

# Professional Diploma in Building Services – HVAC&R

The definitive training program for the HVAC&R industry.

Providing essential knowledge and skills to engineering graduates employed in consulting or contracting firms and/or practising trades workers.

Increasing exposure to the HVAC&R industry through comprehensive and practical engineering training for the built environment.

# April 2024 intake and registration

The program runs from: April 1, 2024 – December 31, 2024

Intake closes March 15, 2024, or when spaces are filled.

### **Delivery**

#### **Online**

- ✓ Course work delivered online
- **✓** Four key areas
- ✓ Over 100 hours of course content

Throughout the course, students receive ongoing support via the online question board, assessment schedules and peerto-peer discussion.

## **Topics**

30 hours

#### 1 Fundamentals:

- ✓ Introduction to practice
- √ Engineering fundamentals
- ✓ Introduction to HVAC&R system types and applicability
- ✓ Introduction to system components
- ✓ Psychrometry
- √ Load and energy estimation
- √ Comfort conditions
- √ Refrigeration cycles and refrigerants

10 hours

#### 2 Equipment and Components:

- √ Chillers
- ✓ Pumps
- √ Fans
- √ Heat rejection
- √ Hot water heaters
- √ Heat exchange equipment
- ✓ Packaged systems

45 hours

#### 3 Systems:

- √ Refrigeration systems
- √ Air systems
- √ Water systems
- √ Electrical systems
- √ System control
- √ Thermal storage and mass
- √ Passive, mixed-mode and hybrid systems
- √ System design and selection

15 hours

#### 4 Practice and Performance:

- √ Industry practice
- ✓ Design and construction process
- √ Regulation and compliance
- √ Sustainability
- √ Bidding and tendering
- ✓ Estimating
- ✓ Programming
- ✓ Design
- ✓ Construction
- √ Commissioning and building tuning
- Operations, maintenance and facilities management

Complete this form, then email or post with payment to:

AIRAH Level 3, 1 Elizabeth St, Melbourne Vic 3000

Phone: 03 8623 3000

Email: training@airah.org.au

#### Registration fee

Register before February 15, 2024

**\$5,775** (incl GST) Member

\$6,165 (incl GST) \*Non-member

Register after February 16, 2024

**\$6,325** (incl GST) Member

\$6,715 (incl GST) \*Non-member

\*Please note price includes cost of joining AIRAH as an Affiliate member for one year.

## Registration closes March 15, 2024

#### Fee includes:

- Access to the online education environment
- All online topic resources

#### Who should enrol?

This program is designed for recent engineering graduates or those with an extensive trades background. You need to be competent in English (written/verbal) and a dues-paying member of AIRAH.

## Cancellation and refund policy

Registration may be cancelled up to 15 working days prior to commencement of the program, with participants either transferring to another intake or receiving a refund less a 20 per cent administration fee. In all other cases of cancellation, the extent of any refund will be at the discretion of the AIRAH Chief Executive Officer. A cancellation request must be lodged in writing.

Another participant may be substituted at any time before course commencement if the nominated person is unable to commence the course.

AIRAH reserves the right to cancel or postpone a course. All registered participants affected by such changes will receive a full refund or be offered the opportunity to transfer to the next available intake period.

Note – AIRAH's online professional development training system may need to be temporarily shut down for maintenance during the training program.

AIRAH will endeavour to inform all students of any downtime well in advance.

Participant's signature

## Professional Diploma in Building Services – HVAC&R



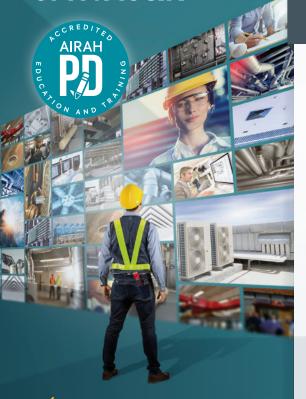
Helping you gain a better understanding of HVAC&R design principles.

## **Registration - April 2024**

Participant details	
Mr/Mrs/N	Is Family name
Given nar	me Preferred name
Position	
Address	
Suburb	Postcode
Mobile	
Email	
Billing details	
Company	name
Accounts/supervisor name	
Address	
Suburb	Postcode
Phone	
Email	
Payment	
\$	EFT Mastercard Visa Cheque
Please Note: If paying by EFT, a tax invoice with payment details will be issued. If paying by cheque, please make your cheque payable to AIRAH.	
Once this form has been submitted to and received by AIRAH's education team, we will contact you to process and/or confirm your payment. Please note your enrolment in this program/course is not confirmed until this step has been completed.	
Tax invoice: Upon payment, a tax receipt will be sent to you   ABN: 81 004 082 928	
<b>Disclaimer:</b> In making this application, I fully understand that it is for enrolment to the Professional Diploma in Building Services – HVAC&R indicated on this application form. I understand that payment is required for this program. I will submit to an assessment and supply further information as determined by AIRAH. I further understand that any false statement or misrepresentation that I may have made in this application may result in the revocation of this application. AIRAH is a self-accrediting nationally recognised peak industry body for HVAC&R. Go to www.airah.org.au for more information.	

Date

# Fast-track your engineering knowledge of HVAC&R



- **✓** 9-month program
- ✓ Over 100 hours of online course content and assessments
- 12 case studies
- ✓ Recognition

The AIRAH-accredited Professional Diploma in Building Services - HVAC&R won the Outstanding Industry Education/Training Award at the ARBS 2020 Industry Awards.

airah.org.au/pdbs

#### AIRAH

Level 3, 1 Elizabeth St, Melbourne Vic 3000

**Phone**: 03 8623 3000

Email: training@airah.org.au

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## How the program benefits employers and employees

- Suitable for recent mechanical engineering graduates, or those with significant experience in associated fields of HVAC&R, who are seeking to better understand engineering processes.
- Competency-based assessment, verifying that each student is self-motivated and prepared to work effectively under senior guidance, at a graduate level in the HVAC&R industry.
- Outsourced training opportunity for HVAC&R businesses committed to the development of their graduates.

In addition to the theory content provided across four key training areas, the program takes students on a journey of designing an HVAC system over 12 assignments. Feedback from experienced engineers is provided at every step.

It provides an in-depth look at the overall journey of an HVAC&R mechanical engineer's job. Practical takeaways include: reviewing a site, presenting design options to a client, calculating heat loads (manually, from basic principles), selecting equipment, designing, compliance assessment, budgeting, energy reporting and pulling together a tendering document.

This program requires students to both read the course materials and demonstrate their readiness to operate in real world projects. Students are required to undertake their own research to determine answers to design problems. The use of outside course materials will be required, such as finding suppliers' specification guidelines. Based on industry guidance, successful participants will exhibit initiative, curiosity and creativity in their assignments.

#### **Program snapshot**

This program has established itself as the most important education and training tool for HVAC&R industry professionals.



Over 462 students have undertaken the program

Figures as of October 2023



Two intakes each year (maximum of 45 registrations per intake)



Program frequently sells out; waiting list placement available

### Completion

Students who successfully complete the Professional Diploma of Building Services - HVAC&R will be issued:

- A letter of completion
- A statement of results
- The AIRAH industry-accredited PDBS-HVAC&R certificate