reach an achievable goal, one that satisfies what your student wants and what you can offer.

Body (The Progression)

- * Speak concisely in simple language. Ask, "Am I being clear?"
- * Show clearly what to do. Make sure student can see you.
- * Point out parts of the body they should look at. Ask, "Could you see that?"
- * Let the student do it.
- * Give necessary logistics (follow you? follow another student? where to stop, etc.)
- * Give feedback.
- * Be specific. Check for reaction. End on a positive note.
- * Repeat or progress to next step based on your student's performance and attitude.

Movement Assessment

During the lesson you will be observing the students' motor skills in order to assess the efficiency and effectiveness of their movements. Based on this, and with your knowledge, you can develop a lesson plan, tip, drill, game, or feedback for your student(s). Pay particular attention to:

- * Overall Performance
- * Pelvic Area
- * Base of Support or feet

Observe your student(s) discreetly, in order to relieve performance anxiety. Remember, a good instructor conducts movement assessment throughout the entire lesson to determine both the students' progress and the lesson's success.

Summary

- * Review and reinforce what is gained from the lesson.
- * Give practice tips.
- * Tell your students what they could learn in a future lesson and if appropriate, when you are available.

Skiing Model for a New Millennium

by Peter Howard; edited by Mickey Stone for Nordic

For many years, The Reference Maneuvers have been an integral piece of the PSIA Nordic Skiing Model. The benefits of this well-defined progression have been many. It has provided a blueprint for skill development, been an aid to movement analysis, and provided purpose and outcome to teaching activities. Similar but less defined progressions go back to the dawn of organized ski teaching, and have provided linear plans for learning the sport. Experienced ski teachers have long recognized that being truly “student centered” often requires a flexible approach. It is understood that progressions can start anywhere, be built for differing student goals, and can lead in varying directions. This truth is more evident today than ever before due to equipment options, grooming/terrain contouring, new teaching methods, and the ability to learn in the off-piste as well as the piste. Also, Nordic has always been the recipient of many of the alpine concepts that have to be “adapted” to some of the unique movements of each of the Nordic disciplines.

For these reasons a wider path to advancement would better portray the reality of today’s learning environment. In recognition of this, PSIA Nordic believes that awareness and understanding of student ability zones, the steps students may take as they advance through the zones, the skills and movements that make up the steps (Telemark Components) are a valuable framework for American Ski teachers.

There are three student ability zones that loosely parallel the trail marking system. These zones (the Beginner/Novice, the Intermediate, and the Advanced zones) are described in detail in the *PSIA ATS: Nordic Skiing Manual and the National/Eastern Website*.

The steps to advancement a skier takes (or Stepping Stones) should be thought of as optional or required places a skier may or will touch upon as they grow in experience. The best illustration of the value of this concept is the experience a new skier may have during their first few days on skis. They may learn with straight skis and take the traditional path of straight run to a wedge stop, gliding wedge, wedge turns, basic telemark and eventually telemarking. In this case they have stepped on the stones that develop the movement patterns identified by the Reference Maneuvers. It is also possible that they learn on very short shaped skis at an area that promotes a non wedge approach to the first experience. In this case the skier may learn a side cut traverse to a stop, stepping through and out of turns to a stop, striding into a tele or gentle gliding in a tele position to edge release and engagement and then linked telemark turns with a delay in the striding leg in the learning area. In this case the Stepping Stones to telemark were different. The Reference Maneuvers remain within the Stepping Stones concept. Some Reference Maneuvers like the wedge or wedge christie may be skipped, modified due to equipment considerations, or only used tactically. Other Reference Maneuvers like telemarking and dynamic telemarking will eventually be stepped on by all skiers as they move to and through the Intermediate, and Advanced zones. The ability to perform a wide range of steps including the Reference Maneuvers is crucial to your power as a model for your students therefore a wide range of stepping stones and the Reference Maneuvers are valid exam requirements (see National Skiing Standards for Certification Levels I, II, and III).

Prior experience combined with learned skills and movements allow a skier to progress along a path of steps that best suits their individuality. The Skills and the Telemark Components that organizes skiing theory, combined with Visual Cues that describe which body parts to move to

affect skills and create a desired outcome, are the ski teacher's toolbox. These tools that aid us in tinkering with the mechanics of skiing are invaluable to the professional, allowing us to frame, fashion, and channel technically sound learning experiences. Of course the main concern of customers is a great experience and performance improvement. Our understanding of skiing mechanics should result in sound, simple advice rather than complex advice that sounds technical.

The technical aspects of contemporary skiing as defined in the American Teaching System are:

- **The Skills Concept and the Telemark Components** (*Visual Cues To Effective Telemark Skiing*) which delineate the development, refinement and integration of the four basic skiing skills; Balance, Rotary, Edging, and Pressure Control Movements.
- **Ski Performance:** understanding the components of a turn, the tools involved, and what a ski can do in the snow.
- **Movement Analysis:** the process of comparing a student's current ability to the desired goals.
- **Stepping Stones To Effective Skiing:** pathways to learning customized to student needs and goals.

The Visual Cues To Effective Telemark Skiing

The *Visual Cues To Effective Telemark Skiing*, which are a foundation of movements and movement cues for all telemark skiers that come from a series of basic fundamental movements. Learning and practicing these movements will lead to skilled skiing. Understanding the visual cues will lead to more complete and effective teaching. This information is intended to be an analytical tool and a reference for good skiing in most ski instruction situations. The guide is not intended to describe every movement and position that very high-level skiers pass through extreme situations such as World Cup racing, mogul skiing or couloirs crud skiing. The *Visual Cues To Effective Telemark Skiing* does define the basics of skiing that should be the foundation of movement for all skiers, whether they are recreational skiers, instructors, racers, bump skiers, or even extreme free skiers.

A balanced position is necessary to allow access to all other skills.

- All of the skier's joints – ankles, knees, hips, lower back – flex evenly and appropriately together (not one excessively more than the others.)
- The hips are centered over the striding feet.
- The outside and the inside ski bend close to evenly (because the skier is balanced over the both skis.)
- The inside leg is bent more than the outside leg due to the hill angle and strided legs.
- The shoulders, hips, and hands are level as the skier comes through a turn, to keep the body from tipping in. Due to the strided legs a slight countering of the torso will aid in leveling the hips.
- The inside hand, shoulder, and hip lead through a turn (more noticeably on steeps and less so on flats).
- The hands are in front of the body.

Rotary movements represent the most effective way of turning the skis in all terrain and conditions.

- The skier's legs turn underneath the upper body to help guide the skis through a turn.
- The femur turns within the hip socket (instead of the entire hip coming around).
- The upper body remains quiet, stable and slightly countered towards the next turn.
- The ski is turned an appropriate amount to create a smooth, C-shaped arc in the snow.
- Both skis and legs turn together throughout a telemark turn.
- Any rotary movement should be progressive, unless it is a necessary athletic move to recover balance.

Edging allows the skier to direct the ski to control turn radius, shape, and speed.

- The skis tip onto an edge early in the turn.
- The skier uses diagonal and lateral movements of the feet, legs, and hips to engage and release the edges of the skis.
- The edges are released and re-engaged in one smooth movement.
- The shins make forward and lateral contact with the boot cuff as the skier rolls the skis onto the new edges.
- The ankle, knee, and hip show the appropriate angles as the ski is tipped onto an edge and held throughout the turn.

Pressure control provides the element of touch that promotes a smooth ride at any level of skiing.

- The skis flow evenly and smoothly over the terrain.
- The skis bend progressively throughout the turn, and the entire length of the ski is engaged during the turn.
- All of the skier's joints work evenly together.
- The amount of flexion and extension in the skier's legs changes with the changes in terrain and pitch of the slope.
- The pole touch or pole plant complements the desired turning outcome.
- The skier's upper body remains quiet, slightly countered and disciplined.

Lead Changes control the duration and shape of the turn

- The old outside ski is pulled back at the same time the old inside ski is strided forward.
- Movements should be smooth and progressive.
- Movements happen from the hip socket to the feet and the hip is twisted away from the direction of the turn every time there is a lead change.
- Timing or quickness of the lead change helps dictate turn shape and length. Quick lead change shorter turns and long lead change longer turns.
- The lead change will place the hips away from the turn direction with the inside hip socket slightly lower.
- The lead change or getting into the tele position should be enhanced with a slight torso countering to help the body balance, shape the turn and prepare for the next turn, due to the split hips.

Mechanical elements do not in themselves make a great skier. They merely create a foundation for that intangible quality of "touch"- that is, the profound connection of the skier with the skis, snow, momentum, and the mountain.

- The pole touch or pole plant complements the desired turning outcome.
- The skier's upper body remains quiet, slightly countered and disciplined.

Developing Working Relationships

The number one goal of any resort or ski teaching area is to provide a fun-filled experience for its guests. All staff, from maintenance workers to senior managers, make decisions based on this vision. When customers come to your area to benefit from your knowledge and experience as a snowsport instructor, they come with ideas, motivations, and beliefs that have been shaped by their life experiences and environment. As a ski teacher, you have two service jobs to do; you need to function as part of your resort team and you need to provide the best experience possible for your guests. Although coaching students on the hill may seem to be a separate activity from resort operations, a lot of teamwork is needed to set the stage for the clinic experience. From lifts to snow, from tickets to equipment, from lunch to hotel rooms, the extended members of your team help meet the needs of your students. Like your extended family, these teammates often do their jobs in a place remote from where you are. You may hardly give a second thought to their roles unless something is amiss. Yet, their contribution is fundamental to your job. Imagine teaching a snowsport without snow. Imagine teaching without lodges, lifts, or rental gear. You notice if the snow quality isn't right, the rental gear doesn't fit, or the lift smacks you in the back of the knees. You are in ecstasy if the grooming is perfect, the burgers are juicy, and the administrative staff gets your schedule booked correctly.

On the other hand, those who perform the other tasks at the resort notice your effect on the resort as well. For many, snowsports instruction is their introduction to the mountain lifestyle. New visitors to the mountains rely on your expertise to make a lasting impression; the resorts rely on you to keep the visitors coming back—and bringing their friends. You provide the image and soul of the mountain lifestyle. Even those who don't participate in lessons see pros on the mountain and gauge their performance against what they see. Staff members in other departments support what you share with the guests: the mountain experience. You can enhance your personal success by building relationships with other staff members at the resort.

The second aspect of your job is to understand the customer's needs and motivations and to propose a plan to satisfy and benefit that customer. Ideally, you not only meet the customers' needs, but you exceed their expectations. Your resort is in the business of selling service. While the mountain itself is the attraction, the amenities and facilities are important to the experience, which is shaped by interactions with staff members. As a snowsports teacher or coach, many things are beyond your control: the weather, the facilities, snow conditions. However, the things you can control, such as your ability to interact in a positive way with each guest you encounter, and your own personal contribution to resort operations can make all the difference.

By the time you greet guests for a clinic, they will already have had to pass through a variety of hoops. Consider a family that arrives at a resort for the first time. Imagine bringing two small children through multiple parking lots, with gear, only to find they must walk another quarter mile to the children's center.

Or consider the group of friends who bring their buddy to learn to ride a snowboard, only to find that they needed to rent equipment at the base of the mountain, which will cause them to be late for the lesson. Take a moment to walk through your resort and see it from your customer's eyes. Familiarity with the common challenges your students face will give you added patience and empathy in the meeting area and allow you to help them solve any problems that could threaten their experience.

When your guests know you understand and appreciate what they go through, they will be more able to move on to the learning experience. When you show them how much you love not just your sport, but your resort, they will realize that their effort was worth it and will want to be part of that experience again and again.

Overview of Childhood Development

As you begin your journey as a ski instructor, it is important to gain knowledge about the growth and development of human beings as it relates to skiing. With more experience, you will need to gain more understanding of how this development can affect what and how you teach, and as a master teacher, you will rely on developmental information to help you truly individualize instruction for any student you encounter.

To help you organize your thoughts regarding developmental issues, we refer to the information as “The C.A.P. Model.” The acronym merely helps you to remember the three basic categories [Cognitive, Affective, Physical], which make up human development as it relates to skiing. One goal as we teach skiing is to help children understand how to behave and move in desirable ways. The level at which a child understands, behaves and moves depends on growth and development.

The C.A.P. MODEL [Cognitive, Affective, Physical]

Your ability to communicate skiing information to children (*cognitive*) depends on:

- How children process information.
- How children express themselves.
- How children reason.

Young children understand the world in concrete or experience based terms. This means they comprehend only what they *can* see or touch, or *have* seen or touched before. Abstract thinking begins to develop by age eleven or twelve.

Concepts such as cause and effect, time and space, and distance and speed, are developed over time. A child’s understanding of these ideas can affect their understanding of communication attempts.

The ability to process information grows with the child. Very young children may not be able to attend to putting on skis while receiving stimuli from another source.

Very young children may have difficulty sequencing more than one or two tasks, while older children may be able to sequence three or more.

Processing of cause and effect, and rules and their consequences, develops with age.

Motivation to ski (*affective*) depends on:

- How children relate to their peers.
- How children relate to adults.
- How children think about themselves.



Egocentricity, the principle that the child is the center of the universe, affects children's behavior. Young children often think they are the cause of any ongoing event. They also have difficulty putting themselves into “someone else’s shoes.” Older children show egocentricity by thinking that others are always watching them, even when it is obvious they can’t be. This causes everything from shyness to cockiness. Younger children are anxious to *fit into* the group and please others. Older children are more concerned with their position *within* the group. They are more

readily influenced by their peers. Younger children are usually not competitive; playing alone is enough. Older children may be competitive, and have their self-worth tied to their accomplishments.

Development of appropriate skiing movements (*physical*) depends on:

- How children’s bodies are proportioned.
- The amounts of strength children possess.
- Spatial awareness.
- Whether a child has developed the ability to use parts of the body separately.



Young children’s heads and trunks are large in proportion to their limbs. By 8 or 9 years the proportions approximate that of adults. As a result of a higher center of mass, a small child may have a “back” stance with a reliance on heel pressure.

Younger children move the whole body as a unit. The development of fine motor skills is apparent by age’s 9-12. Separation of upper and lower body and left and right sides of the body occurs over time as the child grows.

The muscles of a young child function as if more loosely attached than those of an adult, affording less strength, yet greater flexibility.

Children's Lesson Plan For Instructors

A Plan For the Day (The ATS Teaching Model)

A lesson plan for the day provides structure and enhances learning. There are many formats to use depending on class times, student needs, and programs. To capitalize on a child's sense of fun and their excitement to ski, we have developed the following lesson format:

Play	Get the lesson off to a great start! Introduce the lesson as FUN! Assess the children's abilities in a relaxed, happy atmosphere.
Drill	Determine goals and objectives that target specific skills. Work with activities that are challenging, fun and success oriented. Present information in short time spans and provide lots of demonstrations. Keep it interactive!
Adventure	Take what the students have learned and apply it to our wonderful mountain playground. Expand skills in a wide range of experiences during practice time. Transfer learning to new situations, and check for understanding.
Summary	Reinforce their learning with reminders throughout the day. Use easy to remember cue works, (e.g. "we learned edging today"). Refresh memories before going home, and take time to talk with parents.

Appreciating Diversity

One way to stay excited about developing your teaching skill is to learn about a special population or learn to teach another snowsport. Diversification will provide new perspectives on learning, coaching, and performance. Through diversification, you will become more valuable to your alpine, Nordic, or snowboard school in addition to providing yourself with an antidote for getting stuck in a rut.

Women

Recent industry publications are targeting women as the decision-makers in the family when it comes to vacations. If “mom” isn’t crazy about winter sports, she’s not going to agree to hang around for long, shopping or reading, while hubby and the kids have all the fun. Helping make women passionate about snowsports is critical to keeping the family coming back for more.

Most programs now include clinics specifically for women. Some women feel more comfortable learning new skills with and from other women. There’s a different atmosphere in a group of women than in a mixed group. In a group of women, it can be easier to ask questions and focus on learning, so progress is quicker.

It sometimes is amazing to see the support and camaraderie that women can provide in a group. The atmosphere stays just as competitive, just as intense, yet the competition is within, not between, individuals. The intensity goes toward pushing each other as far as possible without sacrificing self-worth by comparing one’s own goals or progress with those of others.

Children

Nationally, children represent 50 to 60 percent of all lessons taught. What better place to leave a legacy than with a group of kids who come back year after year and ask specifically for you? Children are exciting to coach: they are energetic, learn quickly, and push themselves willingly.

The main challenge in teaching children is to keep them safe and learning while having more fun than they dreamed possible. This can be the easiest task for you on some days, and the most difficult on others.

The best thing about coaching children is that they have a unique way of reminding you of why you came to the mountains in the first place. If it isn’t fun, it isn’t worth doing. This forces the teacher to connect the drills and teaching activities with the fun they were designed to produce...something we all lose sight of from time to time.

Learning to tap into your imagination to capture the attention of a group of young children will help you bring the same creativity to all aspects of your coaching. What you need to know:

- How to motivate children.
- Ages and stages of development.
- Physical capabilities for different age groups.
- Recognizing limitations in equipment.
- How to involve the parents in the process.

Seniors

Everyone's getting older. It's inevitable. Yet, growth in snowsports participation among seniors is disproportionately small compared to the population at large. Aging snowsports enthusiasts are heading to other activities, such as golf, at a rapid and, from some perspectives, an alarming rate. Happily, the ones who stay are realizing that they can continue to enjoy the mountain environment far into their later years.

Seniors groups are springing up all over the country. With names like "Silver Wings" and "Prime Time," the focus is on enjoying the thrill of winter sports and the mountain environment. Their purpose also includes a social component as they look for ways to meet and interact with others now that they don't have jobs to go to and their children have reached adulthood and are busy with their own lives and families.

While elders are less energetic and slower at showing improvement than younger groups, teaching them has its own rewards. These are people who have learned to savor life, to appreciate a gorgeous day and beautiful scenery, to revel in seemingly minor accomplishments, to draw from the energy of their younger instructor—and to make every run count.

PSIA-AASI members age too. As we age, we discover tricks to help us "keep up" longer. Sharing these insights with other aging participants can be gratifying and exciting both for older professionals and for younger ones seeking wisdom from their senior peers and mentors.

Adaptive

For any winter sport professional that wants to gain a sense of what really matters, coaching in an adaptive program may fill the bill. To coach students with special physical or mental needs, a pro must look for what each student can do, instead of what they can't. This is often a monumental challenge that forces you to change your own definition of success.

Adaptive teaching doesn't mean lowering expectations, but realizing that success has many facets and that finding a path to success for each student is the ultimate challenge. Helping someone with one leg learn to be independent with outriggers, or a paraplegic learn to negotiate the mountain on a sled, can open up a whole new world of possibilities for growth and appreciation of the sport—and of life—for you as well as the student.

- PSIA Core Concepts Manual

Biomechanics Basics For Level I

by Charlie Rockwell

A basic understanding of how our bodies work is important to us as ski teachers so that our advice to our learners makes sense to them.

Balancing Movements:

A person balances through input from the inner ear, which relates the body's position relative to gravity. We line up vertically with gravity.

The eyes provide visual clues as to the body's attitude. The eyes can override the information from the inner ear when a person is on a pitch.

Nerves in the body provide tactile feedback to help determine where the body is. We adjust our stance while walking into a strong wind, for example.

The ankle is primarily a hinge joint. Through adjustments in ankle flex, we can affect our stance and balance. The ankle plays a significant role in our balance while skiing.

Rotary movements:

The upper end of the thigh bone (femur) is shaped somewhat like a ball, and it fits into a socket in the pelvis. This allows the legs to rotate when the muscles move appropriately.

We can also move our upper bodies in a rotary fashion through the vertebrae in our backs. By moving the upper body one way and the lower body the other, we can impart rotary energy to the skis. Conversely, in track skiing, aligning the upper and lower body assists in keeping the skis running straight. The term, "twisting movements" might be more meaningful to students than "rotary".

Edge Control Movements:

The knee is essentially a hinge joint, which allows a limited amount of rotary potential. The primary way we edge at higher speeds is through use of hip angulation. Maintaining relative alignment of the upper and lower legs keeps the knees from receiving stressful side loads. Moving the knees laterally fine tunes the edging and should be of short duration.

The sub-talar joint is under the ankle and allows us to keep our feet flat on the ground when we spread our legs apart (as in waiting to receive a tennis serve, or standing in the batter's box waiting for a pitch). In ski boots, we can take advantage of this movement to further fine tune our edging.

Lower, softer Nordic boots allow our ankle and sub-talar joint to move with less effect upon the edge angle of our skis. This allows for a "floating" ankle, which allows the skis to stay flatter for more efficiency of glide time. However, knee and hip angulation with good skeletal alignment is even more important (in Nordic) due to the lack of stiffer boots for increased edge control. "Tilting" can be a good term to use with students.

Pressure Control Movements:

Given the fact that our bodies have so many joints where the bones connect with each other, we can flex and extend (through muscle activity) to regulate the amount of pressure (forces) we experience. In conjunction with these flexing or extending movements, we can concurrently move in other ways to stay in balance, cause rotary movements, and/or regulate our edging. These bending movements in the joints also help us to adjust to varying terrain shapes, speeds, pitches, and snow conditions.

Pressuring movements assist in pole planting and loading for propulsion in Nordic skiing, with bending coming from the ankle, waist and elbow specifically. Directions to "Bend" the ski or joint usually result in the desired pressure related movements.

Under normal circumstances extending the legs against the snow creates pressure and bend in the ski and flexing or bending will allow the forces to be absorbed or softened.

Ski Equipment - Design And Function

Reprinted from the PSIA- NRM Level I Training Manual

Skis - Design: Every ski has five characteristics, which determine how it will perform for different people with different needs.

Length affects the stability of the ski and its ability to turn and track. A longer ski will be steadier at higher speeds, while a shorter ski turns more easily. Recommended ski lengths are based on weight, skill level, speed, and conditions.

Camber is the bend or bow in the skis when the two bases are put together. The function of camber is to distribute the weight of the skier along the entire running surface of the ski. For diagonal stride skis, the bend or bow in the skis will be large and pronounced. This is the area that kick wax is applied to (referred to as waxing the pocket). The center is pushed down to grip. This is called the "kick" phase. When the skier lets go and slides on the tip and tail, this is called the "glide" phase. For skating skis a quicker rebound or stiffer pocket under foot will allow for more efficient movements going from skate to skate.

Sidecut is the dimension of a ski whereby the width of the tip and tail is wider than the middle of the ski. In general, Giant Slalom skis have a less pronounced sidecut, while Slalom skis have a more pronounced sidecut. Shaped skis have the most sidecut of all skis.

Flex is the springy resistance of the ski on snow. A stiff ski is more difficult to flex than a soft ski. Heavier and stronger skiers need stiffer skis than lighter skiers. Also more skilled skiers who ski at greater speeds need stiffer skis than less skilled skiers. The above refers to longitudinal flex; another kind of flex would be from sidewall to sidewall, known as torsional flex.

Waxable/Waxless: Waxless skis have a pattern molded into the base of the ski. This pattern is always there, allowing for optimal grip in all conditions. A wax ski needs to have an application of grip wax applied under the stiff cambered section in the middle, called the wax pocket. A wax ski has the potential to be the best performance ski, if you match the ski and the wax properly to the skier type and size, as well as to snow conditions.

Boots - Boots should fit well, support the skier's feet, and fit the skier's lower leg. The skier's weight, height and skill level should determine the amount of flex needed for optimum skiing performance. Nordic boots, tele and track, should fit snugly in the instep and heel and be roomy enough in the toes to allow movement. Basically, the heavier and longer the ski, the higher and stiffer the boot. The converse is true with lighter skis and lower boots. Boots are the most crucial link between you and the skis.

Flex: A heavy, powerful skier will lose performance in an overly flexible boot because the energy transmitted to the ski will be lost in the boot's excessive give. A lighter, less aggressive skier in a rigid boot will be locked at the ankles and will bend at the knees while skiing, causing the hips to drop behind the center of mass.

Forward Lean: Most boots cause the skier to flex forward in the ankle. If the boot causes the skier to flex too much it will be difficult for the skier to extend enough to release the skis at turn initiation. A boot that has very little forward lean may not provide enough support for the skier to comfortably keep the hips over the feet.

Canting: Designed to accommodate an uneven stance, canting can be: An adjustment under the sole of the boot to evenly weight the two edges of the ski or an adjustment, usually at the ankle hinge of the boot, to fit the lateral curve of the lower leg. The latter is called ankle canting or leg canting.

Shell Design - Overlap Shell: Usually a two-piece boot in which the cuff section wraps over itself and the top part of the lower shell; the lower shell closes down over the instep and forefoot, reducing volume within the boot between the shell, inner boot and foot. The stiffness of the plastic material of the shell largely affects the overall flex of the boot.

Poles - are important for timing and balance. The proper fit depends upon the type of Nordic skiing (see below). For track skiing, poles are used for propulsion. In telemark skiing they are used for timing and balance. Backcountry skiing utilizes poles for propulsion, timing and balance.

Telemark skiing - Sternum height.

Backcountry - Place pole upside down on a hard surface and grasp the pole beneath the basket; the elbow should form a right angle for ascent/descent type skiing. If touring mostly with no major downhills, then the poles should be armpit to shoulder height. Many backcountry skiers use adjustable poles.

Track-classical - Armpit to top of shoulder height.

Freestyle - Mouth to upper lip height.

Straps and handles are designed for specific ski disciplines, comfort and performance. Baskets are often determined by snow/track conditions. There is a great diversity of sizes and styles. Comfort and the right length are the keys.

Bindings - are the critical link that attaches your boot to your ski. Unlike Alpine, most telemark bindings do not release. There are many types of bindings and binding systems. Track skiing has 50 mm step in and (for recreational touring) 75 mm pin bindings. For telemark skiing, cable bindings, plate bindings and three-pin cable, step in releasable, and combinations of all are now on the market. The important part here is to know what bindings do to the amount of pressure transmitted to the ski and to what part. A lot of the front throw and spring loaded cable bindings put a lot of pressure to the front of the ski when your heel is lifted. Other plate and cable bindings are almost free feeling and transfer literally no pressure to the ski. They act like a pivot point for the heel to be lifted. Currently there is an explosion of binding types out there. Even if we categorized them in types within the categories they all can be different. Check the National website for more detailed information.

Stance Balancing

by Greg Hoffman

Canting is a word that most skiers are familiar with. It is a process associated with the placing of tapered shims under the ski bindings. Canting only considers the edging skill and is only one aspect of a much larger picture. The contemporary counterpart to canting is Stance Balancing.

Stance Balancing is a more inclusive term. Stance Balancing considers all four skills of skiing; balance; edging; pressure control and rotary. Why is Stance Balancing so important?

Alpine skiing is the only sport that places the foot in a cast (ski boot). Think of yourself walking down a rocky path in your bare feet. The natural mobility of the ankle enables your foot to adapt to the varying terrain. It also enables your body to remain in balance. Now, think about walking down that same path in a pair of ski boots. The ankle is now locked and cannot naturally adapt to the terrain thus making it very difficult to maintain balance. When skiing, the body is also trying to adapt to the cuff angle of the boot, the forward lean of the boot, the ramp angle of the boot and the ramp angle of the binding.

It is these inherent angles that can create problems because no two people have exactly the same foot type, leg shape, leg length, or body type. Skiers' bodies need to compensate for the cast-like characteristics of the ski boots. This compensation creates an imbalance in the muscular-skeletal system which leads to discomfort and difficulty in learning new movement patterns.

To understand Stance Balancing it is important to understand the various parts of the ski boot and how these parts relate to the skills of skiing.

1. *Boot Last* (shoe shape): All manufacturers create different lasts to accommodate specific shaped feet. "*The last comes first*". It is paramount for performance and comfort that the boot shoe matches the approximate shape of the foot. The boot shoe is the lower part of the boot that actually encompasses the foot.
2. *Boot Cuff*: The boot cuff is the upper part of the boot that wraps around the lower leg shaft. The cuff is connected to the boot shoe in the area of the ankle. Some boots have adjustable cuffs for both fore and aft and side to side angles. This side to side relationship is NOT canting. It does not affect the knee. This is cuff canting and is used to accommodate the natural angle of the lower leg shaft. Cuff canting often has a range of about 5 degrees, allowing adjustments both inside or outside of vertical. Initial forward lean angles vary greatly, with fore and aft adjustment ranges between 6 to 12 degrees.
3. *Ramp Angle*: All boots have a removable boot board that interfaces with the boot's liner and the hard shell. These boot boards are higher in the heel than in the forefoot creating angles that can vary from 5 to 13 degrees. The higher heel is to encourage a more aggressive stance and a more natural shift in weight to the ball of the foot. Some boot manufacturers create boot boards that have adjustable heel height. This affects fore and aft balance and the skill of pressure control.
4. *Custom Footbeds*: Custom footbeds are of utmost importance. The idea behind the footbed is to support the foot in a position that is complimentary to the angles that are created by the ski boot. The custom footbed can be the single most significant comfort and performance adjustment made. In many cases a properly constructed footbed is all that is needed for a proper alignment.
5. *Binding Ramp Angle*: All bindings are slightly higher at the heel piece relative to the toe piece. Once again this is to encourage a more aggressive stance. This height difference can be anywhere from 3mm to 11mm, depending on the manufacturer. It creates a steeper

angle for shorter boot soles than for longer boot soles. Imagine steps going up to a deck that is three feet off the ground. If there were eight steps going to the deck the angle would be gentle. If there were three steps going to the deck the angle would be very steep. This binding ramp angle is often overlooked and can greatly affect fore and aft balance and the skill of pressure control.

Under-Binding Cants: Under-binding cants are tapered wedges that are available in ½ degree increments ranging from ½ degree to 4 degrees. These wedges are designed to perform two distinct functions. The first function is as a filler to make the ski flat on the snow. This function is most commonly used with the excessively bowlegged person. The second function is to affect knee positioning. This is most commonly used with knock kneed skiers. The ideal positioning is a very slight knock kneed stance with the skis flat on the snow. Under binding cants only deal with side to side balance and the skill of edging.

Stance Balancing describes the process by which the angles of the ski boots and bindings are measured and assessed. The assessment involves interpreting how these angles affect the body. The basic principle is to match the angles of the boot to the angles of the body. As a result, the skeleton will be well aligned and the muscles will remain relaxed and natural. This will enable people to fully enjoy the sport of Alpine skiing.

Canting only focuses on one skill, edging. Stance balancing focuses on all four skills; edging, pressure control, rotary and balance. The combination of boots, bindings, skis and poles is a functioning system. A properly balanced system will encourage rapid progress in the learning curve and give skiers the comfort they need to advance in the sport. Comfort and performance go hand in hand. The number one reason why people quit the sport of skiing is due to sore feet. If a balanced system enables more people to have wonderful Alpine skiing experiences, we should see a very positive impact on our sport.

Personal Development Plan

by Mickey Stone, Nordic Coordinator

On behalf of PSIA-E, welcome and congratulations for participating in our Certified Level I event. The membership of PSIA encourages you to continue to develop your skills as a professional ski teacher. Continued professional growth will benefit you, your ski area and ski school, and ultimately your students. When we, as members of PSIA and PSIA-E collectively strive to improve our skills, we create a positive reflection on our profession; one that benefits us all. It is to that end that we ask you to reflect upon your interests, goals, and performance at this event in order to chart a path for your future development.

We have entered the years where we will not be surprised what we see on the hill or what athletes are doing in the off-piste. These times of the "Extreme" are here and the freedom of expression and belonging to a specific group is here to stay for a while. It is really not all that different than the expression and diversity of the 60's and early 70's. It is a time to try lots of things. Telemark skiing has been around since the dawn of time and now in the pipes and parks as well as the backcountry. To us it is truly the most diverse and explorative of all the disciplines. To be able to learn how to ski, parallel, tele, climb, skate and stride all on one ski is truly the master of all trades. Share your passion and expertise with others so they can explore the same world we do and have the camaraderie and elations that we do (don't show everyone your secret stashes though).

Currently, ski schools and areas are going through cycles of understanding diverse equipment, safety procedures and what the visual picture looks like to the guest. It becomes more and more obvious each year the commonalities of movements with all the diverse gear. Nordic Downhill is a hybrid right now of x-country movements and downhill movements. 250-300 years ago it was known as downhill skiing and traveling. Our goal and yours would be to help your organization to understand that Nordic Downhill has far more similarities than differences with alpine skiing. All instructors should be diverse in their teaching and tasks to accommodate many types of gear in classes. For now try to promote rentals in the telemark field at your resort and nearby ski shops, be realistic and professional and work within your parameters. Learn parallel techniques as well as the many types of turns you can do on these skis. Try to be the best model you can and support the sport.

We offer many different events in the East tailored to meet the needs of all of our members. The events have credit values; 1 credit per 1 day of participation. These accumulate on your membership record much as college courses are logged toward a degree. As your skills grow, so does your professional skiing resume. Assess your strengths and weaknesses. Keep in mind your job responsibilities, duties, and your home area training. Plan your steps and start to grow! Free the Heels and the Mind will follow.

Nordic Downhill Course Descriptions

Nordic Downhill is free heel skiing on lift service areas and ascent/descent skiing with climbing skins or wax. It is a **downhill** sport. Gear is distinguished by mostly plastic boots, 3-4 buckles or hard leather that comes above the ankle like an alpine boot, they are made to be supportive diagonally, laterally and fore and aft. Skis are alpine shaped downhill skis and telemark specific. Length depends on its usage. Bindings are cable, plate, three pin, releasable or combinations of each with riser plates. Poles are normally telescopic so you can diagonal stride, climb, skate and go downhill. Climbing skins and a daypack are normal to have nearby.

Level I Events

Eligibility: Open to prospective new members who have met the prerequisites (see level I prerequisites) as well as current members in other disciplines.

Level I events are entry level educational workshops that include an assessment of basic knowledge of PSIA, customer service, safety and risk management, and technical information, as well as an evaluation of basic skiing and teaching skills. This event qualifies instructors as Certified Level I. The Level I course outline and description of standards may be found in the above text. Currently Level I can be obtained in any of the upgrades. We receive very few numbers of brand new telemarkers. Most are crossing over from other ski backgrounds or certifications. If you are looking for the ground level and the "How to" on easier terrain you should pick any of the events listed as Alpine Crossover, Learn To Tele or occasionally we do have a Level I specific event. Listed below are course outlines for:

Tele for Alpine Crossovers

Equipment: Lift service telemark gear.

Course Content:

- Review Nordic Movements
- Introduce Telemark Components
- Review transferable alpine movements and skills
- Guided practice for linking telemark turns w/ effective feedback
- Teaching each other Intermediate Telemark Components
- Movement analysis
- Personal skiing improvement and coaching

Learn To Tele

Equipment Lift service telemark gear.

Course Content:

- Review Nordic Movements
- Introduce Telemark Components
- Review transferable skiing movements
- Beginner/novice activities
- Linking tele turns
- Guided practice with effective tips and coaching
- Movement Analysis of skiers and ourselves
- Targeting teaching zones and creating teaching activities
- Reviewing commonly seen movement patterns at beginner and intermediate zones
- Exploring ungroomed terrain and applying tactics

Developmental Series

Eligibility: Certified Level I members and above.

NOTE: Any developmental series clinic counts as an exam prerequisite and/or a Level I unless otherwise stated in the "Snow Pro."

Skiing/Teaching Focus - This course focuses on developing personal skiing skills. It will help participants to develop efficiency, versatility and a stronger base of skills. Tactics for terrain, conditions and equipment will also be explored. Movement analysis and biomechanics play a large role in these clinics. It also covers specific teaching skills, styles, methodology and movement analysis for beginner, intermediate and expert (or the group's needs). The course will focus on effective communication, creating fun, organization, presentation of information, use of teaching styles and feedback, motivating students, and movement analysis skills.

Tele Skiing/Teaching

Equipment: Lift service telemark gear

Course Content

All will have a level I if there are attendees needing that if not see additional content.

Beginner/Intermediate mechanics

Teaching beginners/intermediates

Teaching Models

Delivery/communication styles

Learning modalities

Movement analysis, "how to describe and prescribe"

Personal Skiing improvement

Beginner/intermediate demonstrations

Exploring types of turns

Practice teaching scenarios

Off-piste components

Safety

Lesson plans

Teambuilding

Gear technology preview

Propulsion and climbing

Additional advanced topics on groups request

Intro to Trees/Off-Piste

Equipment: Lift service telemark gear, skins pack

Course Content:

Review of Telemark Components, Visual Cues of Effective Tele Skiing and tele turn improvement

Lead change types

See below content for all levels

Geared to a slower pace and easier terrain unless group dictates otherwise

Bumps/Trees Advanced Levels

Equipment: Lift service telemark gear, skins

Course Content

- Review of telemark types of turns
- Lead change review
- Varied exercises and drills to prepare
- Intro to bump activities in the bumps (advanced if there is a group split)
- Movement analysis of the group
- Specific feedback and personal coaching
- Guided practice
- Tactics and series of weighting and unweighting techniques
- Picking a line in the trees
- Safety off the groomed
- Condition specific technique for the woods

Tele Off-Piste

Equipment: Lift service, ascent descent, skins and a daypack.

MUST BE ABLE TO SKI BLUE TERRAIN SLOPES AND HAVE THE STAMINA FOR OFF-PISTE SKIING. EVENT WILL GO DESPITE SNOW CONDITIONS.

Course Content:

- Conditions Due jour
- Tactics for conditions and unique terrain
- Technique review during off-piste conditions
- Safety
- Route finding
- Picking lines for a group
- Leading/guiding
- Fun FUN FUN
- Content through skiing and kinesthetic awareness

SPECIALTY EVENTS

Mini Academy

Equipment: Lift service telemark gear.

Course Content:

- Review of Telemark Components and “How to build a tele skier”
- Commonly seen movement patterns at beginner and intermediate zones
- Movement analysis and how it fits in with the Teaching Model
- Practice teaching scenarios
- Creating activities and lesson plans for students needs
- Personal skiing improvement

Instructor Training Course

Equipment: Lift service tele gear, skins and a pack

Course Outline

The goal is to improve the entire package that a telemark instructor brings to the table. There will be time to practice teach, improve skiing, movement analysis, description prescription, lesson plans, reviewing different teaching models, teambuilding, commonalities of other sliding sports discussed, exam preparation and catering to teaching beginner and intermediate skiers. Time allotted for unguided ski practice.

Spring Rally

Equipment: Lift service telemark gear daypack and skins

Course Content

You can obtain Level I (see content in Tele skiing/Teaching) Mostly it is an end of the year upgrade. Fun, light and a lot of skiing. Attendees build the syllabus. Most of the Ed Staff will be there. Banquet included.

Backcountry - This course deals with the off-piste factor. Ascent, descent and traveling off-piste will be explored. Each year this clinic has a different focus: Orienteering, overnight, descents, trees and snow caves, to name a few. Equipment requirements are specified in the PST. This clinic also has a special group function each year. Pacing, safety and fun are our keys.

Backcountry

Equipment: Light to mid off-piste Nordic gear. Climbing skins, compass and day pack

Course Content

- Gear review
- Day Pack and belongings
- Fitness/Pacing/Learning to read your body
- Techniques for uphill/downhill/propulsion
- Field repairs
- Route selection
- Orienteering
- Weather reading/preparing
- Waxing
- Teambuilding
- Some lift service 20%
- Group Leading
- Tour

*** The fall of 2003 a new Backcountry Accreditation has been created that can be linked to a Master Teacher Certificate. The course is 6 days, with 2 days off snow and the other 4 on. Look in the Backcountry section for more details.

Level II/III Exam Clinics

Eligibility: Certified Level I or II members.

Intensive Exam Prep: This two day clinic deals specifically with the skiing and teaching focus to help you prepare and coach yourself to a successful exam result Written feedback and video analysis are included.

Exam Prep

Equipment: Lift service, skins and daypack

Exam Prep. Content

- A flavor of what the exam will be about. Movement analysis, written exam, video exam, teaching, technique and demonstrating will all be a part of this. 50% off piste.
- practice written questions, objective
- Video Movement Analysis
- Beginner Intermediate and Advanced How to teaching segments (depending on Level II or III)
- Beginner, Intermediate and Advanced Demonstrations
- Movement analysis with description/prescription
- Personal skiing
- Off-piste leading
- Interview of skiing resume
- Teambuilding Activity

Level II/III Exams

These are explained in depth in the each of their perspective areas.

Level I Written Exam

The following questions refer to the basic knowledge expected of the Level I instructor. The exam is open book and must be completed by the beginning of the second day of the event. Answers to the questions can be found in this level I study guide.

The completed exam should be brought to the Level I event on Day 2. It will be reviewed with your course conductor between 8:30-9:00 am on the second day.

1. PSIA's purpose is to provide _____ leadership.
2. It is a goal of PSIA /PSIA-E to make their programs:
 - A. _____
 - B. _____
 - C. _____
3. Generally speaking, training for Registered and Certified Level I members takes place first _____ and then _____.
4. The success and prosperity of a ski resort depends primarily on _____.
5. Ski instructors are different from other ski area employees because _____.
6. Providing _____ and _____ usually means a higher volume of lessons and return business, and greater profit for the ski school.
7. You should adhere to the safety policies of your _____ and _____.
8. When should Safety/Risk Awareness be reinforced? _____.
9. The main components of ATS are _____ and _____.
10. The four basic skiing skills are:
 - A. _____
 - B. _____
 - C. _____
 - D. _____
11. Managing a class effectively takes _____ and _____.
12. One of the **most important** items of class management is to _____.
13. Two ways to gain information about your students(s) are:
 - A. _____
 - B. _____
14. During the lesson, the instructor's decision to repeat an activity or progress to the next step in learning is based on _____.
15. A basic understanding of biomechanics is important because _____.
16. The body joint that plays the most significant role in our balance when skiing is the _____.
17. The primary way we edge our skis is through _____.

Level I Written Exam *continued*

18. Due to the lower legs being in a strided or twisted position a _____ of the torso is needed to keep in balance while linking telemark turns.
19. Lead changes in telemark skiing dictate _____ and _____.
20. To regulate the amount of pressure (forces) we experience while skiing, we use mainly _____ Movements.
21. The level at which a child understands, behaves, and moves, depends on _____ and _____.
22. Your ability to communicate skiing information to children depends on:
- A. _____
 - B. _____
 - C. _____
23. Egocentricity is defined as: _____
24. Young children's heads and trunks are _____
25. Recommended ski lengths are based on:
- A. _____
 - B. _____
 - C. _____
 - D. _____
26. Pole length is determined by _____
27. What are the components of a telemark turn?
- A. _____
 - B. _____
 - C. _____
 - D. _____
 - E. _____
 - F. _____
28. Why is a delayed lead change advantageous for beginners to learn right away?
29. Who were Sondre Norheim and "Snowshoe" Thompson?
30. Why is it important to teach in the off-piste as well as the groomed?
31. Write a brief lesson plan for a first time telemark skier with an alpine background and one for a Nordic background.

Professional Development

Nordic Downhill Recommended Reading List

Additional Reading

The following list of books that are directly related to ATS and information for instructor training.

PSIA/AASI Core Concepts For Snowsports Instructors Manual (2001)
Alpine Technical Manual, Skiing and Teaching Skills. PSIA
Nordic Manual 2003 New (released in spring of 2004)
ATS: Nordic Skiing 1st ed. PSIA
ATS: Nordic Handbook. Vail Associates: PSIA 1991
Telemark Skiing Video (2001)
PSIA/AASI Children's Instruction Handbook
PSIA Children's Instruction Manual
Sno Pro Newsletter PSIA-E
The Professional Skier PSIA Journal

Additional Reading

The following books are suggested as additional resources for working ski instructors and exam candidates.

Paul Parker Free Heel Skiing 2nd edition 1995 Mountaineer
Allen O'Bannon & Mike Clelland Really Cool Telemark Tips, 1998 Falcon Press
Allen & Mike's Really Cool Backcountry Tips, 1998, Falcon Press
John Dunn, Winterwise, AMC, 1996
Steve Barnett, Cross Country Downhill 3rd edition, 1987 Globe Pequot Press
Skiing & the Art of Carving - E. Foster 2nd Ed
Skiing & the Art of Carving - Video
Backcountry Magazine and Website
Telemarking Magazine
Couloir Magazine and Website
Telemarktips.com

Having the skills and knowledge to be a competent, well-rounded skier and snowsports teacher requires a diverse, broad base of education. Using the reading and video resources listed above should provide substantial help in developing that foundation of knowledge.

**PROFESSIONAL SKI INSTRUCTORS OF AMERICA
EASTERN DIVISION**

1-A Lincoln Avenue
Albany, NY 12205-4900
(518) 452-6095
www.psia-e.org