

1. Title	Assess noise of air-conditioning and refrigeration system	
2. Code	EMACIT405A	
3. Range	Apply specialized knowledge and skills to assess noise of air-conditioning and refrigeration systems at places with or machine rooms of air-conditioning and refrigeration systems, and provide solutions to reduce the noise.	
4. Level	4	
5. Credit	9	
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Knowledge of air-conditioning and refrigeration system noise assessment</p> <ul style="list-style-type: none"> ◆ Understand the details of air-conditioning and refrigeration system noise assessment ◆ Understand the definition and applications of noise spectrum and noise level A (dB) ◆ Understand the definition and applications of different noise assessment curves ◆ Understand the acceptable noise level of different types of air-conditioned areas and buildings ◆ Understand noise sources of different types of air-conditioning and refrigeration equipment ◆ Understand the relationship between room acoustic power and room acoustic pressure level ◆ Understand the types of silencers and their properties of acoustics and aerodynamics <p>6.2 Methods and procedures of assessing air-conditioning and refrigeration system noise</p> <ul style="list-style-type: none"> ◆ Measure the air-conditioning and refrigeration system noise during operation, including indoor noise spectrum and noise level A (dB) ◆ Measure the outlet velocity of the air-conditioning and refrigeration system during operation ◆ Use noise assessment tools to assess the noise level of the air-conditioning and refrigeration system, including: <ul style="list-style-type: none"> • Use the data obtained from the air-conditioning and refrigeration system measurement to plot the noise assessment curve NR • Use the noise assessment curve to assess whether the noise of the air-conditioning and refrigeration system exceeds the acceptable standard ◆ Reduce the air-conditioning and refrigeration system noise, including: <ul style="list-style-type: none"> • Find out why the air-conditioning and refrigeration system is so noisy • Propose ways to reduce noise of the air-conditioning and refrigeration system according to the actual situation • Select suitable air duct silencer 	

	<p>6.3 Professionalism in air-conditioning and refrigeration system noise assessment</p> <ul style="list-style-type: none"> ◆ Perform air-conditioning and refrigeration system assessment according to the legal requirements and code of practice
<p>7. Assessment Criteria</p>	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> (i) Capable to apply specialized knowledge and skills, and analyze a wide range of information, in order to complete air-conditioning and refrigeration system noise assessment; and (ii) Capable to propose ways to reduce noise of air-conditioning and refrigeration systems according to actual situations.
<p>8. Remarks</p>	<p>The credit value of this unit of competency is set on the presumption that the person already possesses general knowledge of air-conditioning and refrigeration systems and noise.</p>