The future of construction is in high performance buildings
Let us show you how to build them

CERTIFIED PASSIVHAUS TRADESPERSON
Online Course

“The course was excellent at demonstrating the wide knowledge base around passivhaus construction. Each weekly session was in-depth without being an overwhelming workload on top of full-time work. Many thanks to the staff at AHPA for your knowledge and well-laid-out coursework.”
ABOUT US

The Australian Passivhaus Association (APA) is an independent, not-for-profit organisation which aims to lead change by educating, promoting, and supporting the delivery of Certified Passivhaus buildings in Australia. Our vision is that all Australians live and work in healthy, comfortable, low-energy, resilient buildings.

OUR VISION

All Australians live and work in healthy, comfortable, low-energy, resilient buildings.

OUR MISSION

Lead change by educating, promoting, and supporting the delivery of Certified Passivhaus buildings in Australia.

OUR EDUCATION DEPARTMENT

Passivhaus is rapidly gaining momentum in Australia and APA aims to make Passivhaus the benchmark for comfort in all our buildings. Our courses are designed to specifically focus on helping professionals, trades and individuals understand more about Passivhaus.

APA Members receive a 5% discount

APHA has a variety of committed industry Passivhaus experts willing to train you for our certified courses, masterclasses, webinars and more. We currently offer three courses:

Certified Passivhaus Designer/Consultant Course
In this course, you will learn to design energy-efficient and cost-optimal buildings by implementing the Passivhaus principles in your projects as well as write the Certified Passivhaus Designer/Consultant exam.

Certified Passivhaus Tradesperson Course
In this course, you will gain the foundation Passivhaus Tradesperson knowledge necessary to prepare you to tackle your first Passivhaus project, as well as write the Certified Passivhaus Tradesperson exam. A PHI Certified Passivhaus Tradesperson (CPHT) is equipped to implement the Passivhaus building standard.

Practical Selling for Passivhaus and Sustainable Building Professionals
In this course you will learn a simple, practical, non-salesy approach to selling so that you can win more clients and projects. You will learn how you can use energy efficiency and sustainability as a competitive advantage without having to constantly compete on price whilst allowing you to deliver the quality product you want for your clients without having to cut corners.

For any education related enquiries please contact education@passivhausassociation.au
Discover how to make buildings perform better than traditional construction. Develop your knowledge, and skills, related to identifying passivhaus construction best practices.

The Certified Passivhaus Tradesperson Course is a self-paced, on-demand CPHT course with live, online Trainer Q&A sessions, designed to help builders, contractors, and tradespeople prepare for the CPHT exam and learn the advanced building science skills of the Passivhaus standard.

**COURSE OVERVIEW**

**Who is this training for?**
This course is for any design/build & construction professionals who are concerned about moisture control, air sealing, thermal bridging, healthy indoor air, durability, resiliency, and affordability of high performance.

**Why should they do it?**
- Traditional construction has been proven ineffective and is outdated with building codes being increased across the Nation
- The passivhaus standard has grown astronomically across the Nation and the Globe
- Consumer education in high performance buildings is the highest it has been, with more demand to built passivhaus buildings than the market can deliver
- Future proof your business and career by being ahead of the competition
- Limit liability & increase credibility
- Learn best practices & building science

**DELIVERY MODE:** Online Self-paced

**NUMBER OF UNITS:** 10
**LEARNING OUTCOME**

**UNIT 1: Passivhaus Basic**
- Review pioneer projects of the Passivhaus movement, and a number of built examples including different climate zones, building typologies and sizes
- Learn the definition of the Passivhaus building standard, and compare it to other concepts e.g. Passive Solar and Net Zero
- Appraise the cornerstones of the Passivhaus building thermal envelope, and how they affect health and comfort as well as energy efficiency
- Familiarise yourself with different players of the Passivhaus landscape, including research, training, quality assurance and certification

**UNIT 2: Passivhaus Economics**
- Compare Passivhaus to the National Construction Code (NCC)
- Learn to identify value for quality thermal envelopes in terms of energy, health, comfort, indoor air quality
- Compare capital and operational savings for Passivhaus buildings
- Review key factors in the economics of high performance building, including investment timeframe, energy market and thermal discomfort

**UNIT 3: Thermal Insulation & Thermal Mass**
- Identify key performance differences between thermal insulation and thermal mass, and how they impact different types of buildings
- Familiarise yourself with thermal resistance and thermal transmittance of building assemblies, and compare the Passivhaus method with the NCC
- Compare typical U-values for Passivhaus building in different climate zones, and compare them with the NCC
- Review typical insulation materials, and their application depending on different construction methods

**UNIT 4: Thermal Bridges**
- Familiarise yourself with the definition of Thermal Bridge
- Learn about the consequences of Thermal Bridges on building energy performance and risk of mould and condensation
- Review climate-specific metrics to verify the avoidance/mitigation of thermal bridges, and suitability for Passivhaus
- Identify typical thermal bridges for different constructions methods, their risk level, and cost-effective ways to mitigate them
<table>
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<tr>
<th>TOPIC</th>
<th>LEARNING OUTCOME</th>
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| UNIT 5: Windows & Transparent Components | > Familiarise yourself with the Comfort Criterion Passivhaus requirement, and compare it to the Hygiene Criterion  
> Compare thermal performance of Passivhaus windows with NCC ones, and the consequences on thermal comfort and heating/cooling demand  
> Identify subcomponents of windows and transparent components, and understand their implications for heat losses and solar gains  
> Review different typical installation details for Passivhaus windows, and how detailing impacts performance |
| UNIT 6: Existing Buildings | > Recap Passivhaus quality goals in the context of retrofitting existing buildings  
> Understand the potential energy savings in building retrofits, and best practices to achieve the most cost-effective solutions  
> Analyse risks associated with retrofitting different types of building structures, and ways to mitigate those risks  
> Learn to apply the principles to a range of building typologies |
| UNIT 7: Air Tightness & Moisture Management | > Familiarise yourself with different air and moisture transfer mechanisms, and their consequences in terms of energy efficiency and building damages  
> Learn about PHI’s airtightness requirements, depending on different energy efficiency goals  
> Review key factors of the blower door testing method, including Passivhaus specific requirements  
> Evaluate best practices for durable airtightness depending on different assemblies and construction methods |
| UNIT 8: Mechanical Ventilation with Heat Recovery | > Identify key metrics for indoor air quality, and typical sources of air pollution inside buildings  
> Learn about PHI’s requirements for mechanical ventilation systems, including energy consumption and heat recovery efficiency, air filtration, and noise control  
> Evaluate common types of mechanical ventilation systems, including pros and cons depending on project application  
> Review balancing and commissioning procedures for mechanical ventilation systems in Passivhaus building applications |
| UNIT 9: Efficient Heating, Cooling, and Domestic Hot Water | > Familiarise yourself with key concepts of mechanical systems including heating, cooling and dehumidification, and domestic hot water  
> Evaluate how energy efficiency of Passivhaus buildings influences the suitability of specific systems and their operation  
> Review innovative types of mechanical systems  
> Learn about Primary Energy in relation to different energy vectors, and how that affects the energy offsetting process to meet Net Zero |
| UNIT 10: Quality Assurance, Sequencing, and Exam Preparation | > Review of construction photos  
> Identify lacking or poorly executed details with regards to Passivhaus construction in terms of airtightness and thermal insulation  
> Provide brief instructions on how to solve these quality assurance issues |
| EXAM | The exam is based on the following learning targets, and includes multiple choice questions, building site pictures, as well as small calculation and drawing exercises. |
WHO RELIES ON OUR TRAINING

PRICING

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COURSE DIRECTORS

SCOTT STEWART
Scott runs a Passivhaus and Building Science consulting business, LAB Design, with his wife Madonna from the mid-north Coast of NSW. A Certified Passivhaus Designer and thermal modelling expert since 2014, he has contributed to a vast array of Passivhaus projects both in Australia and overseas, including his own, and has a passion for simplifying details for buildability and cost. Scott’s varied career experience prior to becoming a CPHD includes aeronautical engineering, building design, teaching and a 20-year Air Force aviation career, all contributing to his ability to problem solve with innovative and practical solutions.

MADONNA STEWART
Madonna began her career in the family construction company prior to enjoying a 12-year Air Force Aviation career. In addition to working on her own construction projects, Madonna contributes to the Passivhaus community through her work in the growing field of hygrothermal risk assessment (moisture management). In addition to studying science, she has completed an international study on hygrothermal risk assessment and is a WUFI professional.

CLICK HERE TO BOOK

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