



Professional Ski Instructors of America

ROCKY MOUNTAIN

American Association of Snowboard Instructors

Cross Country

Level 2/3

Certification Workbook 2018



Name:

E-Mail address:

Cell phone (optional):

Ski School /Club:

Welcome

to the wonderful world of Cross Country ski instruction! This Certification workbook is designed to help you develop technical knowledge, teaching performance, and skiing ability on your path to become a Level 2 or Level 3 Certified Cross-Country Instructor. This workbook is divided into two parts:

(1) **Part 1 - Candidate Section:** This section is designed to help you to develop your understanding and demonstrate your skiing, technical, and teaching knowledge. Level 3 candidates should answer all questions and Teaching/ Learning Cycle Applications. Level 2 candidates should answer all questions except those specifically designated for Level 3 candidates. **Please answer all of your questions before attending a Level 2/3 prep clinic or Level 2/3 Certification Event.** During the prep clinic, we will be going over any questions you may have, as well as reviewing the answers to the workbook.

(2) **Part 2 - Checklists:** In this section, you will write developmental suggestions for each item on the three checklists based on verbal comments from the Cross-Country Education Staff Members during the prep clinic and/or during the Certification Event. Cross Country Education Staff Members working your event will write and initial the Level you have attained in each item. These checklists are copies of the exam scorecards used by the examiners at the certification. (At the pre-clinic and exam you will be issued a user-friendly on hill version of this checklist called a booklet.)

You should be able to perform each of the skiing maneuvers listed in the Skiing Checklist (Part 2, section A) before coming to the Prep clinic or certification. The Level 2/3 prep clinic is designed to help you refine the skills and maneuvers that you already possess to meet the Level 2 or Level 3 Cross Country Ski Instructor standards. Be aware that to obtain Level 2 certification, you must be at least a strong intermediate classic and skate skier, and you must be able to teach a solid intermediate classic and skating lesson. To achieve Level 3 certification, you must have completed all of the Level 2 and 3 candidate sections in this workbook, and you must be verified by the Cross-Country Education Staff at the Level 3 standard in your Skiing, Technical Knowledge and Teaching. A Level 3 instructor skis both classic and skate at an expert level and is able to effectively coach advanced students.

Note: Please remember the Learner's Responsibility Code: ***I am responsible for my own learning!*** That means that you are expected to take responsibility for your own learning, Make sure you learn what you need to learn, ask the questions to get the answers you need, and use this Workbook to track your learning and what you need to work on.

Useful references include; the *PSIA Cross Country Technical Manual*, *PSIA-RM XC Handbook*, *PSIA American Teaching System: Nordic Skiing**, *PSIA Core Concepts Manual*, *Alpine Technical Manual*, PSIA-RM web pages (www.psia-rm.org), *The Complete Encyclopedia of Skiing (Bob Barnes)* and your fellow instructors. *The Master Skier* magazine and www.fasterskier.com provide articles and discussions on the latest racing techniques and are of special interest to advanced skiers. Be an active learner!

* Though old, this manual still has valuable and accurate information (excluding the section on Basic Diagonal).

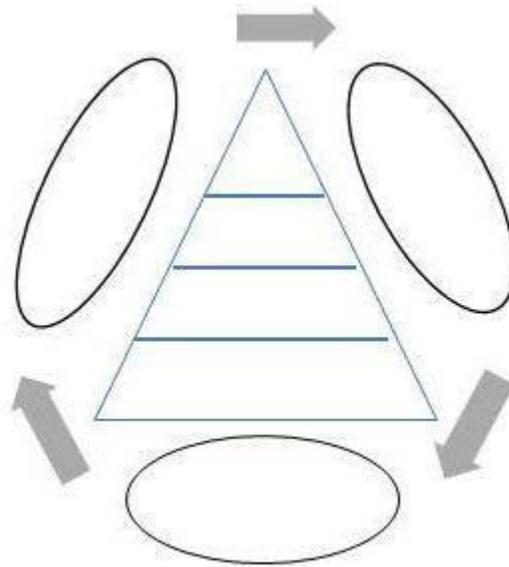
Part 1: Candidate Section

Technical Knowledge:

The Cross Country Technical Model

1. Label the Parts in the diagram.

- a. What is the triangle called?
- b. The outer 3 circles represent
 - i. skills
 - ii. phases
 - iii. cross country skiing cycle
 - iv. all of the above
- c. What do the arrows represent?



2. Describe each of the 3 phases/skills.

3. What are the four layers of the Pyramid?

4. Describe Continuous Forward Motion.

5. Name and explain each of the fundamental movements from the technical model.

6. What are the key elements of the Fundamental Body Position for cross country skiing?

7. What is the difference between the “real” and “ideal” description of a skier?

Skiing

1. What are some Fundamental Movements that you are working on in your own skiing?
2. How do you know if you are achieving one-ski balance with each stride/skate?
3. Why is having a good fundamental body position so important in cross country skiing?
4. Why aren't power and timing at the bottom of the pyramid?
5. Why is gliding on one ski important in cross country skiing?
6. In your opinion what distinguishes the classic skiing of a Level 3 XC instructor from that of a Level 2 XC instructor? Are you skiing at the Level 2 or Level 3 standard? (Please refer to the XC Standards for this question). Explain your answer.

7. What fundamental movements do you use to turn your skis?
8. Describe the fundamental movements of the hip, knee and ankle joints during push-off.
9. What is the difference between a skill/ phase and a movement?
10. Why is practicing kick-double pole without poles useful for improving diagonal stride?
11. What is the timing difference between V1 and V2 skating?
12. **Level 3 only:** What is the timing difference between V1 and V2 Alternate skating?
13. Why is it important to engage abdominal muscles first in poling and how could you show this to your student?

Equipment and the Student

1. What is the difference between grip wax and glide wax?
2. How do you apply klister to a ski? How do you get it off?
3. What does Thicker, Longer, Change (TLC) mean with reference to waxing? Do you agree with this adage?

4. Do you recommend wax-able or pattern-based skis for your intermediate classic students? In terms that your client can understand, explain your answer, keeping their goals in mind.

5. Match the condition with the preferred choice for classic skiing. (Note: Some conditions could have more than one possible letter match.)

- | | |
|--|--------------------------------|
| ___ fresh cold snow; Temperature is 15° F | a. red Klister |
| ___ varying spring snow conditions | b. hard wax |
| ___ granular in the shade; wet in the sun | c. binder with hard wax on top |
| ___ 30K race, fresh snow; Temperature is 25° F | d. hard wax over soft wax |
| ___ icy tracks; Temperature is 32° F | e. wax-less skis |
| | f. fluorocarbon wax |

6. Complete the chart below:

Physical problem	Symptoms	Prevention	Treatment
Altitude sickness			
		Drink water before during and after skiing	
Hypothermia			
	White spots on the face and nose. (It's not sunscreen!)		

7. How do you find the grip wax pocket on a pair of wax-able classic skis?

8. What is structure on a ski base? Describe how, when, and why you would use it.

Teaching

General Teaching Knowledge

1. In the chart below list the seven points of the Snowsport’s Safety code. Give an example of how you would apply each in your lessons. (See PSIA-RM Nordic Handbook or any mountain resort lift ticket.) The first point of the code has been done for you.

Responsibility Code	Application
1. Stay in control and be able to stop or avoid people or objects.	Teach students half- wedge, wedge and step turns. Practice avoiding cones in an obstacle course
2.	
3.	
4.	
5.	
6.	
7.	

2. Summarize the primary teaching styles in your own words.

a.

b.

c.

d.

e.

3. For each lesson situation in the chart that follows, choose one or two of the primary teaching styles that you would use during most of your lesson time. Then in the space provided explain briefly why this teaching style would work best for you under that circumstance.

Your lesson situation is:	Teaching style(s) you would use during most of your lesson time	Why you would use this style
1 1/2 hour lesson. Your students are advanced adults some of whom are citizen racers		
2-hour morning kids group with skills ranging from advanced beginner to advanced		
Afternoon two-hour session of the above group		
1 1/2 hour clinic: Adult intermediate classic skiers who want to experience something new and better in their skiing		
1 hour private lesson with a timid lady who wants to work on her downhill technique		

4. Give 2 exercises/ drills that will:

Improve weight transfer in the various skating techniques

1.

2.

Improve push-off in diagonal stride on a steep hill.

1.

2.

Improve glide in skating.

1.

2.

5. Give 2 exercises/drills that improve a skier's hips coming forward in the glide/weight transfer phase of Double Pole?

6. An intermediate student asks you to teach him how to do a hockey stop to negotiate corners on Nordic trails. He already uses wedge turns. Describe your approach and a progression for teaching Basic Parallel turns on Cross Country skis.

7. **For level 3 only-** An advanced student asks you to teach him how to do parallel turns to negotiate corners on Nordic trails. He already uses wedge turns. Describe your approach and a progression for teaching Basic Parallel turns on Cross Country skis.

8. **For Level 3 candidates only-** Explain the difference between teaching and coaching.

Teaching/ Learning Cycle Application #1: Write a lesson plan for a 2-hour intermediate skate lesson with Anne. The steps of the Teaching/ Learning Cycle are listed below. Please develop your lesson through these steps based on your knowledge of Anne and how she skis. Here is some information on your student: Anne is a 28-year-old woman who would like to ski longer without getting so tired. Anne is a musician and an advanced telemark skier.

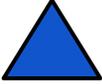
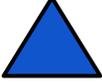
You can watch a video of Anne skiing at psia-rm.org> Education> Cross country> Cross Country Movement Analysis Videos > Level 2 skate student -Anne

1. Welcome and Introduce the lesson. How do you develop Anne's trust? What questions will you ask her to get more information? List the important background information that you learned as well as her goals for taking this lesson.

2. Assess the student and her movements

Use the Movement Analysis Grid below to assess Anne's "real" skiing ability. After reviewing Anne's video, describe what you see Anne's skis doing, her fundamental body position, and fundamental movements during all the phases (push off, weight transfer and glide). Fill in appropriate boxes below.

Movement Analysis Grid-Anne

Anne			
<p>Skis</p> 			
<p>Fundamental Body position</p> 			
<p>Fundamental Movements</p> 			
<p>Timing</p> 	X	X	X
<p>Power</p> 	X	X	X

The above Movement Analysis Grid is a tool to help the instructor to determine cause and effect relationships that they see in a student's skiing. Fundamental body position, fundamental movements, timing and power are called elements. During each of the three phases, these 4 elements of the Sports Performance Pyramid cause the skis to perform in certain ways (the effect). Level 2 Movement Analysis considers the relationship of 2 elements to ski performance during 2 phases/skills.

3. Determine goals and plan experiences:

A. Determine goals: You have identified Anne's "real" body position and movements in all 3 phases in the grid above. Now, state below Anne's real body position or movements in two skill/ phases of your choice, that you would like to change in Anne's skiing.

B. Next, describe the "ideal" body position or movements that you would like to see in Anne's skiing in that same 2 skill/phases.

C. How will changing Anne's body position/ movements cause the skis to move differently/more efficiently (the effect)?

D. Explain how your cause and effect relationship from above will help Anne reach his goal.

E. Plan experiences: Plan the lesson content by filling in the box below. Under Focus choose your lesson objective i.e. Body Position, Movement, and Phase/ Skill.

Focus	Drill / Explanation / Maneuver	Terrain Description	Time (i.e. 12 min)

4. Create experience for learning.

How will you present information for Anne’s optimum learning (VAK)?

5. Guide practice.

- What will determine your choice for terrain, practice intensity, and practice time for Anne?

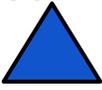
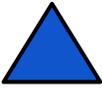
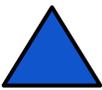
- **Check for understanding.** How will you know that Anne understands? What questions will you ask?

7. Debrief the Learning Experience How will you review the lesson with Anne as well as get Anne back to ski with you again?

*For additional MA practice review and analyze Maria in the following classic skier video.
psia-rm.org> Education> Cross country> Cross Country Movement Analysis Videos > Level 2 classic student -Maria*

Now fill out each open box in the Movement Analysis Grid on Maria.

Maria			
Skis 			

Fundamental Body position 			
Fundamental Movements 			
Timing 	X	X	X
Power 	X	X	X

For level 3 only:

Please complete all sections of Teaching/ Learning Cycle Application #2 below. Write a lesson plan for a 2 hour advanced skate lesson with Larry, The steps of the Teaching/Learning Cycle are listed below. Please develop your lesson through these steps based on your knowledge of Larry and how he skis.

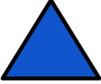
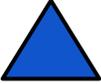
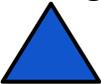
1. Welcome and Introduce the lesson. How do you develop Larry’s trust? What questions will you ask him to get more information? List the important background information that you learned, as well as why he is taking this lesson.

2. Assess the student and his movements.

You can watch a video of Larry skiing at: psia-rm.org> Education> Cross country> Cross Country Movement Analysis Videos > Level 3 skate student-Larry

After watching Larry’s video, describe Larry’s “real” skiing by completing all of the boxes in the Movement Analysis Grid below.

Movement Analysis Grid-Larry

Larry			
Skis 			
Fundamental Body position 			
Fundamental Movements 			
Timing 			
Power 			

Level 3 Movement Analysis considers the relationship of 2 elements to ski performance in all 3 phases.

3. Determine goals and plan experiences:

A. Determine goals: State below in a cause and effect relationship the 2 most important elements you would like to change in Larry’s skiing in all 3 phases.

B. How will these changes cause the skis to move differently/more efficiently?

C. Explain how your cause and effect relationship from above will help Larry reach his goal.

D. Plan experiences: Plan the lesson content by filling in the box below. Under Focus choose your lesson objective i.e. Body Position, Movement, Power, Timing and Phase/ Skill.

Focus	Drill / Explanation / Maneuver	Terrain Description	Time (i.e. 12 min)

4. **Create experiences for learning.** How will you present information for Larry's optimum learning?

5. **Guide practice.**

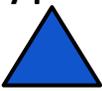
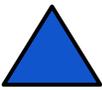
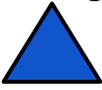
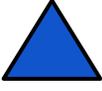
- What will determine your choice of terrain, practice intensity, and practice time?
- **Check for understanding.** How will you know that Larry understands? What questions will you ask?

6. **Debrief the Learning Experience.** How will you review the lesson with Larry, as well as get Larry back to ski with you some more?

Level 3 only: For additional MA practice review and analyze Ben in the following classic skier video: psia-rm.org> Education> Cross country> Cross Country Movement Analysis Videos > Level 3 classic student -Ben

Then fill out each box in the Movement Analysis Grid below on Ben.

Movement Analysis Grid-Ben

Ben			
Skis 			
Fundamental Body position 			
Fundamental Movements 			
Timing 			
Power 			

Part 2: Checklists: When you attend the Pre-exam clinic or exam, a user friendly on the hill version of these checklists (called a booklet) will be given to you. Please bring writing device with you on snow.

Candidates Name

Date

Nordic Education Staff

A. Skiing Checklist

***Critical maneuver must pass (4=level 2, 7=level 3)**

**Nordic Ed Staff
Level Initial**

*Diagonal stride		
Uphill diagonal stride		
*Double pole		
*Kick double pole		
*Downhill Step turn (level 2) / *downhill skating turn (level 3)		
Transitions between maneuvers/pitch of slope		
Marathon skate		
Diagonal V skate		
*V 1 skate		
*V 2 skate		
*V 2 alternate		
*Wedge turn (Level 2)/ * Basic parallel turns /hockey stop (Level 3)		
Recommended Drills to Practice		
Skiing without poles		

Uphill diagonal without poles		
Gliding on one ski in the track on a slight downhill		

Candidates Name

Date

Nordic Education Staff

B. Technical Knowledge Checklist

**Nordic Ed Staff
Level Initial**

Candidate's understanding of Nordic Ed Staff feedback

Understands ski preparation/waxing for classic skis and skate skis		
Movement Analysis: level 2 –intermediate student, level 3-advanced student		
Accurate Movement Analysis description using the XC Technical Model		
Accurate Movement Analysis cause and effect using the XC Technical Model		
Accurate Movement Analysis prescription using the XC Technical Model		
Lesson content is technically sound		
Knows and applies the XC technical model		

General Technical Development Suggestions:

C. Teaching Knowledge Checklist Nordic Ed Staff

Candidate's Understanding of Nordic Ed Staff Feedback

	Level	Initial
Level 2 teaches intermediate lesson, Level 3 teaches an advanced lesson		
Teaching Assignment is:		
Uses teaching/learning cycle and Lesson is logical		
Develops rapport / engages student / addresses individual motivations		
Identifies learning styles / presents in multiple teaching styles		
Lesson provides safe environment		
Delivers technically accurate lesson with appropriate feedback		

General Teaching Development Suggestions:

Date revised 8/28/17

Thank you for participating in the PSIA Level 2/3 Cross Country certification program. It is our hope that this process has stimulated your thinking and your desire to be the best instructor you can be. Similarly, we are constantly striving to improve our educational programs and materials. Please feel free to contact the addresses below with your feedback and suggestions.

For comments or questions regarding PSIA RM cross country education program contact: Patti Banks, Cross Country Chairperson; patebanks@yahoo.com

- For specific comments or questions regarding this workbook contact Nordic Education Staff: Dale Drennan; d2skier@sbcglobal.net