



# **High Performance Certification (HPC) for Sport Scientists**

Applicant Guidelines

**All HPC Levels: Practitioner, Senior, Leader**



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## **PREAMBLE**

This document provides the information necessary for a candidate to effectively prepare to apply for the High Performance Certification.

## **INTRODUCTION**

The High Performance Certification (HPC) for Sport Scientists comprises the qualifications and competencies required to uphold standards and enhance the daily training environment (DTE) of high performance sport in Canada. The certification is designed to ensure that the system employs skillful, qualified practitioners who deliver safe and effective service to athletes and coaches. A central goal of the Certification is to develop, attract, and retain exceptional practitioners in Canada.

The HPC is obtained through a competency-based evaluation at three levels of the practitioner career pathway (pg 4).

The HPC is a Sport Scientist Canada program under the leadership of Own The Podium, developed in consultation with our Canadian sport partner organizations.

The HPC and associated standards are recognized by the Sport Scientist Canada Management Group consisting of representation from Sport Canada, Canadian Olympic and Paralympic Institute Network (COPSIN), Canadian Olympic Committee (COC), Canadian Paralympic Committee (CPC) and Own the Podium (OTP).

HPC supports the Canadian sport system by:

- Providing validated credentials across all sport science disciplines
- Promoting clarity through the use of common language and standards across the network
- Increasing effectiveness of practitioners working in high-performance sport
- Defining the career pathway which describes the development required to meet expected standards in HP Sport
- Increasing sport science community engagement, knowledge translation, and connection as a benefit of membership
- Providing valuable audit information to allow the system to monitor and enhance the development of sport scientists in Canada

HPC adheres to the following principles:

- Certification is a voluntary process by which a nongovernmental entity grants a time-limited recognition to an individual after verifying that he or she has met predetermined and standardized criteria
- To become certified, an individual must meet eligibility requirements and pass an assessment
- Certification is voluntary and the individual does not need to be certified in order to engage in a given occupation
- The certification assessment may cover a broad area of knowledge and skills at entry, specialty, or advanced levels
- Certified practitioners will have ongoing requirements to maintain their certifications, such as continuing education and retesting



## ELIGIBILITY

The HP Certification is available to scientific practitioners working for a National Sport Organization (NSO) in Canada, or for the Canadian Olympic and Paralympic Sport Institute (COPSI) Network.

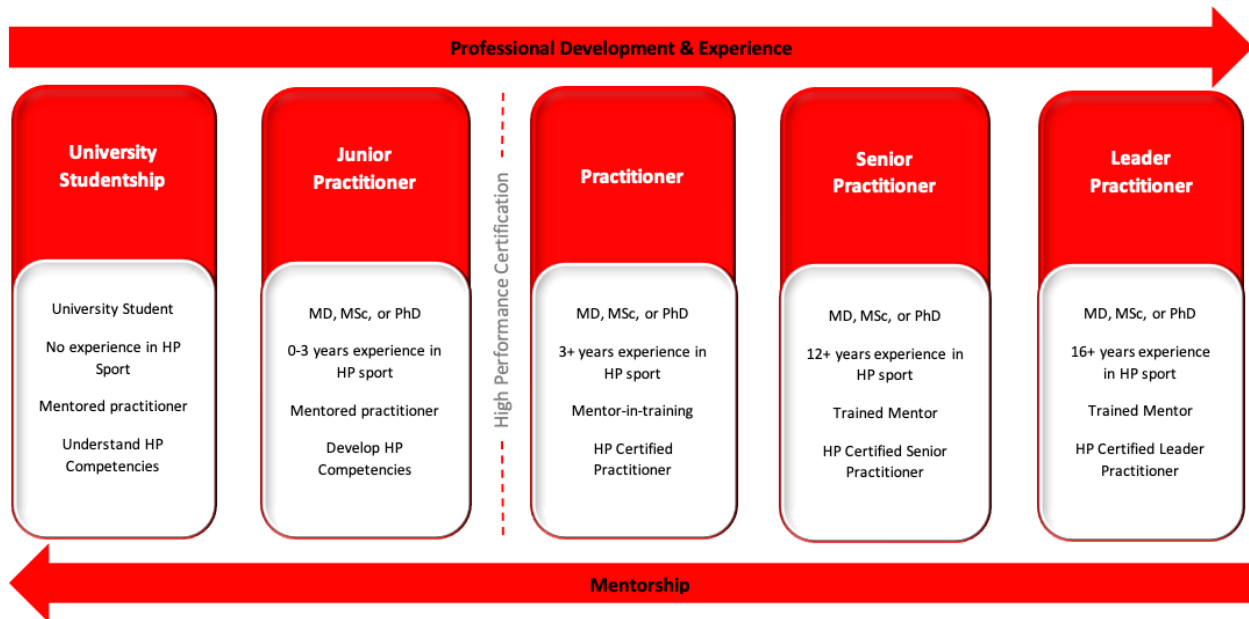
The following scientific disciplines (in alphabetical order) are certifiable:

- Athletic Therapy
- Biomechanics
- Chiropractic
- Data Science
- Engineering
- Massage Therapy
- Medicine
- Nutrition
- Physiology
- Physiotherapy
- Psychology (Mental Performance Consultants, Psychologists, Clinical, Counselling)
- Strength & Conditioning

The 3 levels of HPC align with the practitioner career pathway (Figure 1).

- Practitioner
- Senior
- Leader

**Figure 1: High Performance Practitioner Career Pathway**





## PRE-REQUISITES

In order to be considered for assessment on HP Competencies, candidates must provide evidence of meeting both:

1. High performance experience criteria **AND**
2. Discipline-specific criteria

### Pre-requisite #1: High Performance Experience Criteria

In order to demonstrate high performance competencies with concrete examples, candidates must acquire adequate experience working in HP sport.

Calculating years of experience:

- HP sport is defined as Olympic, Paralympic, or Next Gen athletes (see glossary)
- Full-time or part-time work in HP sport can be included in the calculation of total years
- For part-time work, your resume must show both frequent and consistent sport science provision throughout the year
- Do not included years of inconsistent or infrequent work in HP sport while servicing other populations (non-HP or non-sport)
- For senior or leader applications, parental leave can be included in your total. We are unable to accept parental leave for base level practitioners as the minimum 3 years of HP experience is required to compile adequate examples across all competencies

The following pre-requisite experience should be verifiable in your resume and references:

HP Practitioner (base level)

- Currently employed or contracted in the Canadian system engaging in service provision
- 3+ years high performance sport environment experience (for Physicians, 2+ years if completed a COPSI Network Performance Medicine Fellowship)

HP Senior Practitioner

- Currently employed or contracted in the Canadian system engaging in service provision
- Engaged in performance research or National initiatives in sport science
- Leadership experience at Olympic or Paralympic Level
- 12+ years high performance sport environment experience. (For Physicians, 8+ years if completed the COPSIN Performance Medicine Fellowship)
- *\*Recommended: Sport Scientist Canada Leadership Program (LEAD) or equivalent*

HP Leader Practitioner

- Currently employed or contracted in the Canadian system engaging in service provision
- Leading performance research or National initiatives in sport science
- Leadership experience at Olympic or Paralympic Level
- 16+ years high performance sport environment experience. (For Physicians, 12+ years if completed the COPSIN Performance Medicine Fellowship)
- *\* Recommended: Sport Scientist Canada Leadership Program (LEAD) or equivalent*

*\*We recommend all Senior and Leader practitioners complete a Leadership program, however this component is not mandatory at this time.*



## Pre-requisite #2: Discipline-Specific Criteria

The minimal educational criteria: degrees, diplomas, certificates, professional registration.

### Athletic Therapy

- Bachelor or Masters Degree
  - Health Science Athletic Therapy - BaHSc(AT) **OR**
  - BA or BSc Kinesiology, Human Kinetics, Physiology + Certificate in AT **OR**
  - Bachelor of Athletic & Exercise Therapy **OR**
  - Masters in Athletic Therapy
- Registered with Canadian Athletic Therapy Association (CATA)
- Registered with Provincial Athletic Therapy Association

### Biomechanics

- MSc or PhD in Kinesiology, Physics, or equivalent
- Educational focus in biomechanics or motor learning

### Chiropractic

- Canadian Memorial Chiropractic College Degree (DC)
- BSc or MSc in Human Kinetics, Kinesiology, Physiology or equivalent
- Fellow of the Royal College of Chiropractic Sports Sciences - RCCSS(C)

### Data Science

- MSc or PhD in Statistics, Computer science, Engineering, Physics, Mathematics, Data Science and Analytics. \*An equivalent graduate degree will be considered if you have completed a Bachelor degree in Data Science
- Education in applied statistics, interfacing with databases, statistical modeling, machine learning, and/or high-performance computing
- *Recommended:* affiliated with a professional association for statisticians, computer scientists, or data scientists

### Engineering

- MSc or PhD in Engineering
- Educational focus in sport, equipment, or exercise

### Medicine

- Medical Degree (MD)
- Diploma in Sport & Exercise Medicine (Dip. Sport Med.) from the Canadian Academy of Sport and Exercise Medicine (CASEM)
- Competence requirement:
  - Family Physicians: Certificate of Added Competence (from CCFP (SEM) **OR**
  - Emergency Medicine, Orthopedic Surgery, Physical Medicine and Rehabilitation, Psychiatry: Area of Focused Competence (AFC) in Sport & Exercise Medicine from Royal College of Physicians and Surgeons of Canada (RCPSC)\*
- Registration requirement:
  - Physicians: Registered Sport Medicine Physician with Canadian Academy of Sport and Exercise Medicine (CASEM)
  - Psychiatrists: Registered with Royal College of Physicians and Surgeons of Canada (RCPSC) or with Provincial College

*\*For eligible Royal College Physicians that were certified before 2017, equivalent AFC experience in Sport and Exercise Medicine will be reviewed on a case-by-case basis*



### **Massage Therapy**

- Registered Massage Therapy (RMT) Diploma
- Registered with Canadian Sport Massage Therapy Association (CSMTA) as Sport Fellow (CSMTASF)

### **Nutrition**

- MSc or PhD in Kinesiology, Human Kinetics, Physiology, Nutrition, **OR** BSc in Nutrition + IOC sport nutrition diploma
- Educational focus in sport nutrition
- Registered with the Provincial College of Dietitians

### **Physiology**

- MSc or PhD in Physiology, Human Kinetics, Kinesiology
- Educational focus on Exercise Physiology

*\*Recommended: Clinical Exercise Physiologist (CEP) **OR** Certified Personal Trainer + CSEP HP Specialization and Registered Physiologist with the Canadian Society for Exercise Physiology*

### **Physiotherapy**

- BSc or MSc Physiotherapy
- Sport Physiotherapy (SPC) Diploma
- Registered with Sport Physiotherapy Canada (SPC)

### **Psychology (Mental Performance Consultants, Psychologists, Psychotherapists or Counsellors)**

- MSc, MA or PhD in Kinesiology, Psychology, Clinical or Counselling Psychology
- Educational focus in sport
- Registration requirement:
  - All: Professional Member of the Canadian Sport Psychology Association (CSPA)
  - Psychologists: Registered with Provincial/Territorial College or Association of Psychologists
  - Psychotherapists or Counsellors: Registered with Canadian Counselling and Psychotherapy Association (CCPA) or with Provincial/Territorial College or Association of Psychotherapists or Counsellors

### **Strength & Conditioning**

- MSc or PhD in Biomechanics, Physiology, Human Kinetics, Kinesiology or equivalent
- Educational focus on physical training processes and preparation for sport
- NSCA Certified Strength and Conditioning Specialist (CSCS) or equivalent

NOTE: Candidates outside the above discipline categories can submit a request for review by the HPC Committee. You must meet the following criteria to be considered:

- Obtained a graduate degree from an accredited University or College in a scientific discipline
- Maintain a scope of practice clearly defined by university or college standards, and/or by the discipline's national/provincial Association standards to work in sport and exercise
- Can articulate your clearly defined role on an integrated support team for an HP sport (Olympic, Paralympic, and NextGen athlete pool) in Canada
- Utilize or conduct scientific research to make evidence-based decisions in the HP sport environment



## HIGH PERFORMANCE COMPETENCIES

Applicants are assessed against the 6 HP competencies:

- Knowledge of the Canadian Sport System and HP Environment
- Evidence-based Practice
- Data Handling and Management
- Ethical Behaviour
- Effective Communication
- Self-Awareness and Professional relationships

These 6 core competencies are organized under 4 foundational pillars. The purpose of each competency is articulated, along with a focused theme for each element. These themes are designed to provide clarity for both candidates and reviewers across examples and assessments.

Each competency has up to 5 elements describing the detail that contributes to the competency. **Candidates must provide specific examples for each element.** Unique examples are encouraged.

All competency statements begin with an action verb tied to a domain (cognitive, affective, psychomotor) and level of learning aligned with the certification level (Practitioner, Senior, Leader) *Adapted from Writing Learning Outcomes – 2010 BCIT Learning and Teaching Centre.*

Applicants must demonstrate evidence of achieving all competencies through a combination of the following methods:

1. Written materials
  - a. Competency submission (practitioner, senior, **OR** leader)
  - b. Resume
  - c. Reference letter from your NSO or CSI
2. Video-Interview with the Reviewer

To review the competency element statements for the 3 levels, please download the HPC Competency Framework on the SSC Website – HPC Application page.

### Competencies and HPC Levels

**Competencies statements progress as you move to senior and leader levels.** Focus on the verbs included and the persons or organizations identified in the interaction at each level.

- Senior level: It is expected that you are mentoring, leading, and/or advising others in the system.
- Leader level: It is expected that you are working to impact the sport system, advance sport organization goals, and provide leadership to National initiatives.





## **SUBMISSION CHECKLIST AND TIMELINES**

### Application Preparation:

1. Download HPC information and submission materials on the SSC Website
2. Select your HPC Level for application
3. Review pre-requisites to ensure you meet both experience AND discipline-specific criteria at that level
4. Determine the application window you would like to target
5. Prepare a copy of your resume and a reference letter
6. Prepare competency examples in the Competency Submission form (at your HPC Level).

### Certification Process:

7. When the application window opens, you can apply directly on the SSC Website
8. Once pre-requisites have been screened, a reviewer will be assigned, and you will receive a confirmation email
9. The Reviewer will contact you directly to set up your interview
10. If the interview is completed successfully and you have met all competencies, an email will be sent to you confirming your HPC and your membership will be registered as "HP Certified".

### Timelines:

- Preparation of competency examples can take 5-20 hours. Download the HPC Competency Submission form (at your level) and complete the responses on your own time. You will attach this form to your submission when you apply.
- Application windows are 3 times per year and are posted on the SSC Website.
- The pre-requisite screening will be completed within 5 days of submission.
- The Reviewer will schedule an interview to occur within 6 weeks of your competency form submission.



## PREPARING YOUR COMPETENCY SUBMISSION FORM

### Overview:

- Each example must not exceed 500 words
- Examples should be drawn from the high performance sport environment
- It is recommended that you download the Canadian High Performance Strategy <https://www.canada.ca/en/canadian-heritage/services/sport-policies-acts-regulations/high-performance-strategy.html>

Provide **examples** of how you demonstrate each competency element.

- Refrain from using specific organizational names or individual names. Instead, refer to type of organization (eg NSO, MSO, PSO, Organizing Committee ect) or title/roles to describe the individuals (HPD, IST Lead, Coach, Practitioner, Committee Chair ect).
- The Glossary of Terms is available for reference in the Appendix

Applicants must use the **STAR** framework for each example:

- **Situation** – provide the context for the example, the environment or situation, the individuals (titles or roles) or types of organizations involved
- **Task** – your role, how **you** applied the competency
- **Action** – the action **you** took
- **Result** – the outcome or result of **your** action

### Differences between Practitioner, Senior, Leader Competency Statements

**Competencies statements progress as you move to senior and leader levels.** Focus on the verbs included and the persons or organizations identified in the interaction at each level.

- Senior level: It is expected that you are mentoring, leading, and/or advising others in the system.
- Leader level: It is expected that you are working to impact the sport system, advance sport organization goals, and provide leadership to National initiatives.

It is possible that you qualify for senior or leader level pre-requisites, but do not work in roles where you apply or demonstrate the competencies at that level. In this case, we welcome you to apply at the practitioner level to complete your certification.

*Please note:*

*Applicant information will be stored in the Sport Scientist Canada database (housed by OTP).*



## **ASSESSMENT AND OUTCOME**

You will be assessed at the level that you applied (Practitioner, Senior OR Leader). Both pre-requisites AND competency submission must meet the standards at the level you applied.

### **Pre-requisite screening**

Upon receipt of the application, the resume and reference letter will be used to verify the pre-requisites and minimum standards. If applicants fulfil the minimum requirements, the application will proceed to the next stage.

### **Reviewer Assignment and Conflict of Interest**

- Applicants will receive an email confirming receipt of their submission, pre-screening completion, and assignment of a Reviewer
- Reviewers are assigned from outside the applicant's employer (CSI, CSC, or NSO) and outside of the applicant's scientific discipline to avoid potential conflict of interest
- If there is a conflict of interest, either Reviewer or Applicant must bring this to the HPC Committee Chair's attention to request re-assignment

### **Interview**

The interview must be completed within 6 weeks of your Reviewer assignment.

The competency submission form will be assessed by your Reviewer prior to the interview. During the interview, Reviewers will focus on elements and examples in the application that did not sufficiently demonstrate the competency. Reviewers will then request either a) additional detail to the provided example **and/or** b) a new example to demonstrate the competency element.

It is recommended the candidate and the Reviewer both have the completed competency submission form open during the interview process.

### **Outcome**

Confirmation:

Based on the evidence presented, the Reviewer will confirm:

- HPC Awarded – all competencies achieved
- HPC Awarded with conditions – additional evidence required to determine an outcome. The applicant will be contacted by SSC with the requirements, process and deadline.
- HPC Declined - the applicant did not meet one or more competencies

The applicant will receive formal notification from SSC via email upon completion of the interview. If HPC is awarded, SSC will automatically register the applicant as an HP Certified member.

Reviewers are HP Certified members at the senior or leader level. They have completed training and meet regularly to review competencies and case studies. Competency achievement is at the discretion of the skilled Reviewer based on the standardized assessment tool.

**Maintaining HP Certification:**

- On an annual basis you will be asked to update your personal information (via a short survey) to ensure our records are accurate.
- Professional development credits will be required. Additional information will be provided to you in advance of the requirement deadlines.

Note: If you apply at senior or leader level, but your assessment does not meet the standards on all competencies, the Reviewer can award Practitioner level certification.

**Appeals**

If the applicant believes that the correct HPC assessment process has not been followed, then they are entitled to appeal the decision by writing to SSC within 2 weeks of being informed that they were declined. The appeal must outline in detail where due process has not been followed. This appeal will be referred to a third HPC assessor who will review all the paperwork against the grounds put forward for the appeal. The third assessor will either decline or uphold the appeal on the basis of the evidence presented and this decision will be final.

**Action Plan**

The applicant is participating in a review of competencies. The Reviewer may suggest elements where the candidate could improve competencies as discussed in the interview. Any recommendations will be general in nature. It is the responsibility of the candidate to meet with their respective employers to discuss opportunities that may relate to HP Certification competencies.



## APPENDIX - Glossary

### Note:

- This list includes terms within the context of HP Certification competencies
- This is not an exhaustive list, nor are global definitions provided
- These descriptions are provided to allow for greater understanding in order to prepare appropriate answers in your submission

### Terms in alphabetical order:

**Culture of excellence:** Culture is a dynamic process characterized by the shared values, beliefs, expectations and practices across the members and generations of a defined group. High-performing cultures prevail when the shared perception and action of elite team environment members (1) support sustained optimal performance, (2) persists across time in the face of variable results and (3) leads to consistent high performance. For an individual, it is a safe environment that encourages development, self-expression, contribution and satisfaction.

**Data:** any fact or observation documented to help provide evidence for decision making. Information collected can be qualitative and/or quantitative. These may include (but not exclusive to): discrete data, scales, surveys, interviews, physical assessments, manual assessments, data collected using equipment or software, collections in laboratories, gyms, clinics, remotely, or on field of play, data collected during DTE, camp or competition.

**Integrated Support Team (IST):** is a multi-disciplinary team of sport science, sport medicine and sport performance professionals that support coaches and athletes in their Daily Training Environment/Competition Environment (DTE/CE).

**High Performance:** a sport system that supports athletes that have stepped onto the Podium Pathway (or equivalent). It includes the resources and support personnel in place to support them that culminates in performance at the Olympic / Paralympic Games and/or single sport Senior World Championships. Practitioners working with Olympic, Paralympic, and Next Gen athletes, coaches and training groups competing at an international level.

**Next Generation (Next Gen):** athletes that are identified by the NSO's using their validated Podium Pathway (Podium Results Track, WSP and GMP) who are 5 to 8 years away from achieving a performance required for a podium result at a subsequent Olympic / Paralympic Games.

**Philosophy:** a set of guiding values and principles that you live by. This influences your words and actions on a daily basis. You may have personal, career, mentoring or leading philosophies.

**Policy:** an organization's statement of intent that is implemented as a procedure or protocol. Policies in the Canadian Sport System are values-based and assist in subjective or objective decision-making. These may be NSO, CSI, your employer's, or larger sport system policies such as safe sport or the Canadian Sport Policy.

**Reflective practice:** ability to reflect on one's actions so as to engage in a process of continual learning. Paying attention and examining your practice to inform everyday actions.



**Scope of practice:** the extent and limits of interventions that a practitioner may perform. The personal sphere of competence according to your educational body or regulatory body. Your scope may also be defined by the law or by your professional license. The employment setting may determine specific scope within their environment or as per your job description.

**Self-awareness:** conscious knowledge of one's own character, feelings, motives and desires

**Sources of evidence:** can include your own data or modelling, published science, science-based sources, expert-based sources (opinion), principles of sport science (historical practice), unsystematic observation (anecdote) & tacit knowledge (experience). These are in order from strong to weak sources.

**Statistics (descriptive):** describes the basic features of the data and often summarizes the data, measures of central tendency, and variability. Descriptive statistics cannot be used to make conclusions about the data.

**Statistics (inferential):** can help you infer causation, draw conclusions and make broader generalizations about your findings. Data is taken from a sample and generalizations are made to a population. Two examples include estimating parameters and hypothesis tests. These can be utilized at a basic level or complex level depending on your role.

**Visualization:** graphical representation of information. Using elements like charts, graphs, maps, and other tools that provide an accessible way to see and understand trends, outliers, patterns in data. Visualizations effectively tell the story of the data and help readers draw meaning from the data.

*References:*

*2019 Canadian High Performance Sport Strategy (Government of Canada)*

*Canadian Culture of Excellence in High-Performance Sport Position Statement (2021)*