

**IRISH ASSOCIATION
OF SNOWSPORTS INSTRUCTORS**



**Alpine Level 4 Technical
Exam Prep & Exam**
Part of the Ski Teacher Award,
ISIA Card & Euro Ski Pro

Student Workbook

Version 2, September 2021

Contents:

| | Page No. |
|--|-----------|
| Overview of the Module | 2 |
| a) Entry criteria | 2 |
| b) About the workbook | 2 |
| c) Overall goal | 2 |
| d) The KMPF model in the exam environment | 3 |
| e) Equipment required | 3 |
| f) Technical assessment criteria | 4 |
| g) Resources | 7 |
| h) Sample program | 9 |
| 1.0 Day One Journal – Exam Prep | 10 |
| 1.1 Daily outcomes and notes | 10 |
| 1.2 Skier performance analysis model (SPAM) | 11 |
| 1.3 Analysing your performance | 12 |
| 2.0 Day Two Journal – Exam Prep | 13 |
| 2.1 Daily outcomes and notes | 13 |
| 2.2 Analysing your performance | 14 |
| 3.0 Day Three Journal – Exam Prep | 15 |
| 3.1 Daily outcomes and notes | 15 |
| 3.2 Analysing your performance | 16 |
| 3.3 The assessment process | 17 |
| 4.0 Day One Journal – Exam | 18 |
| 4.1 Daily outcomes and notes | 18 |
| 4.2 Analysing & rating your performance | 19 |
| 5.0 Day Two Journal – Exam | 20 |
| 5.1 Daily outcomes and notes | 20 |
| 5.2 Clarifying areas to focus on in your performance | 21 |
| 6.0 Day Three Journal – Exam | 22 |
| 6.1 Daily outcomes and notes | 22 |
| 6.2 Results & individual action planning | 23 |
| - IASI Course Workbooks | 24 |

Overview of the Module

a) Entry Criteria:

- ❑ Students should hold the IASI Alpine Level 3 Ski Teacher Award (ISIA Stamp)
- ❑ Hold a current and valid first aid certificate
- ❑ Be a paid up member of the Irish Association of Snowsports Instructors

b) About this workbook:

The purpose of this workbook is to guide you through each day of the course, giving you areas to record and make notes about the content of the module. It also provides you with a “Record of Achievement” that will be a valuable resource for your future teaching and training in snowsports.

Your role:

The workbook is designed to cover key areas of the module and contribute to your overall training and assessment, so, keep it:

- ◆ NEAT AND TIDY
- ◆ UP TO DATE
- ◆ IN A SAFE PLACE
- ◆ AS A FUTURE REFERENCE AND RESOURCE

c) Overall goal:

Level 4 is the highest level in the IASI system and skiers who achieve this level will be **skillful** rounded skiers who are **adaptable** on all terrain.

d) The KMPF model in the exam environment:

The **KMPF skill acquisition model** is part of the **Irish Snowsports Teaching Methodology (ISTM)** and an integral part of the IASI system. It helps you to understand both the process of learning during training courses and performing during exams. The four key stages are: Knowledge, Movements (motor learning), Performance and Flow.

The **exam prep course** allows you to hone your skills under exam conditions, clarifying your understanding of the tasks required and the environment where they are performed.

The **exam** will test your skills as you **perform** all the skills across the strands as per the assessment criteria.

It is important to understand that during the Alpine Level 4 **Exam Prep and Exam courses** you will be primarily working in the **performance and flow stages** of the skill acquisition model. Should you still need to develop your skills and work towards the assessment standards then you should attend the skills development course (SDC).

<http://www.iasisnowsports.com/performance-training>

You can find further information about the KMPF skill acquisition model and the Irish Snowsports Teaching Methodology in the Alpine Level 4 Teaching course workbook and via the IASI website

<http://www.iasisnowsports.com/istm>

e) Equipment required:

- **Helmets** are required for the entire duration of the course/exam.
- All students are required to have high performance **piste skis** (GS or SL) and be comfortable using them for all tasks and terrain.
- **Avalanche safety equipment:** ruck sac, transceiver, shovel & probe. Your course educator/examiner will decide on which days you need to bring this kit depending on available terrain, snow conditions and the course program.

- As with all courses you need to be able to take **notes** but this can be done on paper or electronically. You also need to have access to this workbook either on a smartphone or mobile device or by printing it before the course.

f) Technical assessment criteria:

The following criteria are broken down under the headings of **Piste Performance (advanced parallel, short, medium/long and mixed turns), Bumps, Variable Conditions** and **Additional Activities**.

NB: Please note that while Core Skier Development is not assessed during the technical exam at level 4 it is included as an assessable element during the level 4 teaching module.

These criteria set out what you, as potential level 4 teachers need to "Show" by the end of the course.

Overall Goal

Level 4 is the highest level in the IASI system and skiers who achieve this level will be **skillful** rounded skiers who are **adaptable** on all terrain.

PISTE PERFORMANCE PARALLEL VARIATIONS: on steep red or black piste/terrain

Show

- Parallel variations showing the skill to manipulate steering in various corridors

PISTE PERFORMANCE SHORT TURNS: on steep red or black piste/terrain

Show

- short turns using a refined blend of the steering elements to produce rounded arcs with a high degree of ski performance. This will include the ability to grip (edge with pressure) above the fall line.
- rhythmic and flowing turns with good control of speed.
- the ability to change the impulse of pressure e.g., super smooth turns with grip above the fall line (slow and continuous pressure) to

- very punchy short turns (sudden impulse of pressure).
- the ability to vary the corridor fluidly, e.g. changing from very short turns to medium short turns (4m wide corridor).
- appropriate and functional blend of lateral and rotational separation depending on the corridor, speed and turn shape.

PISTE PERFORMANCE MEDIUM/LONG TURNS: on red piste/terrain

Show

- accurate carved medium/long turns leaving clean tracks in the snow with both skis and using appropriate range and rate of movement in the legs.
- continuous, progressive lateral movements.
- the ability to influence the turn shape (tighten the arc whilst carving).
- the ability to use both cross-under and cross-over to change the edges.
- a good blend of inclination and angulation (lateral separation).
- the ability to deal with terrain changes, e.g. being able to carve over a roller or into a compression/undulation without skidding or losing composure.

BUMPS: gradient > 25 degrees on natural bump field (not a single bump/rut line)

Show

- a variety of lines in the bumps matching movements to terrain prioritizing smoothness and agility over strength and power.
- continuous linked turns in the fall line.
- the ability to absorb the bumps (flex and extend the legs) in order to maintain good snow contact.
- the ability to vary the speed of descent whilst skiing the fall line.
- the ability to take air off a bump and land without interrupting the overall flow of the run.

VARIABLE CONDITIONS: off piste including steeper terrain and couloirs

Show

- the ability to perform in a variety of conditions (e.g. powder, heavy snow, slush and ice).
- rounded turns using different arc length to maintain flow and cope with terrain changes.
- turns with a high degree of ski performance (curved not skidded).
- a refined use of fore/aft pressure control with effective posture and balance.
- the ability to use appropriate lateral separation/angulation in order to maintain balance over the outside ski in changeable snow and terrain.
- the ability to keep inside ski tracking and working in varied snow conditions with edges and rotation matched.
- the ability to maintain or increase speed as terrain flattens.

ADDITIONAL ACTIVITIES:

Show/(Demonstrate to a high level)

- **White pass turns** on *blue piste*/terrain.
- **dolphin turns** *on piste* to demonstrate effective grasp of fore/aft movement in short turns.
- **Stivot/drift turns**. Showing the ability to flatten and drift the ski above the fallline

so it is advisable to have practiced and be confident at all of the activities.

As an additional point, candidates should be able to show a progression of activities or steps that lead to the end form performance and should be confident that they could teach this progression during the level 4 teaching course.

g) Resources

- 1) **IASI Outcome Standards videos**
<https://iasisnowsports.ie/outcome-standards/>
- 2) **Project Tux** – with Nadine Grunenfelder, Andreas Spettel and J F Beaulieu <https://youtu.be/fEl8aYzFbjM>
- 3) **Project Kitz** with Paul Lorenz, Reilly McGlashan and J F Beaulieu
<https://vimeo.com/ondemand/projectkitz>
- 4) **The Zillertal Project** with Alex Taugwalder, Jon Ahlsen and Jonathan Ballou <https://youtu.be/84FD7TOV2J0>
- 5) **Interski 2015 Technical Review**, by Derek Tate, IASI Head of Education https://youtu.be/9FV7_UcBUPw
- 6) **Technical Comparison Corridor**, by CSIA-AMSC from Interski 2015 https://youtu.be/cX_HgLfPTxk
- 7) **Technical Reference Short Turns**, by CSIA-AMSC from Interski 2015 <https://youtu.be/xnLk7GsnkX8>
- 8) **Technical Reference Long Turns**, by CSIA-AMSC from Interski 2015 <https://youtu.be/93LOMQynzg0>
- 9) **Technical Reference Intermediate Parallel**, by CSIA-AMSC from Interski 2015. <https://youtu.be/tOupKumtM4E>
- 10) **Ski Instructors Handbook – Technical Skills & Drills**, by Andrew Lockerbie, 2011, available in print from Parallel Dreams and Amazon

- 11) **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
- 12) **Purposeful Practice**, by Derek Tate published by Parallel Dreams, 2017 <https://www.optimaexperience.co.uk/articles>
- 13) **Short turn variations** by IASI Alpine Education Team
<https://youtu.be/MKPThphGIEI>

h) Sample program:

IRISH ASSOCIATION OF SNOWSPORTS INSTRUCTORS Alpine Level 4 Technical Exam Prep & Exam

| Day | Morning | Afternoon | Off Snow |
|---|---|---|---|
| | Travel to Resort | | Group Intro Session Knowledge, Movements, Performance & Flow (KMPF model) |
| Day 1 Exam Prep | Piste Performance paralle variations & short turns KMPF model clarification | Piste Performance – medium/long turns & Video of student's performance | Video review & action points |
| Day 2 Exam Prep | Variable Conditions Varied turn shapes and corridors in varied snow conditions including video of student's performance | Bumps Different lines matching movements to terrain including video of student's performance | Video review & action points |
| Day 3 Exam Prep | Additional Activities Choosing from list of activities | Perform areas required Honing student's performance | Video review & action points |
| Day 1 Exam | Piste Performance – parallel variations & short turns Clarifying what is required & performance by candidates | Piste Performance – medium/long turns & mixed turns Clarifying what is required & performance by candidates | Video review and rating performance |
| Day 2 Exam | Variables Conditions Clarifying what is required & performance by candidates | Bumps Clarifying what is required & performance by candidates | Video review and rating performance |
| Day 3 Exam | Perform areas required including additional activities Performance by candidates | Perform areas required Performance by candidates | Course results and individual candidate reviews |
| NB: Please note that this is just a sample program of the 3-day exam prep course and the 3-day exam. The course examiner will decide on which areas of performance to focus on each day depending on snow and weather conditions. Some additional activities will also be incorporated each day. The format of the two courses may be 6 consecutive days or the courses may be run separately. | | | |

1.0 Day One Journal – Exam Prep

1.1 Daily outcomes and notes

OUTCOMES:

- Feel relaxed and comfortable with your peers, examiner and the course program.
- Clear understanding of the KMPF skill acquisition model and how it relates to the exam environment.
- Ski a range of activities for advanced parallel, short turns, medium/long turns and mixed turns.
- Understand the assessment criteria for piste performance.

Daily Notes (including personal action points):

1.2 Skier performance analysis model (SPAM)



- **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.

1.3 Analysing your performance (from video footage)

Notes: - use this space to make notes on your own performance having reviewed the video footage and using the SPAM model to assist with this process.

2.0 Day Two Journal – Exam Prep

2.1 Daily outcomes and notes

OUTCOMES:

- Ski a range of activities in variable conditions.
- Understand the assessment criteria for variable conditions.
- Ski a range of activities in bumps.
- Understand the assessment criteria for bumps.
- Analyse your performance from video footage.

Daily Notes (including personal action points):

2.2 Analysing your performance (from video footage)

Notes: - use this space to make notes on your own performance having reviewed the video footage and using the SPAM model to assist with this process.

3.0 Day Three Journal – Exam Prep

3.1 Daily outcomes and notes

OUTCOMES:

- Ski a selection of additional activities.
- Understand the assessment criteria for additional activities.
- Perform areas required as determined by your examiner.
- Hone your performance as required.
- Analyse your performance from video footage.

Daily Notes (including personal action points):

3.2 Analysing your performance (from video footage)

Notes: - use this space to make notes on your own performance having reviewed the video footage and using the SPAM model to assist with this process.

3.3 The assessment process

Level 3 & Level 4 IASI technical exams are split into 'exam prep' and 'exam' courses each of 3-days duration. The exam prep courses are designed to get you ready to 'perform' at your best while the exam courses are purely assessment. This means that you need to be performing at or above the level required and meeting **ALL** assessment criteria during the 3-day exam.

During the Alpine Level 4 Technical exam you are assessed on your **Technical** performance.

The Technical assessment criteria are detailed near the beginning of this workbook.

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

- **Piste Performance – advanced parallel, short turns, medium/long turns and mixed turns**
- **Bumps**
- **Variable Conditions**
- **Additional Activities**

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 your technical performance and recording your result.

If you have a fundamental weakness or weaknesses in your performance that affects more than one area then you will need to retake the full 3-day exam.

If you are unsuccessful in just one area e.g. piste short or bumps or variables etc. then the examiner can recommend a re-sit of just that area.

A technical re-sit of just one area is a minimum of one day, but it is recommended that you do more than one day to help with further training and ensure that the right conditions are available. To do this you can either join a specific IASI Level 4 skills development course (providing there is space) or join a private performance course being taken by an IASI Examiner who runs Level 4 Technical exams.

All such re-sits **MUST** have prior approval from IASI's Head of Education.

All re-sits must take place in the open mountain environment in appropriate conditions for the area being assessed.

To pass the full Alpine Level 4 Ski Teacher award you must complete all the required modules as detailed on the IASI website.

4.0 Day One Journal – Exam

4.1 Daily outcomes and notes

OUTCOMES:

- Perform advanced parallel and short turns on piste.
- Perform medium/long turns and mixed turns on piste.
- Perform some additional activities.
- Analyse & rate your performance (against the assessment criteria) from video footage.

Daily Notes (including personal action points):

4.2 Analysing your performance (from video footage)

Notes: - use this space to make notes on your own performance having reviewed the video footage and using the SPAM model to assist with this process.

5.0 Day Two Journal – Exam

5.1 Daily outcomes and notes

OUTCOMES:

- Perform in variable conditions off piste.
- Perform in bumps.
- Perform some additional activities.
- Analyse & rate your performance from video footage.
- Clarify individual areas to help you maximise your **“Performance”**.

Daily Notes (including personal action points):

5.2 Clarifying areas to focus on in your performance

Notes: - make notes on the specific areas that you need to focus on in your performance across all the areas being assessed. Remember that the focus is on **Performance** rather than trying to change or learn new movement patterns hence your strategies will be outcome focused.

6.0 Day Three Journal – Exam

6.1 Daily outcomes and notes

OUTCOMES:

- Perform in a variety of areas e.g. bumps, piste, variables etc.
- Perform some additional activities.
- Review course and receive result.

Daily Notes:

6.2 Results & individual action planning

List key points for development in each area of performance – piste advanced parallel, piste short turns, piste medium/long turns, piste mixed turns, bumps, variable conditions and additional activities;

Also makes notes on how you **performed under exam conditions**. Did you manage to keep your attention focused on task? Or did your mind wander to other less useful things?

IASI COURSE WORKBOOKS

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The **Irish Snowsports Teaching Methodology (ISTM)**, the **KMPF Model of Skill Acquisition**, the **Skier Performance Analysis Model (SPAM)** and photo are copyright © Parallel Dreams and used with permission of Parallel Dreams Coaching.

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