

**Department of Physical Education
PE 436 Alpine Skiing Ski Instructors Manual**

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Department of Physical Education

PE 436 Alpine Skiing Ski Instructors Manual

1. Syllabus

Alpine Skiing (SK) PE 436

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Scope: The objective of this course is to introduce the novice skier or one who has not had lessons to basic skiing. The student will be able to link turns on skis, stop, and use the lifts. The student will demonstrate moving around and on the ski slope in a safe manner. The student will demonstrate correct usage and application of the equipment.

Objectives:

Students will:

1. Be able to demonstrate basic movement competency in selected skiing skills of balance, rotary, edging and pressure control. These skills are part of all the maneuvers to get up, down, and around the snow sport arena to include lift loading and unloading.
2. Be able to demonstrate linking round turns together using wedge, wedge christie, or parallel turning of the skis.
3. Be able to demonstrate the ability to stop on skis using mostly using the hockey stop.
4. Be able to exhibit a minimum competency level of motor fitness in skiing skills (coordination, agility and balance).
5. Be able to exhibit a minimal level of kinesthetic sense in selected skiing skills, i.e., feeling the snow and equipment.
6. Be able to demonstrate a sufficient level of lower, upper body, and trunk muscular strength and muscular endurance to applied tasks.
7. Be able to demonstrate proper usage of the lifts and be able to utilize them while skiing with others.
8. Be able to demonstrate personal safety behaviors to include the “Your Responsibility Code” while performing skiing tasks.
9. Be able to enhance self-confidence by successfully overcoming fear and completing challenging physical tasks in a challenging environment with courage.
10. Be able to value, respect, and enjoy the skiing experience and show the desire to do more.

Tentative 18 Lesson Course Outline

Lesson	Topic
<p>Before 1st lesson</p> <p>1-13</p>	<p>Ski issue at Arvin Annex, building next to the rifle range near Gillis Field House</p> <ul style="list-style-type: none"> • Skiing at ski slope • Skiers are split into 5 ability groups . Individuals are appropriately adjusted from group to group thereafter. . No two lessons for each ability group are the same. • Using the American Teaching System and National Centerline Standards, the fundamental skills of balance, rotary, pressure, and edging are taught using multiple maneuvers and progressions. • The slope, conditions, task, and speed will vary depending upon the individual's progress. • Some specifics taught: <ul style="list-style-type: none"> Moving on the flat snow terrain. Rope tow usage and safety. Chair lift usage and safety Safety and "your responsibility code" Getting up the hill –multiple methods such as shouldering the skis, sidestepping, and herringbone. Straight run with variation Gliding wedge straight run with variations such as shallow wedge turns Linked round turns using: <ul style="list-style-type: none"> Wedge turns Wedge Christie turns Parallel turns Dynamic Parallel turns Long radius, medium, and short radius turns Stopping –multiple methods such as wedge stop, pole stop, falling down stop, turn uphill stop. Hockey stop Fore/aft balance Lateral balance Inside leg control and skill Up down balance Independent legs (sequential and simultaneous) Leg steering and guidance of both skis Side slipping and diagonal side slipping Traversing both carving and skidded Turns tracked and skidded Skating Hopping and jumping Shuffling Tuck turns One legged drills Skiing various conditions Counter stance upper body separation Skiing with and without poles. Proper use of poles. Rhythm and Flow Equipment and how it works

14	Ski turning test
15	Hockey stop test
16	Class ski off – linked turning to a stop-one instructor grades the entire class
17	The skiing experience, putting it all together. Make up grading
18	The skiing experience, putting it all together. Make up grading AAR Ski turn in

Uniform: The uniform for the class is gym alpha with sweat pants, sweat top, parka, cadet running suits (if needed), knit cap, and gloves. ***Cadets will wear issue ski boots buckled up to and from class.*** Cadets may hand carry ski gloves and ski goggles to use at the slope. Cadets will be allowed to wear sunglasses at the slope in lieu of ski goggles.

Equipment: Get issued skis, boots and poles from Arvin Annex next to the Cadet Rifle Range. If you lose any of the equipment, you will be required to pay for it. After the initial issue, cadets are responsible to get major repairs, reissues, and better fitting boots, etc. done *prior* to class. Call the DPE Ski Room x5365 and then report to the Arvin Annex ski room for assistance. Do not show up to class with faulty equipment - *always check equipment before and after each class!*

Class Location: Skiing will be conducted at the Victor Constant Ski Slope. If conditions do not permit, an indoor session will be held in Scott Barracks, DPE Projection Room. One bus per lesson will be used to transport cadets, instructors and equipment from behind the Superintendent’s Box to and from the activity site.

Class Times: Skiing will begin the first day of 3rd Round during E , F and L hours (1355-1545). A cadet taking E hour skiing must have F hour free and unencumbered to stay enrolled in the class. Contact Major Weiler, if you have an F hour class.

Bus Schedule:

- Bus will depart from behind the Superintendent’s Box at 1355 for E hour and 1500 for F and L hours.
- Bus will depart ski slope at 1515 for E hour return and 1550 for F and L hour return.
- The last day of class we will meet either at the slope or in the DPE ski room at class time for ski return. Bring shoes to wear back to barracks after boot turn in !
- The bus departs the Clock Tower promptly at the hours indicated. The section marcher will take attendance while on the bus. Missing the bus is considered "an absence from class unauthorized".
- The bus will return from the activity site promptly at indicated hours.

Attendance And Make-Ups:

Cadets missing more than 3 classes will be required to drop the course unless he/she can make up the lesson(s). Scheduling for make up classes is the responsibility of the cadet. Cadets should coordinate with the primary instructor for making up missed lessons.

Learning Activities and Teaching Procedures:

Each class will begin appropriate to the conditions of the day. Some classes will be walking classes, some will use the lifts right away. Usually the lesson and movement is slower and progressive. The instructor will brief cadets on the scope and objectives of the lesson. A combination of the following teaching styles will be used: modeling, task, command and reciprocal teaching. Cadets will observe instructor demonstrations for proper technique. Cadets will be asked to try various progressions and drills through group participation, shadowing, mirroring and independent practice. The emphasis will be on optimum student participation with opportunities to practice techniques for extended periods of time. The instructor will analyze and critique the cadet's performance and offer verbal praise and corrections. Cadets achieving early success will be asked to assist classmates having problems. Key points of each skill will be emphasized. games and other activities. The main points of the lesson will be reviewed. Questions will be answered. Additional instruction will be coordinated if necessary.

Resources: DPE Ski Instructors Manual

Course Structure and Grading: This is an 18 lesson, 18 hour, and 1000 point graded course. The final 1000 point grade will be based on skills tests performed upon the hill.

Grading

Skills Tests (1000 points each)

Skills Test #1: Students will demonstrate round ski turns showing their best technique. Students will show 6 or more linked turns on appropriate terrain to ones skill and development level.

Skills Test #2: Students will perform the hockey stop, both ways for best grade. Students will show the hockey stop on appropriate terrain at appropriate speed for ones skill and development level.

Skills Test #3: Class ski off. Ski turning to a stop. Entire section is graded by one instructor. Student must ski many round turns and end with a hockey stop.

Final Grade is 3000 points above divided by the 3 for a final 1000 point grade.

Alpine Skiing E Mail To Cadets For Equipment Issue And Specific Cadet Instructions

Welcome to DPE Skiing!

You are assigned skiing for Round 3 for ____ hour skiing.

Sometime between Tuesday 16 January and Monday 22 January, go down to Arvin Annex, the building next to the rifle range, and get issued your boots, poles, and skis. We want all cadets on the DPE Short Cut 130 cm Skis. You may use your own boots and poles but you have to bring your boots down to be sized into the bindings on the DPE skis.

If your name is on the class list, the athletic repairmen in the ski room will issue you skis. The hours of the ski room are from 0700 to 1530. **Call 5365, just before you go down, and check to make sure the ski repairmen are there.**

Downhill Ski Issue- Fitting information

1. Try on ski boots to get your basic size.

It is probably the same size as your issue combat boots or a ½ size lower.

No extra volume and comfort are the boot-fit goals.

Be sure you have both a right and left boot (the buckles go to the outside).

Check the boots for missing or bent buckles, cuts and tears.

2. Get a pair of 130 cm. skis with adjustable toe and heel rental bindings

3. Get a pair of ski poles

Use strap-handle poles rather than the saber handle poles, as this will teach you the strap methods and it is preferred by the pros.

The poles should be long enough so that when you grab the ski handle, your forearm is parallel with the ground.

4. Have a ski repairman check and adjust your bindings.

Take the skis, boots and poles to the work bench areas and a ski repairman will check out your selection of gear and adjust the bindings for you.

Do not readjust the settings yourself.

5. Mark your skis using the tape and markers provided.

6. Sign the hand receipt for your gear at the desk near the front door.

7. Make sure the numbers match; if you lose any equipment you must pay for it.

CADET INSTRUCTIONS:

Class Schedule (Round III, 18 lessons)

	<u>E HOUR</u>	<u>F&L HOUR</u>
Bus Departs Behind The Superintendent's Review Box	1355	1500
Class Starts At Slope	1405	1510
Class Ends At Slope	1450	1550
Bus Leaves Slope	1500	1600
Bus Arrives At The Superintendent's Review Box	1510	1610

Bus departs from behind Superintendent's Review Box promptly at 1355 and 1500 hours respectively. Assembly is at the ski slope as soon as the bus arrives. Attendance will be taken by the section marcher or an assistant while on the bus. ***Cadets will wear ski boots to class.*** The section marcher gives a written report to the DPE attendance instructor at the slope. Missing the bus is considered "an absence from class unauthorized." When you get off the bus, leave nothing on the bus, immediately walk to the instructors and get your skis on.

After lesson #1, fall in with your last instructor at the foot of the lifts. For better instruction, cadets will be moved from one group to another, so report to your latest ski instructor.

Bus will return from the ski slope promptly at indicated hours. Cadets should remind the instructors to watch the time to insure getting back on time. Cadets do not have to return on their respective bus, but are responsible to get back on their own.

Read the DPE TRAINING MEMORANDUM for specific class days.

If you must be absent, tell a classmate to give the DPE Attendance Instructor the specific reason, i.e., reconditioning, CQ, field trip, etc. Cadets on profile will report to the DPE training room.

COURSE OBJECTIVES AND GRADING

This is a beginner ski course and will be taught using the American Teaching System (ATS). Making turns, controlling speed on one's descent, and stopping are the goals of the course. If you already know how to turn and stop on skis well, you should not be in this course! This instruction will concentrate upon skiing safely and basic balance maneuvers such as: straight run, gliding wedge, wedge turns, shallow wedge turns, linked wedge turns, skidded Christi turns, wide track parallel turns, hockey stops, and using the lifts properly. And of course, having fun on skis is the top priority.

This is a 1000 point graded course based upon objective tests of turns and stops and class ski off.

SAFETY

For your own safety, learn about skiing etiquette, skiing rules, stopping and controlled speed, proper binding settings, and proper usage of the lifts, tows and the slope.

EQUIPMENT/UNIFORM

Get issued skis, boots and poles . If you lose or break any of the ski equipment, you will be required to pay for it. After the initial issue, cadets are responsible to get major repairs, reissue, and binding adjustments as instructors will not tend to equipment problems during class time and you will be considered “unprepared for instruction.” Do not adjust the bindings yourself, do not lend your equipment to others, and do not ski on your own too soon outside of class. Call the ski room 5365 to make sure someone in the ski room can help you.

To preclude broken ski boot buckles, store them in your room with the buckles latched in place.

The uniform is USMA sweat suit, parka, black gloves, skull cap, ski boots, skis and poles. Please dress for cold weather under the garments, i.e., scarf, long underwear, extra sweater, glove liners, etc. A cold skier does not learn well.

In case of closure of the Victor Constant Ski Slope to DPE classes, report to the DPE Projection Room in Scott Barracks. Uniform in this case is as per class without skis, boots or poles.

Immediately after the eighteenth lesson, the bus will report to the ARVIN ANNEX and cadets will turn-in their gear in the Ski Room

THINK SNOW...

HAVE FUN SKIING IN A SAFE SKILLFUL WAY

Downhill Skiing Calendar – Sample

DOWN HILL SKIING COURSE CALENDAR AY 00-01

DATE	EVENT	LOCATION
Tues 28 November @ 1145	Ski Instructors Meeting	DPE Proj. Rm.
Sat/Sun 9- 10 December	Asia Fall Rally Level I, II Pre Course	Windham
Thu/Fri 21-22 December	All Day DPE Clinic 1/2 Price Lift Ticket	Windham Stay: Ned's House
Thu 4 January	Asia Course/Refresher	West Point
Fri 5 January	Asia Course/Refresher	West Point
Sat 6 January	Asia Course/Refresher	West Point
Sun 7 January	ASIA Examination/Refresher	West Point
All Instructors Must Pay Their Asia Membership Dues Prior To Asia Course.		
Tues 16 Jan Fri 19 Jan	Round III Ski Issue	Arvin Annex
Tue 23 January Wed 24 January	E/F Hour Skiing L Hour Skiing	

THINK SNOW!!!

Cadet Ski Grading Rubric, Criteria, and Scoresheet

DPE ALPINE SKIING GRADE CRITERIA

Add the ski turn 1000 pt. grade, the stop test 1000 pt. grade, and the class ski off 1000 pt. grade and divide by 3 to figure the final grade.

SKI TURNS CRITERIA: 33% GRADED BY GROUP INSTRUCTOR

000-650	No turns to very weak wedge turns with poor balance and awkwardness
660-730	Wedge turns with no poles. Body rotation, z turns, traversing between turns, weak stance and balance
740-790	Wedge christy turns with weak pole usage, weak s turns with body rotation, shows at least some linkage in medium turns, better stance and balance, some inside leg development.
800-880	Wedge christy turns with poles or parallel turns with no body rotation, good stance and balance, lots of inside leg development
890-1000	More dynamic parallel turns with great poles, some counter, great stance and balance, some shorter radius turns with tempo

STOP TEST CRITERIA: 33% GRADED BY GROUP INSTRUCTOR

000-650	No stop to weak stop. Cannot do wedge stop on flattest terrain from a 20' straight run.
660-730	Turns uphill to a stop or does wedge snow plow stop on flattest of terrain
740-790	Weak hockey stop on slow straight run. Turns away from fall line with weak stance, body rotation, weak side slipping, and goes outside the 8' corridor.
800-880	Better hockey stop on medium terrain from some speed. Uses pole, show side slipping down the corridor, good balance, some counter rotation, and stays in a 8' corridor.
890-1000	Average of great hockey stop to both right and left on the hardest of terrain from speed. Side slips, stay centered in 8' corridor, comes to full stop, has countered stance.

CLASS SKI OFF CRITERIA: 33% GRADED BY COURSE DIRECTOR. 6 TO 12 ROUND SKI TURNS ENDING IN A HOCKEY STOP OR OTHER STOP

000-650	Poorly developed skills of balance, edging, rotary, and pressure. Weak overall with poor use of the ski design. Easy speed and terrain.
660-730	Fair skills of balance, edging, rotary, and pressure. Fair wedges, z turner with body rotation. Fair Hockey stop. Easy speed and terrain.
740-790	Wedge christy turns with or without poles, some roundness, shows good hockey stop. Medium speed and terrain.
800-880	Good stance and balance. Rhythmic s turns with roundness. Does not lift the inside leg. Medium or harder terrain and solid speed. Basic pole usage.
890-1000	Great stance and balance. Parallel skier. Use poles well, shows counter, shows short radius round turns, and great inside leg usage. Skis the harder terrain and speed, and ends with a great hockey stop.

STANDARD DPE AND DEAN'S SCALE (1000 Point scale)

A+	960	970	980	990	1000			
A	920	930	940	950				
A-	890	900	910					
B+	860	870	880					
B	830	840	850					
B-	800	810	820					
C+	770	780	790					
C	740	750	760					
C-	660	670	680	690	700	710	720	730
D	650							

DPE DOWNHILL SKI GRADES

INSTRUCTOR				SECTION				
NAME	CO	SKI TURNS	STOP TEST	SKI OFF	TOTAL GRADE	DIVIDE BY 3	LETTER	
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

DPE Hockey Stop Test Progression

THE DPE HOCKEY STOP TEST – 33% OF FINAL GRADE

SKILLS: Balance, Rotary, Pressure, and Edging

MANUEVERS NEEDED:

Straight Run

Pole Swing and Pole Touch with up unweighting

90 degree pivoting of both feet, knees, and thighs

Upper body twists opposite of the lower body or remains square from the pelvis up.

Separation is at the head of the femur.

Sideslipping with upper body facing down the hill

Countered stance

Gradual edging increase from the sideslip to the stop

Stop end with body in balance and both gloves down hill of the downhill ski with pole tips uphill

HOCKEY STOP TEST:

Use a corridor that is 1 ½ ski lengths down an easy consistent fall line. Cadets getting A's will be on more difficult terrain and faster. Each group will be tested on appropriate terrain to their skill and experience level.

To get 890 or more in points, both a right and left hockey stop is required with the body, gloves, and poles in the right position.

The upper body, gloves, and poles are in a countered position.

The performers upper body is quiet and shoulders face the valley generally.

SUGGESTED LINE OF EXERCISE PROGRESSIONS:

Teach sideslipping on a slight slope using the shuffle step to get going sideways.

Use a two pole push to sideslip on a slight slope.

Use a wedge traverse and sideslip diagonally.

Do up unweighting and hop 90 degrees on the flats.

Take ski off and do counter rotation on the flats.

Have a sideslipping contest for distance.

Train the gloves in the side slip to be down hill of the downhill ski.

Using a steeper pitch, side slip both right and left.

Do a mini wedge turn into a sideslip and turn it into a hockey stop.

Do a hockey stop with a pole plant and after the touch, drive the glove of the pole hand across ones chest.

Similar to shifting from 1st to 2nd on a stick shift car.

Coach a slight staggered twisted stance with equal weight on both skis.

Do a hockey turn to a very long side slip for distance.

Do sideslips to edge sets, then release and side slip to another edge set.

Suggested Progression for Beginning Students on Short Shaped Skis

SKI WINDHAM SNOWSPORTS SCHOOL PROGRESSION FOR BEGINNING STUDENTS ON SHORT, SHAPED SKIS

There is no one “right” or “only” progression for any level of ski teaching. The particular blend of students, instructor, equipment, weather, conditions, and numerous other variables all combine to create a unique situation and environment.

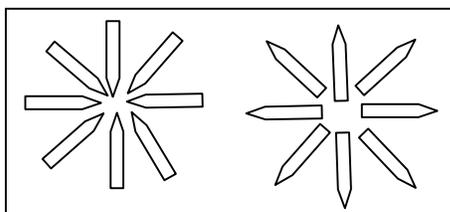
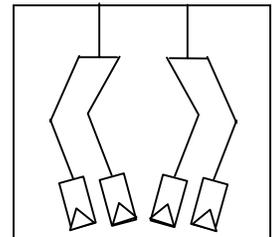
For those who have been following our suggested regular beginning progression, the changes for short, shaped skis are not huge. Those who have stayed with older teaching models and progressions will find it necessary to alter their programs in order to fully realize the benefits of these new tools. It is noteworthy that this progression was used by many schools last year, and is described as the “fast track” option in the new Alpine technical manual. The following assumes the instructor already knows all the basics of ski teaching and how to build skills.

A very short explanation of the new skis to the class can be helpful in alleviating any concerns students may have about their skis being so short, and also provides an opportunity to get them enthused about the possibilities these skis provide (i.e. easier, faster, more fun).

Students will probably arrive with poles, but those who learned without poles last season built stronger skills, more quickly, than those who used them. Any deficiencies with edging, balance and gliding are quickly overcome. Therefore, all classes should start without poles.

Every beginning class must start with boot drills (students off their skis). It is extremely important that you have some process in place to help students identify their specific skis (and poles) when it is time to put them on. Otherwise, with all skis and poles looking the same, match-ups can be a problem.

Boot Drills: On the flats, have students edge their boots to both the left and right. **DO NOT EXPLAIN HOW TO DO THIS!** Ask each student what he or she is doing to accomplish the task, and what they are feeling. This public sharing results in students getting and trying new ideas from each other, not you, and starts to build the base for experiential learning and group bonding. Direct their consciousness to the bottom of the foot if that does not come from them. After this you should also have them walk around their toes, using a series of little wedge steps; and then around their heels, using a series of little herringbone steps. The minimum goal is that all students gain an awareness for the left and right sides of their feet/boots. Awareness of fore/aft, the arches, little toe/big toe, and shin/cuff contact are further examples of desired outcomes.



Building from this awareness, and on this experience, we simply add forward motion. Walking in circles, through a series of “S’s”, or in a figure “8” are all that is necessary. The

figure “8” lends itself to a little “close-order drill”, which can provide some humor and keep the class fun and light. Find a small incline to practice on so that you can also employ the boot herringbone, wedge turnaround, and walking downhill (the latter starts to build the kind of dynamic balance that will be needed when we start sliding). Students must begin to move their centers in the direction of travel.

First Skis Drills: Everything you did in boots should now be done with the skis on, with the exception that you will not go up an incline that would result in the need to turn around on the hill. One ski drills are an option, but last year’s experience was that it was usually unnecessary and reduced time that could better be spent moving down the hill. What you must do is to utilize the terrain you are doing the drills on in such a way that sliding/ gliding starts to take place. If students cease their stepping and/or start to become frightened, stiffen up, sit back or fall... you have messed up! You have not chosen the proper terrain, probably getting too steep and/or too lengthy a run too soon. You must develop an eye and feel for the proper terrain. It changes every day, based on several factors; pay attention to them.

The desired outcome is that students start to glide, slide, slip and skid – in balance - as a result of the drills. Setting up a moving figure eight on the flats and then creeping up the hill with it has proven to be an effective way to accomplish this outcome. This is again a time to solicit feedback from them. Ask about the feelings and sensations they are having. Try to direct their attention to others in the group to see if they are observant of what is happening.

If you have followed the script to this point, your students should already be making straight runs, turning and stopping. Therefore, to introduce these elements as something new or different, or to isolate them, only serves to confuse and regress. That said, it is an option to do some traditional straight runs or traverses and related exercises at this time, if you feel it’s necessary. These can be done to a natural run-out or with steps to a turn or stop. The preferred option, however, is to simply build on what is already happening. You do this by creeping up higher each time, until students are making a fairly long (but not steep) run which includes three or four *small* changes of direction are made (by small stepping).

You now have some decisions to make, dependant upon your students. You can add some or all of the big three (speed, radius, terrain), and then calm the steps down to mini-steps or shuffles - or you can calm the steps down first and then add the other elements.

At some point in this process, you will note that students will start to demonstrate different movement patterns in association with their stepping. Some will lead aggressively with the inside ski, pushing away from the outside ski. Others will first redirect (steer or pivot) the outside ski and then match the inside ski to it. You will also note variations between these two extremes. The former students will likely ski parallel right from the start; the latter will probably employ a small wedge to aid turn initiation. Neither is right or wrong. This provides yet another opportunity for students to hone their observation skills. See if they can discern the differences. Have them try each way.

During this mini-step/shuffle stage, you should have students making several more complete changes of direction each descent. The next step is to eliminate the mini-step and keep both skis on the snow while seeking the sensations (especially on

the outside leg) of the inside of the foot (arch) and skidding. At this point some will be making wide rack parallel turns and some will be making small wedges. This is why we do not advocate teaching the wedge or the wedge turn initially; it will happen automatically if the student feels they need it.

There are certainly some students who, ultimately, will have to be taught a wedge, but this should only be done after trying the fast-track approach first. Some staff members feel that, even if students do succeed with the more direct approach, they will still benefit from learning how to use the wedge in situations such as lift lines, emergencies, etc.

So it's not that there is anything wrong with the wedge; just develop an understanding for when and for who it might, or might not be, appropriate. In either case, students are using the same skills. It is now time to start riding the Pony lift, and getting some mileage.

During the course of this mileage, you can now refine rotary skills as necessary. It is a good time to point out that edging is actually more of an outcome of steering than simply being a lateral movement. For those who are still wedging, work on getting the inside leg more active. Play with speed, radius and terrain. Do not attempt to teach anything further during the first class.

Provide guidance for students after they leave class. Some may be ready for the "D" lift (or you may have even gotten aggressive students there already). Make sure students understand that even though they may be making rudimentary parallel turns, they have a lot further to go in developing skills for advanced terrain and speed. They should not go beyond the "D" lift before they return for their next lesson. Indicate what size ski they should request next time they come. Weak students should stay on the 120's. Some should go to a 130, and stronger students want to go to a 140 or 150.

We did not delve deeply into handling second and third timers last season, except for the few staff members that had the opportunity to have significant numbers of students at those levels. The primary thing to bear in mind is that these students, despite their ability to make turns with their skis in a parallel relationship, only have skills in the novice, B/C, or level 3+/- range. The types of terrain, speed and radius used with them should be the same as that used for wedge turn/christie students. The skills to be developed are exactly the same, and most of the same exercises apply. The challenge as an instructor, therefore, is to become more proficient at discerning levels of skill, based on movement analysis and snow/ski interaction, rather than relying on the specific maneuvers being performed. This fits with the evolution of our technical concepts, presented at pre-season training.

Written by Ray Allard, Ski Windham Technical Director

Sample Two Part Beginner Ski Progression - Borrowed from Ski Windham

Part I

Ski Windham Blueprint for Beginner Instruction *Ray Allard, Technical Director*

This is by no means the complete detail of all you need to know to teach a beginner (Level 1) class, nor does it correspond 100% with current PSIA manuals. It is an outline of things we at Ski Windham want you to be sure you do while teaching. It is considered a “given” that you will be taking clinics, shadowing experienced instructors, and reading the educational PSIA manuals to round out your knowledge and understanding.

Introduce yourself.

“Hi, my name is Suzy Chapstick, and I’ll be skiing with you this morning.”

Welcome students to Ski Windham.

“Welcome to Ski Windham; we’re glad you’ve chosen our Mountain. I hope you’ll enjoy your visit and want to return.”

Note the positive aspects of learning the sport.

“Skiing is a fun and exciting sport that you can participate in throughout your life. Your decision to take a lesson will make learning easier, more fun, and safer.”

Collect lesson tickets and learn students’ names.

Use proven techniques to quickly learn and remember names (Sally in the blue coat, Bob in the blue, Mindy’s kind of short and Frank is too.) Restate each name as you hear it; then restate everyone’s name in the group after individual introductions. Do not hesitate to ask for a name you’ve forgotten; this is far better than treating people impersonally. Restate names frequently; *“Very nice, Wendy”*.

During the course of the lesson, find out what each student does. Also ask about other physical activities/sports in which they’re involved. You can’t be an effective teacher if you don’t “sell” yourself to your students. You have to establish trust and build rapport, not only between you and each student, but among the students as well. Students have to know that you are interested in them as people.

Equipment review: Do not get into long dissertations about how skis and bindings operate. It is sufficient that students understand that skis have tips and tails; that they know how to get into and out of their bindings; that they understand how to hold their poles; and that they have a basic understanding of how their boots should feel (snug, with no pain or excessive looseness).

About goals... The goal of every beginning class is to create skiers! The retention/return rate of beginners is extremely low; and one of the largest contributors to the lack of growth in the ski industry. A student’s first experience is usually the determining factor as to whether or not they continue in the sport. Where students are of average athletic ability and have no equipment issues, your *ideal* goal should be to have everyone making linked, controlled wedge turns; and to ride the beginner lift at least once. It’s what most people expect.

Having stated that, we recognize that this is not always possible, due to many potential causes. You must not sacrifice your students' safety or well-being for the sake of an arbitrary goal. What you should do, is to put the best face on the accomplishments they have made. Present them with options after the lesson. For some, a regimen of remaining in the beginner area and practicing what they have learned might be the right thing. Walking up and doing straight wedges for the rest of the day, learning to ride the lift on their own, or being dragged off by well-meaning friends or relatives are not good options. Tell them the time that the next lessons start, noting that they should request being placed into a "Second-timers group" which will start right where they left off with you. It might be appropriate to suggest they consider a private lesson with you.

A word about skills... Remember this: You are not going to teach a progression of various specific maneuvers; you are going to choose activities that develop the primary skiing skills of balance, rotary movements, edging and pressure control.

And finally, a word about class structure and movement... "Penguins in a row" and "one at a time" is not the way we want classes conducted! In some instances the whole class can be doing the same thing at the same time. In others, you can have people in a constant flow of climbing, skiing and getting feedback. You should be the most active person in the group. Demonstrate often, help out, talk to people. Instructors propped up on their poles, parked at the bottom of the class, intoning, "Next!" as they instruct each student to now come forth to hear about everything they did wrong, will be dismissed on the spot!

Let's get to it!

Stationary exercises. You start building skills right here. While it should not be necessary to spend a lot of time on these, focus on the goal, not the maneuvers. Each of the following addresses more than just the skill mentioned, because it is difficult to completely isolate them (skills).

Balance: Leaning fore and aft; left and right; flexing up and down. Poles as aid.

Pressure: Stepping from ski to ski.

Rotary: Step around tips, tails, boot.

Edge: Sidestep or herringbone up and down small incline.

One-ski exercises: forward, turn, in a circle (ski on outside foot), slight incline, twist/skid ski. Switch to other foot/ski.

Balance/pressure: straight forward movements.

Rotary/edge: turning movements.

Walking/climbing (and "sneaky" gliding): forward, circle, line. Take a trip; go somewhere! If arm/leg coordination doesn't happen, coach it. Push with poles; use undulations of terrain that both require climbing and promote small glides (the first straight runs). This is a critical part of a the lesson. It makes no sense to go on until everyone is comfortable doing all these activities (which require all the basic skills). Problems later on the hill are often the result of the instructor not devoting enough time to this portion of the lesson.

Straight run: Set this up in a manner that does not require turning around on the hill using the "Bullfighter turn". We do not teach this activity at this time as it is difficult, and requires strength and coordination. If you find it necessary, you have taken your class too far up the hill and should move down! A natural run-out is mandatory; *students must never feel that stopping is an issue*. If possible, this activity should be done in an area that allows for 100 feet or more of glide. This gives people a chance to overcome the initial acceleration, assume the correct stance, and experience the sensations of gliding. Short runs barely allow for the first element. One straight run is not enough! Once a level of comfort has been achieved (and only then), add other elements to this activity; flex up/down, step from ski to ski. The last straight run activity is having students make slow, small steps to one side, until they stop (repeat in opposite direction). Choose terrain carefully for this activity. The ability to perform this task successfully indicates that the required levels of balance, rotary, pressure, and edging skills have been attained. Going further in the progression without this level of skills will result in failures.

Falling: Don't teach falling. Someone has usually fallen down by now. You can use the occasion to teach people how to get up. What you've read in the book doesn't usually work. Now what? Just help the student up and get on with running the class. Talk to some experienced instructors about how to teach getting up. (Notice how this paper places the onus on you to do some research?)

Straight wedge: This is not a "different" maneuver, it is a variation of the straight run, with our feet/skis turned inward slightly. The primary goals are a slight increase of skill usage, and familiarity with the position, not so much speed control which is incidental and secondary. Flex/extend, vary size of wedge. Make sure there is still a natural run-out; do not have students attempt to stop on incline (braking wedge), as this builds defensive movements which hinder further development.

So... what about stopping? It's all about choice of terrain. First, the natural run-out takes care of it. Then you can use varying the size of the wedge to accomplish it, without "braking" per se. Once we're turning, we can turn to a stop if necessary. Remember this; skiing is not about stopping! It's about moving downhill under *control*, which means that one can adjust the speed and direction of their descent and avoid objects or other skiers.

Wedge deflections: Listen... you MUST do this!!! Making single wedge turns to a stop is NOT the next step in the progression. In the same type of terrain where you did straight wedges, have students make slight deviations from the fall line; several of them; over a long run. Slight rotary movements of the outside foot/leg are all that is required. With shaped skis, however, subtle increases in pressure to the outside ski can also be effective ("Press on your big toe."). Having people look in the direction they are going can be effective, but more frequently promotes an early version of over-rotation, which later becomes difficult to remove. Establish a track to follow or use small non-intimidating props (not poles). Do not go immediately from one deflection to the next; explain the need to have a relaxation / position-neutralizing phase between them.

Wedge deflections require less skill than complete turns. They are more fun because the student is already getting a sense of the rhythm and flow of skiing; and they are going somewhere! Most importantly, they provide the opportunity for students to become comfortable, and have several opportunities to try; as opposed to the one-turn approach that provides only one opportunity to succeed or fail, and then requires a climb back up, and a wait, before trying again.

Terrain: The incline that you are now using should be greater than that for straight runs, but shallow enough that students can simply step/ski out into a wedge without fear of "taking off". Again, we do not teach the dreaded bullfighter turn; if you need it, you're too high! Watch out for "*student creep*". This is not an infectious disease, but rather describes the tendency for a line of students to keep sidestepping up the hill, beyond the intended starting point, as the unsuspecting instructor is busy with other activities. Simply place one of your poles at the precise point from which you want students to start.

About Experiential Learning: this is what takes place when the instructor becomes a facilitator, setting up situations where people essentially teach themselves. If learning is not taking place, then the instructor is there to point out more specifically what has to be done. If learning is taking place, then the instructor's role is merely to affirm that the right movements and sensations have been achieved. It takes a lot of experience to do this well, but you can get off on the right foot by paying heed to the following.

Wedge turns: are merely extensions of deflections, requiring increasing skill. Rather than teaching anything in particular, it is usually sufficient to establish a more back and forth (across the hill) path. Varying the radius (long/short), pitch and speed also promote the development of skills. Some things you are hoping/expecting to happen:

Greater use of the whole leg, which makes for stronger steering/guiding, which incidentally can increase edging and pressure. This, in turn can promote some elementary flexion and extension. Also look for or suggest steering of the inside leg (but not to the extent of promoting a match).

During this period you coach or suggest positive movements (extend and steer, move your center towards the next turn, etc.) and discourage or correct negative ones, such as over-rotation, sitting back, and so on.

The Lift. If students can turn either way and stop at will, they are ready for the pony lift. Even though it may not get one to the top of the beginner area any faster (after you wait your turn), it is far easier than walking. Give instruction about riding before it's their turn to go. Have them watch others. Be specific about where and how to get off. Do not go to the "D" lift. I know you've heard of those who have done this; they shouldn't have. There are many reasons why; ask around.

Wait a minute; back up; what about "problems"? It is not unusual to have a mixed bag of talent in beginner groups. People will learn at different rates. Rule number one is that you teach to the slowest, not the fastest student. Many so-called problems develop because the instructor neglects this basic rule. There are lots of ways to address the needs of faster students without compromising those of slower ones. Find out more about how the creative use of teaching styles can apply here. If a situation is developing that will severely impact the ability of the class as a whole to move forward, you should contact a supervisor, who will assess the situation and then either give you some suggestions, move a slower or faster student to another group, or take a student themselves, depending on whichever is most appropriate.

Even when everything goes well, you may not get all the way through these activities, as stated up front.

Finale: Please refer back to the start of this paper for some suggestions on what to tell students before you leave them. Provide some direction; what should they do; where should they go; what's next? Sell the sport, the mountain and yourself.

How will I know if...?? If you're leaving your students with smiles on their faces, you must have done something right. If not, then consider what the reason(s) might be. Ask a supervisor who observed your class what they thought. Learn from both your successes and failures.

PART II

What Happens After Wedge Turns?

Part two in the revised "Ski Windham Preferred Blueprint" series

Ray Allard, Technical Director

In observation of regular classes on the "D" and "C" lifts (usually levels 3-6), it has become apparent that there is no consistency among our staff in the teaching of students from wedge turn level and above. One could deduce, from watching most lessons, that parallel turns follow wedge turns in the progression. While it is true that shaped skis and modern grooming have shortened the time between wedge and parallel, there are many skill refinements that need to be learned in order to become a bona-fide parallel skier. In the interim, most people employ some version of wedge christie (and there are many) to get down the mountain.

As with the first paper in the series, this is not meant to be an all-inclusive document; you still need to read the manuals, go to clinics, and obtain experience in order to be an effective teacher.

When do students go to the "D" lift? In dealing with students that have started as beginners in our school, they are taken to the "D" lift once they are *strong* wedge turners (level 3). This implies that they have done more than ride the beginner tow a couple of times; and that they can perform more than basic wedge deflections. Strong wedge turns means that students can:

- make long radius or short radius turns on demand,
- stop at will by finishing any radius of turn,
- demonstrate appropriate flexion and extension; flexion primarily as a result of increased steering; extension as both a relaxation phase and movement of the center toward the next turn. Edging is only a passive occurrence at this point, not something they are trying to do. In some cases, the extension could be starting to have an effect on weight change.
- demonstrate elementary use (steering) of the inside leg (not necessarily to the point of "matching").

Unfortunately, we often get students who are not strong wedge turners, but who have already ridden the “D” lift or above. If they have a degree of control, it is alright to take them to the “D” lift (they’ll reject going to the beginner tow anyway), but you must recognize that the class is level 2, not level 3, and work on the elements of strong wedge turns before attempting to move further up the progression.

There are many ways to get students into basic wedge christies. By far, the preferred approach is through *lateral exploration*. In this scenario, you do not attempt to teach a new maneuver but rather, introduce various elements of *speed, radius and terrain/conditions (S-R-T)* while skiing the wedge turns they have already mastered. When done by a competent teacher, this usually results in students beginning to skid the finish of their turns (spontaneous christies).

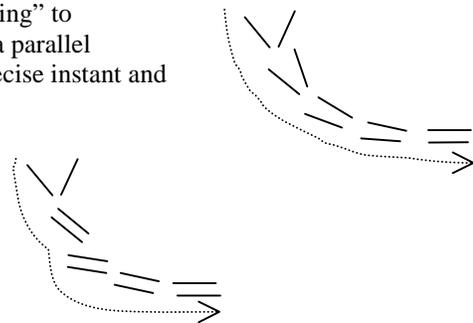
If the above is not successful, there is a hierarchy of activities that you should introduce to achieve skidding. Athleticism, age, attitude, equipment, background, etc. can all play a part here. Try to strengthen the steering of the inside leg. If that doesn’t work... Demonstrate a basic wedge christie (sometimes people need to be shown). If that doesn’t work... Teach a **wedge sideslip**. While this is a simple maneuver, most instructors teach it incorrectly; get a clinician to show you how. If that doesn’t work... Teach basic sideslipping. This can be done while moving forward or from a stationary position. The terrain you use, along with your descriptions of how to slip, are critical to success. If that doesn’t work... Teach a basic traverse. Then do wedge turns with traverses in between. Add *S-R-T*. If that doesn’t work... Something is wrong. Are you sure they have the proper level of skills? Are there equipment issues you’ve missed? Are they extremely timid, afraid, infirm? Are **you** communicating?

Some further words about wedge christie mechanics. The inside ski cannot be brought parallel to the outside ski until it has become quite flat on the snow. Proper steering action of the inside leg can assist this flattening. Having less weight on the inside ski also eases matching or blending. When the student has a balanced stance **against** the outside ski, inside ski flattening and redistribution of pressure to the outside occurs quite naturally. Telling students to first flatten and then turn the ski **is not** the correct thing to do, as that can build an incorrect movement pattern.

Also, picking up the inside ski and moving it over to achieve the match **is not** a really great idea, although I’ve too frequently seen it taught to students. Think for a minute about all the wrong things that go on when turns are made this way. Ask a clinician. Trying to teach someone with this habit (traditional stem christie or step-and-fetch-it parallel) is a special challenge.

As for wedge christie finishes, I prefer the word “blending” to “matching”, because it implies (correctly) that the skis come to a parallel relationship over a period of time and space, and not at some precise instant and point. See right .

Also, the radius of a wedge christie turn should be a smooth arc, not an arc with a “bump” in it after the match, such as the finish at right.



Once students are doing basic wedge christies consistently, **it is NOT time to introduce parallel turns** (do you hear me?). It is time to develop skills that will start to improve the basic christie. Improvements include: earlier matching, narrower wedge entries, better shaped turns, etc.

The skill of focus at this point is usually **edging**. Once a student can slip sideways, then they need to learn how to slip forward, and then how to shape the slip (which is then **skidding**, and involves refinements in rotary skills as well as elementary pressure control).

We don’t need to talk about the particular point in a turn where matching (or blending) takes place. Numerous external elements can make one turn an early basic christie and another a parallel turn,

even though the student uses the exact same set and level of skills. You have to be able to recognize the level of skills being utilized and the level of christie the student most often makes under normal circumstances. As skills and confidence develop, christies become more sophisticated.

We are now in the situation where **mileage** becomes extremely important. Also, remember what was said about **experiential learning** in the first paper.

When do we go to the “C” lift? Snow and crowd conditions can play a big factor. I personally feel that students should generally be sound level 4 skiers (matching in the fall line) before being brought to the “C” lift. When do we go the “A” lift? Hah! trick question! You don’t, at the levels which we are discussing. Wrap Around **is not** a teaching-friendly trail.

Some students are capable of becoming rudimentary parallel skiers after just a few days in the wedge christie zone. We have to understand, however, that for most, becoming a true parallel (level 6/7) skier takes more than a season. This is where the problems I have been witnessing manifest themselves. Instructors with too little in their bag of tricks feel compelled to move right into trying to teach parallel to students who are not prepared to learn it. Here, more than anywhere in the progression, we need to focus on **skills** and **not maneuvers**. It is also a great time to really start getting into **tactics** with students. How do we approach certain terrain and conditions, regardless of the type of turns we are making?

When this approach is used, advanced wedge christies eventually just become parallel. During the process, students may start skiing parallel on intermediate terrain, but revert back to wedge christies on harder terrain. (Gee, just like many of our staff!) This is quite normal. One of the “*Golden Rules*” is that we are first successful in performing new maneuvers on comfortable terrain. Then, through mileage, we start taking it “up the hill”.

During this whole “wedge christie phase”, rotary skills are being fine tuned into subtle guidance, Edging skills are going from slips toward (not necessarily *to*) carves, and students are starting to learn the many aspects of pressure control.

If the instructor isn’t making a big deal about the relative relationship of a student’s skis, then it becomes a lot less important to the student as well. “Wow, those were some great turns”, or “You really controlled your speed well there” are more appropriate comments than “Gee, you had your skis parallel for almost 90% percent of that turn”.

When is it appropriate to introduce pole usage? Well... it all depends. There are those who make a strong case for waiting until real parallel turns are achieved and others who can make a strong case that the advanced wedge christie level is the place to start. My feeling has been that if someone is on the fast track to parallel (and this is the minority of students), wait until they get there. For most others, introducing pole usage during advanced wedge christies is not only appropriate, but can sometimes be the thing that puts them “over the top” helping them finally reach true parallel territory.

In case you haven’t noticed yet, the only level where you can really go through a” book” progression is level 1. From that point on, you have to first watch your students ski before you can determine specifically what you are going to do with them. All the above is only a general guideline based on what most average students will usually need. **Anyone who starts teaching before assessing does not understand what sports instruction is all about.**

The other difference between the first lesson and all others is the amount of information to be covered. We cover a lot of ground at first, in our attempt to get students up and skiing. From that point on, we usually only need to work on **ONE OR TWO THINGS PER STUDENT PER SESSION**. You don’t have to tell students everything you know in one sitting (What will you do the next time you see them?). Working on several items only confuses people; pick the thing that needs work and do a thorough job with it.

Activities to promote further research and study:

Refer to the “**Teaching Model (or Cycle)**”, which can be found in most of PSIA’s manuals.

Describe the differences between Level 3, 4, 5, and 6 students.

Hone your analysis abilities to be able to point out students at these levels to others.

Practice the demonstration of wedge christies and all their variations.

What is an “**Exercise Line**”?

Develop exercise lines that would be level appropriate for levels 3, 4, 5 and 6.

How do you think the different **Teaching Styles** can be brought into play at these levels?

What will you say to a student who tells you they “Want to learn to ski parallel today”?

Sample Beginning Teaching Progression Used by ASIA (Amateur Ski Instructors Association)

Teaching Progression

Skiing is a lifetime sport which can be learned at just about any age by people of average health and athletic ability. People's first experience on skis, however, will probably determine whether they come to the mountain again. As their first contact with the mountain environment, you will play a major role in both their physical development and mental attitude as skiers.

Your students will enjoy their lesson and learn rapidly if information is presented to them in a simple manner through a logical series of steps. The information on the following pages is listed in the order it is introduced to the student. The teaching progression and accompanying exercises should be used as a guideline for developing the basic skills and movement patterns students need to begin enjoying the mountain environment quickly and safely.

Equipment

Do a visual check of your student's equipment and clothing for function and safety before heading for the slopes. If possible, introduce the student to the equipment inside, or at least in a quiet protected area outside.

Skis

Point out the tip or shovel, tail, waist, and binding and describe the function of the sidecut.

Bindings

Point out the toe and heel piece, brake, and binding release mechanism. Describe how the DIN settings are determined, and emphasize the importance of proper DIN settings, safety checking, adjustments, and periodic rechecks as the skier progresses. Show how to put the skis on and take them off.

Boots

Check to see that your students have their boots on the correct feet (buckles or name brand to the outside), that there is a reasonable fit, and the buckles or ratchets are properly closed. Point out the importance of cleaning the boot soles before putting the skis on.

Poles

Point out the grip, strap, shaft and basket. Point out the safety considerations of using the pole strap. Show the students how to put the strap on correctly.

Getting Started

The Terrain

Choose a groomed, flat, open area away from skier traffic and noise. Using the ski poles for stability, introduce, demonstrate and have the students do the following exercises.

Moving In Place

Lift one ski tip then the other.

Lift one ski tail then the other.

Lift one ski then the other.

Tap one ski then the other.

Run in place.

Hop both skis off the snow.

Step to the left a few steps, then back to the right.

Move ahead by pushing from behind with the poles.

Move backward by pushing from in front with the poles.

Falling and Getting Up

Explain and demonstrate the proper way to get up from a fall by removing one ski, kneeling on the free knee and getting up. Optional: with their skis off, have the students get down, roll around and feel the snow. It's a great way to start conversation and release tension.

Walking

Walk with one ski on and one off. Walk in a large circle to the left, then to the right. Switch the ski to the other foot and repeat.

Walk making big rectangles to the left and then to the right by keeping the ski flat on the snow and turning the foot.

Line up the group a safe distance apart and have one-ski races, with and without using poles for balance.

Walk with two skis on. Walk in large circles to the left, then to the right in a striding motion like walking.

Walk picking the skis off the snow with each step.

Glide forward by keeping both skis on the snow and pushing with the ski poles.

Skating

Start the skating action by stepping from one foot to the other and pushing from behind with the ski poles.

Have skating races.

Changing Direction

To change direction on the flats or on a hill without stepping all over the skis, use a tip or tail step turn.

Tip Step Turns

To change direction by rotating around the ski tips, press the left ski tip down to keep it in place while lifting the tail and swinging it outward. The skis are now in a V shape, open at the tails. Press the right ski tip down and lift its tail and swing it next to the left ski. Continue this until you have changed direction.

Use the ski poles for stability.

Tail Step Turns

To change direction by rotating around the tails, press down on the left ski tail while lifting the tip and swinging it outward. The skis are now in a V shape, open at the tips. Press the right ski tail down, and lift its tip and swing it next to the left ski. Use the ski poles for stability. Have the students practice 360 degree tip and tail turns in both directions on the flat.

Bullfighter Stance

Bullfighter stance is so named because the way the poles are held gives the appearance of the toreador holding off the bull. On the flats, place the pole grip ends in the palms of your hands and plant the ski poles ahead of your ski tips. Straighten your arms, lock your elbows and press against the pole grips. In this position your arms become a strong extension of the ski pole. On the hill the poles are planted downhill from the skis to keep from sliding downhill when doing a step turn to change direction.

Going Uphill

Introduce and demonstrate the following activities on the flat, then move the students to an open area with a slight incline to a run out. Explain the terms uphill and downhill ski and introduce the concept of the fall line or flow line to the students. Show them the relationship of the skis to the hill when they are *across* the fall line. These exercises may be practiced with one ski on at first.

Sidestep

Side step is so named because the skier steps sideways up the hill. With the skis parallel and across the fall line, plant the poles out to the sides for stability and step up to the uphill pole. Step one ski uphill, then bring the other ski to it. Replant the poles and step higher. The emphasis is on taking small steps and keeping the skis parallel. To keep the skis from sliding have the student roll the ankle and knee uphill as each step is taken. This creates edge hold by making the side of the ski bite into the snow. Practice stepping uphill and downhill in both directions. If students have great difficulty with this exercise, have them practice first with only one ski on.

Herringbone

Herringbone is named for the pattern the skis leave in the snow during this maneuver. Face uphill with the skis apart at the tips in a V shape or reverse wedge, lean forward slightly and step uphill from one ski to the other. Coordinate pushing with the ski poles as you step, to keep from sliding backward. Roll the ankles and knees in slightly as you step and push off, to create edge hold. This maneuver requires more agility than the sidestep, but is a faster way to move uphill. Don't insist on its use.

Bullfighter Turn

With your skis across the fall line, plant your poles about 6 inches apart in a bullfighter stance slightly below your ski tips. Change direction using a step turn rotating around the tips of the skis. To change direction using a tail step turn, plant your ski poles slightly below the tails of your skis in a bullfighter stance, and rotate around the tails. These techniques are commonly used to turn around on mild to steep terrain.

Gliding in a Straight Run

The importance of gliding in a straight run is to develop vertical, lateral and fore and aft balance in the student. It is important to realize that ample time should be spent in this area before attempting to develop the other skills. Most skiers are out of balance toward the back of the ski, partly due to faulty equipment, and partly due to a defensive reaction to gliding down the hill. Developing an awareness of the importance of body symmetry at this time will help prevent problems as your students progress.

The Terrain

Choose an open area with a gentle incline to a natural run out, out of the way of noise and skier traffic.

The Mechanics

The student glides in an athletic stance with the skis parallel down a gentle slope to a natural run out.

The Skills

Balancing: An athletic stance is the key to developing dynamic balance, the most important of all skills, in your students. Have the students stand with their skis parallel and about hip width apart. Their hands should be out in front and held away from the body. Their poles are held by the grips with the baskets pointing behind and toward the snow. Their weight should be spread over the entire bottom of their feet, with equal weight on both feet. Emphasize keeping slight shin contact with the cuff of the boot at all times.

Steering: The skis are guided straight ahead.

Edging: The skis are kept flat on the snow with no edge engagement.

Pressure control: Weight is equally distributed on both skis with pressure along the entire bottom of the foot, creating equal pressure along the length of the ski.

While standing in place, have the students assume an athletic stance, then close their eyes and rock back and forth, feeling pressure go from their toes to their whole foot to their heels as they rock. Point out the feeling when there is too much pressure against the shin or the calf of the leg. Emphasize the importance of feeling weight distributed equally on both skis with pressure under the whole foot, with contact of the shin against the cuff of the boot.

Demonstrate a straight run for the class. The demonstration should be on terrain with a natural run out where you will come to a stop in the straight run position without having to do anything to slow yourself.

Reinforce the bullfighter stance if the terrain does not allow starting on a flat area, so students may hold themselves in position before starting to glide down the incline. Climb the group up a few steps and have them experience a straight run to a gradual stop on a natural run out.

The most common and serious error instructors commit at this point is to allow students to climb higher than is appropriate, causing fear and loss of confidence resulting in defensive body movements. Keep your students on a gentle incline!

Exercises

Demonstrate and have the students try the following exercises while standing in place, then put them to motion.

- Glide in a straight run with rocking forward and backward.
- Glide in a straight run with reaching up and down.
- Glide in a straight run with flexing and extending.
- Glide in a straight run with bouncing.
- Glide in a straight run lifting the tip or the tail of ski.
- Glide in a straight run lifting one ski then the other.
- Glide in a straight run stepping in and out of the ski track.
- Glide in a straight run with hopping.
- Glide in a straight run stepping gradually to the left to a stop.
- Glide in a straight run stepping gradually to the right to a stop.

Allow ample time for trial and error and self discovery, then begin to suggest improvements of hand position, stance, and symmetry as necessary while your students practice. Make your comments positive! Make the best demonstrations you can. You are the role model and you are developing your skills too!

Gliding Wedges

The wedge forms the basis of skiing from beginner through world cup racer. All the elements necessary to good skiing are incorporated, with the added benefit of having a wider platform to balance on. Racers, and other high level skiers go back to the wedge often to refine skills and correct problems. All skiers use the wedge in lift lines, at ski racks, and on the hill. Beginning skiers use the wedge as the platform for turning, slowing down, and stopping on the hill.

Once the student has learned to balance forward and backward, side to side, and up and down on skis while gliding down a gentle slope, it is time to introduce the wedge. Gliding wedges establish the platform for turning. Demonstrate the gliding wedge with the same athletic stance as with gliding in a straight run. The emphasis is on creating a small wedge.

The Terrain

As in the straight run, choose an open area with a gentle incline to a natural run out, out of the way of noise and skier traffic.

The Mechanics

The student glides with the skis steered into a slight wedge down a gentle slope to a natural run out. The feet are hip width apart and the tips of the skis are slightly closer than the tails.

The Skills

Steering: Each ski is steered slightly inward toward the other. The pivot point or turning point is under the foot.

Edging: A very slight edge angle is created as the skis are steered into a wedge.

Pressure control: As in the straight run, weight is equally distributed on both skis, with pressure under the whole foot and along the entire ski.

Exercises:

Demonstrate the gliding wedge to the students from all angles, so they can see your stance as you are coming toward them, passing them, and going away from them. Point out the position of your skis and the relationship of the edges to the snow. Have the students practice gliding wedges until they are comfortable with forming and holding their skis in a slight wedge.

Spread the students out and have gliding wedge races.

Controlling Wedges

Learning to change the size of the wedge further improves balance and symmetry while introducing active edging, pressure control, and more active foot steering.

The Mechanics

From a gliding wedge, the size of the wedge is increased, increasing the edge angle and creating more resistance between the skis and the snow, slowing the skier.

The Skills

Steering: The tips of the skis are steered closer together, and the tails are brushed farther apart.

Edging: The edge angle increases as the size of the wedge increases, creating more friction on the snow.

Pressure Control: Weight is equally distributed between the skis. There is a slight sinking motion as the skis are steered to a wider wedge, and a slight rising motion as they are steered to a narrower wedge.

Pressure should increase against the cuff of the boot as well as along the inside edge of the ski as the wedge widens.

Exercises

Use numbers to describe the size of the wedge opening to give students a size reference point. For example, call them size 1, 2, 3, 4, or 5 wedges, with 1 being a gliding wedge and 5 being a stopping wedge.

While standing in place, demonstrate and have the students practice making size 2, 3, and 4 wedges by turning their toes in and brushing their heels out.

While standing in place have the students hop their skis into a wedge and then back to parallel.

On the flats, have the students form a size 3 or 4 wedge and then push themselves ahead with their poles. Have flat land wedge races to develop symmetry.

On gentle terrain with a natural run out, demonstrate and have the students do a gliding wedge with the emphasis on steering their feet rather than pushing out their heels to form the wedge. Small movements will create a gliding wedge while gross movements will create tip crossing.

Demonstrate starting to glide in an extra wide parallel stance and then steering the skis into a wedge by turning the toes in and the heels out. Starting in a wide parallel stance makes it easy to turn the skis without crossing the tips.

Practice going from a size 2 to 3 to 4 to 3 to 2 wedge while gliding, creating an hourglass track in the snow. Finally, practice making the size of the wedge wide enough to come to a complete stop on gentle terrain. Emphasize an athletic stance with weight equally centered between the skis, shin contact with the front of the cuff and pressure along the whole bottom of the foot.

Develop symmetry and good upper body and hand position with lots of practice and mileage before moving on to teaching turning. You and your students will have more fun and greater success as you and they progress.

Gliding Wedge Turns

Once your students are comfortable changing the size of their wedge and coming to a stop in a wedge on gentle terrain, it is time to introduce changing direction. Turning is used in skiing to change direction, slow down or come to a stop on the hill.

The Mechanics

While skiing downhill in a tall gliding wedge on a gentle slope, the students gradually look in the direction they want to go. This causes a slight change of direction as the body responds to the change of focus.

Exercises

Find a long, gradual incline with a natural run out. Place yourself downhill from your students and *slightly* off to the side. Pick an object straight down the hill for students to focus on. Have them look at it and ski toward it in a gliding wedge. As they are skiing and looking downhill, ask them to look toward you. The act of changing their focus from downhill to you will cause a change in direction toward you.

Scribe a line down the hill which makes a slight change of direction to a natural run out. Have your students start in a gliding wedge with one ski tip on each side of the line and follow the line. With their focus on keeping the ski tips near the line, they will turn without much conscious effort.

Ski backwards dragging your pole basket on the snow. In a gliding wedge, have your students chase your pole basket with their ski tips. Make a slight deflection from the fall line to a natural run out.

Wedge Turns

The Mechanics

From a gliding wedge, both skis are steered in the direction the skier wishes to go, producing a deflection from a straight line.

The Skills

Steering: Foot steering is used to guide both skis, producing a gradual direction change.

Edging: As in the gliding wedge, however, slightly more edge angle develops naturally on the outside ski as speed increases and the ski is turned further across the fall line.

Pressure Control: As in the gliding wedge, however slightly more pressure will develop naturally on the outside ski as speed increases and the ski is turned further across the fall line.

Exercises

Demonstrate the mechanics of actively turning the foot and ski.

While standing in place, demonstrate and have the students place one pole between their ski tips and one pole outside of their uphill ski tail. Raise the uphill ski and turn the foot inward until the ski hits the poles. Feel the big toe press against the inside of the boot and the heel press against the outside of the boot.

To reinforce the muscular activity and feeling of turning the foot, while on the flat, have the students take off one ski. While walking, attempt to make a rectangle. The foot with ski on should be kept flat on the snow and pivoted on the snow around the corner. Picking the ski off the snow to accomplish this does not give the student the proper feeling. Change feet and perform the exercise again.

Have the students practice minor changes of direction in a small wedge, with the emphasis on turning both feet to change direction.

Have the students focus on pointing both ski tips in the direction they want to go.

Widen the wedge slightly and demonstrate turning to left or right, coming to a complete stop. Have the class practice turning to a stop in both directions.

When skiers can make a turn to the left and right to a stop, it's time to link them together and start skiing!

Linked Wedge Turns

Demonstrate how the linking of turns will provide direction change and speed control.

Exercises

Draw a line in the snow to establish a track for the students to follow.

Ask the students to turn their skis in one direction, then relax their feet and point downhill, then turn in the other direction.

Set up traffic cones, half tennis balls, plastic lids or colored straws to make a course for the students to ski through. Make the direction changes gradual at first. As students gain mileage, change the turn shapes, vary the size of wedges, and keep the students in fall line longer. Provide fun, positive reinforcement, and lots of practice time, to guarantee success. Keep the emphasis on steering both feet to accomplish turning. Look for smoothness and flow from turn to turn.

Improved Wedge Turns

The Mechanics

From a gliding wedge, both skis are guided in the direction the skier wishes to go. Turns will be more rounded, the speed higher and the terrain more varied than in the beginning wedge turn. Extension and flexion movements will be added to control speed and turn shape.

The Skills

Steering: The skis are guided by actively steering both feet in the direction of the new turn. The outside foot becomes more dominant.

Edging: The edge angle of the outside ski helps to control the shape of the turn. As the turn progresses, the edge angle of the outside ski will increase and the edge angle of the inside ski will decrease, as the center of mass toward the inside of the turn.

Pressure Control: As the turn progresses, more pressure develops on the inside edge of the outside ski.

Extension:

Extension is accomplished through lengthening the outside or uphill leg at the time of turn initiation. The skier moves the weight from the bottom of the foot toward the ball of the foot at the start of the turn, returning the pressure to the whole foot as the turn progresses.

This extension movement, which is toward the center of the new turn, flattens the inside ski and engages the edge of the outside ski and combined with steering, starts the turn.

Flexion:

As the skier reaches the fall line, the uphill ankle is gradually flexed, causing the hip to move further inside as the skis are steered through turn completion.

Exercises

While standing with ankles flexed, in a wedge position, place your poles downhill in a bullfighters stance. Move the weight from your downhill foot to your uphill foot by lengthening your uphill leg. Feel the pressure go from the whole foot to the ball of the foot as you extend. This will cause your center of mass (CM) to move toward downhill and over the downhill ski and flatten it. Try this exercise on both sides.

Traverse in a narrow wedge with your ankles flexed. Extend the uphill leg, releasing the downhill ski edge and creating a wedge side slip. Reestablish the edge by flexing your ankles.

Wedge Garlands

In a wedge traverse, the uphill leg is extended, causing the skis to turn toward the fall line. The uphill leg is then flexed, causing the skis to turn back across the fall line. This action is repeated several times creating a series of half turns, or a garland. To practice, have the students create a pedaling action, similar to pedaling a bike, encouraging a long leg, short leg activity, while actively steering both skis.

Proper extension, or weight transfer, to the outside ski to start the turn eliminates skis crossing, since the movement of the center of mass toward the center of the new turn causes the inside ski to become flat and easy to steer.

Encourage your students to vary their speed, the size of the wedge, and the turn shape at this time. Get lots of mileage to develop rhythm and flow from turn to turn. They are really skiing now, and its time to challenge the green trails of the mountain.

This ends the Amateur Ski Instructors Association Level I Teaching Progression.

A Sample Progression to Redo Cadet Skiers Skiing on Their Heels and Constantly Touching the Back of the Boots

18 February, 2000

DPE Skiing “The Eddie the Eagle Look”

New Progression for Fore Aft Balance –Forward Lean (that is leaning forward on the equipment while going down an incline)

After observing my group and other class groups here in DPE Skiing at West Point, the four fore/aft components of balance as the skier goes down an incline are just “awful”. See below for 4 components of fore aft balance. So I tried a new tack in recent days with my F, L, and K hour classes and saw “observable results in a movement change”. This is what I did:

Step One: “I need your brain to work today.” Many times your brain is not helping you to learn to ski better!” Today, I am training your brain.

Step Two: “I need you to keep your calf muscle off the back of the upper rim of the boot 100% of the time.” Ninety-nine % of the time you are touching the calf to the back part of the boot! If your brain is not working, I will see your calves touching the back rims of the boots that means you do not know it nor care.” Therefore the brain is not working in today’s lesson.

Step Three: We are going to do a straight run with the “Eddie the Eagle Look”, that is, too much forward lean with knees locked straight and hips straight with the nose over the ski tips and arms forward. As this is happening, you will use your brain to feel or sense if your calves are or are not touching the back rim of the respective boot. Do this on low terrain first. Instructor looks at the back of the boot rims and gives a yes or no.....no in-between feedback. No banana body arches are allowed. Do this many times, do not allow turns, do not allow the class to ski have them stop just below you. Just put a hockey stop or a skidded turn to a stop on the end of each straight run. Then do it on all terrain. Do straight runs 20’ to a 100’ to a stop x 20. Do not quit until the entire group has it. Remember, all can do the “toilet bowl” stance at the 10.0 level or lean back too far back with legs straight stance in a straight run. **This new Eddie the eagle straight body straight run has one very superior feature....the ankles are closed and the skier finds out that they can lean on the equipment going down an incline!** The nose is way forward over the ski tips with the arms way forward and yes, there is finally too much forward lean as one goes down an incline.

We have been trying to sneak up to being on center in the fore aft mode and guess what, we are failing! So let’s go to the other side of fore aft balance and teach them to do straight leg straight runs with too much forward lean and let them learn the “just right fore aft feeling and adjustment as a after effect”.

Step Four: Now, do the “Eddie the Eagle Look” as in step three with little knee bends (bobbing up and down). Again, look at the back of the boot rims and give a yes or no....(please, no in-between almost feedback). No banana body arches are allowed. Do this many times, do not allow turns, do not allow the class group to ski. Do not quit until the entire group has it. I even had 2 cadets dismount from their skis and walk back up the hill to get their attention. I told the group until everyone gets it we were not skiing or going any further. Tough fore aft love!

Step Five: Now straight run and add turns without touching the calves to the back rim of the respective boot.. **The hard core truth of the matter is, if good fore aft balance is not clearly evident in a straight run on an incline, how do we expect it to be there in turns? I do not know of one great skier that can not demonstrate a straight run in all three positions.....too much forward lean, too much backward lean, and just right.**

Step Six: Every day repeat this exercise. If it's not there on a straight run.... it is not there. I'd rather work with a skier with too much Eddie the Eagle locked knee, nose forward stance than the classic "toilet bowl" stance any day. Closed ankles rule!

4 Components of Good Fore Aft Balance Adjustment (being centered or recentering)

Forward Lean (at the ankle):

If the skier can lean backwards and let the equipment underfoot support them, why can't the skier lean forwards and lean on the equipment underfoot. This closes the ankle!

Adjustment of the leg (femur) fore and aft under the pelvis by using the hamstring to pull the leg under to the aft or the quadriceps to pull or hold the leg forward.

The hamstring pulling the leg back under the hips closes the ankle!

I will not comment on the use of the quadriceps here to pull the leg forward.

Pulling the foot (dorsi -flexing) up by tightening the shin muscles...tibialis anterior.

Please do not say....lift the toes..as that is not what happens. The lifting of the foot (metatarsals) using the shin muscles closes the ankle!

Distribution and position of the body parts.

Obviously the upper body and arms are way forward on a quality low tuck to compensate for the pelvis being to the rear. The upper body and arms are weights that affect the fore aft balance in all skiing. This is the main reason why having the arms forward is a very good thing in skiing generally.

The straight run with the "Eddie the Eagle Look" with too much forward lean with knees locked straight and hips straight with the nose over the ski tips and arms forward does two good things.

The ankles are closed and the skier learns to lean forward on the equipment.

The upper body and arms act as weights that effect the fore aft balance and are in a known and better position that relate to good skiing.

Good luck and talk to me about it. I'll show you on the hill as paper and words do not translate well to what I did and saw. Make it a privilege to turn and ski. Make them use their brain and feel the calves off the back rims. Many times we talk the game but as soon as we switch focus to some other aspect of skiing, it is exponentially useless in direct proportion to the fore aft balance that is not working on the skier.

Ned Crossley

Course Director's Summary of Downhill Skiing

Downhill Skiing Summary

Cadets are given an introductory course emphasizing fundamentals to a vast wide range of beginners. Almost none of the cadets have never had a lesson even if they have had some rudimentary previous experience.

Cadets are required to learn basic mechanics of good skiing and ski various maneuvers. Each must utilize the hill, the conditions, the lifts, and ski in a safe and responsible manner in respect to others. Daily they are evaluated indirectly by their respective instructors for the basic skills of balance, edging, pressure, and rotary. The daily goal is more effective skiing skills based observed movement changes and cadet outcomes. Near the end of the course, the cadets are graded in three tests:

- **SKI TURNS**
- **STOP TEST**
- **CLASS SKI OFF BY SME**

Each is graded on the 1000 point scale; each is worth 33% of the grade.

The efficiency of skiing technique based upon movement standards along with one's fitness and coordination determines the grade. The what, how, and why are clearly delineated in the current manual and handouts. See Skiing DPE Downhill Skiing Grade Criteria sheet.

Conclusion

This is a basic level skiing course. The course is designed to create safe skiers in a gliding experience with risk. The ability to make sound decisions and use judgment on the slope is challenged and utilized everyday. The course allows each cadet to develop individually at different levels and safely ski within one's limits. The grading is done whereby everyone has an equal chance to excel. I do not see any need to change the grading scale or what is graded at this time. **Mr. Gravity, Mrs. Laws of Physics, and the Challenge of the Snow and Ice grade both the instructors and the cadets each session and every time with instant feedback and sometimes results in an injury should a mistake be made. Daily correction and repetition of the basics and safety are paramount.**

Memorandum of Understanding between DPE and Ski Slope

MEMORANDUM OF UNDERSTANDING
BETWEEN
DEPARTMENT OF PHYSICAL EDUCATION AND VICTOR CONSTANT SKI SLOPE
(COMMUNITY RECREATION DIVISION)

SUBJECT: A List of Understandings of Victor Constant Ski Slope Management and the Use of the Ski Slope by the Department of Physical Education (DPE) Cadet Ski Classes.

1. Purpose. The purpose of this memorandum of understanding is to make clear the needs of the DPE Cadet Ski classes and what is needed from the management of Victor Constant Ski Slope run by Community Recreation Division (CRD).
2. Reference. None.
3. Problem. The communication requirements and physical needs to conduct successful DPE cadet ski classes are not clearly defined with the ski area management (CRD) at Victor Constant Ski Slope.
4. Scope. The scope of this understanding directly affects the conduct DPE Cadet Ski Classes. Each year DPE has scheduled cadet ski classes at Victor Constant Ski Slope. For nine early January days during USMA Intersession, Cadet Ski Classes (alpine) are scheduled Monday to Friday 0900-1100, 1200-1400, and 1400-1600 for 150 cadets. During Round 3, DPE conducts cadet ski classes for another 150 cadets during the E,F, and L hours for 34 days, Monday to Friday. E hour class is from 1335-1450 and F and L hour class is from 1450 to 1545. Round 3 ski classes begin right after Intersession and go just into the second week in March.

Understandings. The following list of understandings should assist the success of DPE Cadet Ski Classes.

- a. DPE will provide qualified ski instructors (ASIA) to teach the cadet ski classes.
- b. DPE will provide ski area management in writing the exact dates of ski classes for USMA Intersession and Round 3 ski classes.
- c. Safety and safe conduct of the DPE cadet ski classes is the responsibility of DPE qualified ski instructors who operate under the ski area management responsibilities for safety and safe conduct of the ski slope. This is a dual responsibility. Proper ski patrol should be provided for all DPE classes. If a ski patroller is not available then ski area management should provide DPE with a plan if a cadet becomes injured. DPE would like someone designated to assist in case of an injury and a plan if an official ski patroller is not on duty at the start of each day's classes. The correct setting up and lift operation is the responsibility of the ski area management and ski patrol to include chair lift evacuation. The correct setting up of the skiable areas and marking these areas is the responsibility of the ski area management. Warnings and cautions on a daily basis are needed like "there are some areas with thin cover and rocks and narrow passages" or the slope is quite icy." This should be done prior to the scheduled start of the DPE Cadet Ski Class.
- d. DPE ski classes have successfully utilized the ski slope in rain, without grooming, and in the worst of conditions like ice, uncovered spots, etc. over the past 14 years. Ski slope management must on a daily basis co-determine with the DPE Point of Contact (POC) whether some ski class can be conducted. Ski slope management will also determine what lifts will be available. DPE expects that ski area management will make every reasonable effort to accommodate the DPE ski classes in limited conditions. Many times the slope is in very reasonable skiable condition and every effort to get the

cadet class onto the triple chair and off loaded in a safe manner should be made. Then even with walking from skiable areas to skiable areas, this arrangement makes for a reasonable DPE ski class. Stockpiling some snow at the loading and off loading ramps insures that in the worst of conditions that the triple chair lift can be operated safely. From DPE's perspective, it is not necessary to be able to ski top to bottom without taking off one's skis. At times it is understandable that only the rope tow is available.

- e. By 0800 hr during Intersession and 1100 hr during Round 3, on each scheduled day of DPE cadet ski classes, ski area management should communicate with the DPE Ski Point of Contact as to condition of the ski slope and whether or now the slope will be ready for classes. As in the past, many times the ski slope will be closed to the public but the DPE ski classes have used the slope with the lifts and without the lifts operating. This daily agreement has been traditionally done by ski area management and the DPE Skiing POC.
- f. During periods of lack of snow, or loss of snow, or limited conditions, it is necessary for ski area management to realize that DPE can do a lot of ski instruction within safe means. DPE appreciates the extra effort to accommodate the DPE ski classes and their success.
- g. DPE expects ski area management to keep the DPE Ski POC abreast of things like equipment failure such as water pumps broken, lifts broken, and groomers in for repair. Despite, equipment and snowmaking failings, DPE has and will continue to make a "skiing experience out of a mole hill of snow."
- h. Ski area management and CRD should view the DPE ski classes as part of the conduct of a successful ski operation and season. When problems arise at the ski slope, they indeed impact upon the success of the DPE ski classes.
- i. Ski area management needs to have the ski lodge outside and inside doors for the lockerooms unlocked to include the basement thirty minutes prior to the start of the DPE class.

SIGNATURE BLOCK

SIGNATURE BLOCK

_____ date

_____ date

Sample of Downhill Ski Bus Transportation Request

Transportation Request: Downhill Skiing, **Round 3**

DPE Instructor in Charge: MR. Kenneth Cameron, x2352

Driver needed: Yes.

Destination and Pax #: Ski Slope. No more than 50 cadets per class.

Comments: Driver will make three (3) round trips on double class days. The bus will be released at 1610 each day.

DATE	Reporting Time at Clock Tower	Departure Time from Clock Tower	Departure Time from Ski Slope
18 Jan	1445	1455	1600
19 Jan	1345 1445	1355 1455	1500 1600
20 Jan	1445	1455	1600
21 Jan	1345 1445	1355 1455	1500 1600
24 Jan	1445	1455	1600
25 Jan	1345 1445	1355 1455	1500 1600
26 Jan	1445	1455	1600
27 Jan	1345 1445	1355 1455	1500 1600
28 Jan	1445	1455	1600
31 Jan	1345 1445	1355 1455	1500 1600
1 Feb	1445	1455	1600
2 Feb	1345 1445	1355 1455	1500 1600
3 Feb	1445	1455	1600
4 Feb	1345 1445	1355 1455	1500 1600
7 Feb	1445	1455	1600

