

When to use this checklist?

Use the Professional Member Competencies Checklist as part of your application to be an HFESNZ Professional Member. This is Step 6 of the Professional Member Application Form.

What is the Competencies Framework?

The HFESNZ uses a competencies framework to support Professional Member applications and the assessment process. There are five HFE competency areas:

1. HFE principles.
2. HFE theory and practice.
3. Human capabilities and limitations.
4. Design and development of systems.
5. Professional skills and implementation.

Each of the five broad competency areas have more specific competencies that sit underneath them (numbered 1.1, 2.1, etc).

Each of the sub-competencies are described by one or more statements (numbered 1.1a, 2.1a etc). In total there are 48 competency statements.

What is the Proficiency Scale?

The proficiency scale is part of the competencies framework and indicates the level of skill and expertise you have in the five areas of HFE. The levels of the scale are 0 to 5 and score proficiencies of 'unaware' to 'expert' – shown in the Table below:

Proficiency	Level
Unaware	0
Aware	1
Novice	2
Intermediate	3
Advanced	4
Expert	5

A detailed description of the proficiency levels is in the [Appendix](#).

What is the competencies checklist?

The Professional Affairs Board (PAB) use the competencies checklist to help assess Professional Member applications.

In the checklist the competencies are listed as statements. You need to work through each statement to make a self-assessment of your proficiency level. A different number of statements need to be self-assessed depending on the Professional Member category you are applying for:

- Fellow and Certified need to complete all 48 competencies (100%).
- Associates need to complete 38 competencies (80%).
- Technical need to complete 24 competencies (50%).

Next, think about the competency statements that you have the best evidence to support your level of proficiency with. For example, what have you got to back up your self-assessed competency?

Think about the evidence you have that best supports your highest levels of proficiency. Evidence might include:

- your academic transcript
- an entry in your Applicant Project Logbook
- an executive summary or relevant section of a report you have written
- a paper you have published
- a book chapter you have written
- attendance on a training course, conference, or other relevant event.

Finally, you need to write a brief statement of how your evidence meets the competency at the proficiency level you have stated.

What are the proficiency requirements?

There are different proficiency requirements for each of the Professional Member categories and these are explained below.

TABLE 1. Proficiency requirements for different Professional Member categories.

Professional Member category	Proficiency and level requirements	What does this mean?
Fellow	100% proficiency across the HFE competencies at level 3 or higher, with the majority at a proficiency of level 4-5.	<ul style="list-style-type: none"> – You must assess your proficiency for each of the 48 individual competencies. – To qualify you need to provide evidence, you are working at level 3 or higher with most competencies should be at level 4-5.
Certified	100% proficiency across the HFE competencies at level 2 or higher, <u>and</u> at least two competency areas at level 3 or higher.	<ul style="list-style-type: none"> – You must assess your proficiency for each of the 48 individual competencies. – To qualify you need to provide evidence, you are working at level 2 or higher with at least 2 competency areas at a proficiency level of 3 or higher.
Associate	80% proficiency across the HFE competencies at level 2 or higher.	<ul style="list-style-type: none"> – You must assess your proficiency for 38 individual competencies. – To qualify you need to provide evidence, you are working at a proficiency of level 2 or higher.
Technical	50% proficiency across the HFE competencies at level 1 or higher, <u>and</u> at least one competency area must be level 3 or higher.	<ul style="list-style-type: none"> – You must assess your proficiency for 24 individual competencies. – To qualify you need to provide evidence, you are working at level 1 or higher, with at least one competency area with a proficiency of level 3 or higher.

How to complete the competencies checklist.

Step 1. Complete the first column, 'current level of proficiency.'

1. Look at the first column titled 'Current level of proficiency.'
2. Read the competencies and estimate your current proficiency level.
3. Enter the proficiency level score from 0-5 into the first column.

Step 2. Complete the second column to provide evidence to support your proficiency self-assessment.

1. Think about the best evidence you can provide to support your proficiency self-assessment. Your logbook entries can be used as evidence, and these may cover several competencies.
2. If you have scored yourself at level 3 or greater, you must provide evidence of meeting that competency. A maximum of 3 examples of evidence per competency area. These should be examples that best highlight how you meet the competency at the level you have indicated. You can use one piece of evidence for several competencies (e.g. a report, event attendance record or academic transcript).
3. Clearly label each piece of evidence so that it is easy for the PAB to assess your application. For example, '01 – Logbook', '02 – Certificate', etc.

Step 3. In column three, provide a brief statement outlining how the evidence meets the competency.

1. Write a brief statement that helps the assessors to understand why you selected the proficiency level for each competencies. and where to look for the evidence.

For example, *"The executive summaries from the reports I have entered as evidence, show three projects that I completed in the building industry. I used a systems approach to investigate xxxx problem. This included aspects of the physical tasks covering physiology and biomechanics, individual risk perceptions and safety attitudes, as well as organisational factors that exist in the wider work environment."*

Top tips to help you complete the competencies checklist.

- You can use one piece of evidence for several competencies. But the PAB will be concerned if you only use one piece of evidence for all competencies.
- Select your evidence that best demonstrates how you meet the competencies in a clear way.
- Make sure the evidence you provide is clearly labelled and directly relates to the competency you are providing evidence for. For example, we do not need full reports when specific sections or excerpts might be sufficient. The PAB may return your application for you to simplify if you provide too much evidence. We would rather ask you to provide more evidence than for you to provide too much, even if you feel like you have a lot more to show.
- Be concise with your statement in column three (less than 60 words).

The competencies checklist

Follow the instructions to complete this checklist and provide evidence to support your self-assessment.

Competency	Current level of proficiency (Level 0-5)	Evidence to support proficiency self-assessment (file name or hyperlink) (Max. of 3 examples)	Brief statement outlining how the evidence relates to the competency
Competency 1. Human Factors & Ergonomics (HFE) principles			
1.1 Uses a systems approach that considers the broad context of the human in the environment; is design driven; and focuses on performance, safety and wellbeing outcomes.			
1.1a Demonstrates HFE practice in the broad 'systems' sense of the definition, and in fields that may include physiology, biomechanics, cognition, psychology, sociology or organisational behaviour.			
1.2 Identifies and applies methods of analysis, evaluation and validation with respect to human interfaces for tasks, activities and environments.			
1.2a Understands the role and application of HFE principles in optimising system performance, safety and wellbeing across all ages, cultures and capabilities.			
1.2b Demonstrates ability to enhance health, safety, comfort, quality of life, attitudes, motivation, usability, accessibility, effectiveness and/or efficiency.			
1.2c Demonstrates ability to identify potential and existing high risk tasks, activities and environments.			

Competency	Current level of proficiency (Level 0-5)	Evidence to support proficiency self-assessment (file name or hyperlink) (Max. of 3 examples)	Brief statement outlining how the evidence relates to the competency
Competency 2. Human Factors & Ergonomics (HFE) theory and practice			
2.1 Demonstrates knowledge of theoretical and practice bases for analysis of human interactions.			
2.1a Demonstrates use of HFE theories, methods and tools for analysis of systems (including process), tasks, workload (physical and mental) including mental models, communication and/or anthropometry.			
2.2 Understands and applies the theoretical and practice bases for (re)design of human interfaces (physical and mental).			
2.2a Understands the influence of individual differences and factors as a person's body size, skill, cognitive abilities, age, sensory capacity, culture, general health and/or experience and applies this to human performance.			
2.2b Demonstrates integration of HFE principles and concepts into systems, interface and product design including requirements development and validation.			
2.2c Evaluates user needs for safety, efficiency, reliability and ease of use.			

Competency	Current level of proficiency (Level 0-5)	Evidence to support proficiency self-assessment (file name or hyperlink) (Max. of 3 examples)	Brief statement outlining how the evidence relates to the competency
<p>2.2d Determines the match and the interaction between human characteristics, abilities, capacities and/or motivations, and the system(s), organisation, planned or existing environment, products used, equipment, work systems, machines and/or tasks.</p>			
<p>2.2e Understands the management of HFE risks, including application to priorities and mitigations; potential benefits and costs of HFE solutions; short and long term goals relevant to defined problems.</p>			
<p>2.2f Applies relevant legislation, codes of practice and/or standards (government and industry).</p>			
<p>2.2g Determines whether the interface or interaction is amenable to HFE intervention.</p>			

Competency	Current level of proficiency (Level 0-5)	Evidence to support proficiency self-assessment (file name or hyperlink) (Max. of 3 examples)	Brief statement outlining how the evidence relates to the competency
2.3 Demonstrates knowledge of the theoretical and practice bases for data collection and analysis relating to HFE.			
2.3a Understands what data are required for HFE appraisal and design; selects and validates appropriate data collection/analysis methods and tools.			
2.3b Understands and applies the basics of experimental design and statistics.			
2.3c Understands and applies the basics of qualitative study design and analysis (for example knowledge elicitation, interviews, document analysis, and observation).			
2.3d Understands the ethical implications of proposed data collection, analysis, application and/or dissemination, and demonstrates ability to seek and obtain appropriate ethical approval.			

Competency	Current level of proficiency (Level 0-5)	Evidence to support proficiency self-assessment (file name or hyperlink) (Max. of 3 examples)	Brief statement outlining how the evidence relates to the competency
Competency 3. Human capabilities and limitations			
3.1 Demonstrates knowledge of the theoretical and practice bases for HFE relating to physical capabilities and limitations.			
3.1a Demonstrates a working knowledge of anatomy, functional anatomy, anthropometry, physiology, biological basis of behaviour, psychophysiology, pathophysiology, and/or environmental sciences as they apply to HFE practice.			
3.1b Applies knowledge of biomechanics, anthropometry, motor control, energy, forces applied as they relate to stresses and strains produced in the human body.			
3.1c Understands the effects of the environment (including acoustic, thermal, visual, vibration) and/or individual sensory response (sight, hearing, touch, taste, smell) and applies this to human performance, safety and wellbeing.			

Competency	Current level of proficiency (Level 0-5)	Evidence to support proficiency self-assessment (Max. of 3 examples)	Brief statement outlining how the evidence relates to the competency
3.2 Demonstrates knowledge of the theoretical and practice bases for HFE relating to psychological and social capabilities and limitations.			
3.2a Understands and applies theoretical concepts and principles of social and/or psychological sciences relevant to HFE.			
3.2b Applies knowledge of psychological characteristics and responses and how these affect health, human performance, attitudes, perception, stress, human reliability and/or error.			
3.2c Applies knowledge of human information processing (including situation awareness, memory, workload, decision making).			
3.2d Demonstrates a knowledge of systems theory including socio-technical systems and culture (e.g. organisational and safety culture).			
3.2e Understands and applies the principles of group functioning, motivation, engagement and participation.			
3.2f Understands and applies the principles of organisational management including individual, group (team) and/or organisational change techniques, including training and work structuring.			

Competency	Current level of proficiency (Level 0-5)	Evidence to support proficiency self-assessment (Max. of 3 examples)	Brief statement outlining how the evidence relates to the competency
Competency 4. Design and development of systems including products, tasks, jobs, organisations and environments			
4.1 Demonstrates knowledge of the theoretical and practice bases for HFE relating to design and development of systems.			
4.1a Understands and applies basic engineering (technology) concepts, with a focus on design solutions and/or contextual operation of technologies.			
4.1b Demonstrates an understanding of the principles of HFE and human-machine interface technology including hardware, software, artificial intelligence and/or virtual/augmented/mixed environments (e.g. internet and network based technologies and social media).			
4.1c Understands and applies the requirements for safety systems, the concepts of risk, risk assessment and risk management.			

Competency	Current level of proficiency (Level 0-5)	Evidence to support proficiency self-assessment (Max. of 3 examples)	Brief statement outlining how the evidence relates to the competency
4.2 Utilises a systems approach to the human-aspects of the specification, design, assessment and acceptance of products, services and human factors interventions.			
4.2a Applies HFE principles to design of systems (and services), products, job aids, controls, displays, instrumentation and/or other aspects of tasks and activities.			
4.2b Demonstrates understanding of the iterative nature of design development including simulation and/or computer modelling.			
4.2c Understands and considers the options for achieving a balance between human and technological, task and environment to achieve an optimal system.			
4.2d Selects appropriate forms of HFE solutions and recommendations based on theoretical knowledge and practice, and develops a comprehensive, integrated and prioritised approach.			

Competency	Current level of proficiency (Level 0-5)	Evidence to support proficiency self-assessment (Max. of 3 examples)	Brief statement outlining how the evidence relates to the competency
Competency 5. Professional skills and implementation			
5.1 Demonstrates understanding of the role of HFE in change strategies and strategic management.			
5.1a Provides design specifications and guidelines for technological, organisational and HFE design or redesign of the work process, the activity and the environment which match the findings of HFE analysis.			
5.1b Develops strategies to introduce a new design to achieve optimum performance, safety and wellbeing outcomes.			
5.1c Recognises the safety hierarchy, the application of primary, secondary and tertiary controls and the order of introducing controls.			
5.1d Demonstrates understanding of effective interaction with clients and stakeholders at all levels of a system.			

Competency	Current level of proficiency (Level 0-5)	Evidence to support proficiency self-assessment (Max. of 3 examples)	Brief statement outlining how the evidence relates to the competency
5.2 Develops appropriate recommendations for education and training in relation to HFE principles.			
5.2a Demonstrate understanding of current concepts of education and training relevant to application of HFE principles.			
5.2b Demonstrate understanding of effective education and training programmes relevant to understanding the introduction of HFE measures.			
5.3 Supervises the application and evaluation of an HFE plan.			
5.3a Demonstrate understanding of implementing appropriate design or modifications.			
5.3b Incorporates methods to allow continuous improvement.			
5.3c Selects appropriate criteria for evaluation.			

Competency	Current level of proficiency (Level 0-5)	Evidence to support proficiency self-assessment (Max. of 3 examples)	Brief statement outlining how the evidence relates to the competency
5.3d Produces clear, concise, accurate and meaningful records and reports.			
5.3e Uses a team-lead and owned participative approach.			
5.4 Shows a commitment to safe, ethical and culturally appropriate practice and high standards of performance, and acts in accordance with legal requirements.			
5.4a Demonstrate understanding of accepted codes and standards of professional behaviour, and meets the expectations of those people affected by the HFE actions.			
5.4b Demonstrates a commitment to embracing diversity, equity and inclusion and ensures equal and fair treatment of people interacted with during HFE practice.			

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Competency	Current level of proficiency (Level 0-5)	Evidence to support proficiency self-assessment (Max. of 3 examples)	Brief statement outlining how the evidence relates to the competency
<p>5.4c Recognises the scope of personal ability for HFE analysis and when it is necessary to consult and collaborate with different disciplines/professionals.</p>			
<p>5.4d Demonstrates commitment to ongoing professional development by maintaining skill set and an awareness of wider HFE practice.</p>			
<p>5.4e Demonstrates via active participation in human factors/ergonomics-specific activities such as professional development meetings, conferences, networking events, publications, and/or studies.</p>			

Appendix: Proficiency Scale¹

Score	Proficiency Level	Description
0	Unaware	You have no knowledge or understanding of this competency.
1	Aware	For a particular competency: You have knowledge or an understanding of basic techniques and concepts. Your professional development: Your focus is on learning more.
2	Novice	For a particular competency: You have limited experience gained in a classroom and/or as a trainee on-the-job. You are expected to need help with this competency. Your focus is on developing through on-the-job experience. You can understand and discuss terminology, concepts, principles and issues, and can use reference and resource materials related to this competency. Your professional development: Your CPD shows responsibility for, and awareness of, your own learning and professional development.
3	Intermediate	For a particular competency: You can successfully complete tasks in this competency independently, though you may need help from an expert. Your focus is on applying and enhancing your knowledge or skill. You understand and can discuss the application and implications of changes to processes, policies, and procedures in this area. Generally: You show awareness of how even a narrowly focused task can draw upon knowledge crossing a variety of different knowledge areas. You can demonstrate the appropriate use of different techniques and methods in the application of human factors research or consultation. Your professional development: Your CPD demonstrates learning outside of your immediate job requirements. Your forward plan shows how you will learn new skills to complement your career path such as management, business administration, marketing, personnel management.
4	Advanced	For a particular competency: You can perform the actions associated with this competency without assistance. You are recognised within your organisation as the go-to person regarding this competency. Your focus is on broad organisational/professional issues. You participate in senior level discussions regarding this competency. You assist in the development of reference and resource materials in this competency and are capable of training others. Generally: You have responsibility for integrating and delivering programmes of work and meeting deadlines and milestones. You mark, grade and review the work of others in the context of project delivery. You bring together disparate theories and techniques or the application of novel solutions to complex problems. You demonstrate use and application of multiple tools and techniques to more complex projects that require human factors integration. You present the output of work and research undertaken. Your professional development: Your CPD shows awareness of knowledge and skill fade in areas not being practised due to career specialism and provides a plan to compensate. You show consideration of the development of your management and administrative skills, so you have greater autonomy and authority over project delivery.
5	Expert	For a particular competency: You are known as an expert or recognised authority in this area. You can provide guidance, troubleshoot and answer questions related to this area of expertise. Your focus is strategic. You have demonstrated consistent excellence in applying this competency across multiple projects and/or organisations. You are considered the go-to person in this area within and outside your organisations. You create new applications for and/or lead the development of reference and resource materials for this competency. Generally: You contribute to the development and success of the discipline possibly through voluntary activities within the HFESNZ. You interact with other strategic thinkers within your community of expertise. Your professional development: Your CPD demonstrates communication of learning, teaching or mentoring of others.

¹ Proficiency scale adapted from NIH Competencies Proficiency Scale <https://hr.od.nih.gov/workingatnih/competencies/proficiencyscale.htm>