

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



Cross Country
(formerly Nordic Track/Skate)
Exam Guide

PSIA-E Cross Country Exam Guide

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Preface

Acknowledgments

This manual reflects the continuing development, improvement and updating of Nordic ski teaching. The National Nordic Education Team has created the national outcomes for Nordic certification and education. All nine divisions have adopted these outcomes, which are the foundation for consistent certification standards and reciprocity across the country. PSIA-E Cross Country and Telemark Boards of Examiners, plus past Nordic coordinators, have contributed their comments, time and efforts in helping to create this manual. A special thanks to all of you.

Mission Statement

PSIA-E Nordic will serve our membership, the ski industry and the public by developing and delivering educational programs, materials and validation processes which promote the enjoyment of Nordic skiing. In addition, we will serve our membership by providing benefits, support and promotion of the profession of Nordic ski teaching.

Goals

PSIA-E Nordic will:

1. Interest Nordic skiers in becoming professional ski teachers through introductory programs open to the general public.
2. Develop and administer validation standards and programs for the professional Nordic teacher.
3. Conduct continuing education programs for members that reflect current developments in the sport.
4. Develop public awareness of professional ski teaching.

Introduction

To The Candidate...

Proper preparation is the key to success at each of the levels of Nordic certification. The higher the level, the more important this becomes. While it is only natural to ask your friends, peers and clinic leaders, "Do you think I'm ready yet?" the answer must come from within. Professional, effective teachers read the appropriate books and manuals, often taking notes and developing outlines. They view videos, analyze skiers on the hill, and create fun and effective ways for students to learn and improve their Nordic skills. They question and discuss the American Teaching System (ATS), technical information, and ski technique. Motivation centers on skiing for fun and enjoyment. There is continual training, experimentation and diversification. Utilizing this manual as a guide to get you started, and then doing more than it suggests, should help lead you to the answer about your readiness.

Help improve and expand our Nordic organization. Challenge yourself to become dual certified in both disciplines of Nordic. It is a great sport, and you can make it even better. Enjoy the process. Good luck and we look forward to seeing you on snow.

About This Manual...

This certification guide provides PSIA-E Nordic members with information to prepare themselves for the process of becoming certified in the three levels of Nordic ski teaching. Your preparation will need to go beyond this manual, however, since it only serves as a guide or overview of material that will be covered in the certification process.

Presented in this guide are PSIA's membership prerequisites and standards for Nordic Cross Country/Skate. The certification exam process, format and scoring are explained. Equipment considerations are covered. There is a separate section on the Examiner Training Squad program.

Candidates must have an understanding and working knowledge of the current PSIA American Teaching System and the required technical and skiing skills before attempting any level of certification. This guide, your ski school/club director, attendance at in-house and PSIA-E Nordic events; plus your own teaching/skiing experience, enthusiasm, motivation, and dedication; can assist in your preparation. The determination as to whether you have the requisite skills for pursuing certification, and your decision to attend an exam should be based on the same elements noted above.

All sports continue to evolve as we understand more completely the biomechanics of the activity, and the intricate process of human learning. Nordic skiing is no exception. The sport has experienced enormous change in the past decade, with the popularity of telemark skiing and skating, plus revolutionary equipment innovations affecting the character of the sport. PSIA-E Nordic has fully incorporated these developments into the exam process in recent years, and will continue to evaluate standards for certification in light of the sport's evolution.

Consequently, we urge candidates to remain apprised of current developments within the sport and treat certification as part of a continuing educational process. Please use this study guide as a place to begin your preparation, and let the framework for certification lead you to explore a wide variety of materials now and in the future.

General Policies

The certification process and exam formats are outlined by certification level in the following sections of this manual. The requirements for professional preparation are listed below. More information on requirements for each specific certification level is listed in each section.

Becoming a new member: Must be at least 16 years of age, have a minimum of 25 combined hours of teaching and training as attested to by the Snowsports Director, be employed at an area snowsports school, complete membership application and pay Registered dues to the association.

Applying for an Event

A schedule of educational and certification events is published each year, and distributed via our newsletter and posters. Candidates must fill out a standard application for any event in which they wish to participate. For certification exams and/or new members, the application should be signed, if possible, by the candidate's ski school director, club president, or supervisor (whichever applies) to attest that the person is a member of the staff, has met the prerequisites of the desired level, and has received training in preparation for that level. Fees for the event must accompany the application. **Applications and fees must be received by the deadline, approximately three weeks prior to the desired event.**

Send to:

PSIA-E/AASI, 1-A Lincoln Avenue, Albany, NY 12205-4907 (or)

Fax: (518) 452-6099

Applications are accepted via fax, when the fee is paid by credit card (see below).

A credit card *must* be used when applying by fax. Do not also mail an application that you have faxed, as this could lead to double charging and may not be discovered until the day of the event.

*Please note that there are charges for transferring from one event to another, canceling your **application**, not showing up at an event for which you were scheduled, and returned checks or credit charges. These fees are deducted from any refunds that are due. These charges are clearly stated on all applications and schedules.*

Maintaining Membership and Certification

Instructors are encouraged to continue their education beyond the certification process in order to remain apprised of the most current information pertaining to ski teaching and skiing. Level I, II, and III instructors must maintain their status with PSIA-E by:

1. Paying dues to the Association.
2. Satisfying the minimum education requirement by participating in an upgrading event at least once every two seasons.

Members may also complete a clinic outside their discipline for credit once every four years (every other two-year education period). For instance, Cross Country instructors can obtain upgrading credit by taking a Telemark, Alpine, or Snowboard clinic. They must meet the prerequisites for these programs and be able to participate effectively in these workshops.

Nordic Certification Structure

PSIA-E offers two different types of Nordic membership and certification: Cross Country and Telemark. The Cross Country program is designed for instructors who teach classical (track skiing) and freestyle (skating) at cross country ski areas, schools and recreation centers. The emphasis is on classical and freestyle skiing on groomed terrain, although elements of touring off-piste are also addressed.

The Telemark program is designed for instructors who teach Telemark skiing at lift-serviced ski areas and in the backcountry. The emphasis of the Eastern program is primarily instruction at lift-serviced areas, although elements of back country skiing are also addressed.

The term Nordic refers to both Cross Country and Telemark.

The Certification Process

The following basic structure exists for both programs:

LEVEL I CERTIFICATION: A two-day event designed for skiers with some teaching experience. This event focuses on developing teaching and skiing skills for beginner and intermediate ski lessons. It is strongly recommended, but not required, that skiers have 25 hours of teaching experience to enhance their participation.

Participants must pass the course conductor's evaluation to obtain Level I status with PSIA-E. The minimum requirements are skiing at an intermediate level and demonstrating a good understanding of the beginner lesson. See Level I standards later in this manual.

The Cross Country Level I event is conducted on prepared track and skating areas. Equipment conducive to performance on groomed tracks and skating surfaces will be beneficial. Preparation of ski bases for gripping and gliding is also needed.

Any Level I member of PSIA-E is eligible to proceed to exam clinics in any discipline including alpine skiing and snowboarding. However, participants who need training in a new discipline are urged to begin with the Level I event to better understand the standards of that particular certification process.

UPGRADE CLINICS: A two-day event which addresses teaching, skiing skills, and professional knowledge required for the Level II and III exams. These clinics also serve as required educational events every 2 seasons and members may also receive their level I certification at any upgrade.

LEVEL II EXAM: A two-day event which tests the ability to teach beginner and intermediate lessons. Candidates must demonstrate sound skiing, teaching, and professional knowledge on moderate terrain. See Level II standards later in this manual. A team of examiners tests candidates and provides written evaluations of their performance.

LEVEL III EXAM: A two-day event which tests the instructor's ability to teach advanced lessons. Candidates must demonstrate an advanced level of skiing, teaching, and professional knowledge under a wide range of terrain and snow conditions. See Level III standards later in this manual. Again, a written evaluation of performance is provided to candidates.

Registered & Certified Level I-III Prerequisites

Registered

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 office at (518) 452-6095, for more information on how to join at this level.

Level I Certification Prerequisites:

1. Must be 16 years of age or older.
2. Must be actively teaching in an organized program, club, recreation facility, or PSIA-E member school.
3. Must complete an in-house training and on-snow teaching program. This should familiarize the candidate with introduction to ATS teaching and skiing concepts.

If this is not available, an understanding of ATS concepts, PSIA, a commitment to safety education, and conducting oneself in an organized and professional manner should be obtained before enrolling in a Level I Certification event.

To become Level I, one must successfully pass a Level I evaluation at any upgrade clinic. To maintain membership, one must pay annual dues to the Association, and attend a 2 day event at least once every two seasons. Level I members may hold committee seats and, after three years of continuous membership, are entitled to vote.

Level II Certification Prerequisites:

1. Must be 18 years of age or older.
2. Must be actively teaching in an organized program, club, recreation facility, or PSIA-E member school.
3. Must be a Level I member of PSIA-E.
4. Must attend a 2 day upgrade clinic within the same season in which the exam is attended.

To become Level II, one must successfully pass a Level II exam. To maintain membership, one must pay annual dues to the Association, and attend a 2 day upgrade event at least once every two seasons. Level II members may hold committee seats and, after two years as Level II members, may hold a seat on the Board of Directors. They are entitled to full voting rights.

Level III Certification Prerequisites:

1. Must be 18 years of age or older.
2. Must be actively teaching in an organized program, club, recreation facility, or PSIA-E member school.
3. Must be Level II member of PSIA-E and have been since at least the prior season.
4. Must attend a PSIA-E 2 day upgrade clinic, or other appropriate educational event that can be used as a prerequisite (see "General Policies"), within the same season in which the exam is attended.

To become Level III, one must successfully pass a Level III exam. To maintain membership, one must pay annual dues to the Association, and attend a 2 day upgrade event at least once every two seasons. Level III members may hold committee seats and, after two years as Level II or Level III members, may hold a seat on the Board of Directors. They are entitled to full voting rights.

Cross Country Skiing Standards

• **Level I**

Beginner Zone

The candidate is able to...

▪ **Level II**

Intermediate Zone

The candidate is able to...

◆ **Level III**

Advanced Zone

The candidate is able to...

	Level I Beginner Zone <i>The candidate is able to...</i>	Level II Intermediate Zone <i>The candidate is able to...</i>	Level III Advanced Zone <i>The candidate is able to...</i>
Body Position	Skating ski with the core over the base of support seen by shin angle appropriate to torso	Skating ski with the core over the base of support seen by shin angle matching torso	Skating ski with the core in front of the base of support seen by shin angle matching torso
	Balance and glide on one Skating ski	Vary the duration of balance and glide on one Skating ski	Actively balance and glide on one Skating ski for any duration
	Skating ski with a naturally rounded back in an athletic stance	Skating ski with naturally rounded back and tail tucked under most of the time	Skating ski with naturally rounded back and tail consistently tucked under
	Skating ski with a stable 'panel' (torso) oriented in the direction of travel in one of the three: twisting, tilting, hinging at the waist	Skating ski with a stable panel in two of the three: twisting, tilting, hinging at the waist	Skating ski with a stable panel controlling twisting, tilting, and hinging at the waist
Timing	Demonstrate 3 techniques to get around and recognize all of the techniques	Demonstrate all of the techniques and switch techniques and tempo with terrain changes	Demonstrate all of the techniques and switch techniques and tempo seamlessly with terrain changes
	Time core, poling and leg movements for the terrain and technique	Time core, poling and leg movements to enhance forward motion	Time core, poling and leg movements precisely to enhance forward motion appropriate to technique and terrain
	Classic - Transfer weight completely Skating - Transfer weight completely (laterally)	Classic - Transfer weight as the feet pass Skating - Transfer weight actively from whole foot to whole foot	Classic - Transfer weight after the feet pass Skating - Transfer weight precisely and powerfully from whole foot to whole foot with full extension
Propulsion	Classic - Compress the Skating ski with body weight to create grip	Classic - Compress the Skating ski with flexion and extension to create grip	Classic - Compress the Skating ski with flexion and extension to create grip and enhance power
	Skating - Engage the Skating ski edge with body movement to create purchase	Skating - Push off of the Skating ski edge with extension to create purchase	Skating - Push off of the Skating ski edge with extension to create purchase and increase glide
	Classic - Pendulum the leg forward	Classic - Actively pendulum the leg to enhance forward motion	Classic - Powerfully pendulum the leg to enhance forward motion and compression
	Demonstrate flexion/extension	Demonstrate flexion and extension dictated by terrain	Use full range of flexion and extension movements as dictated by terrain to generate power
	Engage poles then core muscles	Engage core muscles as poles engage	Engage core muscles as poles engage
	Demonstrate propulsion from poling with pole release and arm extension	Demonstrate propulsion from poling with pole release, arm extension and retrieval appropriate to terrain and technique	Increase propulsion by pole push and pole retrieval

Cross Country Level I Certification Standards:

Category 1: Skiing

I. Skiing.

- A. General maneuvers: The instructor will be able to...
1. Identify and ski the following maneuvers:
Diagonal stride, double pole, herringbone step turn, wedge, wedge turn, diagonal V-skate, and V-1 skate.
 2. Recognize and identify the following:
Uphill diagonal, double pole with kick, skate turn, wedge christie, basic telemark, marathon skate, V-2 skate, and V-2 alternate skate.
- B. Technical descriptions:
1. Body Position
 - Skating ski with the core over the base of support seen by shin angle appropriate to torso
 - Balance and glide on one Skating ski
 - Skating ski with a naturally rounded back in an athletic stance
 - Skating ski with a stable 'panel' (torso) oriented in the direction of travel in one of the three: twisting, tilting, hinging at the waist
 2. Timing
 - Demonstrate 3 techniques to get around and recognize all of the techniques
 - Time core, poling and leg movements for the terrain and technique
 - Classic - Transfer weight completely
 - Skating - Transfer weight completely (laterally)
 3. Propulsion
 - Classic - Compress the Skating ski with body weight to create grip
 - Skating - Engage the Skating ski edge with body movement to create purchase
 - Classic - Pendulum the leg forward
 - Demonstrate flexion/extension
 - Engage poles then core muscles
 - Demonstrate propulsion from poling with pole release and arm extension

II. Demonstrations.

- A. Diagonal stride, double pole, herringbone, step turn, diagonal V-skate, V-1 skate: The instructor will be able to...
1. Identify the appropriate terrain for each technique and maintain balance and timing during the transition from one technique to another.
 2. Demonstrate a blend of skills.
- B. Wedge, wedge turns: The instructor will be able to...
1. Demonstrate on the easiest of groomed green terrain.
 2. Demonstrate a blend of skills.
 3. Steer both legs in a wedge to create turn shape and speed control.

Cross Country Level I Certification Standards continued

Category II: Teaching

- I. Knowledge of teaching:** The instructor will be able to...
- A. Recognize all parts of the American Teaching System-Nordic (ATS) and discuss how to use the system when teaching beginner level.
 - B. Recall the Skier's Responsibility Code and discuss how to introduce it when teaching beginner level.
 - C. Identify the learning styles (VAK) and give examples of how to recognize a student's learning preference.
 - D. Identify styles of teaching and give examples of how to use them during a lesson.
 - E. Understand student profiles of specific groups: Adults, children, seniors, etc.
- II. Application of teaching:** The instructor will be able to...
- A. Teach the skiing public through beginner level.
 - B. Handle a class and manage a group's behaviors based on energy levels, conditions for that day, terrain, safety, and lesson content.
 - C. Communicate information using basic techniques such as eye contact, voice inflections, and appropriate pacing of information.
 - D. Describe skier services and activities at their area.

Category III: Professional Knowledge

- I. Terminology:** The instructor will be able to...
- A. Define and explain the basic ski terminology as described in the ATS Nordic Handbook and Manual.
- II. Equipment:** The instructor will be able to...
- A. Identify equipment needs for skiers at the beginner level.
- III. Reference Model/skill development:** The instructor will be able to...
- A. Describe the Reference Maneuvers and identify common skill usage and differences.
 - B. Identify phases of a turn.
 - C. Identify basic skiing skills (balance, rotary control, edge control, pressure control) and relate them to skiing at the beginner level.
- IV. Movement analysis:** The instructor will be able to...
- A. Describe the basic movement patterns in beginner skiers.
 - B. Determine the cause and effect relationships as related to stance and basic skills in beginner skiers.
 - C. Prescribe what students should work on by prioritizing their skill needs through beginner level.
 - D. Prepare skill-based lesson plans.

Cross Country Level I Certification Standards continued

Category IV: Children

I. The instructor will be able to...

- A. Recognize that people develop through stages: Mental (cognitive), physical, social and emotional (affective).
- B. Recognize that while individuals may mature and progress at different rates, the stages of development are the same.
- C. Set up learning situations that are based on activity.
- D. Vary the amount and type of information presented according to the developmental stage of the student.
- E. Maintain class control.

Cross Country Level II Certification Standards

Category 1: Skiing

I. Skiing.

A: The instructor is able to...

1. Ski the following maneuvers: Diagonal stride, uphill diagonal stride, double pole, double pole with kick, skate turn, herringbone, step turn, wedge, wedge turn, wedge christie, V-1 skate, V-2 skate, V-2 alternate skate, and diagonal V-skate.
2. Apply appropriate tactics and demonstrate a variety of skill applications according to the situation.
3. Ski all terrain and trail conditions described as green, blue, and easy black.

B. Technical descriptions:

1. Body Position

- Skating ski with the core over the base of support seen by shin angle matching torso
- Vary the duration of balance and glide on one Skating ski
- Skating ski with naturally rounded back and tail tucked under most of the time
- Skating ski with a stable panel in two of the three: twisting, tilting, hinging at the waist

2. Timing

- Demonstrate all of the techniques and switch techniques and tempo with terrain changes
- Time core, poling and leg movements to enhance forward motion
- Classic - Transfer weight as the feet pass
- Skating - Transfer weight actively from whole foot to whole foot

3. Propulsion

- Classic - Compress the Skating ski with flexion and extension to create grip
- Skating - Push off of the Skating ski edge with extension to create purchase
- Classic - Actively pendulum the leg to enhance forward motion
- Demonstrate flexion and extension dictated by terrain
- Engage core muscles as poles engage
- Demonstrate propulsion from poling with pole release, arm extension and retrieval appropriate to terrain and technique

II. Demonstrations.

A. Diagonal stride, uphill diagonal stride, double pole, double pole with kick, diagonal V skate, V1 skate, step turn, skate turn, wedge, and herringbone: The instructor is able to...

1. Demonstrate on green and blue trails.
2. Demonstrate effective transitions between techniques.
3. Demonstrate a blend of skills.

B. Wedge turn, wedge christie: The instructor is able to...

1. Demonstrate on groomed green and easiest blue terrain.
2. Demonstrate tall, centered stance.
3. Demonstrate steering of both legs to create turn shape and speed control.
4. Demonstrate an appropriate blending of skills in linked turns.

Cross Country Level II Certification Standards continued

Category II: Teaching

- I. Knowledge of teaching:** The instructor is able to...
- A. Recall the Skier's Responsibility Code and discuss how to integrate it into beginner through intermediate lessons.
 - B. Identify the components of the Teaching Model.
 - C. Identify and match learning and teaching styles.
 - D. Describe student profiles of specific groups:
Adults, children, and seniors, through intermediate levels.
- II. Application of teaching:** The instructor is able to...
- A. Teach the skiing public through intermediate level.
 - B. Determine goals that are mechanically correct and meet the expectations of their students (the learning partnership).
 - C. Tailor teaching styles to meet the preferred learning styles of their students.
 - D. Apply the PSIA Teaching Model effectively to meet the needs of the students.
 - E. Broaden explanation of skier services and activities at their area.

Category III: Professional Knowledge

- I. Terminology:** The instructor is able to...
- A. Define and interpret all terminology as described in the ATS Nordic Handbook and Manual and apply it to understanding, analyzing, and teaching skiers up to intermediate level.
- II. Equipment:** The instructor is able to...
- A. Describe changing equipment needs as students move from beginner through intermediate level.
- III. Reference Model/skill development:** The instructor is able to...
- A. Describe the skills of the Reference Maneuvers and some of their variations.
 - B. Examine the similarities of skill application in the reference maneuvers through a discussion of Common Skill Features.
 - C. Identify skill application of beginner through intermediate level and explain skill blend, intensity, and skiing characteristics that create balance and propulsion at that level.
 - D. Describe skill development in the Reference Model.
- IV. Movement analysis:** The instructor is able to...
- A. Describe the basic movement patterns in skiers through intermediate level.
 - B. Determine cause and effect relationships as related to skill usage in skiers through intermediate level.
 - C. Prescribe what a student should work on by prioritizing their skill needs through intermediate level.
 - D. Prepare a skill development plan, focus on exercises and tasks that target skier's needs and change their behavior.

Cross Country Level II Certification Standards continued

Category IV: Children

I. The instructor is able to...

- A. Describe developmental stages and their basic characteristics: Mental, physical, social, and emotional.
- B. Modify lesson plans to match the developmental stages of the student.

Cross Country Level III Certification Standards

Category I: Skiing

I. Skiing.

A. The instructor is able to...

1. Ski the following techniques: Diagonal stride, uphill diagonal stride, double pole, double pole with ick, skate turn, herringbone, step turn, V-1 skate, V-2 skate, V-2 alternate skate and diagonal V-skate and their variations, as well as wedge turn, wedge christie, basic telemark, and open parallel.
2. Ski all terrain and trail conditions.
3. Ski with dynamic rhythm and flow.
4. Demonstrate appropriate skill blending in techniques, exercises and tasks depending on the situation.

B. Technical descriptions:

1. Body Position

- Skating ski with the core in front of the base of support seen by shin angle matching torso
- Actively balance and glide on one Skating ski for any duration
- Skating ski with naturally rounded back and tail consistently tucked under
- Skating ski with a stable panel controlling twisting, tilting, and hinging at the waist

2. Timing

- Demonstrate all of the techniques and switch techniques and tempo seamlessly with terrain changes
- Time core, poling and leg movements precisely to enhance forward motion appropriate to technique and terrain
- Classic - Transfer weight after the feet pass
- Skating - Transfer weight precisely and powerfully from whole foot to whole foot with full extension

3. Propulsion

- Classic - Compress the Skating ski with flexion and extension to create grip and enhance power
- Skating - Push off of the Skating ski edge with extension to create purchase and increase glide
- Classic - Powerfully pendulum the leg to enhance forward motion and compression
- Use full range of flexion and extension movements as dictated by terrain to generate power
- Engage core muscles as poles engage
- Increase propulsion by pole push and pole retrieval

II. Demonstrations.

- A. All classical (traditional) and skating (freestyle) techniques and their variations: The instructor is able to...
 - 1. Demonstrate on all trails.
 - 2. Demonstrate efficient and effective transitions between techniques.
 - 3. Demonstrate an appropriate and dynamic blending of skills.
- B. Wedge turn, wedge christie, basic telemark, open parallel: The instructor is able to...
 - 1. Demonstrate on green, blue or easy black trails in a variety of snow conditions.
 - 2. Demonstrate a release of the downhill ski with a slight rising at the turn initiation.
 - 3. Demonstrate an appropriate blending of skills to enhance speed control in a variety of turn shapes.

Category II: Teaching

I. Knowledge of teaching: The instructor is able to...

- A. Discuss how to integrate the Skier's Responsibility Code into all levels.
- B. Describe how to use a variety of teaching and learning styles in a group lesson to individualize the lesson for the students.
- C. Describe elements of student learning and instructor teaching. Relate how they can contribute to both positive and negative experiences for students.

II. Application of teaching: The instructor is able to...

- A. Teach the skiing public through advanced level.
- B. Use the PSIA Teaching Model in all levels.
- C. Individualize group and semi-private lessons by using a variety of teaching styles and methodologies.
- D. Arrive at specific outcomes during lessons using a variety of strategies.
- E. Apply various forms of reinforcement, practice, and feedback to gain the best performance in students.
- F. Describe in depth skier services and activities available at their area and within the industry.

Category III: Professional Knowledge

I. Terminology: The instructor is able to...

- A. Define all the skiing related terms from the ATS Nordic Handbook and Manual and show understanding through performance.
- B. Relate specific skiing terminology to students in plain and simple language.

II. Equipment: The instructor is able to...

- A. Describe, analyze, and prescribe equipment variables in advanced skiing.

Cross Country Level III Certification Standards continued

III. Reference Model/skill development: The instructor is able to...

- A. Describe skill blending in skiing.
- B. Describe how skill blending relates to different situations and conditions as well as how it relates to different types of skiers including seniors, men, women, children, top athletes, and disabled.
- C. Relate skill blending to various internal and external forces generated in a variety of skiing situations.

IV. Movement analysis: The instructor is able to...

- A. Describe the basic movement patterns in skiers through advanced level.
- B. Determine cause and effect relationships based on the skills, terrain and conditions.
- C. Prescribe what a student should work on by prioritizing skill needs through advanced level.
- D. Prepare a skill development plan, focus on exercises, tasks, and drills to target the skier's needs and change their behavior.

Category IV: Children

I. The instructor is able to...

- A. Describe how skill blending relates to different skiers according to physical developmental stages.
- B. Individualize lesson content and learning environment to meet the needs of each student in groups according to individual developmental stages.
- C. Demonstrate motivational tactics appropriate to the developmental stage of the student.
- D. Vary information presentation skills and guide practice appropriately according to the length of the lesson.

The Examination Process

A Cross Country instructor can obtain Level I and take a Level II upgrade clinic, as well as the Level II exam within the same season. The upgrade clinic used to obtain level I, cannot be used as the upgrade preparation for the level II exam. Also, a Level I instructor in any other discipline can take a Nordic upgrade clinic and participate in the Level II exam. If you are a Level I member in any other discipline, you need only take an upgrade clinic before taking the exam. A Level II instructor can participate in the Level III exam if they have obtained Level II certification at least one season prior to the Level III exam. These candidates must take an upgrade for their prerequisite before the exam.

The Exam Format

Exams are two days in duration

At the opening of the meeting, candidates will be divided into small groups for the duration of the exam. Given sufficient numbers, Level III candidates will be segregated from Level II candidates. Each candidate will be evaluated by one examiner. The time and location when examiners will switch between the groups will be announced to participants during the meeting.

During the course of the session, the examiner will continually evaluate candidates in the following three categories: Skiing skills, teaching skills, and professional knowledge. The professional knowledge category includes a written objective test for Level II and III (approximately 25 questions) which will be administered right after registration the first day. It will be comprised of questions relating to terminology, biomechanics, equipment knowledge and PSIA ATS.

Typical Exam Schedule

Day One:

- 8:00 AM Registration
- 8:10 AM Written test
- 8:45 AM Group assignments, introductions, and general announcements
- 9:00 AM First rotation
- 1:00 PM Lunch
- 1:45 PM Second rotation
- 4:00 PM Wrap-up and directions for the next day.

Day Two:

- 8:00 AM Sign in
- 8:15 AM Indoor session for test review
- 9:00 AM Second rotation continued
- 11:00 AM Lunch
- 11:45 AM Third rotation
- 3:30 PM Exam ends. Exam results are announced as soon as possible. All candidates receive copies of their scores and may discuss them with the examiners. Also at this time, evaluations will be available for candidates to comment on the exam process.

The Examination Process *continued*

Exam Scoring

Each examiner gives three marks per candidate (skiing, teaching and professional knowledge). Within each category, at least two examiners must determine that the required standards have been met in order for the candidate to attain the next level of certification. Each examiner provides a written evaluation/score card for each candidate in the three categories.

Examiners do not provide candidates with specific feedback during the exam, nor do they indicate whether candidates have “passed” or “failed” specific maneuvers or the entire exam while the exam is in progress.

Scoring Categories Explained

Refer to "Membership Level Standards" for more specific information

Skiing:

Candidates are evaluated on their ability to perform a variety of maneuvers in two different situations: Skiing and demonstrations. Technique, efficiency, adaptability, versatility, control, and precision are elements considered here.

SKIING. This evaluation is based upon the candidate's ability to adapt to terrain and to perform tasks assigned by the examiner or other candidates as part of the teaching segments. Assignments are varied; candidates may be asked to ski individually, in pairs, or as a group.

DEMONSTRATIONS. Many demonstrations occur as a natural component of ski teaching with the candidate leading a group in an exercise. The examiner may ask a candidate to perform a specific maneuver for evaluation or perhaps as part of a movement analysis exercise. The ability to demonstrate at regular and slower speeds is important.

Teaching:

The evaluation is determined not only by how a candidate teaches, but also by what is taught. A candidate may explain a concept incorrectly, receiving a minus score, but may follow it with sound teaching principles, and receive a plus score. A variety of areas are considered for an overall evaluation of a person's teaching ability.

COMMUNICATION SKILLS. Verbal and non-verbal communication is important; feedback should be pertinent and positive. Communication as a two-way process must be emphasized, particularly checking for a student's understanding of concepts and tasks.

SAFETY EDUCATION/RISK AWARENESS. Important here is choice of appropriate terrain, safety awareness during class handling, and hill safety. The ability to orient skiers to their safety responsibilities during participation in the sport is crucial.

APPROPRIATE LESSON CONTENT/PROGRESSIONS. This is the foundation of ski teaching. Try to create effective lesson plans to broaden the student's education in skiing.

The Examination Process *continued*

METHODOLOGY. Awareness and use of different learning styles is necessary. An understanding of goal-setting during the lesson and specific teaching tactics to reach those goals is also important.

CLASS HANDLING. These skills include leadership, group dynamics, student participation, and time management.

PROFESSIONALISM. Important here is a positive attitude, appearance, punctuality, and sincerity.

The candidates work with others in the group to improve their skiing, or they may be asked to lead the group in an exercise which addresses some aspect of teaching. These individual assignments vary in length, but the emphasis is generally upon many shorter opportunities to demonstrate effective teaching. Less individual leading of the group is used during Level II exams compared to Level III. Still, be prepared to lead for a short time.

Professional Knowledge:

Candidates will be evaluated on their knowledge and understanding of technical elements of the skiing discipline. Examiners will evaluate the level of technical knowledge by observing the candidate's skiing, teaching, analysis/feedback, participation in group discussions, responses to direct questions, and written exam. The written exam will comprise a percentage of the total professional knowledge score, with the balance being scored by the examiners on the hill.

Participants may be asked to evaluate the skiing of other candidates, passing skiers, and themselves. They are evaluated on what they say about technical topics and how they structure the development of skiing skills. A variety of areas will be considered:

SKILL DEVELOPMENT. Exercises, progressions, and overall lesson organization which relate to the American Teaching System are important, including insights into the relative effectiveness of various approaches.

CHILD-CENTERED SKI TEACHING. Modifications of ATS skiing and teaching models for kids (CAP model) are important here.

TERMINOLOGY. Command of the skiing "language" is necessary, including knowledge of appropriate terms to use with students, as opposed to technical discussions among instructors.

GUEST SERVICE. Customer satisfaction and generating return business is vital to our continuing education process.

EQUIPMENT KNOWLEDGE. Design, function, performance, and safety maintenance are possible subjects for discussion, including how we help students select appropriate equipment.

BIOMECHANICS. Included here is knowledge of the physics of skiing and the effect of physical attributes and conditioning upon performance.

MOVEMENT ANALYSIS. The ability to identify and discuss movement patterns, cause and effect relationships, and corrective exercises is crucial.

At times, you will notice examiners using worksheets to record their scores and comments for each of the three categories. Samples are shown on the following page. All candidates will receive their marks and written feedback from each examiner, along with their overall results.

Examiner Training Squad

For those interested in becoming involved in the PSIA-E course conductor/examiner track, the Examiner Training Squad (ETS) offers the opportunity to expand one's horizons and continue beyond Level III. This is not another level of certification, but rather a designation that can be attained by those who can demonstrate the ability to function as an effective clinic leader

ETS members must demonstrate a complete working knowledge of the American Teaching System (ATS), and be capable of skiing all types of terrain and snow conditions, at all speeds, according to the Reference Models. ETS members must be able to manage a group of instructors at all levels of skill development to improve and enhance their skiing, teaching and professional knowledge.

The following prerequisites for both Telemark and Cross Country are required:

- * Must be 19 years of age or older.
- * Must be a Level III member of PSIA-E and have been since at least the prior season.
- * Must attend a PSIA-E Master's clinic during the same season as the ETS exam.
- * Must pass ETS exam criteria as stipulated and evaluated by the Association.

ETS members must maintain their membership by attending the annual ETS training session(s) and paying annual dues. Additionally, The Board of Directors reviews the status of ETS members every year, based on recommendations from the certification committee and Nordic Coordinator.

ETS Exam Format

Whenever there is a need to increase the size of the Nordic Board of Examiners, an ETS exam will be scheduled and advertised in PSIA-E publications. This will not necessarily occur annually. Candidates will be evaluated on their skiing skills, teaching skills (on-snow presentations), and professional knowledge (written exam).

More specifically, the ETS member is able to do the following:

- * Demonstrate knowledge of the following:
 - The Reference Model with precision, showing the proper movement patterns and blending of skills.
 - The Teaching Model.
 - Movement pattern analysis on the hill and on video according to the common skills of the skiing model.
- * Demonstrate the ability to guide group discussions on the following:
 - History, equipment/maintenance
 - Terminology
 - Body mechanics
 - Area industry, guest service knowledge
 - ATS concepts
 - Class handling, risk management
 - Children/senior teaching
 - Teaching/learning theories
- * Provide effective feedback in written and/or verbal evaluation.
- * Maintain at all times the highest professional manner and appearance.

EXAMINERS are chosen from qualified members of the Examiner Trainee Squad, based upon the organization's needs, plus the ETS member's participation and performance during training, understudy, and presenting clinics.

Teaching Study Questions

Below is a sample of questions that might be used to provoke discussion and comments during an exam. There is not necessarily a right or wrong answer for each question. Taking the time to research them and increase your knowledge base in the three areas (skiing, teaching, and professional knowledge) will begin to prepare you as a certification candidate.

1. Examine the differences between several teaching styles. How do the roles of instructor and student change in each style?
2. How do you relax your students? Why is this important?
3. How do you increase a student's safety awareness? A child's awareness?
4. What adjustments can you make for students who have poor physical conditioning?
5. Describe your teaching style and its relationship to different learning styles. Discuss the conditions under which you alter your teaching style.
6. Choose a skill or maneuver and describe different visual, auditory, and kinesthetic methods to help the student develop it.
7. Practice teaching a particular move without speaking.
8. How do snow conditions alter your lesson plan?
9. Describe your obligations to a client who pays for your instructional services. Choose your primary obligation and state why it is more important than other choices.
10. How do you convey your excitement about Nordic skiing?
11. What is the philosophy of the PSIA Teaching Model? What are the main components of the model?
12. What does "teaching to all senses" imply?
13. What are some ways to increase the student's observation of demonstrations?
14. How can a teacher effectively check for understanding?
15. List several different types of feedback. Explain each and give situations where each would be most effective. What about kids?
16. What is pacing?
17. What does it mean to use strategies/tactics while skiing?
18. Explain the concept of reinforcement. Why is it important? Give examples.
19. What are metaphors? How can they be used in ski teaching?
20. What are the advantages of working with one or two clear, concise goals or objectives rather than a large number of goals?
21. List the important ingredients of a good lesson plan.
22. In order of importance, list 4 factors you consider in terrain selection.
23. Give some examples of how terrain can aid an exercise or maneuver.
24. Mental rehearsal/imagery/visualization. How might these concepts help one's performance?
25. Outline the steps you follow in analyzing another skier's performance.
26. How can you determine the correct starting point for beginning a lesson?
27. Why is it advisable to stop an activity at the highest point of excitement or success?
28. What are the advantages and disadvantages of competition within the context of a ski class? With kids?
29. What is the purpose of warm-up exercises and stretching?
30. What are several ways a large group (over 20) can be organized and taught?
31. What symptoms may become apparent when a student is pushed too fast?
32. What role do you, as a ski teacher, play in risk awareness and safety education?
33. List the points of the Skier's Responsibility Code.
34. Describe the shape and color of the signs that comprise the International Trail Marking System. Briefly describe how one should interpret the signs.
35. List several factors that might contribute to fatigue.

Teaching Study Questions continued

36. Give 5 safety tips that might be appropriate for any class.
37. What are the symptoms of fear in students? What are some causes of fear and anxiety?
38. If a student is injured in class, what procedures should be followed?
39. What are the symptoms of frostbite? What steps can be taken to prevent it? How should it be treated?
40. What are the symptoms of hypothermia? What steps can be taken to prevent it? How should it be treated?
41. List some potentially dangerous stopping places which should be avoided.
42. Describe successful methods used for motivating children to affect learning.
43. What are laterality (left and right) and directionality, and how can they be confusing to a child in a class situation?
44. What are important communication techniques when teaching children?
45. When providing verbal directions to children, what are important points to consider?
46. How can you modify techniques when presenting skills to children who may be experiencing difficulty?
47. What is a prepared environment?
48. What are some teaching aids for working with children?
49. Why are stationary exercises useful?
50. How can you help instill the Skier's Responsibility Code in children?
51. What are some of the benefits of skill stations?
52. What are components of successful kid's class organization?
53. Give an example of an activity or game, what skills it develops, and for what age it is appropriate.
54. What is animism?

Professional Knowledge Study Questions

1. Describe the essential skills which are the foundation of a wedge turn. In what order do you develop these skills? Which exercises might you use to develop each skill? How are wedges and half wedges helpful in teaching the telemark turn?
2. Explain how grip and glide waxes work.
3. Describe the difference between skating and classical skis or lift-serviced and backcountry telemark skis.
4. How do you size a skating pole? A classical pole? A downhill pole?
5. Explain and give an example of each of the following:
 - a. Skill progression
 - b. Terrain progression
 - c. Speed progression
 - d. Snow condition progression
6. Identify exercises or drills that focus on one-ski balance. Distinguish between beginner, intermediate and advanced drills.
7. How would you wax a classical ski for an icy track with a dusting of powder?
8. In a skating clinic, in what order might you introduce the different skating maneuvers? Why?
9. What are the advantages/disadvantages of introducing flat-terrain maneuvers in the tracks and out of the tracks?
10. What are common problems that confront the beginner learning to diagonal stride? Identify solutions for each problem.
11. What are common problems that confront the beginner learning a telemark turn? Identify solutions for each problem.
12. What are common problems that confront the beginner learning to skate? Identify solutions for each problem.
13. Discuss the primary skiing skills.
14. What is ATS? What are the two main components of ATS?
15. Explain the Nordic Reference Model.
16. Explain the skills concept. What part does skill development play in ATS?
17. What is the difference between a linear and lateral lesson plan? Give examples.
18. What characterizes an effective skiing stance?
19. What is angulation and what part does it play in skiing?
20. What is inclination and how is it used?
21. List several ways to vary the degree of edging in your skis.
22. As speed, rate of directional change, and pressure increases in a turn, how does the body adapt to effectively balance against the forces created?
23. Describe the difference between sliding, slipping, and skidding.
24. How does a higher or lower stance affect the application of skills?
25. How does excessive upper body rotation affect a turn? A stride? A skate?
26. What part does flexion/extension of the legs play?
27. Describe situations where the body crosses over the skis or the skis cross under the body.
28. What role does the inside ski play in a turn, relative to the four primary skiing skills?
29. What is the effect of lifting the inside ski during a turn? What about stepping to the inside with it?
30. What is the most important joint in the body for maintaining balance?
31. Where is the center of gravity in the human body, male and female?
32. Why does weight transfer minimize the need for strong unweighting?
33. When might it be efficient to unweight your skis? Explain ways in which this can be accomplished.
34. Explain different types of turn initiation mechanics and give examples of each.
35. How does the speed of rotary movements (steering/pivoting) affect the radius of a turn?

Professional Knowledge Study Questions

continued

36. What is the value of establishing a twisted relationship between the upper and lower body in preparation for a turn? Describe how this is established in linked long and short radius turns.
37. Explain in detail how timing can affect your skiing.
38. List some examples that arise when your skis are improperly waxed: Technique changes, feelings, timing, efficiency, and balance should be covered.
39. How does one properly, efficiently, and quickly propel oneself when skating? Explain the technique according to your discipline.
40. Explain how each of the skills are utilized in a beginner skier for your discipline.
41. Explain the difference between diagonal skate, V-1, V-2, and V-2 alternate.
42. What are the differences in skill usages and technique between a beginner and intermediate, and an intermediate and advanced skier in your discipline?
43. Describe efficient poling practices for Cross Country and pole swing for Telemark.

Skiing Skills Study Questions

1. Describe each of the Reference Maneuvers that apply to your discipline.
2. How would you describe a skier making a wedge turn with light touring skis compared to Telemark?
3. Describe the body positioning of kids when diagonal striding or skating at ages 3-4, 5-6, 8-12.
4. What are the parts of the ski?
5. What is the function of camber, reverse camber and sidecut?
6. How does the longitudinal and torsional flexibility of the ski affect turning, edging, skating, striding, and pressure control?
7. What are the advantages of shorter skis and longer skis relative to turning, balance, skating, striding, stability, speed, safety, and learning rates?
8. What factors determine where the edges are sharpened or dulled?
9. What are the advantages and disadvantages of keeping the running surface of the ski slightly convex or flat? Relate to purpose.
10. What is the function of orthotics?
11. What are advantages/disadvantages of a cable binding?

Analyze the movements below that apply to your discipline and be able to demonstrate or imitate and set up learning situations to improve these movements. Create possible progressions, drills, or exercise lines.

Classical

- A. Poling action is from forearm area.
- B. Excessive bend at the waist.
- C. Short glide period.
- D. Cannot glide on one ski without losing balance.
- E. The same arm and leg swing forward at the same time.
- F. Looks as if the skier is jogging or taking short, choppy steps.
- G. Hips stay square to the track or direction of travel all the time.
- H. In the kick zone, the rear leg touches down at or behind the other leg's heel.
- I. Legs are over flexed during compression of double poling and loses power.
- J. When striding uphill, the skier's legs slip backwards, and they catch themselves falling forward.

Skiing Skills Study Questions continued

Freestyle

- A. Skating tracks seem to be going more lateral than forward. Skier cannot keep up with the group.
- B. When enjoying the glide on one leg after the push-off, the skier visibly struggles to regain balance.
- C. During V-1, the skier seems to be flexed at ankles, knees, and hips; and looks like he is riding a horse.
- D. Insufficient glide after the compression phase in V-1. Body alignment and toeing-off seems efficient for their level.
- E. When toeing-off, the leg seems to be extended backwards.
- F. During diagonal V-skate, the skier often plants their poles inside the V and must recover.
- G. During V-2, the skier has a fluid, rhythmic motion and the poles are timed well with the foot touch, but you notice the arms swing a lot and skier is not going as fast as they should according to terrain.
- H. The skier is constantly lifting their glide ski from the track while performing the marathon skate.
- I. In a diagonal skate without poles, the skier seems to be lifting or falling away from the push off.
- J. In V-2 alternate, the skier skates onto one ski and poles immediately.

Telemark

- A. Skier has all their weight and body mass forward on the lead ski, depicted by a J-shaped turn or lack of speed control.
- B. The inside ski is consistently in a wedge or stemmed throughout the turn.
- C. The front leg is pushed or slid forward drastically to initiate the turn.
- D. The body seems to be aligned vertically over the skis and a lot of skidding occurs.
- E. Skier lacks sufficient upper and lower body separation.
- F. Skier refuses to get into telemark position and skis stay mostly parallel, plus they over flex their knees to feel as if they are doing it.
- G. Cannot ski intermediate bumps.
- H. Has a stiff outside leg through the turn.
- I. Skier has an excessively low position all the time.
- J. During transition, skier seems to bounce up and down as they proceed down the hill.

Nordic Reading List

Suggested Reading:

The following list of books are directly related to ATS and information needed for exam preparation; especially at Levels II and III.

Core Concepts Manual (PSIA)
Nordic Technical Manual (PSIA)
ATS Nordic Skiing Manual (PSIA)
ATS Nordic Handbook (PSIA)
Nordic Level I Study Guide (PSIA-E)
Nordic Exam Guide (PSIA-E)
ATS Nordic Skiing Sequences – Telemark Video (PSIA)
Educational Workbook (PSIA-E)
ATS Children's Instruction Manual (PSIA)
ATS Children's Handbook (PSIA)
Snow Pro (PSIA-E Newsletter)
The Professional Skier (PSIA)

Additional Reading:

The following books are suggested as additional resources for exam preparation including researching answers to the examination guide and understanding the many facets of Nordic skiing.

Cross Country/Skate:

American Ski Coach (Park City, UT: U.S. Ski Coaches Association Journal)
Borowski, Lee. *Ski Faster, Easier*. (Champaign, IL: Leisure Press, 1986)
Caldwell, John. *The New Cross Country Ski Book*: 8th Edition. (Brattleboro, VT The Stephen Greene Press, 1987)
Flemmen, Asbjorn and Grosvold, Olav. *Teaching Children to Ski*. (Champaign, IL; Human Kinetics, 1983)
Gillette, Ned and Dostal, John. *Cross Country Skiing*: Third Edition. (Seattle, WA: The Mountaineers, 1988)
Gullion, Laurie. *Ski Games: A Fun-Filled Approach to Nordic & Alpine Skills*. (Champaign, IL, Leisure Press, 1989)
Gullion, Laurie. *The Cross Country Primer*. (New York: Lyons & Burford, 1990)
Gullion, Laurie. *Nordic Skiing: Steps to Success*. (Champaign, IL: Human Kinetics, 1992)
Hall, Bill. *Teaching Concepts: American Teaching Methods - Nordic*. (Boulder, CO: PSIA, 1983)
Hall, Bill. *Cross Country Skiing Right*. (Boulder, CO: PSIA, 1983)
Hall, Bill and Sudduth, Tom. *ATM Nordic Concepts*. (Boulder, CO: PSIA, 1981)
Morton, John. *Don't Look Back*. (Harrisburg, PA: Stackpole Books, 1992)
Sharkey, Brian. *Training for Cross Country Ski Racing*. (Champaign, IL: Leisure Press, 1984)
Swix Waxing Manual. (Chelmsford, MA: SwixSport U.S.A.)
Teaching Nordic: American Teaching System. (Lakewood, CO: PSIA, 1989)
Todd, Diana. *Waxing for the Complete Novice*. (Brandon, VT: Diamond Sports Publications)
Torgersen, Leif. *Good Glide: The Science of Ski Waxing*. (Champaign, IL: Leisure Press, 1985)

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