

1. Title	Design domestic gas supply system (service pipes and relevant equipment)
2. Code	EMGADE301A
3. Range	Design gas supply system (service pipes and relevant equipment) installation work for customers in a cost-effective way for domestic premises to be built according to customers' needs as well as the requirements of the gas safety regulation and codes of practice; take the initiative to accomplish the design task independently and brief the engineering personnel or people concerned on the engineering details; and provide special solutions for non-routine engineering environment.
4. Level	3
5. Credits	5
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Knowledge and principles of designing domestic gas supply system (service pipes and relevant equipment)</p> <ul style="list-style-type: none"> ◆ Understand construction plan and point out spots and locations not suitable for gas supply system installation, and suggest solutions accordingly ◆ Organize and evaluate the building design, and design a suitable route for service pipes ◆ Understand and conform with the works specifications of domestic gas supply system (service pipes and relevant equipment) <p>6.2 Methods and procedures of designing domestic gas supply system (service pipes and relevant equipment)</p> <ul style="list-style-type: none"> ◆ Calculate the total gas consumption correctly and consider various factors ◆ Calculate correctly to select pipes with suitable diameters ◆ Design gas piping route ◆ Select 2nd stage regulator at roof with suitable gas flow rate, inlet and outlet pressure and over pressure cut-off function ◆ Select and use suitable equipment e.g. expansion joints, insulated socket, etc. ◆ Draw the pipework drawing

	<p>6.3 Professional knowledge of designing domestic gas supply system (service pipes and relevant equipment)</p> <ul style="list-style-type: none"> ◆ Apply all the provisions in the Gas Safety (Installation and Use) Regulations under the Gas Safety Ordinance, Cap. 51 ◆ Apply all the provisions in the Code of Practice for Hong Kong LPG Industry: Module 1 [LPG Compounds and Cylinder Stores] ◆ Apply other gas related regulations and codes of practice
<p>7. Assessment Criteria</p>	<p>The integrated outcome requirement of this unit of competency is:</p> <p>(i) Capable to organize and evaluate the building design and design domestic gas supply system (service pipes and relevant equipment) installation work.</p>
<p>8. Remarks</p>	<p>The credit value of this unit of competency is set on the presumption that the person already possesses the competency of EMGADE101A 【Basic knowledge of gas application】 .</p>