

SENIOR SPECIALIST HANDBOOK



2008 EDITION

© Paul Jones (PJ) and Cookie Hale
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ACKNOWLEDGMENT

I would like to thank some very “special” and important people relative to this project.

I would like to thank Ed Kane and Ed Younglove, Past President of PSIA-NW, for their encouraging myself and Cookie to become involved in developing a Senior Program.

I would like to thank Ted Pitcher and Rusty Crook for welcoming Cookie and myself at Mammoth during their inaugural Senior Accreditation the spring of 2007.

Most of all, I want to thank my best friend in putting this all together. She is the real collector of ideas, writer, editor and publisher, Cookie Hale. Without her, this project would still be in the idea stage. I cannot thank Cookie enough.

Lastly, their worth beyond measure, are some people I have worked for in the ski business, Junior Bounous, who is ripping it up at 82, the Rothman family, whom I have skied with for 31 years and 3 generations of their family, and all the students and clinicians over the years who have helped with the development of these teaching materials.

And thank you to all who participate and become Senior Specialists.

A handwritten signature in black ink, appearing to read "Paul Jones". The signature is written in a cursive, flowing style with a prominent loop at the end.

Senior Specialist Handbook - Teaching Senior Skiers

GENERATIONS TIMELINE

* = DATES DISPUTED, ^ = STRAUSS AND HOWE

TERM	PERIOD
^PURITAN GENERATION	1588–1617
PURITAN AWAKENING	1621–1649
^CAVALIER GENERATION	1618-1648
^GLORIOUS GENERATION	1648-1673
^ENLIGHTENMENT GENERATION	1674-1700
^AWAKENING GENERATION	1701–1723
FIRST GREAT AWAKENING	1727–1746
^LIBERTY GENERATION	1724–1741
^REPUBLICAN GENERATION	1742–1766
^COMPROMISE GENERATION	1767–1791
SECOND GREAT AWAKENING	1790–1844
TRANSCENDENTALIST GENERATION	1789–1819
^TRANSCENDENTAL GENERATION	1792–1821
^GILDED GENERATION	1822–1842
^PROGRESSIVE GENERATION	1843–1859
THIRD GREAT AWAKENING	1886–1908
^MISSIONARY GENERATION	1860–1882
LOST GENERATION	1883–1900
INTERBELLUM GENERATION	1900–1910
G.I. GENERATION	1900–1924
GREATEST GENERATION	1911–1924
JAZZ AGE	1914-1928
^SILENT GENERATION	1925–1942
BEAT GENERATION	1950s-1960s
BABY BOOMERS	*1940s-1960s
GENERATION JONES	1954–1965
CONSCIOUSNESS REVOLUTION	1964–1984
GENERATION X	*1960s–1980s
^13TH GENERATION	1961-1981
MTV GENERATION	1974–1985
BOOMERANG GENERATION	1977–1986
GENERATION Y	*1970s–1990s
^MILLENNIAL GENERATION	1982-2000
ECHO BOOM GENERATION	*1982–1995
INTERNET GENERATION	*1994–2001
^NEW SILENT GENERATION	*1990s OR 2000s-?
HELMET GENERATION	2000-

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PART I OVERVIEW

SECTION 1. PURPOSE STATEMENT

- 1.1 Provide training for instructors of all ages to provide quality instruction for seniors (> 50 years of age)
- 1.2 Provide a new product that Ski Schools can market to this growing segment of our skiing population.

SECTION 2. PHILOSOPHY

- 2.1 Special training in instructing seniors will improve the enjoyment and participation of both seniors and their families, as well as the instructors.
- 2.2 It is critical that this special training be fundamental, accurate and valuable.

SECTION 3. PRE-REQUISITE

- 3.1 Current Level 1 Certification for Senior Specialist I
- 3.2 Current Level 2 Certification for Senior Specialist II
- 3.3 Minimum of 100 hours teaching at Level 1 or 200 hours at Level 2

SECTION 4. TEACHING PORTFOLIO/WORKBOOK REQUIREMENTS

- 4.1 Complete Workbook prior to attending dry land session for Senior Specialist I
- 4.2 Complete Teaching Portfolio prior to attending on-snow clinic for Senior Specialist I
- 4.3 Complete another Teaching Portfolio prior to attending on-snow clinic for Senior Specialist II

SECTION 5. CLASS REQUIREMENTS

- 5.1 Attend dry land session on Introduction to the Senior Client - 3 hour session
- 5.2 For Senior Specialist I, attend Senior Skills Clinic I and II, Beginner to Intermediate Zone - (2) all day clinics
- 5.3 For Senior Specialist II, attend Senior Skills Clinic III and IV, Intermediate to Advanced Zone - (2) all day clinics

SECTION 6. EVALUATION/ASSESSMENT

- 6.1 Perform to an accepted level of proficiency the required skiing criteria tasks as demonstrated during the clinics. Participants to be informally evaluated by clinician during the clinics, similar to a Level 1 exam. Only those capable of performing the tasks to an accepted level of proficiency will receive the Senior Accreditation.
- 6.2 The On-Snow Clinics may be repeated until the participant successfully passes the evaluation.
- 6.3 Each participant will receive a written evaluation sheet at the end of the clinic. This evaluation sheet will provide a focus for their continued development.

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PART II DRY LAND CLINIC

Purpose: Present core information

Format: Indoor lecture style with some discussion

OVERVIEW

There is nothing presented in this handbook and class for teaching seniors, that is not simply good, basic ski teaching. Safety, fun and learning are still paramount. The basic principles are that good instruction is **student centered** with the instructor facilitating learning by creating a **learning partnership** using an **outcome based** model, developed through **experiential learning** (i.e. skiing) and delivered **from the heart**.

The good ski instructor does not teach skiing, but teaches **people** (skiing). This is even more true, if possible, with the senior group. It is of paramount importance to balance the accuracy of the information you are providing with the humanity or social aspect of the experience. Many times, for seniors, the social, human part of the experience is more important than the content.

Accuracy of content:

There is an important philosophical premise for teaching skiing professionally; you are the professional and expert. Fun is great, but the instructional content of the lessons need to also be accurate. Your senior clients all have years of experience and are experts in something. Ski instructors are meant to be the “experts” in teaching skiing. There is also a very important attitude that needs to be heeded when you are teaching retired CEO’s, retired farmers, teachers, rabbis and anyone else. That is **confident competence**. You are the expert, you have accurate information, you know what you are doing and you are enjoying doing it; **confident competence**. When a client comes to you for a lesson, for the purpose of learning more about skiing, it is the responsibility of the instructor to not simply pat him on the back, tell him how great he is doing, etc., but to try and help him improve his skiing, and have fun and be safe doing it. This even applies to the very accomplished, possibly famous retired senior executive, even if he ‘knows it all.’ If that senior executive comes for a lesson, tells you that he wants to improve his skiing, and you see that he is very comfortable in a technique that is not helping his skiing, then you, as a professional instructor, should gently guide him into new technique that will improve his skiing and make it more pleasurable for him, even though your client may resist it at first.

Social experience:

However, please also remember that some seniors come to take lessons not to learn anything more about skiing, but simply to socialize and have fun. In that case, it is the job of the ski instructor to provide a safe and fun experience on the snow. Learning will most likely occur as a bonus.

SECTION 1. RATIONALE

Baby boomers are redefining both aging and retirement. They are living longer and staying active in sports longer. In addition to the boomers, the “pre-boomers” are also picking up the flag and charging ahead. More and more of these boomers and

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“pre-boomers” are continuing to ski, and even learning how to ski, well into their 80’s and beyond.

Riding up the lift at Bachelor in April, 2007, I was discussing ski technology with a man in his late 60’s who had just taken up skiing the year before. He had recently purchased his second new pair of ski because he loved them so much better than the ones he had learned on. The previous week, I had been at Mammoth, at the PSIA Western Division Spring Convention, working with Cliff, who at the age of 89, passed his Senior Specialist Accreditation. Cliff had also had his hip replaced a few months earlier - and he was breaking in a new pair of ski boots. The winter before I met an older man who took up skiing after he had a double knee replacement. Then there is Junior Bunous, who is now over 80, still hikes to the top and rips non-stop to the bottom. The OTHGI (Over The Hill Gang International Club) is growing rapidly as are senior groups at resorts all over the world. As professional ski instructors, we would be negligent if we were not to recognize this important and growing segment of our clientele and develop products and programs for their benefit.

Developing programs that welcome and support the senior client, can also generate more growth in other age groups as well. It is often grandma and grandpa who buy the ski lessons and tickets for the grand kids. Many times families will choose to frequent the resort that grandma and grandpa also enjoy. Seniors are very influential.

Developing senior programs to be taught by senior instructors is also good for retention of membership in PSIA.

SECTION 2. WHY IS THE SENIOR SKIER STILL SKIING

Some senior skiers have skied their whole life while others are new to the sport. Some are addicts who ski for the love of it alone. Others ski for the physical benefits of staying in shape and the opportunity to be outside, in the mountains in the winter. Others simply like the excuse that skiing provides to travel the world visiting various resorts. Many others ski largely for the social aspect of it, especially for the family opportunities it affords.

There are many reasons that seniors are skiing. However, there is one motivation for skiing that is more prevalent in the senior population, people. Seniors value life differently than young adults. Life is precious, and getting shorter all the time for them. People and relationships transcend and have more worth than the material world. With age, come more losses. With age, many times, comes the attitude to celebrate the day and enjoy living with your family and friends. Thus, the social aspect of skiing will be generally more important for the senior skier. Therefore, in teaching seniors, it is most important to remember that you are not teaching skiing, but rather you are teaching people.

SECTION 3. WHO IS THE SENIOR SKIER

For our purposes here, we are considering senior skiers to be those who are approximately age 50 and over. Internationally, this is a commonly accepted age for classifying seniors.

In the senior population, there is as much diversity, or more, as in the general population. Many seniors have fascinating histories. Considering the importance of

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the social aspect for seniors, it is rewarding to encourage discourse and interaction within the group. This will help build a strong group dynamic as well as enrich the quality and fun of the lesson. Everyone, including the instructor, will grow and gain from the time spent together.

A working knowledge of some pertinent “aging” characteristics also leads to being more successful in teaching senior clients. We will look at the senior skier within the framework of the cognitive, affective, physical and spiritual domains.

Cognitive Domain - Mental - Thinking, Learning, Remembering

Sometimes cognitive decline may accompany aging, leading to some memory problems and slower intake and processing of information. However, that is not always true and often there is no decline at all. There are indeed some processes that are stronger in the older adult. Yes, wisdom is real. Following are salient points from recent research that will help in the understanding of the senior client.

- “Although younger adults appear more likely than older adults to interpret a story analytically, older adults appear likely to focus less on the story's details and more on the gist of the story and its underlying significance (Adams et al., 1997).”
- “Older adults also have shown similar or better abilities to represent, update, and recall more global and holistic levels of understanding (e.g., Radvansky, 1999).”
- “Prior research has demonstrated that aging is associated with increased dependence on schematic knowledge (e.g., Hess, 1990).”
- “Aging may be marked by the increased salience of associative and automatic processes such as heuristics (Mutter and Pliske, 1994; Yates and Patalano, 1999).”
- “Although life-span theories (e.g., Fredrickson and Carstensen, 1990; Labouvie-Vief, 1999) do not make predictions about the salience of automatic, associative, and intuitive processes versus controlled and analytical processes in older (compared with younger) adults, aging research nonetheless supports this distinction. For example, Jennings and Jacoby (1993) demonstrated that older adults performed less well than their younger counterparts on tasks that required conscious control of memory, but they performed equally well on tasks that relied on automatic memory processes (i.e., familiarity).”
- Seniors will make decisions more slowly and cautiously than younger adults, using decision strategies that are less cognitively demanding. They are less flexible in learning and revising judgment and decision strategies. (Sanfey and Hastie, 2000)

Application to teaching skiing: Age and experience have equipped seniors to be more able to see the “big” picture and not get lost in the details. When introducing a new concept, put it into perspective. Be careful to not complicate the technical concepts of skiing and expect seniors to accept the new concepts immediately. Allow them time to verify new information by experience. Seniors have a highly developed model of judgment and decision making strategies which they are not apt to change. Their internal model has been refined through their years of living. They are familiar with it and it has worked for them. They will process any new information within this

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existing framework. Therefore, link new learning to old learning by using comparison and contrast. Lead seniors to apply the new learning to verify it. For example, when teaching how to use turn shape to control speed, briefly explain the concept, then immediately experiment making turns with different shapes. Point out their own typical turn shape and how it compares to the rounder turn. Continue making turns having them explore the pros/cons, advantages/disadvantages of the various turn shapes. Link the new with the old and confirm through experiential learning, i.e. skiing.

It is also critically important when teaching seniors to give them the opportunity to take ownership of the lesson by providing input and direction for the lesson. At the beginning of a lesson, discuss the reasons that the seniors are there, what their goals are. At the end of a lesson, recap. Did you meet their goals. Discuss future plans. Seniors are used to taking control of their growth and future.

Affective Domain - Emotional

- Affective information is more important for seniors.
- Research has shown that seniors have improved efficiency and quality of decision making with affective markers. (Stern and Carstensen, 2000)
- “Seniors learn better from affective cues than the other age groups.” (Stern and Carstensen, 2000)
- “Aging may increase reliance on heuristics and affect in judgement and decision making.” (Stern and Carstensen, 2000)
- “An individual experiences more apprehension the less confidence he has in his ability to perform successfully.” (Slanger, 200?)

Application to teaching skiing: Seniors learn best with affective markers; i.e. when the new learning also is marked by and accompanied with emotional content. Unfortunately, fear is also more likely to be present in the senior skier. As Slanger notes, “An individual experiences more apprehension the less confidence he has in his ability to perform successfully.” This is very often the situation with the senior skier. Needless to say, fear does not promote learning. Thus, for seniors, almost more than the rest of the population, remember safety, fun and learning. If people feel safe and are having fun, then learning can occur. It is important for the instructor to be very cognizant of each individual's level of security and confidence, as well as their physical state at all times during a lesson. The physical and the affective are very much connected. In seniors, with aging bodies, but still with young minds, it is sometimes difficult for both the instructor and the clients to discern exactly how much they can do. Constant attention to reality, combined with accurate technical knowledge, will help maintain a positive emotional environment. Hopefully, with age and experience has also come some wisdom and emotional stability to handle the changes brought on by aging.

A healthy, strong instructor-client learning partnership is extremely important to facilitate learning with senior clients. As the senior may be unsure of his own

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knowledge and abilities, he is looking to the instructor to provide professional direction and confidence. Trust is paramount. For this trust to be strong, the instructor should be genuine and connect with their client from the heart.

To develop trust, listen to your clients. Take a real interest in them, in their past experiences. Listen to their unspoken expressions and movements. Be aware of them. Be protective too. Watch closely and keep them safe. In new experiences, be honest in describing the sensations they will have. Help them. The trust will grow.

Positive affective cues can help with all levels of instruction. An instructor can also use affective cues directly. For example, tell the senior to think of the most wonderful, peaceful, secure place he likes the best. Then have him recall that thought every time he enters the fall line. Come up with off-the-wall comparisons that make you laugh. Make connections that have emotionally charged content. The lesson will be more fun and your client will become more actively involved and learn.

The affective atmosphere of the lesson is created by the instructor. Not much learning will occur if the atmosphere is negative or discouraging. The instructor needs to be especially skillful in both the manner in which he delivers his instructions as well as their content. Being competent in understanding cause and effect and movement analysis alone is not enough. The key is being able to see what is the next step for the client that will improve their skiing. What can they be successful at performing next? What should they work on adding to their skiing next? What are they doing well now, that they can build on? Tell them what to move when to make the ski do what and why. There is no need to tell them what not to do. Show them good skiing. Set them up for success. People need encouragement. They perform better when you compliment them. Encourage them over and over again, genuinely, sincerely. Make the learning fun and encouraging. They will learn more and come back for more. Creating this positive, encouraging affective atmosphere is the single most important thing that an instructor can do.

Treat everyone with respect. Be sincere and honest in all your comments and encouragement. Have fun. Seniors are skiing because they enjoy it. They are taking lessons to increase that enjoyment. So go for it, enjoy those moments with them.

Physical Domain

- Possible Osteopenia (low bone mass)
- Possible reduced muscle mass
- Possible decreased cardiovascular reserve
- Possible increased sensitivity to the cold
- Possible increased sensitivity to the sun
- Possible neurological manifestation of aging on coordination and balance
- Possible vision impairment
- Possible hearing loss
- Possible physical limitations due to previous injuries
- Possibly none of the above
- However, a very wide range of physical strength and ability

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Application to teaching skiing: Seniors probably vary more than the average population when it comes to the physical domain. However, seniors who are skiing are a self-selected group and are a bit above average in their physical abilities. With seniors, spend time at the beginning of the lesson learning about any physical limitation that they may have and take these into consideration both when planning the lesson and during the lesson. Create lesson designs specific for seniors by being careful with the **lesson pacing** and **terrain selection**, focussing appropriate **terrain tactics** and adapting **techniques** that will help the group be successful and improve.

As with all people, be sure to advise seniors of the **mountain environment**; i.e. the exposure to the sun, the wind, the cold and the need from skin protection, eye protection and proper clothing. Seniors usually do better in goggles and sunglasses that are not as dark. Older eyes do not usually adjust as rapidly to changing light and often require more light to see clearly. Toe warmers and hand warmers are usually very appreciated as circulation may not be what it used to be. Some of the “new”, high tech clothing is wonderful.

Pacing is very important. You might need to stop more frequently and take a bit longer breaks to enjoy the scenery and find the restrooms. Remind your people to breathe. It is amazing how many people ski without breathing.

Terrain selection is critical. It's important to consider snow conditions when selecting terrain. Sometimes a blue run can be a green run and sometimes a green run can be a blue run. Application of appropriate **terrain tactics** is also crucial. It is important to understand how to choose what line to ski, exactly where to put your feet on the snow to use the terrain efficiently and effectively. For seniors, it's important to be able to read the snow and decide exactly where to turn. This is especially true when on terrain that is a bit more difficult for them. Many times, I've taken my senior clients down through some bumps to have them exclaim that it was so easy - only because I had them stay in my tracks, making nice round turns on the flatter places, staying out of the troughs, smoothing out the line while I set the speed, keeping it constant and moderate.

In selecting terrain, also consider what other types of skiers will be on that terrain and how crowded it will be. An area crowded with young snow boarders or ski racers will not promote good learning or a good experience. An area that is noisy will be distracting and may make it harder for those skiing with hearing loss. On a poor visibility day, it is especially important to choose runs that are either below the fog or that at least have many trees or other markers for orientation. Poll your clients as to their preferred terrain and ask why. I cannot overemphasize the importance of terrain selection and tactical use of that terrain for your senior clients.

Technique is important. Following are the main technical elements for seniors.

1. The main focus of senior technique is **low impact**. This means more skidding and a little less carving, however, the turn shape is still important. Aim for nice round “scarved” turns.
2. A **balanced** fore/aft stance is paramount. A tall, stacked stance is much easier on the knees, legs and back. Standing over the

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- feet, stacking the bones for support instead of using the thighs. The more vertical the thighs are, the less they will fatigue.
3. More **two-footed** with less “foot to foot” weight shifting, as the conditions and turn forces allow, tracking both skis without “stepping”. This is especially true using shaped skis.
 4. **Banking**, total body inclination is acceptable, especially to accommodate knee injuries and weak thighs.
 5. Movement patterns are forward and diagonal (**for/agonal**) movement into the new turn, rather than up and back to initiate the turn.
 5. **Pole** usage techniques are appropriate to “modern” skiing. Replace the ‘older’, harder, abrupt, pole plant on edge set with a ‘modern’, light, pole touch on edge release that encourages forward and diagonal (for/agonal) movement into the turn. This ‘newer’ pole usage also promotes rhythm and flow down the hill with less work than the previous, abrupt, hard, braking pole plant.
 6. Balancing and **blending the skills** smoothly is a goal. Continual **smooth and flowing** movement with no static positions to hold (no parking and riding) also makes skiing much easier as well as less tiring. It’s a dance.

Physical conditioning exercises are also valuable for the senior skier. Following are some guidelines and suggestions:

1. Conditioning must be low impact and should be fun. Be careful of plyometrics.
2. Check with a doctor before beginning. Consulting with a physical trainer is also helpful.
3. Start easy and build up. Stay faithful and continue.
4. Spinning on a bike is great, but the road is more effective.
5. Don’t over train. Alternate training days with rest days.
6. Weight training is still one of the best types of training for skiers and seniors. Low weights with high reps.
7. Classic exercises include: 1/2 squats, drive ups, lunges, push ups, crunches
8. Don’t forget to stretch.

Spiritual Domain

While there are many diverse spiritual beliefs, these beliefs play a more important role in the life styles and decisions that seniors make. Suffice it to say, that being sensitive and accommodating of the spiritual domain is very very important with the senior skier.

Application to teaching skiing: Take time to smell the roses; i.e. take time to stop, look out over the snow covered mountain scene, watch the chipmunk scurry across the trail, investigate the small tracks coming out of the trees, marvel at the snow crystals on the fence, inhale the magic becoming rejuvenated and refreshed.

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SECTION 4. EQUIPMENT CONSIDERATIONS FOR THE SENIOR SKIER

Skis: For skis, short. Length should be no longer than 175 cm for men and between 145 and 160 cm for women. Narrower waisted skis are easier to turn on the groomed snow. Slightly wider waists are better in crud and off piste. The waist will depend on the terrain and personal preferences of the senior. A mid-fat 72-78 mm waist is often a good compromise. It's recommended to stay away from the radical side-cut slalom skis. A 16/17 meter radius is kinder. Softer flex and torsion are also easier for lower impact, less dynamic turns. Seniors, as well as everyone else, should always demo skis before they buy and choose ones to match their strength, ability, speed and terrain preferences. Maintaining their skis is also important. The more technical the ski and the harder the snow, the more critical the tune.

Boots: So often seniors have large slippers for boots. This makes it so much more difficult to perform. Properly fitting boots are a must. Boots are the most important piece of equipment. Custom is important for the senior who skis more frequently.

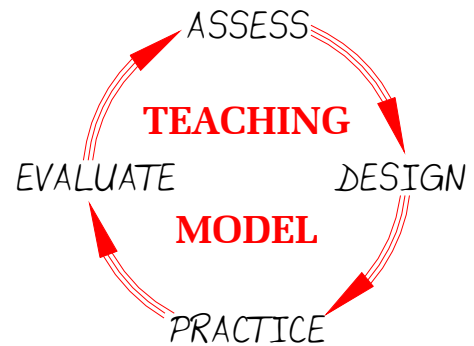
1. The shells should be small enough. There is a tendency to purchase too big shells. Shell size the boot. Take the liner out, place your foot into the shell with your toes lightly touching the end of the boot when you are standing. There should be about 1-1/2 to 2 fingers or space between your heel and the shell. With the liner in, your toes should lightly touch and the fit should be very snug. Too big a boot will hurt your feet and making control of the skis difficult. One pair of thin to medium socks is all that should be worn.
2. The forward flex should be soft enough so that the senior can flex his ankles, but laterally the boot needs to be stiff to support a more carved or scarved turn.
3. The ramp angle should be low, allowing for a more upright cuff so the senior can maintain a taller, stacked stance.
4. Lateral canting is more critical with the shaped skis. Over and under canting is hard on the knees.
5. The liners should be comfortable, but snug and the foot bed providing the proper support. There are some great, after-market, stock foot beds. However, custom foot beds and custom liners are usually the best way to get a comfortable and functional boot.

Poles: Poles need to be long enough to allow the senior to stand upright when planting. Short poles cause the user to have to bend too low to be able to touch the pole to the snow. Either they lead to the more tiring, knee hurting, squat stance where the skier is in the back seat; or they lead to sore backs from the user always having to bend at the waist to be able to touch the pole to the snow.

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SECTION 5. SIMPLIFIED TEACHING MODEL

Teaching seniors utilizes the same teaching model as any other age group: Assess, Design, Practice, Evaluate and start the cycle again. This model is simple and effective. Specific skiing techniques, tactics, drills are covered in the on-snow portion of this handbook. Following is a brief discussion of the teaching model highlighting key points that are helpful in working with seniors.



Assessment: Assessment begins the first time you watch your new clients walk towards the meeting place. Be observant of how they move, how quickly and comfortably do they move. What are they wearing? What is their equipment like? Continue your assessment when you greet them asking about their ski history as well as their personal history and lives. Find out if there are any physical conditions you need to be aware of; why are they taking the lesson or clinic; what are their goals, what do they want to learn or change. Offer a few stretching exercising and then take your warm-up run.

(Many senior programs are now beginning by meeting indoors, often times with some food such as breakfast or coffee and donuts.)

Lesson Design: Ski behind the group as well as leading during the first run or two. Assess their skiing levels/abilities. Combine this data along with the information you learned during your initial discussion to design your lesson: What you need to start working on first; What are you going to do (drills, tasks, information, etc.); Where you want to go; How fast do you want to ski.

Lesson Practice: Do it. Ski more and talk little. Single focus. Present, Demonstrate, Practice, ski. Break new learning down into small, simple, concrete, do-able tasks. Practice, ski. Have fun. Adjust the pacing. Practice, ski. Select proper terrain. Control any “fear factors.” Practice, ski. Practice, ski. Ski, ski, ski. Smile. Ski. Ski. Ski.

Lesson Evaluation: Monitor progress. Continue assessment. Make changes immediately if necessary. Create successes. Build on strengths.

Re-cycle: Do it all again: Assess, Design, Practice, Evaluate. Safety, Fun Learning!

CLASSIFYING/GROUPING SENIORS

Rusty Crook has developed a framework that groups seniors into four specific categories: Senior Rippers, Senior Explorers, Senior Cruisers and Senior Rookies. Senior Rippers go fast and ski lots of terrain. Senior Explorers are not quite as bold as the Rippers, but still like to ski a wide variety of terrain. Senior Cruisers love to carve up groomed terrain. Senior Rookies are beginning skiers. Presenting these categories to your senior groups and allowing them to discuss and self-select is a very efficient way of dividing large groups as well as helpful in developing a lesson plan for a smaller group.

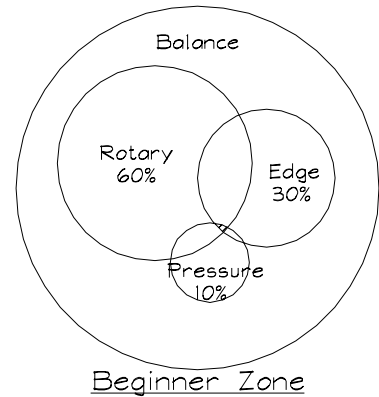
However, for the purposes of discussing lesson content, it is still helpful to divide skiers into three basic skill groups; Beginner Zone, Intermediate Zone and Advanced

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Zone. Following are some basic recommendations for these zones. More detailed techniques and tasks are found in the skiing tasks section of this manual.

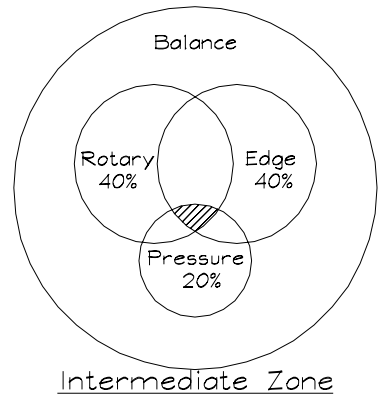
Beginner Zone Overview:

- Spend more time focussing on gliding and not hiking uphill. Lift assistance is paramount. Seniors tire more easily than teenagers....
- More scooter, push-off/skating
- Basic drills:
 - Edge boot exercise
 - One-footed scooter
 - Bull fighter circle step turn
 - Straight running
 - Straight running with flexing and extending
 - Step/fan to change direction or stop from a straight run.
 - Wedge turns, focus on steering of both skis
 - Round wedge turns to a stop
 - Two-footed side slip compared to one-footed side slip of wedge
 - Forward side slip
 - Turn uphill into forward side slip and then more edge to a stop
 - Round turn shapes for speed control



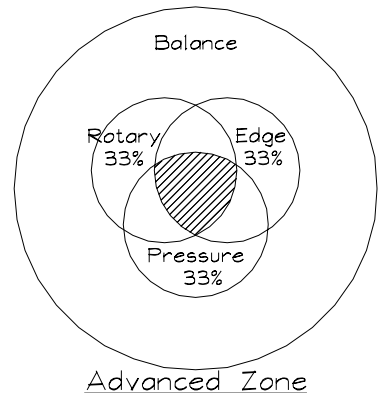
Intermediate Zone Overview:

- Basic drills focusing on direction change / gliding
 - Traversing with side slipping with focus on edging and rotary
 - Fan approach of wedge christies and parallel christies (round turns)
 - Diagonal forward side slips
 - Falling leaf side slips
 - Side slip uphill foot, big-toe/arch weight shift - commitment turn drill
 - Introduction to pole use
 - Linked hockey slips
 - Patience turns
 - Open parallel
 - More dynamic parallel
 - Scarved turns with round shape for speed control



Advanced Zone Overview:

- Turn shape focus with edge control for a variety of terrain and conditions (Scarving)
- Basic drills:
 - Short Radius round turns
 - Medium Radius round turns
 - Long Radius round turns



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Gates/NASTAR

Off-piste

Deep snow

Wind slab snow

Wet heavy snow

Bumps

- Enrichment through Classic to Modern Connection:

(Note: Skiing history and the demonstration of the following techniques can also be used in the Beginner and Intermediate Zones.)

1908-1920's: Arlberg Technique

1940: Emile Allais powerful parallel

1948: Emile Allais horse kick

1952: Stein Erikson reverse shoulder

1955: Classic counter rotation, Austrian

Mid 1950's: Wedeln

Mid 1960's: Christie legere/Projection Circulaire

Late 1960's-1970's: Avalment, classic French compression/extension, Jean Claude Killy

Late 1960's-1980's: Joubert's rotary push-off, braquage

Late 1970's-mid 1980's: Anticipation, Italian

1973-1989: Stenmark, Mahre combination of counter rotation with rounder carved turns

1979: PSIA open stance and step turns

Mid 1980's: Super Parallel, French with open stance

Late 1980's: Modern counter rotation, compression/extension by Austrians

Mid 1990's: Modern carved with shaped skis

SECTION 6. DEVELOPING A LOCAL SENIOR SKI GROUP/CLUB

“Silver” ski clinics, “Over The Hill” groups for the wise, more experienced skier are growing. Following are some pointers and ideas for starting one in your area.

Introducing a new program requires either additional resources or a reorganization of your existing resources. You will need allocate both time and monies for production of advertising and promotional materials, bookkeeping of program events, participants, payments, allocation of space for meeting places, staffing and training of instructors, supervision and future planning etc.

Program Offerings: One of the first decisions to be made will be **what** you are going to offer and **when** you are going to offer it. Generally, the main purpose of a senior program is to provide a venue for seniors to meet and ski with others of their own generation. Therefore, the content of senior programs needs to be organized with that in mind.

Successful programs have found that regular timing is a key. For example, every Thursday at 8:30 for breakfast with the 2 hour clinic starting at 9:30. Or every Monday,

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Wednesday and Friday, etc. However, consistency is the key, with the morning being the best time to meet.

Some programs also offer a travel event, where the group visits a nearby ski area.

Some programs add in some special education opportunities about topics such as “Equipment”, “New versus Old Techniques”, “Clothing”, “Boot Fitting”

Some programs add in some special clinics on certain topic such as “Bumps”, “Gates”, “Powder”, etc.

Some programs offer 3-day Senior Ski Camps, etc.

Some programs offer other social events that continue during the off-season months, such as pot-lucks.

Location: The meeting place also needs to be consistent. Many programs meet indoors with some food such as breakfast or coffee and donuts. You might want to designate a special “senior” corner or meeting place in your lodge. Some areas offer overnight ski storage and even a “club” house. Wherever the meeting place is, it is important to have a welcoming environment.

Cost: One of the next decisions to be made will be the cost of the senior clinics or classes. Some successful senior programs began as “Free” senior ski clinics. Others have begun with reduced pricing. Many times seniors on limited incomes are very selective about what they will spend their monies on, but they do have monies to spend. So offering a “test” drive for free or a reduced price can be a successful way of initially growing a program. However, not all ski areas will have such “seed” money to spend to develop a senior program.

Promotion/Advertising: If your area has some nearby retirement communities or subdivisions, you can directly advertise your program by the mail or flyers in those communities. You can use the radio, internet, direct mail or whatever media your area usually uses. If your ski area sends out mail to it’s season pass holders, you can include a flyer or registration form in that mailing.

Following is an example of a registration form used for the Tahoe Donner Senior Program:

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PLEASE CHECK ALL THE ITEMS THAT MOTIVATED YOU TO ENROLL IN OUR SENIOR PROGRAM:

- Wanted to learn modern skiing techniques
- Desired to improve skiing skills
- Was having difficulty skiing advanced terrain
- Things, "Just aren't working right and I don't know why."
- Wanted a social outing
- Wanted to relieve boredom

WHAT ARE YOUR GOALS RELATIVE TO YOUR SKIING THIS SEASON?

HAVE YOU EVER TAKEN A LESSON OR ENROLLED IN A SKI PROGRAM BEFORE?

DO YOU PARTICIPATE IN ANY AEROBIC AND/OR STRENGTH BUILDING EXERCISE PROGRAMS?

IF YES, HOW MANY TIMES PER WEEK?

PLEASE RATE YOUR PRESENT PHYSICAL CONDITION:

GREAT (5) - ABOVE AVERAGE (4) - AVERAGE (3) - BELOW AVERAGE (2) - POOR (1)

- Physical strength
- Endurance (ability to ski long runs without a stop)
- Relax/reaction timing
- Visual accuracy
- Balance when moving
- Lung power (breathing capabilities)
- Overall hearing accuracy Left Right

PLEASE CHECK WHAT YOU WOULD CONSIDER TO BE YOUR PEER GROUP?

50-55 56-60 61-65 66-70 71-75 OVER 76

PLEASE CHECK, ON AVERAGE, HOW MANY DAYS DO YOU SKI PER YEAR?

5-10 11-15 16-20 21-25 26-30 OVER 31

PLEASE RANK FROM 1-5, (1 BEING MOST PREFERRED, 5 LEAST PREFERRED) WHICH MID-WEEK DAY THAT WOULD BE THE MOST CONVENIENT FOR YOU TO PARTICIPATE?

MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY

THANK YOU, AND WE LOOK FORWARD TO SEEING YOU THIS SEASON!

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PART III WORKBOOK/STUDY GUIDE

Note: Pages are listed where answers can be found.

1. What are the basic principles that apply to all good ski instruction. (page 2)

2. What 2 areas need to be especially delicately balanced in teaching seniors. Why? (page 2)

3. Are senior clients any different? Briefly explain. (page 2 and others)

4. Why are competence and confidence important in teaching seniors? (page 2)

5. How would developing a program for seniors help business at your ski area? (page 3)

6. Would senior programs help PSIA membership? Explain. (page 3)

7. List some reasons seniors are still skiing. (page 3)

8. Is the senior skiing population more or less diverse than the younger skiing population? Explain. (page 3, 4)

9. How might you use the personal history of your clients in your lesson? (page 3, 4 and others)

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10. Describe some cognitive domain characteristics of seniors. (page 4, 5)

11. For your teaching, what of the cognitive domain characteristics do you think are most important to understand and why. (page 4, 5)

12. Describe some affective domain characteristics of seniors. (page 5, 6)

13. For your teaching, what of the affective domain characteristics do you think are most important to understand and why. (page 5, 6)

14. Describe some possible physical domain characteristics of seniors. (page 6)

15. Prior to leaving the meeting area with your seniors, what physical issues will you check. How will you do this? (page 6 - 8)

16. How will check if your pacing is correct? (page 6 - 8)

17. Why is terrain selection important? (page 6 - 8)

18. What will you consider when you choose where to go? (page 6 - 8)

19. What will you do and say to teach tactical choices: i.e. where to put your feet on the terrain (page 6 - 8)

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20. Describe “low impact” skiing (page 6 - 8)

21. Describe what you tell/show a person in the “back seat” to get them more forward and balanced over their feet. (page 6 - 8)

22. What is meant by “two-footed”? (page 6 - 8)

23. Is banking bad? Why or why not? (page 6 - 8)

24. What is appropriate pole usage? (page 6 - 8)

25. Describe skill blending and why it is an important concept. (page 6 - 8)

26. What advise on physical conditioning will you give your seniors? (page 8)

27. How will you involve the spiritual domain in your lessons? (page 8)

28. Generally, describe ski, boot, and pole recommendations for seniors and say why you would recommend that. (page 9)

29. What is your teaching model? (page 10, 11)

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30. How, when and where do you conduct your assessment? What are you looking for? Why?
(page 10 - 13) _____

31. If your lesson plan isn't working, when do you change it? Why and how? (page 10 - 13)

32. Briefly discuss balance in relation to the senior skier.

33. Briefly discuss rotary movements in relation to the senior skier.

34. Briefly discuss edging movements in relation to the senior skier.

35. Briefly discuss pressure control movements in relation to the senior skier.

36. Briefly discuss pole usage movements in relation to the senior skier.

37. What are Rusty Crooks four categories of senior skiers? (page 10)

38. With first time senior skiers, how soon do you introduce the use of the lifts and why?
(page 11) _____

39. What are some exercises for the beginner zone? (page 11)

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40. Classify some intermediate zone exercises in the categories of balance, edge, pressure and rotary. (page 11)

41. What is your primary focus for advanced senior skiers? Why? (page 11, 12)

42. Summarize your key points for adapting skiing technique to seniors.

43. Summarize your key points for adapting the teaching model to seniors.

44. Consider your local area. List some ideas that you would like to suggest to help develop a senior program there.

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PART IV TEACHING PORTFOLIO

Portfolio entries allow you to track your teaching and provide a tool for you to discuss your lessons with trainers.

Look at the sample portfolio below. Be brief but thorough in your lesson review. Your portfolio should:

- Relate your lesson review to guest goals and expectations.
- Be descriptive enough to be understandable by your trainer.
- Be reviewed in a timely fashion to make your discussion with your trainer more valuable.
- Make additional copies of the Portfolio Sheet as needed.

Sample Teaching Portfolio Entry

Date	Number of Guests	Age Group	Experience Zone	Hours
3/12/08	6	55-60	Intermediate	2
Guest goals/expectations/needs: <i>They wanted to go ski off piste, were a bit intimidated, but really wanted to socialize too.</i>				
Your lesson review: <i>This was a group of seniors who had limited experience off piste, but who were fairly experienced and strong skiers. We started skiing a couple of groomed runs to warm up. We focused on using turn shape for speed control. We then went to an easy off piste run and experimented with varying turn shapes. However, we also played with varying our edge angles to cut through the crud. Our focus then changed to terrain tactics - where to turn on the slope considering all the minor, but important variations in the terrain. The group became more confident and want to try steeper terrain tomorrow.</i>				
Trainer Signature:				

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Date	Number of Guests	Age Group	Experience Zone	Hours
Guest goals/expectations/needs:				
Your lesson review:				
Trainer Signature:				

Date	Number of Guests	Age Group	Experience Zone	Hours
Guest goals/expectations/needs:				
Your lesson review:				
Trainer Signature:				

Date	Number of Guests	Age Group	Experience Zone	Hours
Guest goals/expectations/needs:				
Your lesson review:				
Trainer Signature:				

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PART V SENIOR SPECIALIST I - ON-SNOW CLINIC REQUIRED SKIING TASKS

SECTION 5.1 FIRST-TIMERS PRIOR TO STRAIGHT RUN

Play with them. Meet indoors if possible. Go over boots, equipment indoors.

For first-timers, introduce new skiing-specific motions:

1. Rotating foot/shin/thigh in an arc (steering);
2. Edging movements of rolling foot along axis of foot, then adding in shin movements;
3. Cuff of boot/shin pressure and awareness - normally when encounter resistance, we naturally yield, however, need to learn to push and drive, pressing shin into tongue of boot at times.

Sequence of First-Timer Lesson

1. Introduce ski, sidecut, bindings, brakes, edges. Put ski on ground and push the ski sideways while it is flat and then show trying to push it sideways when it is edged. Discuss edges and how slow/stop is direction ski is pointed in and how much edge it has. Note: Always have seniors keep their poles.
2. In boots, walk discussing edges of boots, foot/leg rotation, fore/aft-lateral pressure on boot cuff.
3. Side step uphill, herringbone uphill, rotate feet/legs into a wedge, rock back/forwards, side to side discuss awareness of boot cuff pressure as do all these motions. Don't do too much of this so do not tire them out. (Use lifts as soon as possible.)
4. Scoot on one ski - straight, push and glide, paddle turns, play with rolling to edge, moving skis sideways with varying edge angles. Make them play with the ski on their foot. Youth will usually automatically play with their new toy, the seniors usually don't, so need to encourage them. Change feet and same on other foot.
5. Warn that when first put on 2 skis, will feel like cannot move their feet, that they are locked. Have students start stepping, shuffling, moving feet independently as soon as click into both bindings. Start stepping skis around in a star/circle, both directions. Discuss how always moving, never static, never holding a position. Discuss flexion/extension is always continual. Discuss ACL safety and how to fall - how to crumble, not try to break it with hands and if going backwards, to simply sit down and not hold self up with thighs potentially injuring ACL. Discuss how to get up after fall - removing one or both skis or, if strong enough, simply pushing and standing.

General Teaching Note:

- Building learning relationship is founded on building trust with student. Early in lesson, describe to student what they are going to feel before they do something, so they will gain confidence that you really do know something. For example, with first-timers, as scooting around on one ski, tell them that when they first put on both skis, they will feel like they cannot move their feet, that their feet are glued to the ground. So, tell them that as soon as they put on their second ski, to begin to move foot to foot, walk, etc. Warn that as they begin to slide, they will again feel "locked" and "frozen", but to remember that they can always move and that they should never remain static, in one position.

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SECTION 5.2 REQUIRED SKIING TASKS: STRAIGHT RUN

Skill Focus: Balance

Criteria for Accreditation:

1. Task on green terrain with some undulation.
2. Perform two ways: 1. Both feet equally weighted; 2. Alternating lifting one foot and then other foot (no hop).
3. Proficiency Requirements:
 - Focus on fore/aft and lateral balance.
 - Key markers are ankle flex with shin bone angle and torso angle approximately the same.
 - Standing over whole foot, not ball of foot.
 - Elbows in front of torso, hands wider than elbows.
 - Skis leave two, straight, clean lines in the snow.

Use of Task: Progressions/Drills/Exercises

- Straight run can take many forms, it's a balance drill.
- Do straight run foot to foot, over changes/rolls in terrain, flexion and extension, up to a fast straight run on steeper terrain.
- Pick a target and aim for it.
- There is a myriad of drills and exercises to make a straight run very comfortable.
- Straight run not necessarily for beginners only.

Teaching Approaches - Tactics, Terrain, Verbiage

- Important for students to be comfortable in a straight run.
- Focus is learning to ride the ski, to go with it.
- In beginning, learn how to ride, as advance learn how to pilot it.
- Can be used to get students out of their assumed "skiing posture", developing a balanced, ready stance, making them comfortable on their skis.

General Teaching Note:

- Canting is very important in the ease with which the skier can make their skis track straight.

SECTION 5.3 REQUIRED SKIING TASKS: GLIDING WEDGE

Skill Focus: Balance, Rotary

Criteria for Accreditation:

1. Task on green terrain with some undulation.
2. Proficiency Requirements:
 - Focus on fore/aft and lateral balance, feet rotated equally out from center.
 - Key markers are ankle flex with shin bone angle and torso angle approximately the same.
 - Standing over whole foot, not ball of foot.
 - Elbows in front of torso, hands wider than elbows.
 - Tips of skis approximated 3"-5" apart, approximately 30 degrees (tails about half length of ski apart).
 - Track skidded and straight.

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Use of Task: Progressions/Drills/Exercises

- Wedge change-up, over undulating terrain, flex/extension exercises.
- Repeat until extremely comfortable, and then repeat some more.
- Magic carpets are a real key to success, not hiking up hill - so do not fatigue.
- (If possible, not a rope tow or a chair lift - too difficult for the first-timer.)

Teaching Approaches - Tactics, Terrain, Verbiage

- Straight wedge is first introduction of leg/foot/ski rotation.
- Main point is to flex in-line, so knee flexes towards ski tip, not knock-kneed or bow-legged.
- Talk about effective angles of support.
- Reason use wedge is control and safety issue for seniors.
- Control comes from learning how to ride and glide, not brake.
- Do not teach as a method of stopping. (Teach stopping by stepping or turning until skis point across the hill on an edge to keep from sliding downhill.)
- Varying size of wedge can help teach rotary movements.

Senior Specific Concept Notes:

- Gliding wedge begins more edging awareness.
- Start practicing range of motion in edging skis from relatively flat, skidding to hard edge.
- Important to be able to glide, not brake.

General Teaching Note:

- Skills basis directs how you analyze and understand the movement patterns of a particular task and then how you apply this to teaching and/or performing that task. The skills concept effects how and what you choose to teach/communicate when teaching. For example, in a gliding wedge, the student is either going too fast or too slow due to their edge angles. You might first ask them to vary the amount of edge angle of their skis. If they cannot do this, then you will need to go into more detailed instruction on "how" to vary their edge angles. You may describe which body part to move in what direction to increase or decrease their edge angles; i.e. look at your ski, now roll it to the outside/inside by moving your shin/knee/thigh to the outside/inside. This is an example of analysis and instruction based on the skills approach.

SECTION 5.4 REQUIRED SKIING TASKS: PADDLE TURNS

Skill Focus: Balance, Rotary, Edge

Criteria for Accreditation:

1. Task on green terrain, with a little bit of counterslope.
2. Relative to terrain, start from traverse or straight run, step uphill, push off as step uphill to a stop.
3. Proficiency Requirements:
 - Visible flexion/extension as step with accurate edge engagement, hands move just like when you walk.
 - Stay in balance.

Use of Task: Progressions/Drills/Exercises

- Can use paddle turns in fan progression where becomes more aggressive.
- Can be progressed as a skate - or backwards.

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Teaching Approaches - Tactics, Terrain, Verbiage

- This brings up the concept of weight shift, similar when foot to foot in a straight run, but now changing direction. Now it's a directed step.
- It's an offensive movement, because they are propelling themselves and they are moving themselves to a place of security where they stop.
- They have to balance over one foot and then the other.

Senior Specific Concept Notes:

- Concept: Downhill is fast and death, safe and stop and slow is across the hill and a bit more edge.
- It is direction they point their skis and how much edge angle they have that will control speed and stop them.
- They do not stop by using a braking wedge, but by turning across the hill.

SECTION 5.5 REQUIRED SKIING TASKS: WEDGE TURNS

Skill Focus: Balance, Rotary, Edge

Criteria for Accreditation:

1. Task on green terrain.
2. Perform linked wedge turns, with no traverse.
3. Proficiency Requirements:
 - Inside ski slightly advanced prior to fall line, both shins and knees go in direction of turn, focus on lower body guidance and steering of legs and feet.
 - Upper body stabilized, zipper aimed at apex of turn, shoulders relatively level, elbows in front of torso, hands wider than elbows.
 - Show physical flexion/extension throughout turn, never static.
 - Wedge remains same size throughout turn.
 - Distance of turn across the fall line is the same as down the hill.
 - Flexion/extension matches shape of turn.
 - Turn to both sides symmetrically.
 - Speed should be constant.

Use of Task: Progressions/Drills/Exercises

- Use a one turn then fan approach before link turns; fan one way and then the other way.
- Use a little bit of undulation, easier to change direction on convex and belly out on concave. These undulations can be very slight - few inches.
- Start by making only one turn across the hill to a stop. Then turn the other way to a stop.
- Then link the turns with slowing down between turns and almost stopping.
- Have them follow you as you choose the spots to turn that will make their first turns easier.
- Shape turn around cones, see diagram.
- Rhythm of flexion/extension critical, so can count when make turns, use sounds.
- Variety of turn shapes, sizes, speed.
- Lots and lots of turns, mileage.
- Encourage them to play with the turns, and experiment with different movements, balancing points, edge angles, amounts of rotary, etc.

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Teaching Approaches - Tactics, Terrain, Verbiage

- Key; wedge turning is first introduction of turning both skis in the same direction.
- To teach turning, it's best to not first begin by standing still, talking and dissecting and explaining "how" to turn. Rather, you can guide them into learning to turn by asking them to "come here", to "go there" (or "don't go there") etc. Then observe them as they attempt to change their direction. After observing them, then only tell them what you need to get them to accomplish the task.
- Don't overload them mentally with a lengthy explanation because too much new information, means not much understanding and produces confusion and fear.
- *** As they learn to turn, changing the shape and size starts to bring in the pressure control aspect.
- *** Wedge turn is foundation, so lots of mileage. Don't short change them at this level.
- *** Begin to teach terrain tactics - how to choose where they are turning, read the terrain/undulations and also the snow conditions.
- Teach them to recognize the snow conditions by sight.
- Teach awareness of the sound of their skis.
- *** Learning something new physically first requires watching their body as they make it move in the new manner. Allow self-observation (i.e. looking at their feet and skis) until learn the basic movement patterns, then encourage them to look ahead as they learn to read the terrain and the snow.

Senior Specific Concept Notes:

- Concept: The way to stop is to turn to a stop, not by braking wedge.
- New skiers will be learning about their edges. At this stage, some start to develop a safety zone in locking onto their edges to guide their direction changes. Need to make sure that they continue to play with the full range of edge angles from skidding to a hard edge.
- If start with a beginner skier who has already developed the habit of only using a hard edge, need to get them skidding and feathering their edges - it's usually a fear issue.
- Concept: Always moving, never static, always flexing or extending. Discuss how this helps them to balance and adjust to the unforeseen, it's safety issue.
- Seniors will be more apt to listen to safety issues. Explain why correct movements the "safe" way as well as how they are also the "easy" way.

General Teaching Note:

- Make gravity friend, learn to use it, control momentum by shaping turn.

SECTION 5.6 REQUIRED SKIING TASKS: SPONTANEOUS WEDGE CHRISTIES

Skill Focus: Rotary, Edge, Pressure, Balance

Criteria for Accreditation:

1. Task on green terrain or mild blue terrain.
2. Perform linked wedge christie turns with no traverse.
3. Proficiency Requirements:
 - Critical movement for turn entry from parallel skis, is that as actively guide and steer both skis toward new turn, the front half of both skis go downhill,

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while the back half of the outside ski goes to the outside of the turn creating the wedge.

- Both shins and knees go in direction of turn, focus on lower body guidance and steering.
- Upper body stabilized, zipper aimed at apex of turn, shoulders relatively level, elbows in front of torso, hands wider than elbows.
- Show physical flexion/extension throughout turn, never static.
- Edges/skis match after cross fall line prior to commencing new turn.
- Distance of turn across the fall line is the same as down the hill.
- Flexion/extension matches shape of turn.
- Turn to both sides symmetrically.
- Speed should be constant.

Use of Task: Progressions/Drills/Exercises

- Use a fan progression, turning the top, skidding the bottom.
- Use a small bump, “hump”, to open wedge on the hump and slide down the other side of hump.
- This is where mileage and shallow turn shape on gentle terrain, staying close to the fall line will produce spontaneous parallel turns.

Teaching Approaches - Tactics, Terrain, Verbiage

- Important for terrain choice and to keep wedge narrow. If keep the wedge narrower, so much easier to transition to parallel.
- Turn shape is also critical. Need to turn far enough up the hill in the christie phase to control their speed before they start the new turn, so don't need a big wedge.
- Emphasize that speed control is through turn shape, direction their skis are pointed, not through the size of the wedge.

General Teaching Note:

Make gravity friend, learn to use it, control momentum by shaping turn.

SECTION 5.7 REQUIRED SKIING TASKS: SIDE SLIP

Skill Focus: Balance, Edge

Criteria for Accreditation:

1. Task on steeper green terrain.
2. Slide down the hill in a straight line.
3. Proficiency Requirements:
 - In a comfortable, ready stance, lead change is minimal.
 - Zipper of torso aimed in direction going, shoulders relatively level.
 - Weight is pretty even on both feet.
 - Elbows in front of torso, hands wider than elbows.
 - Sideslip is in a straight line or relative to shape of hill.
 - See release of edges by tipping of shins.
 - Speed should be constant.

Use of Task: Progressions/Drills/Exercises

- Speed up and slow down sideslip in two ways; 1. more or less edge angle; 2. varying direction skis aiming, more downhill or more across hill.
- First introduce by side slipping a very short distance. Gradually increase length of

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side slip.

- Have students play with their balance. Vary fore/aft pressure to aim more downhill or across the hill.

Teaching Approaches - Tactics, Terrain, Verbiage

- Terrain should be comfortable, not intimidating.
- When fearful, students will tend to tighten up, to grip with their edges and assume a frozen, static position.
- Need to encourage to relax and stay supple.
- Many seniors are in the “back seat”. Much practice time with the side slipping drills will help them begin to learn how to stand balanced over their feet; i.e. relying on skeletal support instead of as much muscular support.

Senior Specific Concept Notes:

- Learning how to balance while moving and going slow, how to slide WITH the skis.
- Helps to center the stance.
- Learn to finesse edges.
- Learn to be supple with ankles, knees, hips.
- Upper body activity is critical to be aimed in the right direction.
- Learning how to sideslip and being comfortable side slipping is critical for low impact skiing especially when navigating more difficult terrain; i.e. safety.

SECTION 5.8 REQUIRED SKIING TASKS: DIAGONAL SIDE SLIP

Skill Focus: Balance, Edge

Criteria for Accreditation:

1. Task on steeper green terrain.
2. Slide forward and sideways (diagonally) across the hill.
3. Proficiency Requirements:
 - In a comfortable, ready stance, lead change is minimal.
 - Zipper of torso aimed in direction going, shoulders relatively level.
 - Weight is pretty even on both feet.
 - Elbows in front of torso, hands wider than elbows.
 - Sideslip is in a straight line or relative to shape of hill.
 - See release of edges by tipping of shins.
 - Speed should be constant.

Use of Task: Progressions/Drills/Exercises

- Speed up and slow down sideslip in two ways; 1. more or less edge angle; 2. varying direction skis aiming, more downhill or more across hill.
- Direction skis aiming due to both twisting, rotary control movements, and, in this drill, more importantly fore/aft pressure.
- Have students play with this balance. Vary fore/aft pressure to aim more downhill or across the hill.
- Diagonal sideslip backwards.

Teaching Approaches - Tactics, Terrain, Verbiage

- Terrain should be comfortable, not intimidating.
- When fearful, students will tend to tighten up, to grip with their edges and assume a frozen, static position.

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- Need to encourage to relax and stay supple.

Senior Specific Concept Notes:

- Learning how to balance while moving and going slow, how to slide WITH the skis.
- Helps to center the stance.
- Learn to finesse edges.
- Learn to be supple with ankles, knees, hips.
- Upper body activity is critical to be aimed in the right direction.
- Learning how to sideslip and being comfortable side slipping is critical for low impact skiing especially when navigating more difficult terrain; i.e. safety.

SECTION 5.9 REQUIRED SKIING TASKS: UPHILL CHRISTIE

Skill Focus: Rotary, Edge

Criteria for Accreditation:

1. Task on blue or green terrain, concave makes it easier.
2. Start traversing in neutral position, as you sink/flex, you tip and steer your skis up the hill to a stop.
3. Proficiency Requirements:
 - Actively steering both feet simultaneously on coinciding edges.
 - Their shin bones guiding direction of skis.
 - Upper body/zipper facing direction of travel and where apex of imagined new turn would be, shoulders relatively level.
 - The edges are feathered/skidded to an edge for the stop.

Use of Task: Progressions/Drills/Exercises

- Excellent exercise for teaching students to cross over a steeper section of terrain.
- As crossing hill, practice uphill christies, emphasizing feathering edges, skidding, direction skis are pointed and controlling speed.

Teaching Approaches - Tactics, Terrain, Verbiage

- Focus is on the bottom half of the turn.
- This is first time student actively tips both skis on coinciding edges as they are turning them.
- Use a fan progression
- Vary terrain for practice
- Excellent tool for beginner to master steeper terrain.
- Point how when terrain steeper, if make a wedge as traverse, then one ski is pointing down the hill in the “fast” direction. Show how safer to have both skis pointing across the hill in the “slow, stop” direction.

Senior Specific Concept Notes:

- Builds great confidence in their ability to control themselves, thereby reducing their fear. (However, if terrain is intimidating, stopping too much, may make more afraid because they would rather keep going and get over the steeper terrain sooner... so pay attention to the students attitude.)

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SECTION 5.10 REQUIRED SKIING TASKS: FALLING LEAF SIDE SLIP

Skill Focus: Balance, Edge

Criteria for Accreditation:

1. Task on both green and blue terrain.
2. Diagonal side slip forward, then shift weight back and diagonal side slip backwards.
3. Proficiency Requirements:
 - Need to remain in a side slip, not traverse with fishhook.
 - Key is sideslipping both directions.
 - Sideslip in a comfortable, ready stance, lead change is minimal.
 - Zipper of torso aimed in direction going forward, shoulders relatively level. Same line in back when going backwards.
 - Weight is pretty even on both feet.
 - Elbows in front of torso, hands wider than elbows.
 - Sideslip is in a straight line or relative to shape of hill.
 - See release of edges by tipping of shins.
 - Speed should be constant.

Use of Task: Progressions/Drills/Exercises

- Sideslip slower, faster, steeper angles.
- See diagonal side slip.

Teaching Approaches - Tactics, Terrain, Verbiage

- Terrain should be comfortable, not intimidating.
- This is really good to build balance and edging finesse, to make more comfortable on skis.
- Excellent to build confidence to help navigate steeper terrain under control in a low impact way - safety issue.

Senior Specific Concept Notes:

- Remind seniors to look behind them, or at least check behind before going backwards.
- This is a great for confidence building.

SECTION 5.11 REQUIRED SKIING TASKS: DOWNHILL SKI SIDE SLIP/UPHILL SKI SIDE SLIP

Skill Focus: Balance, Edge

Criteria for Accreditation:

1. Task on blue terrain.
2. Start with a diagonal side slip, transfer all weight to downhill/uphill ski, lifting up other ski and continue side slipping.
3. Proficiency Requirements:
 - In a comfortable, ready stance, lead change is minimal, lifted up ski is level.
 - Zipper of torso aimed in direction going, shoulders relatively level.
 - Elbows in front of torso, hands wider than elbows.
 - Sideslip is in a straight line or relative to shape of hill.
 - See release of edges by tipping of shins.
 - Speed should be constant.

Use of Task: Progressions/Drills/Exercises

- Sideslip slower, faster, steeper angles.
- See diagonal side slip.

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Teaching Approaches - Tactics, Terrain, Verbiage

- Terrain should be comfortable, not intimidating.
- Balancing, agility and edging drill, but do learn about pressure control too.
- These drills for turn entry.

Senior Specific Concept Notes:

- For seniors, modify so that they do not lift downhill ski off the snow, but leave it lightly on the snow as a training wheel or tracer.

SECTION 5.12 REQUIRED SKIING TASKS: TURNING SIDE SLIP/COMMITMENT EXERCISE

Skill Focus: Balance, Rotary, Edge

Criteria for Accreditation:

1. Task on blue terrain.
2. Start with a diagonal side slip, weight on uphill ski.
3. Put a little bit of pressure on the big toe/arch which causes ski to move towards the fall-line.
4. As it does, edge the ski progressively to an outside ski christie.
5. Proficiency Requirements:
 - In side slip, they need to show extension as they press on the big toe/arch.
 - As they roll forward, they need to swing to their pole, touching it at the top of their extension, with their hand going over top of pole.
 - Need show flexion as edge to make the outside ski christie.
 - Upper body stabilized, zipper aimed at apex of turn, shoulders relatively level, elbows in front of torso, hands wider than elbows.

Use of Task: Progressions/Drills/Exercises

- Terrain really helps this exercise.
- Pressuring the big toe/arch while on top of a slight roll, makes it much easier.
- Can teach tactical use of slight rolls and variations in terrain for choosing where to make turns.
- After do on each foot, now want to keep both feet on the snow, making turns with that early weight shift and edge change focus.
- As increase in the ability level of the skier, can use this drill as an introduction to bumps. See the bump discussion for use and application of this task.

Teaching Approaches - Tactics, Terrain, Verbiage

- This drill is a turn entry and commitment exercise.
- This drill focuses on early weight shift and early edge change which produces an ease in turn entry with greater control.
- This drill also assists in keeping the body perpendicular to the slope.
- The movement is forward and diagonal, into the new turn, which keeps the student moving WITH their skis, staying balanced over their feet. Their thighs are oriented toward and into the new turn. This prevents them from getting in the back seat which prevents their thighs from getting tired.
- This drill also helps to properly round out and shape the top of a turn and then promotes cutting and finishing of the turn at the bottom.

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Senior Specific Concept Notes:

- Late weight shift, late edge change, moving down and back, pivoting and pushing tails out, skiing in the back seat, can all be helped by this drill.

SECTION 5.13 REQUIRED SKIING TASKS: LINKED HOCKEY SLIPS

Skill Focus: Rotary, Edge, Pressure

Criteria for Accreditation:

1. Task on blue terrain.
2. Linked pivots in the fall-line with a side slip in between, using a pole swing and touch as pivot though the fall line.
3. Requirements:
 - Both skis must be pivoted simultaneously without stepping accompanied with a pole swing and touch at the top of the extension.
 - Extension/flexion needs to be visible.
 - Pivoting accompanies the extension movement.
 - The slipping is approximately 10-12 feet between turns.
 - The slips need to be not more than one ski length off the fall line.
 - Zipper of torso should aimed in intended direction of travel, shoulders relatively level.
 - Speed of descent should be constant.

Use of Task: Progressions/Drills/Exercises

- Terrain helps to first get the feel of pivoting both feet by standing on a little crown and twisting both feet.
- Can use a fan approach first doing one side and then the other before link.
- Easier done on a little bit of pitch - upper green to lower blue.

Teaching Approaches - Tactics, Terrain, Verbiage

- The main reason to teach this is to learn to steer both skis together.
- If in the right situation, they can control their speed with this maneuver.
- It enhances balance and fitness of the pressure control, as well as edging skills.
- This allows a person to ski the hill in slow motion and work on their timing movements.

Senior Specific Concept Notes:

- Advise seniors to be careful to not plant pole too soon (or at all) and slide into it, and then fall downhill.

SECTION 5.14 REQUIRED SKIING TASKS: OPEN PARALLEL

Skill Focus: Skill Blend

Criteria for Accreditation:

1. Task on blue terrain.
2. Rhythmical linked parallel turns, open stance, with a pole swing.
3. Performance Requirements:
 - Balanced, open stance (not wider than hips) with minimal lead change.
 - Zipper of torso aimed in direction of travel.
 - Elbows in front of torso, hands wider than elbows.
 - As extend into turn, tipping skis on edge, thighs move toward the new turn. Ankles and shin bone rotate guiding skis through turn.

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- Skis remain parallel.
- Pole swing/touch timed with top of extension, prior to entering fall line, accompanying the edge change and weight shift.
- Flexion and extension matches shape of turn.
- Turn same distance down the fall line that across the hill.
- No traverse between turns.
- Speed of descent should be constant.

Use of Task: Progressions/Drills/Exercises

- Open parallel turns can be spontaneous if make wedge or wedge christie turns shallow, close to the fall line at a faster speed.
- Play with turn shape completing the turns by turning uphill so much until almost stop.
- Play with how making different sounds while turning will effect the shape of the turn.
- Practice making sharp turns with harsh sounds like “krsst” and round smooth turns with sounds like zoom.

Teaching Approaches - Tactics, Terrain, Verbiage

- Students should be introduced to parallel turns only on terrain that they consider easy, flat and safe - where they will have not believe that they need a wedge for speed control.

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PART VI SENIOR SPECIALIST II - ON-SNOW CLINIC REQUIRED SKIING TASKS

SECTION 6.1 REQUIRED SKIING TASKS: ADVANCED FALLING LEAF

Skill Focus: Balance, Edge, Rotary

Criteria for Accreditation:

1. Task on groomed green or easy blue terrain.
2. Forward diagonal side slip, then 180 degree spin, then backward diagonal side slip, then forward diagonal side slip, 180 degree spin, repeat.
3. Proficiency Requirements:
 - In a comfortable, ready stance, lead change is minimal.
 - Zipper of torso aimed in direction going, shoulders relatively level.
 - Weight is pretty even on both feet.
 - Elbows in front of torso, hands wider than elbows.
 - Sideslip is in a straight line or relative to shape of hill.
 - Spin is on flat ski and is a spin, not a turn

Use of Task: Progressions/Drills/Exercises

- Speed up and slow down sideslip in two ways; 1. more or less edge angle; 2. varying direction skis aiming, more downhill or more across hill.
- Shorten and lengthen the corridor for the falling leaf.
- Play with spinning in different directions; i.e. both uphill and downhill.

Teaching Approaches - Tactics, Terrain, Verbiage

- Terrain should be comfortable, not intimidating.
- Need to encourage to relax and stay supple.

Senior Specific Concept Notes:

- Learning how to balance while moving and going slow, how to slide WITH the skis.
- Helps to center the stance.
- Learn to finesse edges.
- Learn to be supple with ankles, knees, hips.
- Upper body activity is critical to be aimed in the right direction.

SECTION 6.2 REQUIRED SKIING TASKS: PATIENCE TURN

Skill Focus: Rotary, Pressure, Edge

Criteria for Accreditation:

1. Task on green or blue terrain.
2. Long linked parallel turns (no traverse), open stance, with a pole swing.
3. Proficiency Requirements:
 - Balanced, open stance (not wider than hips) with minimal lead change.
 - Zipper of torso aimed in direction of travel, shoulders relatively level.
 - Elbows in front of torso, hands wider than elbows.
 - As extend into turn, tipping skis on edge, thighs move toward the new turn. Ankles and shin bone rotate guiding skis through turn.
 - Skis remain parallel.

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- Pole swing/touch timed with top of extension, prior to entering fall line, accompanying the edge change and weight shift.
- Flexion and extension matches shape of turn.
- Turn same distance down the fall line that across the hill.
- No traverse between turns.

Use of Task: Progressions/Drills/Exercises

- Practice making long, patience turns.
- Have students concentrate on only focus at a time, becoming aware of the full range of movement for each skill:
 - i.e. for a while, have students focus on their edges, making their movements slow, progressive and continual;
 - then have focus on their rotary movements, again slow, progressive and continual;
 - then focus on their flexion and extension movements, slow, progressive and continual;
 - then focus on their balance and stance;
 - then focus on the sound of their skis, etc.

Teaching Approaches - Tactics, Terrain, Verbiage

- The basic movements of a parallel turn, but only more slowly and patiently.
- Encourages turn shaping, rounding out the turn both at the top and at the bottom
- Matching progressive rates of all skill movements - rotary balanced with edging and pressure management.
- Flexion and extension slowed down to match long turn shape.
- Stress constantly slowly moving, never static.

Senior Specific Concept Notes:

- The fewer turns people make down a slope, the less tired they will become. This is important when pacing the lesson for seniors.
- However, need to encourage continual movement, no assuming and holding a position.
- Even though this is true, speed control is paramount. Safety and trust.

SECTION 6.3 REQUIRED SKIING TASKS: MEDIUM RADIUS - MODERATELY DYNAMIC

Skill Focus: Skill Blend

Criteria for Accreditation:

1. Task on blue terrain.
2. Ski a series of round, moderately carved turns of consistent size between 1-1/2 and 2 packer widths wide.
3. Proficiency Requirements:
 - Balanced stance, thighs/shins hip width apart.
 - Zipper of torso aimed in direction of travel, shoulders relatively level.
 - Elbows in front of torso, hands wider than elbows.
 - Skis are tipped on edge and moderately carving by the time skis reach the fall line.
 - Turning movements originate in the feet and legs.
 - Poles swing smoothly in the intended direction of travel timed with top of

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extension, prior to entering fall line, accompanying the edge change and weight shift.

- Flexion and extension matches shape of turn.
- Speed of descent should be constant.

Use of Task: Progressions/Drills/Exercises

- First teach about edges by using a fan progression.
- Start on green terrain, do a simple traverse, and roll shins into hill, engaging edges and riding them until you stop.
- They will need to learn to balance. Fan progressively more and more down the fall line. Use of concave terrain is really beneficial for this drill.
- Link these edge only turns making railroad tracks.
- Go back and review the commitment drill, then take out the diagonal side slip and stay on edges when complete the turn.
- Emphasize that after shift weight to new ski and change edges, to continue directing momentum across the hill, not down the hill.
- First start with longer, slower turns before get more dynamic.
- Practice controlling speed by finishing turn so almost are going uphill.
- Try to actually make some complete circles.
- Use "chase" drill where one skier follows lead skier making round medium turns. The following skier tries to put his skis just outside the lead skiers tracks. Or the lead skier makes even short radius turns while the following skier makes longer medium radius turns trying to keep up and cross fall line just behind the tails of lead skier.

Teaching Approaches - Tactics, Terrain, Verbiage

- Terrain choice is critical.
- Should be terrain that they are very comfortable or that they consider easy.
- Emphasize that continue across the hill, not down the hill after shift weight and change edges.
- The fact that you are saying across the hill and not down the hill will help them stay on their edges as they pick up speed.
- Again, try to increase their awareness by listening to their skis and watching snow spray.

Senior Specific Concept Notes:

- Be particularly conscious of speed for seniors. Make sure that you do not encourage them to ski at a higher rate of speed than their ability and strength allows.

SECTION 6.4 REQUIRED SKIING TASKS: SHORT RADIUS - MODERATELY DYNAMIC

Skill Focus: Skill Blend

Criteria for Accreditation:

1. Task on blue terrain.
2. Ski a series of round, completed, moderately carved turns of consistent size about 3/4 packer widths wide.
3. Proficiency Requirements:
 - Balanced stance, thighs/shins hip width apart.

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- Zipper of torso aimed in direction of travel, shoulders relatively level.
- Elbows in front of torso, hands wider than elbows.
- Skis are tipped on edge and moderately carving by the time skis reach the fall line.
- Turning movements originate in the feet and legs.
- Poles swing smoothly in the intended direction of travel timed with top of extension, prior to entering fall line, accompanying the edge change and weight shift.
- Flexion and extension matches shape of turn.
- Turn same distance down the fall line as across the hill.
- Speed of descent should be constant.

Use of Task: Progressions/Drills/Exercises

- First teach about edges by using a fan progression.
- Start on green terrain, do a simple traverse, and roll shins into hill, engaging edges and riding them until you stop.
- They will need to learn to balance.
- Fan progressively more and more down the fall line.
- Link these edge only turns making railroad tracks.
- In a high tuck position, make short, edgy turns, concentrating on extending and retracting legs under the body.

Teaching Approaches - Tactics, Terrain, Verbiage

- Use of concave terrain is really beneficial for this drill.
- Increase edge angle awareness by encouraging student to listen to their skis during the turns.
- Have students watch the snow spray off of others skis, including instructors.
- Emphasize an early weight shift to prevent being heavy and skidding out at bottom of turn.

Senior Specific Concept Notes:

- Encourage students to make short turns like a dance, always rhythmically moving to the next turn.

SECTION 6.5 REQUIRED SKIING TASKS: CHRISTIE LEGERE/PROJECTION CIRCULAIRE/ STACKITUDE (TECHNIQUE FOR SORE KNEES AND SAVING ENERGY)

Skill Focus: Skill Blend

Criteria for Accreditation:

1. Task on blue terrain.
2. Ski a series of round, longer turns using projection circulaire.
3. Proficiency Requirements:
 - Balanced stance, stacked over bones, hip width apart.
 - Zipper of torso relatively square to skis.
 - Maintain tall stance with relatively little flexion and extension, finessing the turns with the ankles.
 - Turn by moving diagonally down the hill into the new turn.
 - Edge angle is controlled by more leaning, keeping bones stacked.

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Use of Task: Progressions/Drills/Exercises

- This is sophisticated, open parallel turn with an emphasis on inclination and full body rotation; i.e. stackitude.
- Teach by demonstrating technique first, then describing the motions; i.e. stacking of bones, little flexion and extension, banking, square to direction of travel.
- The sophistication comes in the very supple and critical use of the ankles.

Teaching Approaches - Tactics, Terrain, Verbiage

- This is an excellent technique for someone with knee problems.
- It involves very minimal flexion.
- It is also good for skiing long distance or for long periods of time.
- This technique expends very little energy and is very smooth and low impact.
- However, to do this gracefully also requires more finesse of lower leg and foot activity.
- This technique is good only on all green and most blue terrain. It does not work on black, because you go too fast.

SECTION 6.6 REQUIRED SKIING TASKS: BUMPS

Skill Focus: Skill Blend

Criteria for Accreditation:

1. Task on blue or easy black bumps.
2. Ski a series of smooth, rounded turns through the bumps turning on every other, or third or fourth bump. Not zipper line
3. Proficiency Requirements:
 - Balanced stance, thighs/shins hip width apart.
 - Zipper of torso aimed in direction of travel, shoulders relatively level.
 - Elbows in front of torso, hands wider than elbows.
 - Edge change occurs on the top of the bump with the momentum directed towards the outside of the coming valley.
 - Turning movements originate in the feet and legs.
 - Poles swing smoothly in the intended direction of travel timed with top of extension, prior to entering fall line, accompanying the edge change and weight shift.
 - Flexion and extension matches shape of terrain which enables you to match the shape of the turn.
 - Speed of descent should be constant.

Use of Task: Progressions/Drills/Exercises

- Use turning sideslip/commitment exercise to introduce bumps.
- Have student stand still on the top of a small bump, balanced on their uphill ski.
- Because of the convex shape of the bump, the tip of their ski is in the air, as is the tail of the ski.
- Lift the downhill ski and point it down the hill while still standing still.
- Sink/flex down on that ski.
- Then as extend, press forward on the big toe/arch of the uphill foot and go with the ski as it moves onto the new edge around the bump, avoiding the steep face on the lower side of the bump.

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- The line your ski takes, allows you to increase the edge angle as it turns so the ski cuts back up the hill, making it a carved turn finish and controlling your speed.
- Practice this one bump at a time in each direction.
- Eventually, don't lift downhill ski completely off the ground and start to link the turns.
- Key point and focus is that as you extend, you roll and engage your edges, not as you flex.
- Emphasize the law of perpendicularity, that the skier should be perpendicular to the slope as he extends.
- This connects to the concept that you do not want to be going down when the bump is coming up, but rather moving with the terrain.

Teaching Approaches - Tactics, Terrain, Verbiage

- Using the commitment drill to teach bumps has many advantages.
- It is a drill that focuses on early weight shift and early edge change which produces an ease in turn entry with greater control.
- It also assists in keeping the body perpendicular to the slope.
- The movement is forward and diagonal, into the new turn, which keeps the student moving WITH their skis, staying balanced over their feet.
- Their thighs are oriented toward, and into, the new turn. This prevents them from getting in the back seat with horizontal thighs (the toilet posture) which keeps their thighs from getting so tired.
- They will also not get bucked out of the side of the bump because they will not be in this backseated posture.
- Teach terrain tactics of not turning on every bump, but rather skipping a few bumps and choosing easy bumps to turn on.
- Teach line - how to keep from slamming into troughs by riding the upper outside edges of the troughs, crossing over on the flat spots and turning again to be able to make a nice round turn on the upper outside edge of the troughs.

Senior Specific Concept Notes:

- Seniors often do not like bumps, but point out that even though they might not plan to ski bumps, they should have some tactics to apply if they find themselves in them.
- Keeping their thighs more vertical and making larger turns, not the zipper line, will make the bumps easier for them.

SECTION 6.7 REQUIRED SKIING TASKS: OFF PISTE

Skill Focus: Skill Blend

Criteria for Accreditation:

1. Task on blue or easy black terrain, no bumps.
2. Ski a series of smooth, rounded turns of consistent size.
3. Proficiency Requirements:
 - Balanced stance, thighs/shins hip width apart.
 - Zipper of torso aimed in direction of travel, shoulders relatively level.
 - Elbows in front of torso, hands wider than elbows.
 - Turning movements originate in the feet and legs.
 - Poles swing smoothly in the intended direction of travel timed with top of

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extension, prior to entering fall line, accompanying the edge change and weight shift.

- Flexion and extension matches shape of turn.
- Speed of descent should be constant.

Use of Task: Progressions/Drills/Exercises

- The key in teaching off-piste is to teach a fairly long series of turns where the student has time to learn to feel the snow and get the rhythm of what they are doing.
- The basic stance is lowered by flexing the ankles and hips a little bit.
- The lower body rotary skill is the focus. It has to be very steady and controlled; the rotary movements need to be applied patiently, not rushing to get the skis across the hill, but rather, steadily yet strongly and smoothly, guiding the skis in the arc of the turn, feeling the skis move through the snow and with the skier moving with the skis, staying balanced over the feet.
- Flexion and extension movements need to be continual and flowing, not fast and abrupt. They need to match the arc of the turn.
- Speed control is accomplished by riding the arc of the turn up the hill, slowing down, not pivoting the skis to check the speed.
- There are a few key points to speed control that need to be explained:
 - 1) speed control is not accomplished as the turn arcs into the fall line during the turn, but rather by riding that arc up the hill in the last part of the turn thereby slowing down;
 - 2) the soft snow will help control speed, so aim for it;
 - 3) to maintain the directional control needed for speed control, it is critical to move with the skis, staying balanced over your feet, not getting in the back seat;
 - 4) be patient, it is difficult and jarring to push the snow, trying to move sideways through it by abruptly twisting the feet, pushing the tails out, it's easier to maintain control by riding the ski lengthwise, allowing it to cut through the snow.

Teaching Approaches - Tactics, Terrain, Verbiage

- To help cement the new learning, advise the students to make their first turn of a given series and their last turn, their best turns. It will help the muscle memory and cognitive memory of what they are trying to accomplish.
- Smile and grit your teeth.

Senior Specific Concept Notes:

- Don't assume that just because someone is 77 years old, with a bad knee, they won't want to ski in new snow. Experience has shown that, if they are game and try it, they will love and enjoy the experience.

SECTION 6.8 REQUIRED SKIING TASKS: INTRODUCTION TO GATES

Skill Focus: Skill Blend

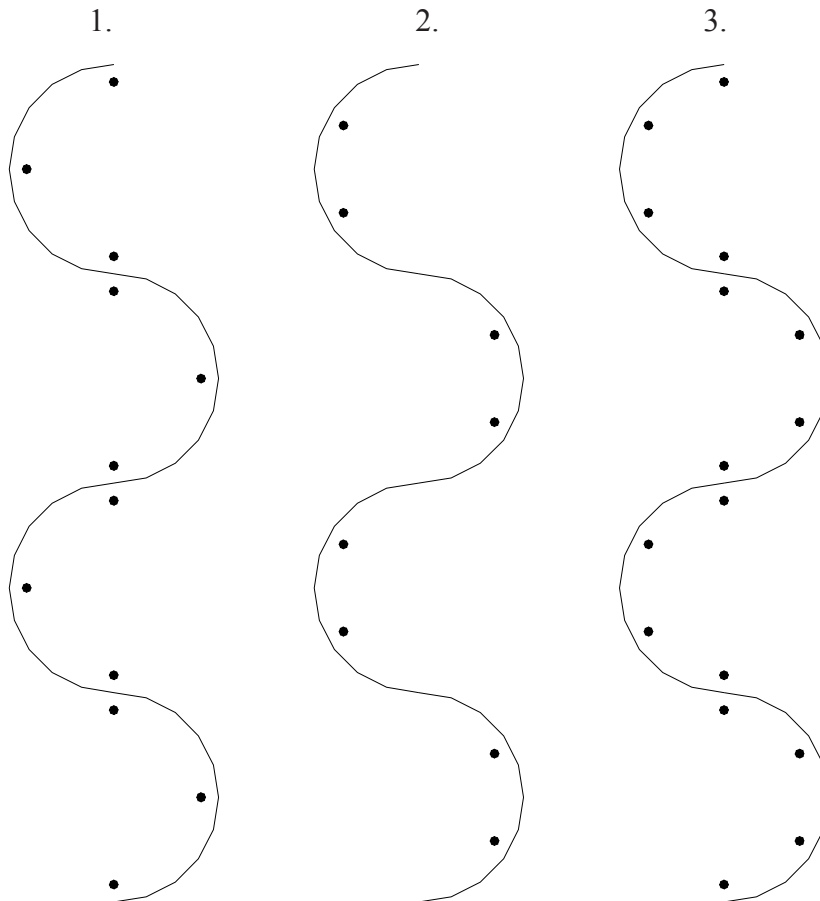
Criteria for Accreditation:

1. Task on green to blue terrain, no bumps.
2. Ski a series of smooth, rounded turns around brushes or flags.

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3. Proficiency Requirements:

- Balanced stance, thighs/shins hip width apart.
- Zipper of torso aimed in direction of travel, shoulders relatively level depending on speed, shape of turns, steepness of hill.
- Elbows in front of torso, hands wider than elbows.
- Turning movements originate in the feet and legs.
- Poles swing smoothly in the intended direction of travel timed with top of extension, prior to entering fall line, accompanying the edge change and weight shift.
- Flexion and extension matches shape of turn.



Use of Task: Progressions/Drills/Exercises

- Use either brushes or flags to set the “courses”. Depending on ski area, might be able to reserve part of a run for these drills.
- Drills are mainly for developing cleaner turns.
- Focus on learning to steer edged skis smoothly. Continual rotary as well as continual

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progressive edging.

- Flexion and extension movements need to be continual and flowing, not fast and abrupt. They need to match the arc of the turn.
- Foragonal direction of extension, into the new turn is critical.
- Use continual, progressive flexion/extension movements to manage pressure of turn forces. Retraction at the bottom of the turn is sometimes necessary to keep the skis cutting cleanly.
- A balanced stance is also critical. Important to use “easy” terrain to help the participants ski “aggressively” staying balanced and not back or trying to put on the brakes.

Teaching Approaches - Tactics, Terrain, Verbiage

- Many will want to do more with the “gates”. Be sure to allow sufficient time for both fun and practice.
- Smile and grit your teeth.

Senior Specific Concept Notes:

- Many seniors “love” gates. However, it is very important to make sure that they do not hook a tip or slide into the gate and fall. Advise to give the gates plenty of room.

SECTION 6.9 CLASSIC TO MODERN CONNECTION TECHNIQUES

Skill Focus: Skill Blend

Recommendation for Accreditation:

1. As ski equipment has evolved, so have various ski techniques.
2. A general knowledge of this history is recommended for accreditation.
3. Need to be vaguely familiar with the history of skiing and be able to demonstrate the some of the techniques.
4. Knowing the history of ski technique not only helps everyone understand why we ski the way we ski now, but also helps with understanding the basic dynamics of turns. It also helps to make us more versatile.
5. This is really really fun to learn and to teach - enrichment learning.

Ski Techniques Recommendation for Accreditation:

1. 1908-20's: Arlberg Technique - Hannes Schneider, Otto Lang
Demos: Snow Plow
 Traverse
 Stem Christiana
 Parallel
2. 1940: Emile Allais powerful parallel / 1948: Emile Allais French Technique “Ruade” (horse kick)
Demos: Direct parallel/Rotation
 Hop Christie/Rotation
3. 1952: Reverse shoulder - Stein Erikson
Demos: Parallel
4. 1955 and on: Classic Counter Rotation, Austrian
Demos: Snow Plow
 Stem Christie
 Forward Sideslip
 Parallel Christie

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5. Mid 1950's: Wedeln

- 1963: PSIA formed at Big Mountain, Montana (and Alta, Utah)

6. Mid 1960's: Christie Legere/Projection Circular

Demos: Stem Christiana/Stem Up/Stem Down
Christiana Legere
Virage Aval

7. Late 1960's-70's: Avalment, Classic French compression/extension, Jean Claude Killy

Demos: Medium Radius
Short Radius
Bumps

8. Late 1960's-80's: Joubert's rotary push-off, braquage (not supported by French, but by Aspen, Squaw Valley)

Demos: Linked Hockey Slides
Open Stance Parallel

9. Late 1970's-mid 80's: Anticipation, Italy

Demos: Medium Radius
Short Radius

10. 1973-89: Stenmark (Mahre) combination counter rotation w/rounder carved turns

Demos: Step Turns
Stem Step
Diverging Step
Skate Step

- 1975: PSIA introduces Skills Concept at Interski held at Czechoslovakia which is adopted internationally in 1983.

- 1979: PSIA promotes open stance and step turns at Interski in Japan

11. Mid 1980's: Super Parallel, French w/open stance

Demos: Parallel turns

12. Late 1980's: Modern Counter Rotation, Compression/Extension by Austrian

Demos: Stem Christie
Short Swing
Medium Radius

- Mid 1990's: Modern Carved w/shaped skis - 1993 shaped skis gain acceptance. New shaped skis begin longer, with not much side cut and become progressively shorter with more side cut. Equipment lead to changes in technique: i.e. open stance, less counter, more two-footed skiing.

Demos: Wedge Turns
Wedge Christies
Open Parallel
Dynamic Short Radius
Dynamic Medium Radius

Concise Progression in Ski Technique:

- Stepped turn - flatter ski - up-unweighting - strong rotary movements initiated in the upper body
- Pivoted turn around the ski tips - flatter ski - up-unweighting - strong rotary movements initiated in the upper body - narrow stance
- Pivoted turn with pivot point closer to the feet - flatter ski - up-unweighting - rotary movements initiated in the lower leg/foot - narrow stance

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- Pivoted turn with pivot point closer to the feet - flatter ski - down-unweighting - rotary movements initiated in the lower leg/foot - wider stance (not ever universally practiced)
- Carved, shaped turn with no pivot - edged ski - “foragonal” unweighting - rotary and edging movements initiating in the lower leg/foot - wider stance

Following is a more detailed history:

- 5000 B.C.: Primitive native carves the Rodoy petroglyphs in a cave, depicting a skier on two skis with one pole. Europe.
- 2500 B.C.: Oldest ski extant is made by a Scandinavian hunter, to be later unearthed in a peat bog near Hoting Sweden, now known as the Hoting ski.
- 400 B.C.: First written note of skis made by Greek historian Xenophon.
- 1206: Norwegian military skiers carry king's baby Haakon Haakonson to safety over mountains during Civil War, thus creating one of the most famous legends in backcountry skiing history.
- 1835 - Sondre Norheim and friends begin to refine the skidded stop turns and the telemark turn, named for Norheim's home region, Telemark. Norheim and associates apply these turns to downhill skiing as sport.
- 1850: Sondre Norheim of Morgedal, Telemark, makes a binding heel strap out of a twisted willow root, thus allowing more lateral control. Pop culture tends to credit Norheim with only telemark technique, reality is that he and his contemporaries used whatever worked, including stem turns. Both the Christiania turn and the Telemark turn were used and developed at the same time. ("Christiania" is the name then of the Norwegian capital, now Oslo. "Telemark" is a county-like region in Norway.)
- 1866: Sondre Norheim and other skiers from the Telemark region of Norway demonstrate the Christiania skidded stop turn (could be called a "parallel" turn), and what is later called the telemark turn, in an exhibition competition.
- 1908: Hannes (Johannes) Schneider begins refining the 'Christiania' (stem christie) turn, possibly a better technique for handling unwieldy wooden skis on steep terrain. St. Anton, Austria, Europe.
- 1920's and on: Continued founding of the Arlberg Technique. The **Arlberg Stem Christie “Christiana”**: bow forward, rotate, start with uphill shoulder back and twist to give turning power.
- 1940: Frenchman **Emile Allais' powerful 'parallel'** ski technique gains popularity; based on unweighting and using no stem; the technique required a solid boot/ski connection, and the longthong heel lashing system ensued, as did steeper skiing.
- 1948: Emile Allais introduced the French Technique, inspired by the skiing of Toni Seelos, the Austrian slalom master of the 1930s. His system was built on parallel skis, body rotation and the hop, which he called **“ruade” or horse kick.** (Optional because it's relatively difficult to master.)
- 1950: Howard Head invents functional metal/wood sandwich ski
- 1952: **Stein Erikson uses “reverse shoulder”** (look uphill and turn with

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- feet together) to win Olympic Gold.
- 1955 and on: **Classic counter rotation; Austrian**, at end of turn, turn feet across hill, edge set, face downhill (short swing)
 - Mid-1950's: **Wedeln** "to wag": Austrian, high-speed turns made in succession with both skis parallel while not noticeably setting the ski edges on a slope. Using this technique one's rear end wags like a dog's tail. New equipment allowed this technique to develop.
 - 1957: Bob Lange, U.S., introduces the first plastic ski boots, soon to be known as 'plastiques fantastiques,' by appreciative French ski racers.
 - 1960: Metal sandwich skis become popular with racers.
 - 1960: Grooming begins at some ski areas, but does not become prevalent until 1970's.
 - 1963: PSIA formed at Big Mountain, MT (and Alta, UT)
 - Mid 1960's to present: **Projection Circular, Christie Legere**, French. This is sophisticated, open parallel turn with an emphasis on inclination and full body rotation, with body square over skis. New equipment allowed this technique to develop. **Virage Aval** is a turn preceded by a pre-turn up the hill.
 - 1966: Fiberglass alpine skis go on market. First designed in 1959.
 - Late 1960's, 1970's: **Avalment** From the French 'avalier', to swallow, an absorption of a bump by lifting the legs ie: there is angulation but it comes from lifting the legs rather than lowering the body. Classic French compression extension, Jean Claude Killy
 - Late 1960's to 1980's: George Joubert, rotary push-off, wide track, pivot slip, hockey stops, sink twist is **braquage**, his own technique in Alpe d'Huez, supported by Aspen, Squaw Valley, but not supported by the French.
 - Early 1970's to mid 1980's: **Anticipation**, Italy, physical movement of upper body in intended direction of travel, no pivot ski, but cutting and slicing-counter anticipation.
 - 1973 - 1989: Ingemar Stenmark, combination of counter rotation, modern dynamic direction change, rounder, carved turns, more foragonal movements, modern movements on longer skis so had to steer more. Changed the Austrians. (1976-1984, Mahre brothers racing with similar technique, step turns.)
 - 1975: PSIA introduces Skills Concept at Interski held at Czechoslovakia which is adopted internationally in 1983.
 - 1979: PSIA promotes open stance and step turns at Interski in Japan.
 - Mid 1980's: Super Parallel, Open Stance Dynamic Skiing by the French, very similar to modern skiing. Introduced at Interski in Italy in 1983.
 - Late 1980's: **Modern Counter Rotation, Compression/Extension Turn** by the Austrian
 - 1981: Head ski company introduces first shaped ski, "the natural easy carve". Tested the market for a few months, didn't sell, ahead of its time.
 - Mid to late 1980's: Radical change in alpine ski racing with advent of break-away plastic gates.

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- Mid 1990's: Change to modern shape, carved turn from pivot short swing. Began changing in mid-late 1970's, strongly in 1980's, but shaped ski made such turns easier and more popular. This countered by Joubert had a lot of influence in U.S. Avalment technique, pivot skid.
- 1993: Shape skis become accepted by skiing public.
- Present: Skis get shorter, have more sidecut and now come in a variety of widths; with narrow waisted radically shaped slalom skis still ruling the groom and the “fatter” shaped skis for the powder and crud. But this too someday shall pass.

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PART VII ANNOTATED REFERENCES

The following are suggested reading and available online.

Aging Americans Ripe for Snow Sports; *ARA*

<http://www.chiff.com/a/ski-seniors.htm>

Aging Americans Ripe for Snow Sports.doc

“One of the great misnomers is that when you’re this age you can’t launch out and do new things,” says Chick. “In fact, you can overcome boredom, super-charge your skiing, advance your skills, empower yourself and have more fun at any age.”

Aging Skiers a Vibrant Market for Industry; *Jim Graham, January, 2006; AP*

<http://www.active.com/>

story.cfm?CHECKSSO=0&NUM=0&STORY_ID=12689&CATEGORY=wintersports
Aging skiers a vibrant market for industry.doc

Dick Arner hopped on his bicycle early one day last summer and rode 18 miles to Alta. Uphill. Pedaling high into the oxygen-thin air of the Wasatch Mountains, he arrived at the ski resort village, 8,500 feet above sea level, and purchased his season ski pass. Not bad for a guy who’s 71.

Aging Successfully: The Importance of Physical Activity in Maintaining Health and Function; *Marc T. Galloway, MD and Peter Jokl, MD, January 2000*

<http://www.jaaos.org/cgi/content/abstract/8/1/37>

Aging Successfully.doc

Exercise on a routine basis is an important component of successful aging. It has been shown that many age-related declines in musculoskeletal function can be markedly reduced by participation in some form of regular exercise.

Belief, self-talk and performance enhancement; *Joe Kolezynski M.B.A., M.A.*

<http://selfhelpmagazine.com/articles/sports/selftalk.html>

BELIEF.doc

In many of these cases the factor that separates their performance from the competitions has been found to be rooted in their belief as to their ability to outperform the competition.

Bumps for boomers

<http://www.bumpsforboomers.com/index.htm>

Bumps for Boomers.doc

BUMPS FOR BOOMERS ® is an innovative Aspen-based ski lesson program that quickly teaches aging Baby Boomers how to confidently ski mogul and powder terrain previously considered beyond their capabilities.

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Handbook for Teaching Senior Skiers; Draft 2007; *Crook, Rusty and Laura Jordan*,
[http://www.psia-w.org/pdf/07insmanuals/alpine/
07handbookforteachingseniorskiers_draft.pdf](http://www.psia-w.org/pdf/07insmanuals/alpine/07handbookforteachingseniorskiers_draft.pdf)

How to Reach Your Achievement Zone; *Shane M. Murphy, Ph.D. & Annemarie Infantino
Murphy, Ph.D.*
<http://selfhelpmagazine.com/articles/sports/achizone.html>
HOW to REACH YOUR ACHIEVEMENT ZONE.doc

What does it take to do your very best, even when the pressure is on? Have you ever watched Olympic athletes as they compete and wondered how they deal with the turmoil they experience?

Let's Get Physical: Assess Your Aging Client's Potential: *Allen R. Smith; Spring 2004; The
Professional Skier*
<http://www.snowwriter.com/publishedarticles3.htm>

It is one of the inevitabilities of life; sooner or later, we all start to show the signs of aging. We can help these guests have a pleasant and satisfying snowsports experience.

Physiology of Aging
<http://ist-socrates.berkeley.edu/~aging/ModuleProcess.html#anchor157481>
Physiology of Aging.doc

As we age, we undergo a number of physiological changes which affect not only how we look, but how we function and respond to daily living. Overall, the changes in the later life span described below involve a general slowing down of all organ systems due to a gradual decline in cellular activity.

Senior Factoids
http://www.jfcs.org/Services/Seniors/Senior_Factoids/default.asp
Senior Factoids.doc

Facts about Seniors.

Seniors Find New Skis Short on Length; *Ginny Walters, Fall 1999*
[http://www.psia.org/psia_2002/education/TPSArticles/newtechnologies/
tpsfall99seniors.asp](http://www.psia.org/psia_2002/education/TPSArticles/newtechnologies/tpsfall99seniors.asp)
Seniors Find New Skis Short on Length.doc

Elan's skis were originally designed for never-evers, to make a beginner's first lessons so rewarding that he or she would continue to ski. But the skis delighted an entirely different demographic—the teachers who tried them out at an instructional clinic last season. It took only a few runs before these skilled individuals were asking where they could get a short pair of their own.

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Senior Skiers Derive Parabolic Pleasure: *Ginny Walters, Fall 1996*

http://www.psia.org/psia_2002/education/TPSArticles/shapedskis/tpsfall96seniorparabolic.asp

Senior Skiers Derive Parabolic Pleasure.doc

We went to custom-fitted boots and 163-cm parabolic skis. (I had previously been skiing on 185-cm skis, and Dick's were 195 cm). We're now skiing more and enjoying it more, even in questionable weather and conditions.

Senior Skiers and the Fear Factor; *Slanger, Elissa, Ph.D.,; 2007; PSIA-W*

http://www.psia-w.org/pdf/SENIORS_FEAR_FACTOR.pdf

Ski Resorts Expand Grooming for Aging Boomers: *Associated Press, November, 2004*

<http://www.msnbc.msn.com/id/9917842/>

Ski resorts expand grooming for aging boomer.doc

The ski slopes that baby boomers used to shred when they were young and reckless are being toned down in a bid to keep them coming back for more.

Sports and Performance Psychology

<http://selfhelpmagazine.com/articles/sports/index.shtml>

Index of Sports Psychology Articles

Thought Awareness, Rational Thinking & Positive Thinking

<http://www.mindtools.com/stress/PerformanceStress/ThoughtAwareness.htm>

Thought Awareness.doc

In preparing for a performance, you may have a whole range of fears, anxieties and negative thoughts associated with the upcoming event. While this is completely normal and is something that everyone experiences, it is important that you deal with these; otherwise, they can undermine your self-confidence.

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