Professional Ski Instructors of America

Adaptive Alpine Standards Exam Supplement

National Standards: Level One, Level Two, Level Three

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Introduction

The information in the PSIA *Adaptive Alpine Standards Exam Supplement* has been developed to compliment the *2014 Adaptive Alpine Standards* and should be studied in conjunction with the Standards in preparation for taking certification exams. Topics covered in the Standards are further delineated and Functional Skiing Task Examples are described. Additionally, this document provides extensive descriptions of the Adaptive Alpine Demonstration Equivalencies for candidates using sit down equipment and/or outriggers. Reference material used in creating this document include the current editions of PSIA-AASI's *Core Concepts for Snowsports Instructors*, the *Alpine Technical Manual: Skiing and Teaching Skills (2nd ed.)*, the *Adaptive Snowsports Instruction* manual, and the *Children's Instruction Manual (2nd ed.)*.

Skiing Demonstrations, Skills and Functional Skiing Maneuver Examples

The instructor will be asked to perform the appropriate maneuver in each stage of the progression in his/her personal skiing and in the specified specialty.

Level I	The candidate will be able to: • Ski a straight run in a balanced, athletic stance on terrain suitable for first time beginning skiers. • Demonstrate a gliding wedge and a braking wedge on groomed green terrain. • Demonstrate a consistent wedge and/or appropriate skill blend throughout a series of 6-8 turns on groomed green terrain. • Demonstrate consistent spontaneous christie turns and appropriate skill blend in a series of turns on groomed blue terrain. • Demonstrate matching with active steering of the inside leg. • Demonstrate shaping of the control phase of the turn by blending appropriate skills. • Demonstrate parallel turns or the equivalent adaptive maneuver (see Appendix A) showing appropriate skill use and blending in response to speed, turn radius, tactics, conditions, or intent.
Level II	The candidate will be able to:

	• Demonstrate on the easiest groomed green terrain:
	  ○ Demonstrate steering consistent with appropriate blending of skills throughout a series of turns.
	• Demonstrate on groomed blue terrain:
	  ○ Demonstrate parallel turns or the equivalent adaptive maneuver (see Appendix A) showing appropriate skill use and blending in response to speed, turn radius, tactics, conditions, or intent.
	  ○ Demonstrate matching of skis in a variety of places in the turn (beginning, middle, and end) and the appropriate blending of appropriate skills depending on speed, terrain, or intention.
	  ○ Link skidded turns with some anticipation and upper/lower body separation.
	  ○ Maintain consistent spontaneous wedge christies for the entire series of 6-10 turns.
	• Demonstrate on groomed or recently groomed (not necessarily smooth) terrain:
	  ○ Maintain an accurate blending of skills to perform a series of 8-12 consistent short, medium or long radius parallel turns while maintaining speed control.
	  ○ Demonstrate consistently a simultaneous edge change, with an appropriate pole swing, throughout a series of 8-12 turns.
	• Bumps: Ski small to medium bumps on blue terrain.
	• Demonstrate the following (but not limited to) maneuvers such as:
	  ○ Stepping/tracking and skating maneuvers
	  ○ Falling leaf
	  ○ Ski on one ski on gentle terrain making small directional changes
	  ○ Parallel turns with no poles

Level III	The candidate will be able to:
	• Demonstrate on any terrain and in most conditions:
	  ○ Use and blend the appropriate skills necessary to ski consistently throughout a series of turns.
	  ○ Demonstrate a balanced stance.
	  ○ Demonstrate steering of inside ski to facilitate matching.
	  ○ Demonstrate matching of skis in a variety of phases in the turn (initiation, shaping, and finishing) and the blending of appropriate skills depending on speed, terrain, or intention.
	  ○ Link skidded turns with some anticipation and upper/lower body separation.
	  ○ Maintain a consistent series of spontaneous wedge christies showing appropriate use and blending of all necessary skills.
	  ○ Demonstrate accurate, consistent, open parallel turns throughout a series of 10-15 turns, showing appropriate use and blending of all necessary skills.
	  ○ Demonstrate consistent simultaneous edge change with an effective pole swing that facilitates extension and edge change at turn initiation.
	  ○ Demonstrates active steering of both legs throughout turns resulting in shape and speed control.
	• Demonstrate on any groomed or recently groomed black terrain (may not be perfectly smooth):
	  ○ Dynamic parallel turns or the equivalent adaptive maneuver (see Appendix A) any place on the mountain in any snow conditions (except the most extreme), showing appropriate skill use and blending in response to speed, turn radius, tactics, conditions, or intent.
	  ○ Link 10-15 dynamic parallel turns with continuous flow, rhythm, and accuracy of movements.
	  ○ Maintain pressure on the outside ski with dynamic balancing movements.
	• Bumps: Ski bumps on black terrain.

Adaptive Demonstration Equivalencies

Demonstration Equivalencies for Mono-Ski

Gliding Wedge

- Quiet upper body balanced over the middle of the ski
- Skeletally stacked, upright (static) upper body
- Equal and constant pressure on both outriggers with the snow
- Outriggers remain in close proximity to the mono-ski (i.e., shoulder width apart making snow contact between binding toe and tip of ski)

Gliding Wedge to a Stop

- Quiet upper body balanced over the middle of the ski
- Outriggers remain in close proximity to the mono-ski (i.e., shoulder width apart making snow contact between binding toe and tip of ski)
- Equal, constant, and progressive pressure of both outriggers
- Outriggers create a slowing effect as the tail of the outrigger tips are progressively pushed forward into the snow (this movement is created by pushing the hands forward while dropping the shoulders and flexing/rounding the spine). This is the slowing technique described in the 2003edition of the *Adaptive Snowsports Instruction* manual. An improved slowing technique has been developed since the writing of that manual and may be substituted for this demo. See Below:

-OR-

- Outriggers create a slowing effect as the outrigger tips are rotated outward creating a "diverging wedge." Slowing can be increased or decreased by increasing or decreasing the angle of outward rotation and/or by increasing or decreasing the amount of outrigger pressure applied to the snow.

Wedge Turns

- Tall stance and balanced upper body over the midline of the ski.
- Symmetrical outrigger steering (at turn initiation both outrigger tips are pointed in the direction of the next turn and this movement is held throughout the shaping phase of the turn).
- Minimal countering movements of the upper body other than the head is always orientated downhill (in the direction of the "hub" of the next turn) and never across the hill.
- As rotary movements in the turn develop, the ski and outriggers are steered across the hill, increasing pressure by terrain dictated edging on the inside edge of ski and both riggers.
- Although the hips and upper body remain basically centered over the midline of the ski, the center of mass may move slightly to the inside of the turn on steeper terrain ("terrain dictated edging"). A slight amount of banking is acceptable in order to control the edge angle.
- Emphasis is on producing a rounded, deliberate turn shape, and throughout the turn maintaining the tips of both outriggers in close proximity to the tip of the ski (i.e., there is no "countering movements of the outrigger" or "reaching downhill").
- The wedge turn shows the fundamental skills in a slow moving situation, emphasizing the rotary movements created by the outriggers with limited edge and pressure movements to maintain constant speed and radius of the turn.
- A desired outcome is to achieve a sense of rhythm, flow, and control from turn to turn, while maintaining a constant speed relative to the shape of the turn.

Wedge Christie

- Speed is greater than that of a wedge turn and should be constant throughout the task relative to the shape of the turn.
- The ski and lower body is allowed to turn slightly more than the upper body, resulting in a slightly countered relationship with the ski (i.e., head and shoulders slightly countered in the direction of the next turn). This increased upper body countering encourages angulated edging movements. However, angulation is minimal as related to the terrain appropriate for this demo.
- Asymmetrical outrigger steering (at turn initiation one outrigger tip is pointed in the direction of the next turn) and "matched" or moved (toward the midline) back to the neutral position prior to or after the fall line the turn (similar to the "match" of the skis of a standup skier doing a wedge christie). There is no active "reaching" of the outrigger downhill although the downhill outrigger will be farther away from the mono-ski than in the wedge turn because of the increased counter of the upper body).
- As rotary movements are accomplished, there is a release of the ski's edge and slight movement of center of mass into the new turn. Edge release is initiated by a minimal upper body extension in the direction of the new turn.
- Edge angle and pressure on the inside edge of the ski, is slightly greater and occurs earlier than in a wedge turn. This results in the riggers becoming quite light and flat, making it easy to symmetrically guide into a parallel relationship with the ski. This "matching" occurs at or after the fall line, coinciding to the christie phase of the turn. (Similar to what occurs with two skis.)
- Throughout the turn, the skier demonstrates dynamic balance by maintaining a "tall athletic stance" with slightly rounded shoulders and flexed spinal column.
- Progressive steering combined with increased speed and a relatively flat ski produce a round, skidded arc.

Basic Parallel

- Speed is greater than that of a wedge christie and should be constant throughout the task relative to the shape of the turn.
- Nearing the completion of a prior turn, the skier's upper body is slightly flexed and countered in the direction of the next turn. With pressure predominately on the inside edge of the ski, the outside rigger is in an arc away from the midline, pointed toward the "hub" of next turn. This asymmetrical outrigger steering movement (from the outside/downhill outrigger) corresponds with a countered upper body in the direction of the next turn (outrigger, arm, and shoulder all move together as the upper body finishes the old turn in a countered position).
- Outrigger movements and upper body separation correspond to the turn size (i.e., long radius turns correspond to a 1 and 11 o'clock countering and short radius turns require a 3 and 9 o'clock movement much as a pole touch for a stand-up skier) and to the student's movement range.
- As the skier starts extending toward the new turn, a change in pressure dominance begins from the old outside edge to the new inside edge.
- Continuation of the above movements results in a cross-over or lateral movement of the center of mass and a flattening of the skis, which combined with the guidance of both ski and rigger toward the fall line. Edging movements are achieved by **angulation** of the spine/torso with shoulders level to the fall line relative to the student's movement range.
- The inside rigger and ski complement the actions of the dominant inside edge of ski. Progressive steering combined with flexion down and inward regulates edging and pressure, which are progressive throughout the turn.

- The increased efficiency of rotary movements (caused by the increased distance between rigger tip and center of rotation) allows for a much earlier match of the inside/steering rigger and shorter duration of differential friction caused by rigger tip/snow contact.
- A progressive increase of edging and pressure in the turn reduces the amount of skid and helps shape the arc of the turn, which should be fairly consistent throughout.

Dynamic Parallel

- There is refinement of all aspects of the fundamental skills of open parallel and they are performed at greater speed with more precision. Speed should remain constant throughout the task relative to the shape of the turn.
- Ski is used as a working component in the turn to achieve desired turn shape and type. Characteristics such as ski flex and sidecut are considered. The other equipment, such as seat and shock/spring are is also accounted for. Turns are carved, but not railed. Stance is functional for the speed, radius and terrain being utilized.
- At turn initiation the downhill outrigger is moved further away from the midline in a "reaching" movement. This "reach" with the outrigger is simultaneous with an active cross-over of the center of mass from the old inside edge to the new edge. Pressure transfer at turn initiation is very deliberate, and commitment of the center of mass toward the new turn is very active. All movements contribute toward carrying the energy from one turn to the next.
- The increased efficiency of rotary movements (caused by the increased distance between rigger tip and center of rotation because of the "reaching" movement toward the next turn) allows for a much earlier match of the inside/steering rigger and shorter duration of rigger tip/snow contact.
- Edge/pressure engagement is taking place before the fall line.
- Intensity, duration, and timing of movements determine the size, shape, and speed of the turn, i.e. gliding, short, medium, and long.

Demonstration Equivalencies for Bi-Ski

Gliding Wedge to a Stop:

- Quiet upper body balanced over the middle of the skis.
- Skeletally stacked, upright (static) upper body.
- Equal, constant, and progressive pressure on both outriggers with the snow.
- Outriggers remain in close proximity to the bi-ski making snow contact in line with the skier's shoulders and hips. Skier's arms are slightly flexed (almost straight) allowing for strong balancing movements through outrigger use.
- Outriggers create a slowing effect as the tail of the outrigger tips are progressively pushed forward into the snow (this movement is created by pushing the hands forward while dropping the shoulders and flexing/rounding the spine). This is the ~~s~~lowing technique described in the latest edition of the *Adaptive Snowsports Instruction* manual. An improved slowing technique has been developed since the writing of this manual and may be substituted for this demo. See Below:

-OR-

- Outriggers create a slowing effect as the outrigger tips are rotated outward creating a "diverging wedge." Slowing can be increased or decreased by increasing or decreasing the angle of outward rotation and/or by increasing or decreasing the amount of outrigger pressure applied to the snow.

-ALTERNATIVE-

- If the skier is physically unable to perform a slowing maneuver utilizing outriggers, a single carved turn to a stop may be substituted. The turn is performed by increasing pressure on one outrigger and tipping the bi-ski onto its edges causing the bi-ski to carve in the direction of the tipping.
- The opposite outrigger is utilized to control balance and manage the extent of edging.
- Once initiated, the turn is held across the fall line to a gravity assisted stop.

Wedge Turns

- Tall stance with a balanced upper body over the midline of the skis.
- Maintain a constant speed throughout the turn.
- Utilize "push off, drop 'n block" to create ski design turns. At turn initiation, pressure on the uphill outrigger is increased as the skier "pushes off" to create an active cross-over movement (skier's center of mass is moved from inside of old turn to inside of new turn). The downhill outrigger is utilized to "block" the skier from over-edging, to assist with balance, and refine the amount of edging to correspond to the desired radius and speed of the turn.
- Minimal countering movements of the upper body other than the head is always orientated "downhill" (in the direction of the "hub" of the next turn) and never across the hill.
- A slight amount of banking is acceptable in order to control the edge angle.
- Emphasis is on producing a rounded, deliberate turn shape, and throughout the turn maintaining the tips of both outriggers in close proximity to the bi-ski (i.e., there is no "countering movements of the outrigger" or "reaching downhill").
- The wedge turn shows the basic skills of skiing in a slow-moving situation, prioritizing edging movements over rotary, creating ski designed turns to maintain constant speed and radius of the turn.
- A desired outcome is to achieve a sense of rhythm, flow, and control from turn to turn, while maintaining a constant speed relative to the shape of the turn.

Wedge Christie

- Speed is greater than that of a wedge turn resulting in a skid after the fall line relative to the shape and speed of the of the turn.
- Utilize "push off, drop 'n block" to create ski design turns.
- The ski and lower body is allowed to turn slightly more than the upper body, resulting in a slightly countered relationship with the ski (i.e., head and, if physically possible, shoulders slightly countered in the direction of the next turn). This increased upper body countering combined with higher edge angles and strong blocking movements with the downhill outrigger encourages angulated edging movements.
- Edge angle and pressure on the inside edge of the downhill (outside) ski, is greater and occurs earlier than in a wedge turn. Combined with steeper terrain, increased speed, and varied turn radius, a spontaneous skid will occur after the skier passes through the fall line.
- To control the skid, the tip of the downhill outrigger is pointed in the direction of the next turn creating rotary forces equal to or slightly greater than the skid.
- Before the finish of the turn the downhill outrigger is "matched" or moved (toward the midline) back to the neutral position (similar to the "match" of the skis of a standup skier doing a wedge christie).
- Throughout the turn, the skier demonstrates dynamic balance by maintaining a "tall athletic stance" with slightly rounded shoulders and flexed spinal column.
- Amalgamate a combination of ski design turns with a slight displacement of the skis (skid) as centrifugal "forces" increase after the fall line.

Basic Parallel

- Speed is greater than that of a wedge christie turn and should be constant throughout the task relative to the shape of the turn.
- Outriggers have been lengthened making snow contact between binding toe and tip of ski with a significantly increased bend in the elbows compared to the wedge and wedge christie demonstration.
- Asymmetrical outrigger steering (at turn initiation one outrigger tip is pointed in the direction of the next turn) and "matched" or moved (toward the midline) back to the neutral position prior to or after the fall line of the turn. There is no active "reaching" of the outrigger downhill although the downhill outrigger will be farther away from the bi-ski than in the wedge christie turn because of the increased counter of the upper body.
- As rotary movements are accomplished, there is a release of the ski's edge and slight movement of center of mass into the new turn. If physically possible, edge release is initiated by a minimal upper body extension in the direction of the new turn.
- Throughout the turn, the skier demonstrates dynamic balance by maintaining a "tall athletic stance" with slightly rounded shoulders and flexed spinal column.
- Progressive outrigger steering combined with increased speed and a relatively flat ski produce a round, skidded arc.

Dynamic Parallel

- Speed is greater than that of basic parallel and should be constant throughout the task relative to the shape of the turn.
- Nearing the completion of a prior turn, the skier's upper body is slightly flexed and countered in the direction of the next turn. With pressure predominately on the inside edge of the ski, the outside rigger is in an arc away from the midline, pointed toward the "hub" of next turn. This asymmetrical outrigger steering movement (from the outside/downhill outrigger) corresponds with a countered upper body oriented in the direction of the next turn (outrigger, arm, shoulder and torso, if possible, all move together as the upper body finishes the old turn in a countered position).
- Outrigger movements and upper body separation correspond to the turn size (i.e., long radius turns correspond to a 1 and 11 o'clock countering, with 12 o'clock being aligned with the long axis of the ski toward the ski tip and short radius turns require a 3 and 9 o'clock orientation of the upper body and downhill outrigger at the finish of the prior turn; much as a pole touch for a two-track skier) and to the student's physical ability and movement range.
- As the skier starts extending toward the new turn, a change in pressure dominance begins from the old outside edge to the new inside edge.
- Continuation of the above movements results in a cross-over or lateral movement of the center of mass and a flattening of the skis, which combined with the guidance of both ski and rigger toward the fall line. Edging movements are achieved by angulation of the spine/torso with shoulders level to the fall line relative to the student's physical ability and movement range.
- The inside rigger and ski complement the actions of the dominant inside edge of ski. Progressive steering combined with flexion down and inward regulates edging and pressure, which are progressive throughout the turn.
- The increased efficiency of rotary movements (caused by the increased distance between rigger tip and center of rotation) allows for a much earlier match of the inside/steering rigger and shorter duration of differential friction caused by rigger tip/snow contact.
- A progressive increase of edging and pressure in the turn reduces the amount of skid and helps shape the arc of the turn, which should be fairly consistent throughout.

Demonstration Equivalencies for Three-Track

Gliding Wedge to a Stop:

- Quiet upper body balanced over the middle of the ski.
- Skeletally stacked, upright (static) upper body with a slight flex of the ankle, knee, hips, and spine.
- Equal, constant, and progressive pressure on both outriggers with the snow.
- Outriggers remain in close proximity to the ski (i.e., shoulder width apart making snow contact between binding toe and tip of ski).
- Outriggers create a slowing effect as the tail of the outrigger tips are progressively pushed forward into the snow (this movement is created by pushing the hands forward while dropping the shoulders and flexing/rounding the spine). This is the slowing technique described in the latest edition of the *Adaptive Snowsports Instruction* manual. An improved slowing technique has been developed since the writing of this manual and may be substituted for this demo. See Below:

-OR-

- Outriggers create a slowing effect as the outrigger tips are rotated outward creating a "diverging wedge." Slowing can be increased or decreased by increasing or decreasing the angle of outward rotation and/or by increasing or decreasing the amount of outrigger pressure applied to the snow.

Wedge Turns

- Tall stance with a balanced upper body over the midline of the ski.
- Maintain a constant speed throughout the turn.
- Emphasis is on leg steering (at turn initiation, steering with the leg throughout the shaping phase of the turn).
- Symmetrical outrigger steering may be used as a rotary enhancer (at turn initiation both outrigger tips are pointed in the direction of the next turn and this movement is held throughout the shaping phase of the turn), but should only be used as a supplement to the primary rotary power of leg steering.
- Minimal countering movements of the upper body other than the head is always orientated "downhill" (in the direction of the "hub" of the next turn) and never across the hill.
- As rotary movements in the turn develop, the ski and outriggers are steered across the hill, increasing pressure by terrain dictated edging on the inside edge of ski and minimally, both riggers.
- Although the hips and upper body remain centered over the midline of the ski, the center of mass may move slightly to the inside of the turn on steeper terrain ("terrain dictated edging"). A slight amount of banking is acceptable in order to control the edge angle.
- Emphasis is on producing a rounded, deliberate turn shape, and throughout the turn maintaining the tips of both outriggers in close proximity to the tip of the ski (i.e., there is no "countering movements of the outrigger" or "reaching downhill").
- The wedge turn shows the basic skills of skiing in a slow moving situation, emphasizing the rotary movements created by leg steering with limited edge and pressure movements to maintain constant speed and radius of the turn.
- A desired outcome is to achieve a sense of rhythm, flow, and control from turn to turn, while maintaining a constant speed relative to the shape of the turn.

Wedge Christie

- Speed is greater than that of a wedge turn and should be constant throughout the task relative to the shape of the turn.

- The ski and lower body is allowed to turn slightly more than the upper body, resulting in a slightly countered relationship with the ski (i.e., head, shoulders, torso, and hips slightly countered in the direction of the next turn). This increased upper body countering encourages angulated edging movements. However, angulation is minimal as related to the terrain appropriate for this demo.
- Asymmetrical outrigger steering may be used as a rotary enhancer (at turn initiation one outrigger tip is pointed in the direction of the next turn) and "matched" or moved (toward the midline) back to the neutral position prior to or after the fall line of the turn (similar to the "match" of the skis of a standup skier doing a wedge christie). There is no active "reaching" of the outrigger downhill although the downhill outrigger will be farther away from the ski than in the wedge turn because of the increased counter of the upper body).
- As rotary movements are accomplished, there is a release of the ski's edge and slight movement of center of mass into the new turn. Edge release is initiated by a minimal upper body extension in the direction of the new turn.
- Edge angle and pressure on the inside edge of the ski, is slightly greater and occurs earlier than in a wedge turn. This results in the riggers becoming quite light and flat, making it easy to symmetrically guide into a parallel relationship with the ski. This "matching" occurs at or after the fall line, coinciding to the christie phase of the turn. (Similar to what occurs with two skis.)
- Throughout the turn, the skier demonstrates dynamic balance by maintaining a "tall athletic stance" with slightly rounded shoulders and spinal column with flexed knee and ankle.
- Progressive leg steering combined with increased speed and a relatively flat ski produce a round, skidded arc.

Basic Parallel

- Speed is greater than that of a wedge christie and should be constant throughout the task relative to the shape of the turn.
- Nearing the completion of a prior turn, the skier's upper body and hips are slightly flexed and countered in the direction of the next turn. With pressure predominately on the inside edge of the ski, the outside rigger is in an arc away from the midline, pointed toward the "hub" of next turn. This asymmetrical outrigger steering movement (from the outside/downhill outrigger) corresponds with a countered upper body oriented in the direction of the next turn (outrigger, arm, shoulder, torso, and hips all move together as the upper body finishes the old turn in a countered position.)
- Outrigger movements and upper body separation correspond to the turn size (i.e., long radius turns correspond to a 1 and 11 o'clock countering, with 12 o'clock being aligned with the long axis of the ski toward the ski tip and short radius turns require a 3 and 9 o'clock orientation of the upper body and hips at the finish of the prior turn; much as a pole touch for a two-track skier).
- As the skier starts extending toward the new turn, a change in pressure dominance begins from the old outside edge to the new inside edge.
- Continuation of the above movements results in a cross-over or lateral movement of the center of mass and a flattening of the skis, which combined with the guidance of both ski and rigger toward the fall line. Edging movements are achieved by **angulation** of the hips and knee with shoulders level to the fall line.
- The inside rigger and ski complement the actions of the dominant inside edge of ski. Progressive leg steering combined with flexion down and inward regulates edging and pressure, which are progressive throughout the turn.
- A progressive increase of edging and pressure in the turn reduces the amount of skid and helps shape the arc of the turn, which should be fairly consistent throughout.

Dynamic Parallel

- There is refinement of all aspects of the basic skills of skiing of open parallel and they are performed at greater speed with more precision. Speed should remain constant throughout the task relative to the shape of the turn.
- Ski is used as a working component in the turn to achieve desired turn shape and type. Ski characteristics such as flex and sidecut are considered. Turns are carved, but not railed. Stance is functional for the speed, radius and terrain being utilized.
- At turn initiation, the downhill outrigger is moved farther away from the midline in a "reaching" movement. This "reach" with the outrigger is simultaneous with an active cross-over of the center of mass from the old inside edge to the new edge. Pressure transfer at turn initiation is very deliberate, and commitment of the center of mass toward the new turn is very active. All movements contribute toward carrying the energy from one turn to the next.
- Edge/pressure engagement is taking place before the fall line.
- Intensity, duration, and timing of movements determine the size, shape, and speed of the turn, i.e. gliding, short, medium, and long.

Demonstration Equivalencies for Four-Track

(Please note: sections in *italics* are for skiers unable to create a wedge with their skis.)

Gliding Wedge to a Stop (for skiers capable of creating a wedge with their skis):

- Quiet upper body balanced over the skis. ~~If~~ Outriggers should be used as balance tools but if necessary, the skier may be supported (weight bearing) by the outriggers.
- Skeletally stacked, upright (static) upper body with a slight flex (if possible) of the ankles, knees, hips, and spine.
- Weight equally distributed over both skis.
- Equal, constant, and progressive pressure on both outriggers with the snow.
- Outriggers remain in close proximity to the ski (i.e., shoulder width apart making snow contact between binding toe and tip of ski).
- Creating a wedge through leg steering, pointing toes in and heels out.
- Progressively increasing the size of the wedge, creating a slowing effect (increasing edge angle and pressure on the skis)

Gliding Wedge to a Stop (for skiers unable to create a wedge with their skis):

- *Quiet upper body balanced over the skis. Outriggers should be used as balance tools but, if necessary, the skier may be supported (weight bearing) by the outriggers. Skis are maintained in a parallel relationship.*
- *Skeletally stacked, upright (static) upper body with a slight flex (if possible) of the ankles, knees, hips, and spine.*
- *Weight equally distributed over both skis.*
- *Equal, constant, and progressive pressure on both outriggers with the snow.*
- *Outriggers remain in close proximity to the ski (i.e., shoulder width apart making snow contact between binding toe and tip of ski).*
- *Outriggers create a slowing effect as the tail of the outrigger tips are progressively pushed forward into the snow (this movement is created by pushing the hands forward while dropping the shoulders and flexing/rounding the spine). This is the slowing technique described in the latest edition of the*

Adaptive Snowsports Instructor manual*. An alternative slowing technique has been developed since the writing of this manual and may be substituted for this demo. See below:*

-OR-

- *Outriggers create a slowing effect as the outrigger tips are rotated outward creating a "diverging wedge". Slowing can be increased or decreased by increasing or decreasing the angle of outward rotation and/or by increasing or decreasing the amount of outrigger pressure applied to the snow.*

Wedge Turns (for skiers capable of creating a wedge with their skis):

- Tall stance with a balanced upper body over the skis.
- Maintain a constant speed throughout the turn. Speed control is a result of turn shape rather than wedge size.
- Emphasis is on leg steering generated as low in the body as possible (at turn initiation steering with the legs throughout the shaping phase of the turn).
- Symmetrical outrigger steering may be used as a rotary enhancer (at turn initiation both outrigger tips are pointed in the direction of the next turn and this movement is held throughout the shaping phase of the turn), but should only be used as a supplement to the primary rotary power of leg steering.
- Minimal countering movements of the upper body other than the head is always orientated "downhill" (in the direction of the "hub" of the next turn) and never across the hill.
- As rotary movements in the turn develop, the skis and outriggers are steered across the hill, increasing pressure to the outside ski by terrain dictated edging on the inside edge of the downhill ski and minimally, both riggers.
- Although the hips and upper body remain centered over the skis, the center of mass may move slightly to the inside of the turn on steeper terrain ("terrain dictated edging"). A slight amount of banking is acceptable in order to control the edge angle.
- Emphasis is on producing a rounded, deliberate turn shape, and throughout the turn maintaining the tips of both outriggers in close proximity to the tip of the ski (i.e., there is no "countering movements of the outrigger" or "reaching downhill").
- The wedge turn shows the basic skills of skiing in a slow moving situation, emphasizing the rotary movements created by leg steering with limited edge and pressure movements to maintain constant speed and radius of the turn.
- A desired outcome is to achieve a sense of rhythm, flow, and control from turn to turn, while maintaining a constant speed relative to the shape of the turn.

Wedge Turns (for skiers unable to create a wedge with their skis):

- *Tall stance with a balanced upper body over the skis. Skis are maintained in a parallel relationship.*
- *Maintain a constant speed throughout the turn. Speed control is a result of turn shape rather than slowing via the outrigger.*
- *Emphasis is on leg, hip, or torso steering generated as low in the body as possible (at turn initiation steering with the legs or hips throughout the shaping phase of the turn).*
- *Symmetrical outrigger steering may be used as a rotary enhancer (at turn initiation both outrigger tips are pointed in the direction of the next turn and this movement is held throughout the shaping phase of the turn) but should only be used as a supplement to the primary rotary power of leg, hip, or torso steering.*

- *Minimal countering movements of the upper body other than the head is always orientated "downhill" (in the direction of the "hub" of the next turn) and never across the hill.*
- *As rotary movements in the turn develop, the skis and outriggers are steered across the hill, increasing pressure to the outside ski by terrain dictated edging on the inside edge of the downhill ski and minimally, both riggers.*
- *Although the hips and upper body remains centered over the skis, the center of mass may move slightly to the inside of the turn on steeper terrain ("terrain dictated edging"). A slight amount of banking is acceptable in order to control the edge angle.*
- *Emphasis is on producing a rounded, deliberate turn shape, and throughout the turn maintaining the tips of both outriggers in close proximity to the tip of the ski (i.e., there is no "countering movements of the outrigger" or "reaching downhill").*
- *The wedge turn shows the basic skills of skiing in a slow moving situation, emphasizing the rotary movements created by leg, hip, or torso steering (supplemented as needed by outrigger steering) with limited edge and pressure movements to maintain constant speed and radius of the turn.*
- *A desired outcome is to achieve a sense of rhythm, flow, and control from turn to turn, while maintaining a constant speed relative to the shape of the turn.*

Wedge Christie (for skiers capable of creating a wedge with their skis):

- Speed is greater than that of a wedge turn and should be constant throughout the task relative to the shape of the turn.
- Emphasis is on leg steering (at turn initiation steering with the legs throughout the shaping phase of the turn).
- The ski and lower body is allowed to turn slightly more than the upper body, resulting in a slightly countered relationship with the ski (i.e., head, shoulders, torso, and hips slightly countered in the direction of the next turn). This increased upper body countering encourages angulated edging movements. However, angulation is minimal as related to the terrain appropriate for this demo.
- At turn initiation creating a wedge through leg steering subsequently matching the skis into a parallel relationship before or after the fall line.
- As rotary movements are accomplished, there is a release of the ski's edge and slight movement of center of mass into the new turn. Edge release is initiated by a minimal extension (as physically possible) in the direction of the new turn.
- Edge angle and pressure on the inside edge of the skis, is slightly greater and occurs earlier than in a wedge turn. This results in the riggers becoming quite light and flat, making it easy to symmetrically guide into a parallel relationship with the ski. This "matching" occurs at or after the fall line, coinciding to the christie phase of the turn. (Similar to what occurs with two skis.)
- Throughout the turn, the skier demonstrates dynamic balance by maintaining a "tall athletic stance" with slightly rounded shoulders and spinal column with flexed knee and ankle.
- Progressive leg steering combined with increased speed and a relatively flat ski produce a round, skidded arc.

Wedge Christie (for skiers unable to create a wedge with their skis):

- *Speed is greater than that of a wedge christie and should be constant throughout the task relative to the shape of the turn.*
- *The ski and lower body is allowed to turn slightly more than the upper body, resulting in a slightly countered relationship with the ski (i.e., head, shoulders, torso, and hips slightly countered in the*

direction of the next turn). This increased upper body countering encourages angulated edging movements. However, angulation is minimal as related to the terrain appropriate for this demo.

- *Asymmetrical outrigger steering may be used as a rotary enhancer (at turn initiation one outrigger tip is pointed in the direction of the next turn) and "matched" or moved (toward the midline) back to the neutral position prior to or after the fall line of the turn (similar to the "match" of the skis of a standup skier doing a classic wedge christie). There is no active "reaching" of the outrigger downhill although the downhill outrigger will be farther away from the ski than in the wedge turn because of the increased counter of the upper body).*
- *As rotary movements are accomplished, there is a release of the ski's edge and slight movement of center of mass into the new turn. Edge release is initiated by a minimal upper body extension in the direction of the new turn.*
- *Edge angle and pressure on the inside edge of the ski, is slightly greater and occurs earlier than in a wedge turn. This results in the riggers becoming quite light and flat, making it easy to symmetrically guide into a parallel relationship with the ski. This "matching" occurs at or after the fall line, coinciding to the christie phase of the turn. (Similar to what occurs with two skis.)*
- *Throughout the turn, the skier demonstrates dynamic balance by maintaining a "tall athletic stance" with slightly rounded shoulders and spinal column with flexed knee and ankle.*
- *Progressive leg steering (if physically possible) combined with increased speed and a relatively flat ski produce a round, skidded arc.*

Basic Parallel

- Speed is greater than that of a wedge christie and should be constant throughout the task relative to the shape of the turn.
- Nearing the completion of a prior turn the skier's stance is slightly flexed and countered in the direction of the next turn. With pressure distributed between both skis, the outside rigger is in an arc away from the midline, pointed toward the "hub" of next turn. This asymmetrical outrigger steering movement (from the outside/downhill outrigger) is a rotary enhancer to the primary rotary power of leg steering (when physically possible) and corresponds with a countered upper body oriented in the direction of the next turn (outrigger, arm, shoulder, torso, and hips all move together as the upper body finishes the old turn in a countered position.)
- Outrigger movements and upper body separation correspond to the turn size (i.e., long radius turns correspond to a 1 and 11 o'clock countering, with 12 o'clock being aligned with the long axis of the ski toward the ski tip and short radius turns require a 3 and 9 o'clock orientation of the upper body and hips at the finish of the prior turn; much as a pole touch for a two-track skier) and to the student's physical ability and movement range.
- As the skier starts extending toward the new turn, a change in pressure dominance begins from the old inside edge of the downhill ski to the new inside edge of the outside ski.
- Continuation of the above movements results in a cross-over or lateral movement of the center of mass and a flattening of the skis, which combined with the guidance of both ski and rigger toward the fall line. Edging movements are achieved by **angulation** of the hips and knee with shoulders level to the fall line relative to the student's physical ability and movement range.
- The inside rigger and ski complement the actions of the dominant inside edge of the downhill ski. Progressive leg steering (if possible) combined with flexion down and inward regulates edging and pressure, which are progressive throughout the turn.
- A progressive increase of edging and pressure in the turn reduces the amount of skid and helps shape the arc of the turn, which should be fairly consistent throughout.

Dynamic Parallel

- There is refinement of all aspects of the basic skills of skiing of open parallel and they are performed at greater speed with more precision. Speed should remain constant throughout the task relative to the shape of the turn.
- Skis are used as a working component in the turn to achieve desired turn shape and type. Ski characteristics such as flex and sidecut are considered. Turns are carved, but not railed. Stance is functional for the speed, radius, and terrain being utilized.
- At turn initiation, the downhill outrigger is moved farther away from the midline in a "reaching" movement. This "reach" with the outrigger is simultaneous with an active cross-over of the center of mass from the old inside edge to the new edge. Pressure transfer at turn initiation is very deliberate, and commitment of the center of mass toward the new turn is very active. All movements contribute toward carrying the energy from one turn to the next.
- Edge/pressure engagement is taking place before the fall line.
- Intensity, duration, and timing of movements determine the size, shape, and speed of the turn, (i.e. gliding, braking, short, medium, and long).

Adaptive Functional Skiing Task Examples

(From PSIA-RM Adaptive Exam Guide, Functional Skiing)

Sideslip to Hockey Stop

Why this maneuver? This maneuver is extremely important as a method used in tethering mono- or bi-skis, guiding blind students or working with any other disability. The sideslip to hockey stop is essential for mastering the beginner terrain moving into the intermediate zone and can be performed in any discipline. This maneuver is performed on smooth, easy blue terrain.

Description: From a straight run in the fall line, initiate a sideslip through simultaneous turning of both legs across the fall line while maintaining a stable upper body and balanced/neutral stance. *(A slight flexion of the legs will enhance the ability to turn the feet and legs independent of the torso.)*

1. While side-slipping, a natural lead of the uphill ski and body keeps hips free to adjust edge angles. Upper body should face down the hill while skis turn across the hill.
2. Sideslip should be maintained in a narrow corridor, without traveling across the hill in a corridor no more than the approximate length of 1 ½ skis.
3. Continuous fore/aft adjustments will help maintain a perpendicular sideslip with minimal travel across the hill.
4. After a distinct sideslip, progressively tip both feet and legs into the hill to engage edges to a balanced stop, or “hockey stop”.
5. Continuous adjustments from foot to foot will help center skier over both skis.
6. Reverse direction and repeat the maneuver to the other side.

Falling Leaf

Why this maneuver? This maneuver allows instructors to move slowly down a hill (similar to the sideslip), while adjusting across the hill to match the adaptive student’s path of travel. The falling leaf maneuver saves instructors from having to wedge in the fall line, thus making it an energy-efficient way to ski with novice adaptive skiers. When used as a ski drill it teaches the adaptive student about pressure control and is a great task used in the advanced beginner zone. This maneuver is performed on steeper green to easy blue, groomed terrain.

Description: From a sideslip in the fall line, use feet and legs to direct skis back and forth across the hill. The skier maintains the same directional orientation while the skis move forward and backward. A swooping Z-shaped pattern with coordinated blending of skills will help maintain speed control and allow the skier to maneuver as desired across the hill.

1. From a sideslip in the fall line, use coordinated flexing and extending movements of the joints, along with fore/aft pressure of the skis, to allow the skis to move forward and backward across the hill.
2. Use turning movements of the legs and feet as necessary to control shape and speed.
3. Use tipping movements of the feet and legs to control edge engagement.
4. This maneuver should be symmetrical with the fall line.
5. This maneuver is performed in both directions.

Traverse - to Diagonal Sideslip - to Traverse

Why this maneuver? This maneuver is another way for instructors to move slowly across the hill while assisting students, without having to hold a wedge position. The ability to control the degree of edge

engagement and make subtle adjustments is also an important skill when tethering adaptive students on specialized equipment. As an exercise, it enhances the student's ability to maintain balance and stance while establishing edge control. This maneuver is performed on steeper green to easy blue, groomed terrain.

Description: From a clean traverse across the fall line, use feet and legs to release the edges of the skis so they sideslip diagonally across the hill. After a brief period of diagonal sideslipping, re-engage the edges using the feet and legs and continue in a clean traverse across the hill.
1. From a traverse, release both edges to a forward sideslip through simultaneous tipping movements of the feet and legs.
2. The upper body should remain stable and in a slightly countered relationship to the feet and legs. *(Counter is developed through turning movements of the feet and legs.)*
3. After the diagonal sideslip, re-engage both edges through simultaneous tipping movements of the feet and legs.
4. Perform this maneuver in both directions across the hill.

Stem or Step Turns

Why this maneuver? This maneuver is an excellent way to get from one direction to another quickly. It is extremely important in maintaining speed control when tethering because it minimizes time spent in the fall line when changing directions. This maneuver is not necessarily tough but it is also referred to as a blocking turn to stop and change the direction of travel.

Description: At the end of a turn, stem the uphill ski into a diverging (wedge) position. Quickly transfer weight to the uphill ski and initiate the turning process. Match the inside ski from a wedge position to a parallel position and complete the turn with the skis parallel. This maneuver is performed on harder blue terrain to easy black terrain, showing quick directional changes.
1. End each turn with the skis parallel. The skis can either be moving forward slowly as the turn is finished, or skidding sideways for speed control. This maneuver can also be demonstrated from a complete hockey stop.
2. Use the appropriately sized wedge position to regulate the initiation of the next turn. This can either be large or small, depending on the situation.
3. The uphill ski can be stepped and placed into this wedge position, or the tail of the ski can be brushed out through the snow until the wedge position is achieved.
4. Once the ski has been placed, make an immediate and complete weight transfer to the uphill ski. This will start the turn initiation into the new turn and help to minimize time in the fall line.
5. Quickly match the skis once again into a parallel position by sliding, brushing or stepping the inside ski into the parallel. This is considered a 1-2, or sequential movement. The matching movement is made with a rotation of the leg and foot, steering the ski to match.
6. The turn is completed with the skis parallel. Turn shape can be round, skidded, or sideslipped to a hockey stop to maintain speed control.
7. Stem step turns, of any shape, should be linked together with rhythm and flow. Speed control is maintained using turn shape.

Hour Glass Parallel Turns with Progressive Radius Reduction

Why this maneuver? It is an important for adaptive instructors to be able to change the radius of their turns while maintaining speed control in order to manage specialized adaptive equipment safely. Hour glass turns are an excellent way to practice this skill and to teach to any level of student.

Description: This maneuver is a series of parallel turns that start from a medium radius. Each subsequent medium radius turn decreases in radius to become short radius turns. From short radius, the turns are then increased once again back to medium radius turns. The entire series of turns paints an "hour glass" track in the snow. This maneuver is performed with consistent speed control, using turn shape, so that the short radius turns are no faster than the medium radius turns. If numbers were assigned to each turn size, the larger turns might start at 6 then progressively get smaller, to a series of turns at a size of 2, and then back to the larger turn size of 6. The sequence might look like this, 6 – 5 – 4 – 3 – 2 – 2 – 3 – 4 – 5 – 6. This sequence would be repeated until reaching the agreed upon stopping point and finished with a hockey stop. This maneuver is performed on harder blue to easy black groomed terrain with an even fall line pitch.

1. Turns can be performed as a basic parallel or dynamic parallel (depending on the skill level of the skier) or be performed specifically to the disability.
2. All skiers should perform this maneuver with a balanced, centered stance.
3. Turns should be symmetrical on each side.
4. A distinct difference from the medium radius turns to the short radius turns and back to medium radius should be evident.
5. Speed should remain consistent throughout the entire demonstration.
6. Speed control is achieved through skill-blending and turn shape.

Synchronized Skiing with one or more Partners:

Why this task? Synchronized skiing is really fun! It is also a good measure of your ability to adjust your skiing to another person's turn shape or rhythm. As adaptive instructors, these adjustments must be made in order to successfully meet the skiing needs of our students.

Description: Skiers can synchronize their skiing in pairs or with three or more other skiers. In this task, the group of skiers will cue off the designated leader and match their turns exactly. Typically a set rhythm is established, along with a starting turn direction left or right. All skiers start and end together at the same time. Voice cues help to establish basic rhythms and other performance criteria. There are a variety of group formations that can be utilized when synchronized skiing, such as side-by-side, skier in front and behind, lines, diamond formations, flying "V" formations and others. This task is performed on groomed green to easy groomed black terrain.

1. Skiers should have the ability to pace as the leader and adapt as the follower(s). The leader is responsible for setting up the synchronized skiing exercise. The follower is acting according to how the leader sets up the task.
2. Turns should occur at the same time rather than in each other's tracks.
3. Skiers should have a coordinated finish with a balanced hockey stop.
4. The leader and follower switch roles and repeat the same task, but this time the exercise is set up by the new leader.

Freeski Run

Watching skiers ski their preferred turns, or "freeski," allows for an assessment of their basic skiing mechanics. Most skiers have specific styles and preferred turning mechanisms that either enhance or hinder their ability to ski a variety of terrain or perform specific skill-based maneuvers with accuracy (such as a hockey stop). Adaptive instructors are assessed while freeskiing to help coach them towards better skill and greater overall skiing success.

Description: Skiers are asked to ski a section of hill at their own pace and in their own personal style. With the previous set of skiing maneuvers, the maneuvers themselves dictate a skier's basic skill, their

ability to blend skills and their basic understanding of what to do with their skis and body in order to successfully perform the maneuver. For example, a skier cannot successfully perform a sideslip if they are unable to release their edges and allow the skis to slide sideways down the hill.
In freeskiing, the task does not necessarily outline success. Skiers can ski down a slope and "make it," but their overall technique may be flawed. In this task, there are certain guidelines that account for successful freeskiing or for freeskiing that needs some work. Typically, if a skier has a flawed overall technique, it will not only be apparent in their freeskiing, but their ability to perform specific maneuvers (like a stem step turn) will be hindered as well.

The freeski run is performed on groomed blue or easy groomed/black terrain.
1. Turns should be linked (no traverse) at a minimum of dynamic parallel or disability equivalent.
2. Skiers should be able to utilize ski design and skill blending to create turn shape.
3. Stance should be balanced and centered.
4. Progressive movements should be used to simultaneously steer the skis through the turn.
5. Speed is controlled through turn shape and should be consistent for the entire run.

Bump Run

It is important for adaptive instructors to be able to ski in bumps so that they can effectively work with mountain skiing students in a variety of situations.

Description: Skiers are asked to ski a section of hill with relatively easy bumps at their own pace and in their own personal style. Since bumps can change drastically from turn to turn, skiers should be able to "adapt" their skiing and adjust their turns to meet the demands of the situation.

This task is performed on blue bumps runs, with a moderate pitch and smaller sized bumps. Only one of the following will be examined:
1. Fall-line bump skiing with:
    a. Rhythmical, linked, parallel, short to medium radius turns (no traversing or stemming).
    b. Consistent speed maintained through turn shape.
    c. An appropriate blend of skills.
    d. Tactical choices appropriate to terrain and snow conditions.

Medium to Large Radius Turns in the Bumps with:
    a. Linked turns showing a balanced and centered stance.
    b. Maintenance of ski snow contact through absorption.
    c. Consistent speed maintained through turn shape.
    d. Tactical choices appropriate to terrain and snow conditions.

Variable Terrain and Snow Conditions

Some of our adaptive students enjoy the experience of seeing the whole mountain. Whether low intermediate or advanced, students will need an instructor capable of skiing with them no matter what the terrain is or what the conditions of the day may be!

Description: Skiers are asked to ski a section of hill that has not been recently groomed. Skiers should be able to "adapt" their skiing and adjust their turns to meet the demands of the situation.

This task is performed on an *un-groomed* blue run.

1. Turns should be linked (no traverse) at a minimum of dynamic parallel *or disability equivalent*.
2. Skiers should be able to utilize ski design and skill blending to create turn shape.
3. Stance should be balanced and centered.
4. Progressive movements should be used to simultaneously steer the skis through the turn.
5. Speed is controlled through turn shape and should be consistent for the entire run.

Other Examples of Functional Skiing Tasks

Short swing (blue to easy black terrain): Short turns down the fall line typically in a corridor of ½ a groomer width or narrower with emphasis of increased edging and steering and pole plant at turn completion.

Pivot Slips (blue or easy black terrain): Ski through a series of linked, pivot slips in a narrow corridor staying in the fall-line while maintaining a consistent speed.

Key Performance Focus

- Skis maintain a parallel attitude
- Path of the COM is more fall-line oriented
- Turning movements originate in the feet and legs
- Quiet and stable upper body

Teaching

Specific Skill Requirements for Level I Instructors

Skills	Skill Requirements
Awareness, Understanding and Knowledge	The candidate will be able to: • Understand the concept of learning styles; discuss the different styles, and provide examples of how to recognize a student's learning style. • Identify styles of teaching and explain the use of the command and task styles. • Compare student profiles of adults and children with similar disabilities learning in the beginner/novice zone. • Discuss key factors in maintaining an environment that accommodates the special needs of each student and is paced appropriately. • Identify a variety of ways to develop trust between instructors and students. • Demonstrate an understanding of safety, including the Responsibility Code. • Understand differing needs of one of the six defined disability categories through a spectrum of students of varying age and ability. • Describe specific needs of a student with one of the six defined disability categories relative to the resort environment.
Application	The candidate will be able to: • Assess any student in one of the six defined disability classifications evaluating their cognitive, affective, and physical abilities related to strength, mobility, range of motion and his/her communication capabilities. • Create and maintain an environment that fosters trust through comfortable pace and an understanding of the special needs of the student. • Demonstrate a variety of ways to develop trust in the instructor/student partnership. • Demonstrate the use of the command and task styles of teaching in a lesson. • Demonstrate the application of safety concepts, including the Responsibility Code, relative to one of the six defined disability categories.

Specific Skill Requirements for Level II Instructors

Skills	Skill Requirements
Awareness, Understanding and Knowledge	The candidate will be able to: • Consider and address safety concerns as students move through the intermediate zone learning environment. • Analyze the importance of options in lesson plans based upon the mental, emotional, and physical needs (development) of individual students. • Discuss the components of effective feedback in the learning environment. • Evaluate students in all disability classifications and identify individual physical abilities and mental/cognitive capacity. • Modify lesson content to meet the needs of students at various stages of physical development, and/or with a variety of learning and physical abilities. • Demonstrate the understanding of safety, including the Responsibility Code, relative to the six defined disability categories.
Application	The candidate will be able to: • Identify the particular learning style of each student and adjust the instruction to accommodate the various learning styles. • Accurately describe movements relative to the ATS effective movement cues • Identify the personality traits and learning styles of students, and make broad adjustments in lesson plans and delivery to accommodate those traits/preferences. • Make technical content decisions for lessons based upon both movement analysis observations and student goals and needs through the intermediate zones. • Use the ATS Teaching Model to address students' needs, explain and employ the equipment necessary, describe and provide terrain options, and address other vital topics to individualize the lesson for each student. • Demonstrate the application of safety concepts, including the Responsibility Code, relative to the six defined disability categories.

Specific Skill Requirements for Level III Instructors

Skills	Skill Requirements
Awareness, Understanding and Knowledge	The candidate will be able to: • Create and describe lesson plan based on accurate assessment of students in all disability categories learning through the advanced zone. • Identify the basic elements of the multiple intelligence theory and relate those concepts to preferences in communication and information exchange. • Discuss the following elements pertaining to teaching and learning and how each element may affect a student's learning experience: parameters for effective teaching, teaching for transfer, feedback, pacing and lesson content. • Do an in-depth evaluation of any adaptive skier, including an assessment of strength, mobility, range of motion, and his or her communication capabilities. • Individualize all lessons by utilizing a variety of teaching styles, methodologies, and strategies. • Use the concept of lateral learning at all class levels and with all disability classifications to enhance skill development and skill applications and to improve performance and versatility. • Demonstrate the understanding of safety, including the Responsibility Code, relative to the six defined disability categories.
Application	The candidate will be able to: • Adjust the depth and pacing of information and feedback to address the needs, motivation, and students' interest level. • Address a variety of learning styles and utilize various feedback systems to facilitate an experiential learning environment. • Conduct an in-depth evaluation of any adaptive skier, including an assessment of strength, mobility, range of motion and his or her communication capabilities with the ability to adapt or create technical solutions to unforeseen issues. • Creatively utilize the conditions of the day to ensure safety and create unique experiences for students. • Make technical lesson content decisions based on specific movement analysis observations, as well as non-movement factors (cognitive, emotional, physical). • Demonstrate the application of safety concepts, including the Responsibility Code, relative to the six defined disability categories.

Professional Knowledge

Specific Skill Requirements for Level I Instructors

Skill Category	Skill Requirements
Terminology	The candidate will be able to: • Define and explain basic skiing terminology as described in PSIA-AASI's *Core Concepts for Snowsports Instructors*, the *Alpine Technical Manual (2nd ed.),* and the *Adaptive Snowsports Instruction* manual. • Identify and explain the skills concept. • Identify the three phases of a turn and effective movements associated with each phase. • Define and explain basic terminology commonly associated with adaptive ski teaching (including medical terminology regarding physical variations related to adaptive abilities) in the selected discipline. • Define physical and cognitive abilities as they relate to specific disabilities within one of the six defined disabilities. • Name common medications and the side effects that may affect students in the selected discipline area.
Equipment	The candidate will be able to: • Identify equipment needs of skiers through the beginner/novice zone in the chosen classification. • Describe the various types of adaptive equipment and explain how each piece functions within the chosen specialty. • Identify common equipment safety issues. • Explain the basic options and benefits of modern ski designs.
ATS Application to Adaptive Ski Teaching	The candidate will be able to: • Identify effective movements and skill development through the beginner/novice zone in the chosen disability classification. • Understand the concept of skill blending, and identify effective and ineffective movement blends for skiers with differing disabilities in one of the six defined disability categories learning in the beginner/novice zone.
Movement Analysis	The candidate will be able to: • Describe effective movement patterns relative to skill development in beginner/novice zone skiers in the chosen disability classification. • Identify desired skill and movement outcomes in various types of beginner/novice zone skiing including wedge and wedge christie turn progressions for the chosen disability classification. • Understand basic biomechanics as it relates to the "four basic skills" and the disabilities related to one of the six defined disability categories. • Prescribe a corrective exercise or task for a situation at each Level 1-4, where performance is observed to be inconsistent with effective skill application and blending in the chosen disability classification. • List exercises and tasks, which address a student's needs, the equipment being used, terrain options, etc. • Determine a cause-and-effect relationship as it relates to movements and fundamental skills demonstrated by beginner/novice zone skiing zone.

Specific Skill Requirements for Level II Instructors

(See next page)

Skill Category	Description of Skill Requirements
Terminology	The candidate will be able to: • Analyze terminology as described in *Core Concepts for Snowsports Instructors,* the *Alpine Technical Manual: Skiing and Teaching Skills,* and the *Adaptive Snowsports Instruction* manual*,* and the *Children's Instruction Manual (2nd ed.)*. • Communicate *what, why,* and *how* the American Teaching System and skills concepts pertain to beginner/novice zone students skiing in each of the six disability categories. • Relate effective movement development for students with disabilities to the ATS stepping stones concept. • Identify the three phases of a turn, the forces that act on a skier throughout a turn, and the effective movements associated with each phase. • Describe the medical background of common disabilities in each of the six disability categories. • Define and interpret the terminology commonly associated with each adaptive discipline area including medication information, disability characteristics, and equipment needs.
Equipment	The candidate will be able to: • Describe adjusting equipment needs as students move through the beginner/novice and intermediate ability zones. • Understand the intended benefits of equipment design. • Describe appropriate adaptive equipment and explain how each piece needs to be set up for students according to disability according to diagnosis and safety considerations for the person. • Describe changing equipment needs as students progress in ability.
ATS Application to Adaptive Ski Teaching	The candidate will be able to: • Relate how adaptive skiers use available muscular strength to affect development in movement ability and skill. • Describe effective movement patterns of the ATS Skiing Model and how application of the skills relates to all disabilities. • Prioritize developmental needs and movement development for skiers in all disability classifications learning in the beginner through intermediate zones.

Movement Analysis	The candidate will be able to: • Describe the forces acting on a skier in a turn; relate how a skier uses muscular effort and movements to manage these forces. • Understand the visual cues of effective and ineffective skiing relative through intermediate zone applications. • Understand cause-and-effect relationships between movements and resultant ski performance through intermediate zone skiing situations. • Consider non-performance factors that can include age, past experience, and conditioning when analyzing the ability of students. • Communicate movement analysis information and feedback to students in simple, positive language. • Prescribe exercises and tasks that target each student's needs and can potentially improve his or her performance in each discipline through the intermediate zone. • Describe the basic movement patterns of the individual skier for any discipline through the intermediate zone.

Specific Skill Requirements for Level III Instructors

Skill Category	Description of Skill Requirements
Terminology	The candidate will be able to: • Effectively teach skiers across all adaptive disciplines using appropriate language demonstrating the ability to translate most skiing terminology into layman's terms. • Relate specific skiing terminology to students through use of simple language and by relating the terminology to sensations and achievable movements. • Discuss several types of medications, their use, and potential side effects. • Discuss types and severity of disabilities, including multiple disabilities, and their effect on the student's performance. • Thoroughly discuss and analyze any disability, including physical, cognitive, communicative, and behavioral.
Equipment	The candidate will be able to: • Describe changing equipment needs as skiers move through the beginner, intermediate and advanced ability zones. • Tailor lesson plans to fit student equipment capabilities. • Serve as an industry ambassador, shop liaison, and general authority for equipment questions and advice. • Describe in detail all adaptive equipment, analyze how each piece of equipment functions, and prescribe appropriate modifications for different disabilities -- including multiple disabilities -- through the advanced zone skier. • Identify equipment needs for skiers through the beginner/novice through advanced zone in any disability classification. • Explain the basic options and benefits of modern ski designs. • Identify common equipment safety issues.
ATS Application to Adaptive Ski Teaching	The candidate will be able to: • Synthesize appropriate application of the skills concept and the effective movement cues as a tool to communicate, organize, and assist in the teaching of movements through the advanced zone. • Apply skill blending to tactical choices in a variety of conditions, types of terrain, and for all adaptive equipment through advanced zone skiing. • Describe cause-and-effect relationships specific to each disability classification as they relate to skilled movement development through the advanced zone. • Evaluate the relationship between the characteristic movements for skiers with a variety of disabilities relative to the mechanics of effective skiing.

Specific Skill Requirements for Level III Instructors (cont.)

Movement Analysis	The candidate will be able to: • Incorporate all aspects of student-instructor communication into movement analysis, and play to motivation and emotions as well as actual skiing performance. • Understand the *visual cues of effective and ineffective skiing* relative to beginner/novice through advanced zone skiing applications. • Understand cause-and-effect relationships and resulting ski performance in beginner through advanced zone skiing situations. • Utilize informal movement analysis (in addition to formal situations) to constantly monitor all aspects of movement and movement patterns as an ongoing process throughout a lesson. • Evaluate the effectiveness and performance of practice activities, and continuously adjust lesson plans accordingly. • Describe the basic movement patterns in personal skiing and discipline through the advanced zone skier. • Describe developmental skill needs, by priority, for each discipline through the advanced zone skier. • Prescribe exercises and tasks that target students' needs and which should improve their performance in the discipline.