

# Aviation Psychology

Must have a Psychology Qualification and possibly national licencing

# Competency Framework Skills, Attitudes and Areas of Knowledge and Application Overview

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# Aviation Human Factors

May have a range of qualifications including Physiology, Human Factors or Safety, Engineering or Ergonomics, Neuroscientists, Sociologists and Anthropologists, Safety, Psychology or Medical Degrees.

## Knowledge about Humans

- Thorough knowledge of:
- Psychology/ Human Behaviour (individuals and Groups)
  - Cognitive ergonomics
  - Emotion
  - Sensory and motor functions
  - Attention
  - Reasoning
  - Mental health & wellbeing
  - Psycho-pharmacology (for clinical AP)

## Global Aviation System/ Domain Knowledge

- A thorough knowledge of the global aviation system and its components is a prerequisite to both endorsements.
- Specific operator tasks and environment
  - Aviation regulation, standards and recommended practices
  - Operational language/ standard phraseology (ICAO alphabet)

## Knowledge about Humans

- Thorough knowledge of:
- Human Physiology
  - Physical and cognitive Ergonomics
  - Anthropometrics
  - Biometrics
  - Human Factors Engineering
  - Human-system functions

## Overarching System Methods

- Several overarching system methods are required for both AVPSY & AVHFS.
- Statistics and data analysis
  - Job & task analysis
  - Observations and interviews
  - Experimental/ laboratory studies
  - Validation and measurement
  - Training
  - Other

## Methodological approaches & tools

- Psychometrics and tool development,
- Selection and Recruitment,
- Competency of assessment
- Individual wellbeing,
- Psychophysiological Assessment,
- Clinical support to peer-support programs,
- Culture & Organisational Wellness,
- Individual Diagnosis & Treatment

## Areas of Practice (AoP)

- Design & Evaluation of; systems, technology, jobs, organisational structure, products
- Individual / Group / Organisational Behaviour and working environments; including CRM/TRM/MRM, organisational, impact of stressors, social and behavioural psychological principles
- Influence on Culture (including just culture, safety culture)
- Workforce management; recruitment, selection, training design, development and delivery, competency assessment & evaluation, leadership and management influence, ongoing performance and development.
- Change Management
- Human performance and safety; risk assessment, incident & accident investigation, design implementation and evaluation of strategies, HF and safety assurance, understanding error, hazards, safety management, design implementation and evaluation of safety strategies
- Influencing Human performance and reliability; physiological and psychological features, sensory and cognitive functions including decision making,
- Regulations & Standards
- Scientific Research; including design, implementation, evaluation as methods as noted above.

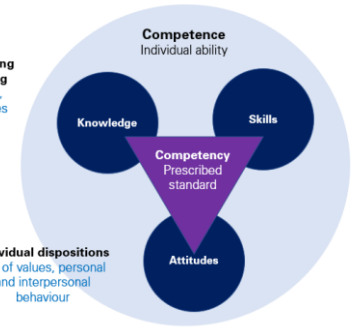
## Methodological approaches & tools

- Human-machine interface design and development
- Usability Testing
- Assurance methodologies for assessing changes and new technologies

## Common Supporting Skills and Attitudes:

- Taking a Systems Approach to AVPSY/AVHFS work
- Critical evaluation and analysis (including evidence-based practice)
- Thoroughly and thoughtfully scoping, designing and implementing interventions or work activities
- Effective Communication including persuasion, effective facilitation and consideration of the most appropriate style for the situation.
- Reflective Practice / Continuous Learning and Openness
- Collaboration by building & maintaining a thorough understanding of the sub-fields or specialist areas
- Maintaining awareness of Business / Customers and our responsibility to individuals and organisations
- Creativity and Curiosity in the context of applied psychology/ human factors
- Acting in compliance with ethical and legal standards

Know what, recalling and understanding  
Facts, information, description, theories



Know how, ability to perform a task  
Procedures, processes, practical application, problem-solving, communication

Individual dispositions  
Set of values, personal and interpersonal behaviour

There may be some Psychologists who have additional non-AP roles within a company which do not fit neatly into these categories. In some areas Psychologists may have more in-depth or legally protected roles within these areas of knowledge