

**IRISH ASSOCIATION  
OF SNOWSPORTS INSTRUCTORS**



**Adaptive Level 2 Ski Instructor  
Award**

**Student Workbook**

## **IASI Adaptive Teaching Principles**

*All teaching is adaptive.*

Adaptive teaching is based on the same principles of alpine teaching with adaptations where necessary.

The following points should be taken into consideration for every lesson to aid a successful outcome.

- **Basic Principles**

Respond to and create forces with appropriate movements to aid effective balancing allowing accurate steering.

- **Assessment**

Our aim is to head towards the students' goals taking their physical and cognitive needs into account. A thorough assessment is key to this process.

- **Independence and Equipment**

We try to help the student become as independent as appropriate using specialised equipment only as necessary.

- **Disability Knowledge**

The student (and their companions) knows their disability. As instructors, we use this knowledge to help us to help them achieve their snow sports goals.

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## **1.0 Overview of the Award**

Adaptive teaching is split into 4 disciplines: Biski, Monoski, Hidden Disabilities and 3Track / 4 Track.

### **1.1 Holders of the IASI Adaptive Level 2 Ski Instructor award will have:**

- ❑ An all round parallel skiing performance in a mountain environment.
- ❑ A good understanding of modern ski technique, equipment and skier's development as well as how it can be adapted to take into account adaptive equipment and disability implications associated with all 4 disciplines (biski, monoski, 3T/4T and HD).
- ❑ Technical ability to handle adaptive equipment safely without putting the student, the instructor or other slope users at risk.
- ❑ An understanding of common disabilities, including any safety issues along with implications involved with skiing in a mountain environment.

**NB:** Please note that a more detailed breakdown of the technical and teaching assessment criteria is detailed on the following pages.

### **1.2 Limitations of the award:**

- ❑ Holders of the IASI Adaptive Level 2 Ski Instructor award are qualified to instruct and lead skiers on marked pistes, within developed areas where a ski patrol operates.
- ❑ Holders are **NOT** qualified to work "privately" and must be employed by a recognised ski school.

### **1.3 Using the workbook:**

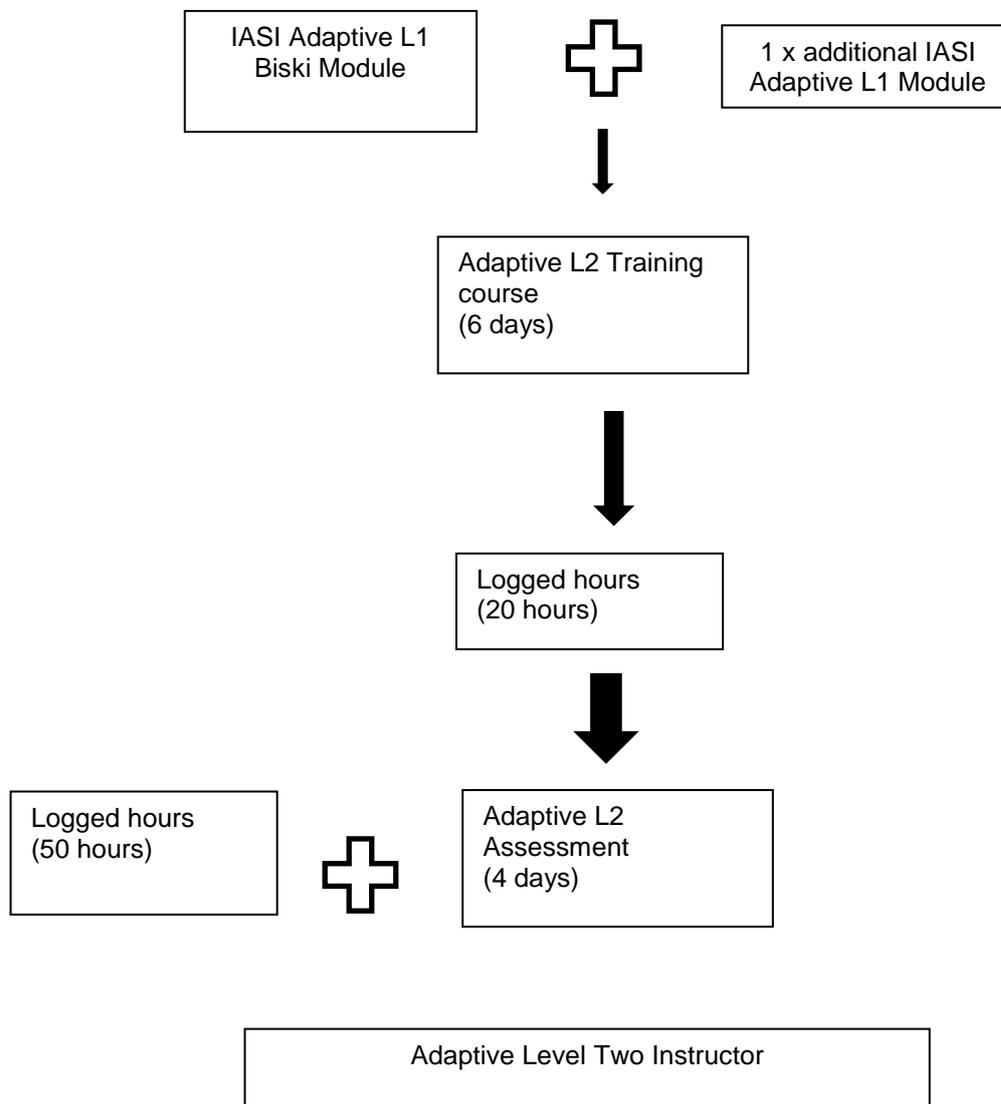
The workbook is designed to cover key areas of the award and to guide you through the training and assessment.

There is additional information in this workbook relating to Basic Principles, Core Skier Development, Teaching Styles, the IASI Skills Model and The Diamond Model of Skill Acquisition. A candidate will be expected to have a good understanding of this information before attending the course. More detailed information on these topics can be found in the IASI Manual. The adaptive course will address how the models and information can be adapted with respect to different disabilities and relevant equipment.

Please note that IASI supply all workbooks in electronic format and encourage students to use electronic devices during the course to refer to it. Notes can be taken separately on electronic devices or in a traditional paper based notebook.

**1.4 Pathway to Adaptive Level 2 Ski Instructor award:**

**IASI Qualification Pathway – Adaptive Level Two**



**Notes:**

- The Adaptive Level 2 includes 4 adaptive disciplines (biski, monoski, 3T/4T and HD) and all 4 disciplines will be assessed during the Assessment Course.
- Logged hours can be teaching within the remit of L1, shadowing or hands on experience with adaptive equipment under the supervision of a suitably qualified adaptive instructor.
- First Aid must include an outdoor element.
- CPD requirement for Level 2 is 1 day every 3 years plus a valid First Aid.

## 1.5 **Technical assessment criteria:**

The following criteria are broken down under the headings of **Core Skier Development (CSD)**, **Technical Performance** and **Disability and Background Knowledge**. It sets out what you as potential level 2 instructors need to "Show" by the end of the course.

### **CORE SKIER DEVELOPMENT**

#### Show

- each stage of Core Skier Development
- ways in which each stage can be adapted to take equipment or disability into account

### **TECHNICAL PERFORMANCE**

#### Show

- handle appropriate equipment safely (both for the instructor and the skier)
- can alter speed and line with appropriate equipment on a blue or red piste
- control speed and line making use of natural terrain variations
- can slow down and stop safely with appropriate equipment

### **DISABILITY AND BACKGROUND KNOWLEDGE**

#### Show

- knowledge of disabilities – how they present, implications with regards to skiing, red flags.
- ability to gather relevant information to help decide on equipment choice, set-up and teaching tools

## 1.6 Teaching assessment criteria:

The following criteria are broken down under the headings of **Safety, Enjoyment** and **Learning** (SEL). It sets out what you as potential level 2 instructors need to "Know" by the end of the course and what do you need to "Show" when delivering your session(s).

### **SAFETY**

#### Know

- the **10 FIS Rules of Conduct**<sup>1</sup> for skiers and boarders
- about accident procedure
- the different types of lifts encountered in ski resorts and how to introduce them
- about weather and its potential effects on your learners
- potential safety issues with respect to specific disciplines/disabilities

#### Show

- the ability to select appropriate equipment with respect to the skier's needs
- good skier management during session delivered
- the ability to use and teach the FIS rules of conduct as required
- the ability to give clear instructions/directions to assist with management of learners
- awareness of other slope users
- good communication with other instructors delivering sessions as required
- good choice of terrain and equipment appropriate to the learners ability level

### **ENJOYMENT**

#### Know

- how to adapt lessons appropriate to disability and equipment
- a **range of activities**<sup>4</sup> for each stage of **Core Skier Development**<sup>2</sup>

#### Show

- confident communication at an appropriate level
- the ability to use simple every day language that is not overly technical
- the ability to adapt language to different types of client
- the ability to keep learners moving (MCA)

### **LEARNING**

#### Know

- what **teaching styles**<sup>3</sup> are and why we use different styles (Mosston & Ashworth)
- what the 3 phases of **skill acquisition**<sup>3</sup> are (Fits & Posner)

#### Show

- a logical progression of activities
- a session that has a beginning, middle and end
- the ability to use a good mixture of explanation and demonstration
- the ability to give positive and corrective feedback either through telling or questioning.

### 1.7 **Resources:**

- 1) **10 FIS Rules of Conduct for skiers & boarders**  
[http://www.fis-ski.com/mm/Document/documentlibrary/Administrative/02/04/30/10FISRulesofConduct-English-A4\\_Neutral.pdf](http://www.fis-ski.com/mm/Document/documentlibrary/Administrative/02/04/30/10FISRulesofConduct-English-A4_Neutral.pdf)
- 2) **Parallel Dreams Alpine Skiing**, 2007 available from Amazon  
[http://www.amazon.co.uk/s/ref=nb\\_sb\\_noss?url=search-alias%3Daps&field-keywords=parallel+dreams+alpine+skiing](http://www.amazon.co.uk/s/ref=nb_sb_noss?url=search-alias%3Daps&field-keywords=parallel+dreams+alpine+skiing)  
*Please note that the course organiser supplies this particular text.*
- 3) **Ski Instructors Handbook – Teaching Tools and Techniques**, by Andrew Lockerbie & Derek Tate, 2012, available as ebook from Amazon, iBooks and print version from Parallel Dreams and Amazon
- 4) **Ski Instructors Assistant** by Derek Tate, 2014 available as a free download from Apple iBooks <https://itunes.apple.com/us/book/ski-instructors-assistant/id916145002?ls=1&mt=11>
- 5) **Ski Instructors Handbook – Technical Skills & Drills**, by Andrew Lockerbie, 2011, available in print from Parallel Dreams and Amazon
- 6) **Irish Association of Snowsports Instructors Manual**  
<https://iasisnowsports.ie/iasi-manual/>
- 7) **Parallel Dreams Blogpost: Learning Zones Part 1**  
<https://www.paralleldreams.co.uk/post/learning-zones-part-1>
- 8) **Parallel Dreams Blogpost: Learning Zones Part 2**  
<https://www.paralleldreams.co.uk/post/learning-zones-part-2>

1.8 Sample programme:**Adaptive Level 2 Ski Instructor Course Programme**

Day	Morning	Afternoon	Classroom	Support Programme
Day 1	<b>Introduction of monoski, characteristics and operation</b> Bucketing	<b>Core Skier Development (CSD) and Basic Principles</b> Sliding to plough turning equivalent With bucketing	Introduction to disabilities Review of on slope content Technical performance feedback	<b>BP &amp; CSD</b> review sheets <b>Disability and Needs Analysis</b> review sheets
Day 2	<b>Core Skier Development (CSD)</b> Plough parallel to parallel equivalent	<b>Monoski movement analysis</b> common problems and possible solutions	Review of on slope content Review disabilities Technical performance feedback	
Day 3	<b>Biski Core Skier Development (CSD) and Basic Principles</b> Refresh incl. bucketing and tethering	<b>Technical practice</b> Bucketing and tethering	Review of on slope content Review disabilities Technical performance feedback	
Day 4	<b>3T and 4T Core Skier Development (CSD)</b>	<b>Adaptive stand-up equipment and techniques</b> Exploring how and where techniques support CSD	Review of on slope content Review disabilities Technical performance feedback	
Day 5	<b>Hidden Disabilities Core Skier Development (CSD)</b>	<b>VI</b> – guiding including assessing needs, dryland guiding and on snow guiding	Review of on slope content Review disabilities Technical performance feedback  Assessment process	
Day 6	<b>Review all disciplines Movement Analysis</b> common problems and possible solutions	<b>Mini Scenarios Session Delivery Technical practice</b> As required	Review of on slope content Review disabilities Technical performance feedback  Individual feedback and action plan.	

**NB:**

- The Adaptive Level 2 Training course includes training in all 4 adaptive disciplines (biski, monoski, 3T/4T and HD).
- Before attending the L2 training course a candidate must have completed at least 2 x L1 modules, one of which, must be the biski module.
- One day represents approximately 7 hours with this typically being 5 hours skiing and 2 hours off slope in the classroom. However this is only a guide and courses will vary slightly depending on the venue and format.
- The above outlines a suggested course programme for the training course.
- The Adaptive L2 Assessment course follows at a later date and will include technical and teaching assessments in all 4 disciplines.

**2.0 Day One**

**2.1 Outcomes and notes**

**OUTCOMES:**

- Relaxed and comfortable with your peers, trainer and course programme
- Have an understanding of typical disabilities for this discipline
- Have gained experience handling equipment for this discipline
- Understand how Core Skier Development (up to plough turning) can be adapted

**Notes:**

## 2.2 Disability Notes

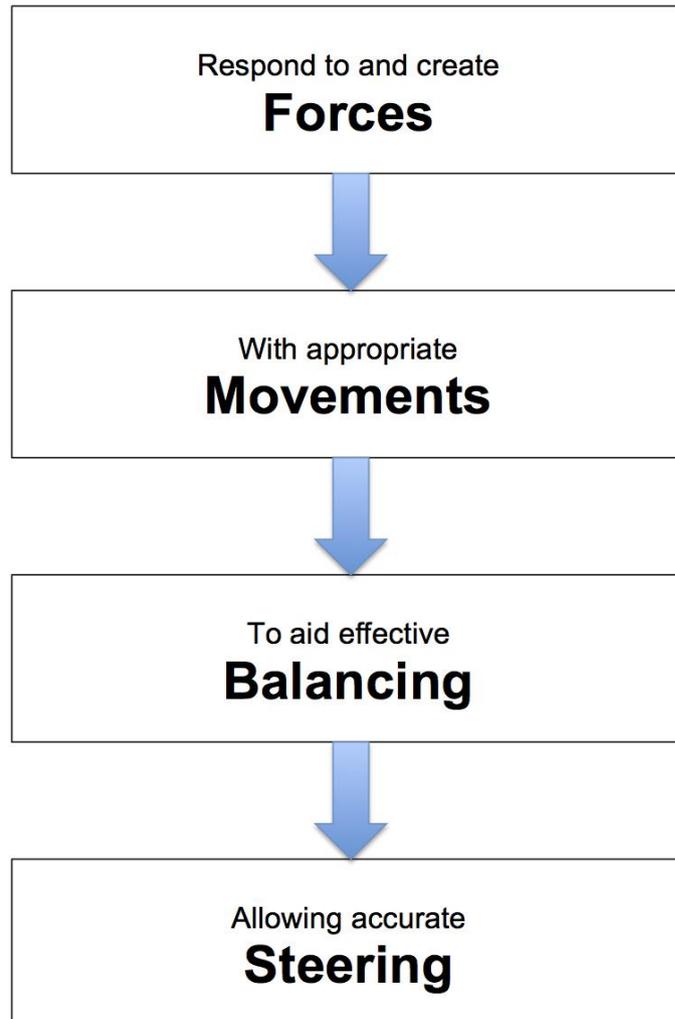
At the back of the workbook you will find tables similar to the one below for you to make notes to help gather relevant information with regards to various disabilities and how that might relate to skiing. This will not provide you with comprehensive information, however, it will give you a starting point from which you can develop.

Example:

<b>Disability</b>	Cerebral Palsy
<b>What is it (in layman's terms)</b>	Lack of oxygen to the brain before, during or shortly after birth leading to brain damage.
<b>Characteristics</b>	Can result in muscle spasms, uncontrolled muscle movements, possible speech impairment, possible cognitive impairment.
<b>What equipment is likely</b>	Depends on what part of the brain was affected and how much. May ski standing or sitting – if sitting probably biski
<b>Behaviour</b>	Depends on what part of the brain was affected and how much. Possible cognitive impairment.
<b>Any questions you need to ask? (student/parent/companion)</b>	Any drugs we need to know about? If non-verbal – how to communicate and what do the answers mean?
<b>Any red flags or safety issues</b>	Possible epilepsy. Muscular or skeletal stress.
<b>Tips/tricks/teaching tools</b>	

2.3 Basic Principles model

## Basic Principles Model

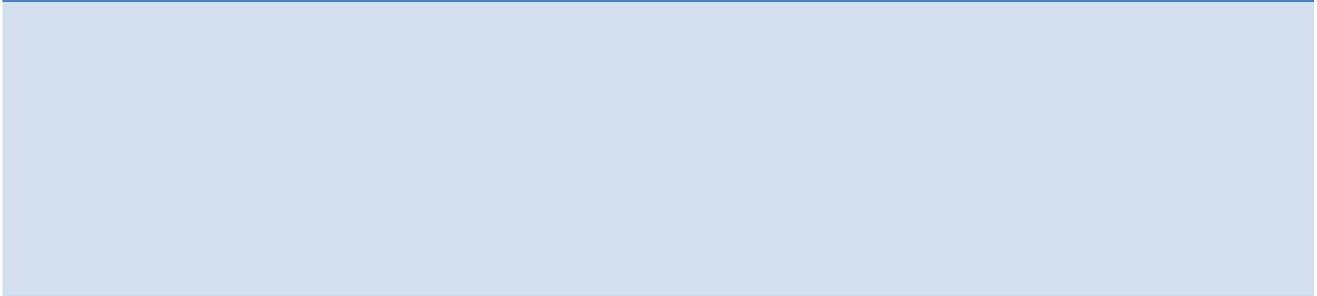


Respond to and create **Forces** with appropriate **Movements** to aid effective **Balancing** allowing for accurate **Steering** of your skis.

**2.4 Basic Principles review**

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**FORCES**



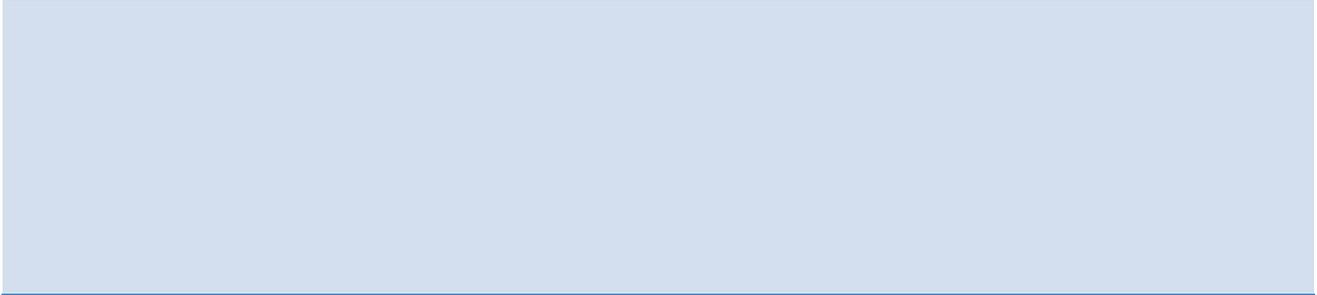
**MOVEMENTS**



**BALANCING**



**STEERING**



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## 2.5 IASI Skills Model

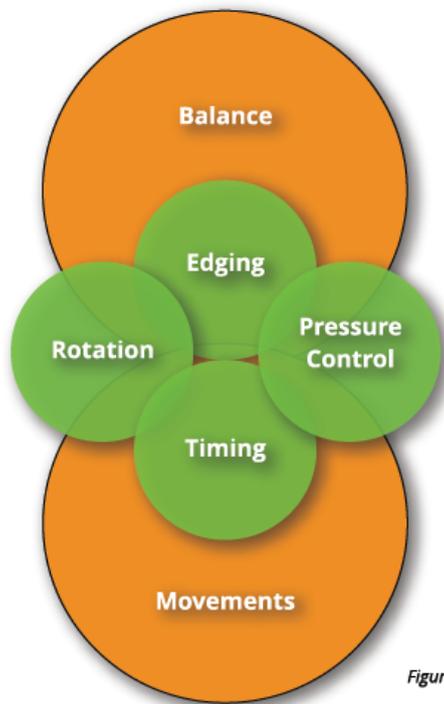


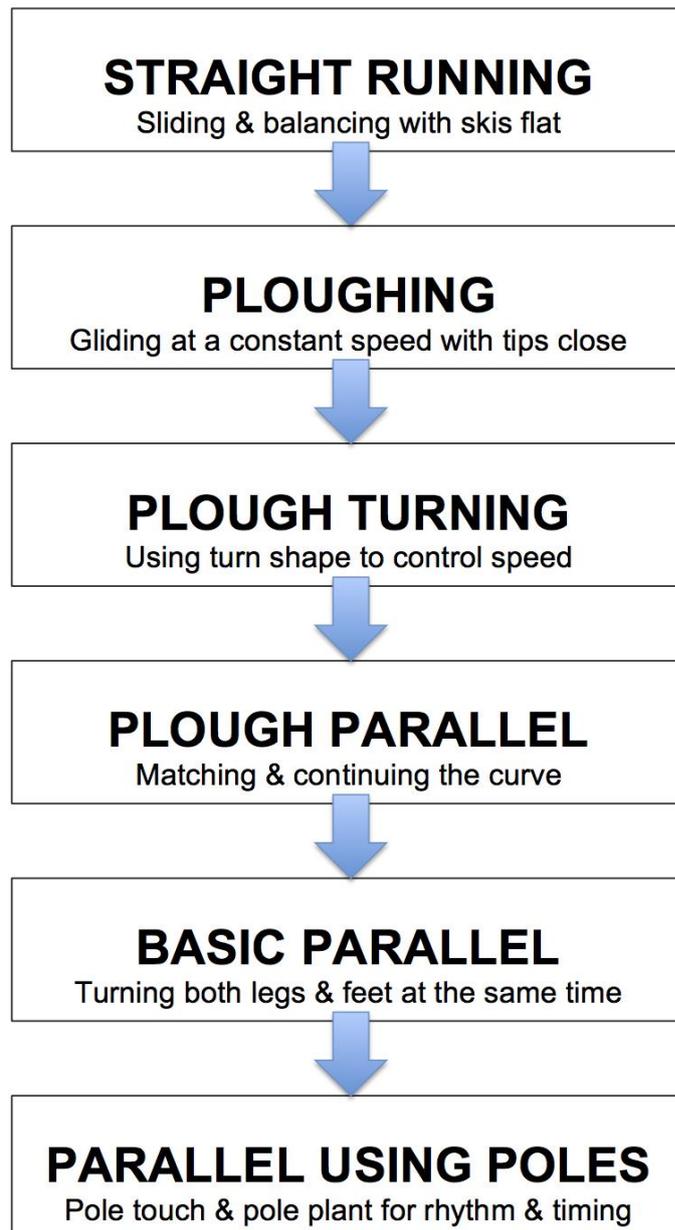
Figure 1

### The IASI Skills Model (SM)

The IASI Skills Model (Figure 1 opposite) has at its core the skills that we teach: rotation, edging, pressure control and timing. These skills are all of **equal** importance and are embodied within the overriding fundamentals of balance and movements. Reflecting back to the basic principles (see chapter 2) the essence of the message here is that skiing works from the snow upwards and then back to the skis! In other words, we respond to and create forces, with appropriate movements, to aid effective balancing, allowing for accurate steering of the skis. Therefore, the skills that we teach allow us to acquire the basic principles of skiing and it is the interplay between these skills, balance and movements that we will flesh out, not only in the rest of this chapter, but in the chapters that follow as the skills are applied to Core Skier Development (CSD), piste, variable terrain and bumps.

2.6 Core Skier Development stages model

Core Skier Development Stages Model



## 2.7 Monoski Core Skier Development review

<b>Core Skier Development phase</b>	<b>Basic Principles</b> Main focus	<b>Task(s)</b>	<b>Possible Adaptions</b>
<b>Straight Running</b>		Skis flat allowing terrain to control speed	
		Straight run to plough	
<b>Ploughing</b>		Plough glide at constant speed	
<b>Plough Turning</b>		Small changes of direction moving both ski tips in desired direction	
		Developing corridor so that turn shape controls speed	
<b>Plough Parallel</b>		Matching parallel late in the arc (after fall line)	
		Matching parallel earlier in the arc (around fall line)	
<b>Basic Parallel</b>		Rounded curves using turn shape to control speed	
<b>Parallel using poles</b>		Using a pole touch to aid timing and rhythm	

**3.0 Day Two**

**3.1 Outcomes and notes**

**OUTCOMES:**

- Feel comfortable handling equipment for this discipline
- Understand how Core Skier Development (up to parallel) can be adapted
- Have a method to assess students' needs with regards to equipment, disability and possible teaching style

**Notes:** (including feedback on your performance)

**3.2 Monoski Developmental activities**

Use this page to record any developmental activities that you did (sometimes referred to as drills or exercises). Remember that you should always know the **purpose** of any activity in terms of the basic principles being developed and how the activity fits into the overall CSD progression.

Activity	CSD stage	Purpose (BPs)	Suitable for...

**4.0 Day Three**

**4.1 Outcomes and notes**

**OUTCOMES:**

- Feel comfortable handling equipment for this discipline
- Understand how Core Skier Development (up to parallel) can be adapted
- Have a method to assess students' needs with regards to equipment, disability and possible teaching style

**Notes:** (including feedback on your performance)

## 4.2 Biski Core Skier Development

A biski is a type of sitski. It has a seat, mounted on a frame and uses two, wide, carving skis. The skis are tilted onto the edge by moving the centre of mass laterally and so the skis carve a turn. It is more stable than a monoski and can be skied by people with very little upper body strength and movement. Often biskiers don't have fine motor control and are only able to make gross movements.

If a student is able to, they can use outriggers to help with balance, movement and turn initiation. If they are not able to use hand-held riggers, fixed riggers are available – a similar idea to stabilisers on a bicycle.

<b>Core Skier Development Phase</b>	<b>Tasks</b>	<b>Basic Principles</b>
<b>Sitting Balance</b>	Sit unsupported with skis flat	Lateral balance
<b>Straight Running</b>	Skis flat allowing terrain to control speed	Lateral balance
<b>Basic Tilt</b>	Small changes of direction by tilting skis in desired direction	Lateral balance Lateral movement (inclination) creating centripetal force Steering by edging
<b>Carved Turn</b>	Developing turn shape by varying amount of edging	Lateral movement (inclination) creating centripetal force Lateral movement (angulation) responding to centrifugal force Steering by edging
	Exploring corridor so that turn shape controls speed	As above

Beyond Core Skier Development it is possible to make a skidded turn with a biski which involves the same Basic Principles as an Alpine Advanced Parallel turn.

**4.3 Biski Developmental activities**

Use this page to record any developmental activities that you did (sometimes referred to as drills or exercises). Remember that you should always know the **purpose** of any activity in terms of the basic principles being developed and how the activity fits into the overall CSD progression.

Activity	CSD stage	Purpose (BPs)	Suitable for...

#### 4.4 Analysing performance

##### Skier Performance Analysis Model



- **Set Task** – be specific as this makes analysis easier
- **Ski Performance** – look at how the skis are interacting with the snow (forces)
- **Skier's Movements** – are they appropriate (range & rate)?
- **Skier's Balance** – in terms of fore/aft and lateral
- **Ski Performance** – accurate steering?
- **Task Achieved** – has the task been achieved?

The process above relies on a clear and specific task being set. After working through this process the instructor/observer is in a position to provide the learner/doer with feedback.

**4.5 Teaching styles A to E**

Describe the key aspects, safety considerations and main communication & feedback for Mosston & Ashworth’s Teaching Styles A to E;

Teaching Style	Description	Communication & Feedback
<p style="text-align: center;"><b>A</b> <b>Command</b></p>		
<p style="text-align: center;"><b>B</b> <b>Practice</b></p>		
<p style="text-align: center;"><b>C</b> <b>Reciprocal</b> <i>Practice</i></p>		
<p style="text-align: center;"><b>D</b> <b>Self Check</b> <i>Practice</i></p>		
<p style="text-align: center;"><b>E</b> <b>Inclusion</b> <i>Practice</i> “slanty rope style”</p>		

#### 4.6 Session planning

##### **Pre-teaching session planning – collecting information**

Initial information required:

- 1) Who will you be teaching?
- 2) What is their age and gender?
- 3) How long will the session be?
- 4) What is the aim and intended outcome of the session for your learners?

Once you have answered the above questions you should consider the following prior to planning the teaching session;

- a) What previous experience do the learners have?
- b) What are their short term and long term goals?
- c) Do you know of any particular or individual needs that your learners might have?  
(Think about: physical, equipment, communication, behavior, motivations, triggers \*See 5.1 Student Assessment for more information)
- d) What safety considerations do you have in mind?
- e) Are there any other factors that might inhibit your learners?

## 4.6 Session planning continued

### **Considerations for planning your teaching session**

Now that you have completed your pre-teaching session planner you need to think about structuring your session into a beginning, middle and end. Use the list below to help you plan your session;

#### **Getting the learners ready**

- Welcome and introductions
- Have a friendly and cheerful disposition
- Learn names ASAP and help learners to feel comfortable
- Check clothing and equipment
- Highlight safety points
- Prepare physically and mentally
- Clarify the needs of the learners
- Clarify the aims and outcomes of the session
- Refer to FIS Rules of Conduct (see recourses section)

#### **Improving performance**

- Give clear and accurate directions, explanations and demonstrations
- Ensure maximum useful learner activity
- Ensure good group management
- Encourage learners to ask questions
- Check the learner's understanding
- Observe and analyse the learner's performance using the "Skier Performance Analysis model" (SPAM)
- Identify strengths and areas for change
- Provide useful and accurate feedback
- Refer to FIS Rules of Conduct (see resources section)

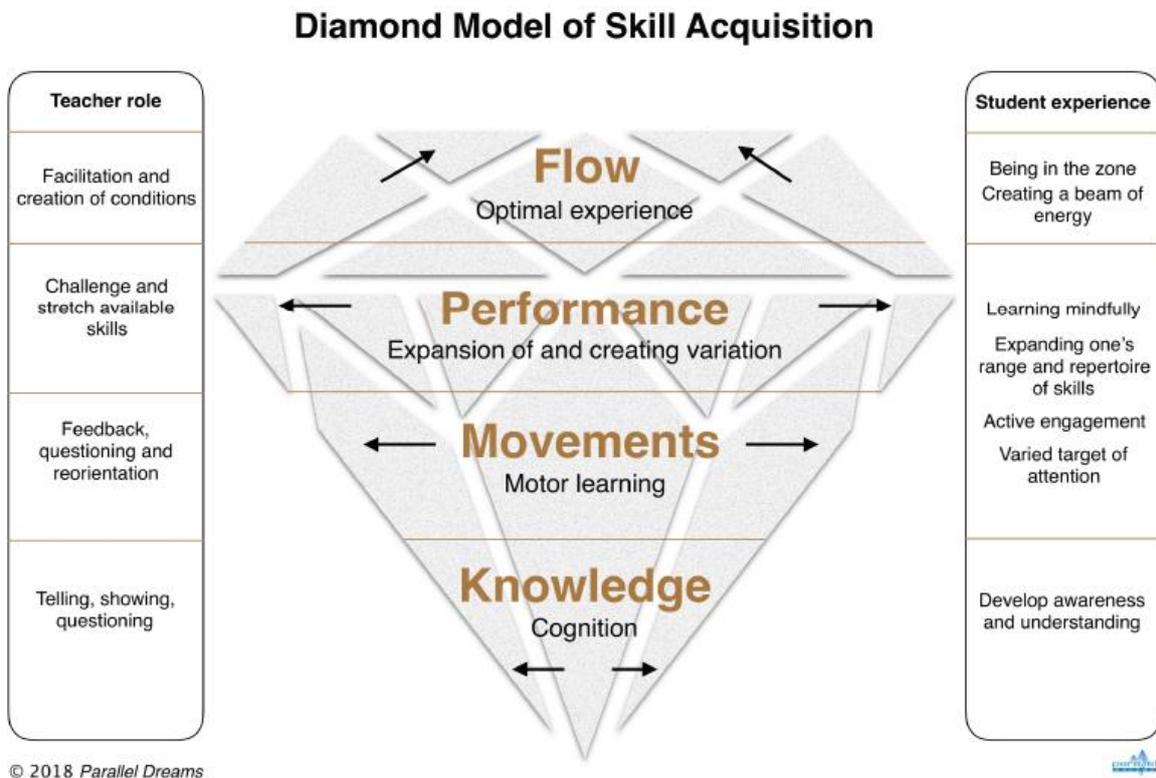
#### **Bringing the session to a close**

- Never finish the session doing an "exercise" – always finish with "normal" skiing feeling the benefit of any tasks and exercises used
- Provide a summary of what has been done and achieved
- Enquire into the learner's future needs
- Advise learners of preparation needed before their next session
- Clear up and put away any equipment used
- Refer to FIS Rules of Conduct (see resources section)

4.6 Session planning continued

<b>Teaching Session Planner</b>		
<i>Instructor</i>	<i>Location</i>	<i>Date</i>
<b>Aims and intended outcomes</b>		
<b>Resources and equipment required</b>		
<b>Safety Considerations</b>		
<b>Content</b>		<b>Time &amp; method</b>
<b>Getting the learners ready</b>		
<b>Improving performance</b>		
<b>Bringing the session to a close</b>		

**4.7 Diamonds Model of Skill Acquisition**



**5.0 Day Four**

**5.1 Outcomes and notes**

**OUTCOMES:**

- Feel comfortable handling equipment for this discipline
- Understand how Core Skier Development (up to parallel) can be adapted
- Have a method to assess students' needs with regards to equipment, disability and possible teaching style

**Notes:** (including feedback on your performance)

**5.2 3T/4T Developmental activities**

Use this page to record any developmental activities that you did (sometimes referred to as drills or exercises). Remember that you should always know the **purpose** of any activity in terms of the basic principles being developed and how the activity fits into the overall CSD progression.

Activity	CSD stage	Purpose (BPs)	Suitable for...

**6.0 Day Five**

**6.1 Outcomes and notes**

**OUTCOMES:**

- Feel comfortable handling equipment for this discipline
- Understand how Core Skier Development (up to parallel) can be adapted
- Have a method to assess students' needs with regards to equipment, disability and possible teaching style
- Have a clear understanding of the assessment course.

**Notes:** (including feedback on your performance)

**6.2 Hidden Disabilities Developmental activities**

Use this page to record any developmental activities that you did (sometimes referred to as drills or exercises). Remember that you should always know the **purpose** of any activity in terms of the basic principles being developed and how the activity fits into the overall CSD progression.

Activity	CSD stage	Purpose (BPs)	Suitable for...

### 6.3 The assessment process

The IASI Adaptive L2 course is split into a 6 day training course and a 4 day assessment course.

During the Adaptive Level 2 assessment course you are assessed on both your **Technical** performance and your **Teaching** in each of the 4 disciplines (biski, monoski, 3T&4T and HD). This course is purely assessment which means that you need to be performing at or above the level required and meeting all assessment criteria in all disciplines during the 4 day assessment course.

Between the training course and the assessment course you must complete 20 logged hours. Logged hours can be teaching within the remit of L1, shadowing or hands on experience with adaptive equipment under the supervision of a suitably qualified adaptive instructor.

The assessment criteria for both Technical and Teaching are detailed near the beginning of this workbook.

The **Technical** criteria details what you must “**show**” for;

- **Core Skier Development**
- **Technical Performance**
- **Disability and Background Knowledge**

The **Teaching** criteria details what you must “**know**” and “**show**” for;

- **Safety**
- **Enjoyment**
- **Learning**

**The method of assessment is a simple PASS or FAIL against each of the assessment criteria.**

Following the completion of the course your examiner will write a report detailing your strengths and weaknesses for both your technical and teaching and recording your result.

If you fail more than one discipline then you will need to retake the full Level 2 assessment course.

If you are unsuccessful in one discipline (biski, monoski, 3T&4T and HD) then you can re-sit that discipline.

A single discipline re-sit is a minimum of one day. To do this you can either join another Level 2 assessment course (providing there is space) or take the re-sit during an IASI refresher course. Alternatively you may wish to book an IASI examiner privately for a one to one re-sit.

To pass the full Adaptive Level 2 Ski Instructor award you must complete all the required elements including ski school experience and first aid.

**7.0 Day Six**

**7.1 Outcomes and Notes**

**OUTCOMES:**

- Review all disciplines
- Technical practice
- Take part in mini teaching scenarios and participate in some movement analysis
- Understand the IASI Qualification pathway – Adaptive Levels 1 to 2
- Following a review of your individual performance throughout the training course, have an awareness of personal strengths and weaknesses.
- Have a clear understanding of how to make use of the logged hours for maximum benefit to achieve a positive outcome on the assessment course.

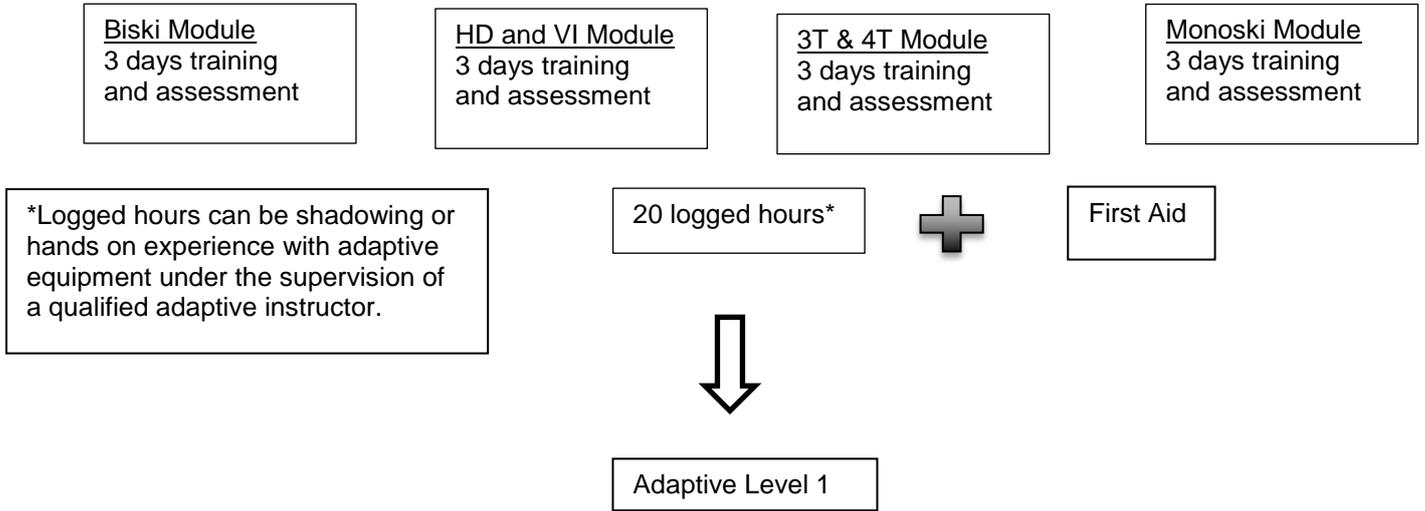
**Notes:** Write down your overall action points from the course for both your teaching and technical performance. This can be compared to the report that will be completed by your trainer.

**7.2 IASI Qualification pathway – Adaptive Levels 1 to 2**

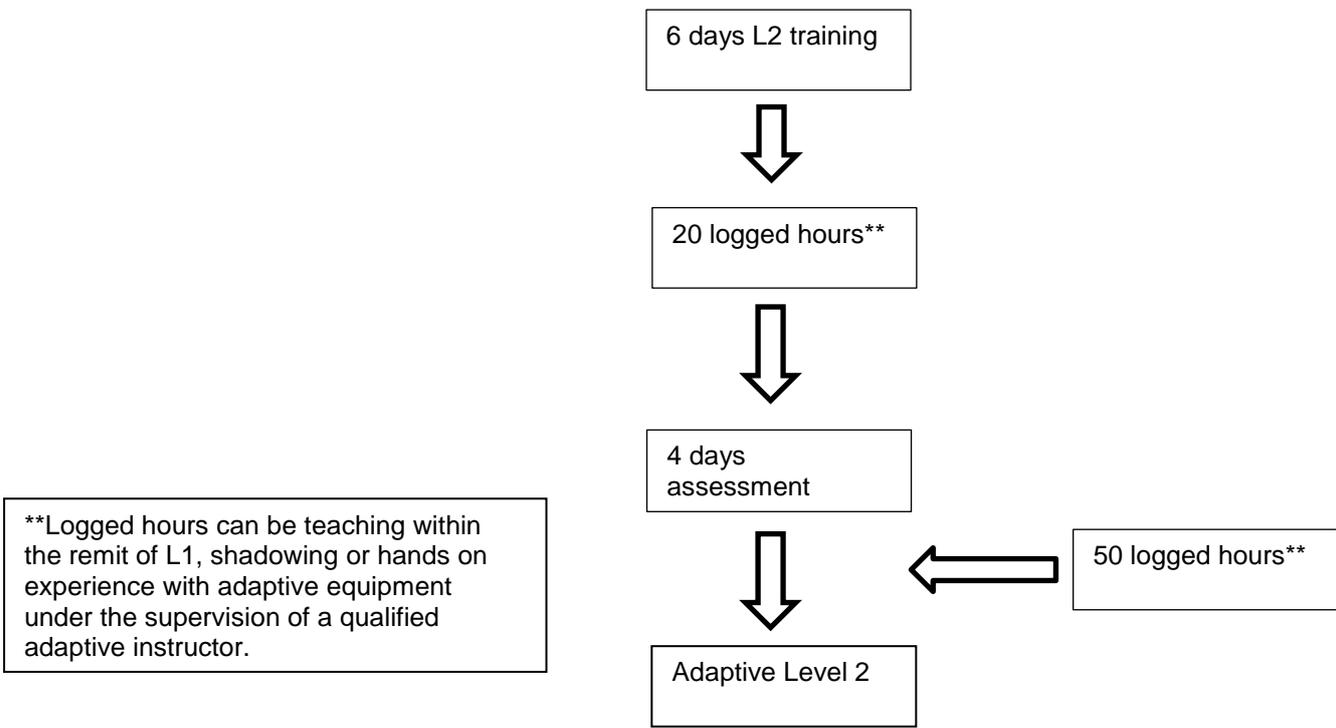
**Adaptive Qualification Pathway**

**Pre-requisites**

Alpine level 1 or equivalent  
or Attend pre-selection day



On successful completion of each module a candidate will be qualified to teach that specific discipline within the remit of level 1.  
Before attending L2 training a candidate must have completed at least 2 x L1 modules, one of which, must be the biski module.



## 8.0 Additional Information

### 8.1 Student Assessment (Needs Analysis)

Assessing the student involves observation, communication, testing and reassessing. As with all lessons we need to ascertain the student's on snow ability level, their goals, the equipment they will use, lesson pace and the best teaching approach to take.

General questions about the student's daily life, sports, work and interests allows you to get to know the person.

With adaptive instruction we may also need to specifically assess:

- Cognitive ability
- Physical ability
- Sensory ability
- Medical and environmental risks and medications

The student, and companions, is the expert in their disability, the instructor is the expert in teaching snow sports, and combining the student's knowledge with your knowledge gives you both the best chance of success.

**Physically** the instructor needs to know how a student moves, their strength, balance and stamina to apply the movements used on snow. This will also form the basis for choosing which equipment will achieve success for the student.

**Cognitively** the instructor needs to know the student's behaviours, how best to communicate, any triggers, and motivators.

**Sensory** assessment allows the instructor to best adapt the way information is presented and if necessary, how best to guide a student.

The instructor also needs to learn from the student any specific information relating to safety of the student including **medical risks and medications**. Will the student be affected by the mountain environment, the physical exertion, do they take any medications that might affect them or need to be administered during the lesson

The assessment gives the instructor a **baseline** reference from which to observe changes that occur on snow that might need an intervention. When observing, asking questions, and testing always have the why in mind.

Firstly, **observe** the student when you meet and greet them. Watch how they move and communicate, and how they relate to friends and carers if there are any.

Then **ask** the student questions, or if unable a support person, about themselves in a way that relates to why you need the information. This focuses your questions and lets the student understand why you are asking.

Then fine tune the information you have through more **specific questions or testing**. This may involve physical tests, with and without resistance, and sensory tests. Again, involve the student in the why. **Reassess** throughout the lesson.

### **Cognitive Assessment:**

The term cognitive is used loosely to cover disabilities that relate to how the brain functions and may involve intellectual ability, information processing, co-ordination, or behaviour.

Where possible aim to get the information you need from the student but use support people and carers as well especially where the student is unable to answer your questions. It may also be useful to arrange for a carer to meet you after you have spent some time with the student to gather more information after you know the student better. The basic information the instructor needs for a successful lesson can be broken down as follows:

### **Communication**

Assess how the student communicates. Observe interaction with others. Verbal, nonverbal, Simple, complex. Single or multiple instructions.

Find out how the student will communicate if there is an issue that needs addressing during the lesson, i.e. stress, hunger, pain, toilet, cold, tired

Sample question: *So we can get the best out of the lesson what is the best way for me to give instructions? If something goes wrong while we are on the hill how will I know?*

### **Behaviour**

Assess and find out the students' normal behavioural traits.

Find out if there are any challenging behaviours and what approaches to take to manage these. Using these already established approaches will bring consistency and a greater chance of success.

A sample question: *To give him the best experience possible can you let me know if Sam has any behaviours that I need to be aware of? what would be the best way to manage these on the hill?*

### **Motivations**

Find out what interests the student has. Depending on the disability these may just make a lesson more enjoyable, may be a focus for most of what you do, and may be good as a distraction

## Triggers

Is there anything that might happen on the slopes that might upset the student and some strategies to use if this happens. Triggers may be environmental, physical, cognitive, or social.

## Physical Assessment.

### Observe, Ask, Test, Reassess

Aim to assess the student's range of movement, which muscles groups they use, their strength and co-ordination, how they balance, and their stamina.

**Observe** generally what equipment the student uses off snow, if any, and how they move. If using a wheel chair, what type and how do they propel themselves, if walking what gait do they have, do they have independent leg movement. Does the student use any aids for balance or support. What is their natural stance.

Together with the student's goals use this information to assess

- what equipment to use
- how the student might apply movements used for their skiing /riding.

The next stage is to **ask** the student to move in a way that relates to the movements of skiing and riding.

- Find out more about which muscle groups they use and how much strength they have in these muscle groups.
- refine equipment choices and gain an understanding of how they can make the movements needed to improve their skiing or riding.

A sample question: *In order to balance well while riding there are some movements we need to make. Can you show me how you move forwards and backwards, can you do that from.....* [ a muscle group as close as possible for the student as you would normally teach]. Ask the same for lateral and rotational movement as needed.

To refine your understanding **test** by asking the student to make a movement, firstly to observe the range of movement, then while applying resistance and feeling the strength of the movement. When doing this let the student know why and how they will use that movement on snow.

**Reassess** throughout the students learning and ask the student for feedback on how they are making the movements and how it feels for them to incorporate in your teaching

## **Sensory Assessment**

### **Vision Impairment**

Aim to assess the student's visual acuity, and field of vision, and their response to light and colour. Use this information to know how best to present information and the best approach for the sighted guide.

Firstly, **ask** the student what they can see. How much, at what distance, and what their peripheral vision is like. Ask how light or shade affects their vision, what colours they can see best and if their sight is different in either eye.

If applicable use this information to choose a colour to wear that the student can see best when on snow and then while on snow **test** how far away they can see you, in what detail, and how far to each side they can see.

Think about why you may **Reassess** this from lesson to lesson and from indoors to outdoors.

### **Hearing Impairment**

Assess how much the student can hear, is one side better than the other, what sign language they use.

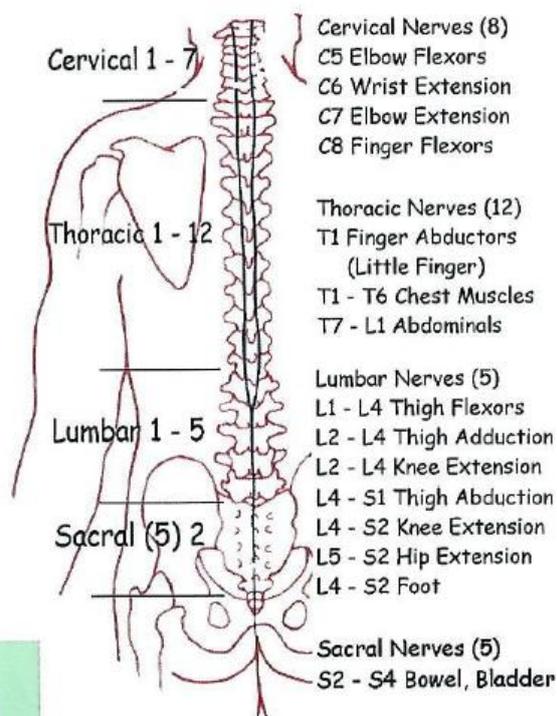
## 8.2 Disability Notes

You can use the following tables to make notes to help gather relevant information with regards to various disabilities and how that might relate to skiing. This will not provide you with comprehensive information, however, it will give you a starting point from which you can develop.

Example:

<b>Disability</b>	Cerebral Palsy
<b>What is it (in layman's terms)</b>	Lack of oxygen to the brain before, during or shortly after birth leading to brain damage.
<b>Characteristics</b>	Can result in muscle spasms, uncontrolled muscle movements, possible speech impairment, possible cognitive impairment.
<b>What equipment is likely</b>	Depends on what part of the brain was affected and how much. May ski standing or sitting – if sitting probably biski
<b>Behaviour</b>	Depends on what part of the brain was affected and how much. Possible cognitive impairment.
<b>Any questions you need to ask? (student/parent/companion)</b>	Any drugs we need to know about? If non-verbal – how to communicate and what do the answers mean?
<b>Any red flags or safety issues</b>	Possible epilepsy. Muscular or skeletal stress.
<b>Tips/tricks/teaching tools</b>	

Disability	Spinal Cord Injury
What is it (in layman's terms)	
Characteristics	
What equipment is likely	
Behaviour	
Any questions you need to ask? (student/parent/companion)	
Any red flags or safety issues	
Tips/tricks/teaching tools	



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The Spine

Human Form courtesy of the Spinal Injuries Association (UK)

<b>Disability</b>	<b>Traumatic Brain Injury (TBI) and Stroke</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>What equipment is likely</b>	
<b>Behaviour</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

<b>Disability</b>	<b>Multiple Sclerosis</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>What equipment is likely</b>	
<b>Behaviour</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

<b>Disability</b>	<b>Muscular Dystrophy</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>What equipment is likely</b>	
<b>Behaviour</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

<b>Disability</b>	<b>Spina Bifida</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>What equipment is likely</b>	
<b>Behaviour</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

<b>Disability</b>	<b>Amputation</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>What equipment is likely</b>	
<b>Behaviour</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

<b>Disability</b>	<b>Hemiplegia</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>What equipment is likely</b>	
<b>Behaviour</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

<b>Disability</b>	<b>Poliomyelitis (Polio)</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>What equipment is likely</b>	
<b>Behaviour</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

<b>Disability</b>	<b>Autistic Spectrum</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>What equipment is likely</b>	
<b>Behaviour</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

<b>Disability</b>	<b>Down's Syndrome</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>What equipment is likely</b>	
<b>Behaviour</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

<b>Disability</b>	<b>Non-Specific Learning Difficulty</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>What equipment is likely</b>	
<b>Behaviour</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

**Visual Impairment** – Can't see at 6m what "normal" sighted can see at 60m, or, <20 Deg. Visual angle. Vision can't be corrected by glasses!

<b>Disability</b>	<b>Visual Impairment – Diabetic Retinopathy</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

<b>Disability</b>	<b>Visual Impairment – Macular Degeneration</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

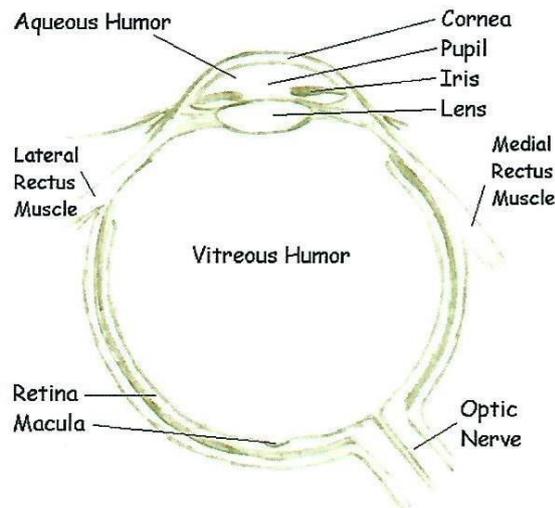
<b>Disability</b>	<b>Visual Impairment – Retinosis Pigmentosa</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

<b>Disability</b>	<b>Visual Impairment - Cataracts</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

<b>Disability</b>	<b>Visual Impairment – Retinal Detachment</b>
<b>What is it (in layman's terms)</b>	
<b>Characteristics</b>	
<b>Any questions you need to ask? (student/parent/companion)</b>	
<b>Any red flags or safety issues</b>	
<b>Tips/tricks/teaching tools</b>	

<b>The Eye</b>	
<i>Rods</i>	Sensitive to low light, create a grey image, low definition
<i>Cones</i>	Require more light, provide colour and detailed vision

Left eye from above



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## IASI COURSE WORKBOOKS

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Andy Burton

The Technical content of this workbook is taken from the book “Parallel Dreams Alpine Skiing” and includes the Skier Performance Analysis model (SPAM), CSD model and BP model which are all copyright © Parallel Dreams and used with permission of Parallel Dreams Coaching.

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