1. Title	Design installation work for gas pipes, appliances, meters and relevant facilities in domestic premises
2. Code	EMGADE201A
3. Range	Design gas installation work for customers in a cost-effective way for domestic premises already built according to customers' needs as well as the requirements of the gas safety regulations 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	2
5. Credits	4
6. Competency	<u>Performance Requirements</u> 6.1 Knowledge and principles of installation design for gas pipes, appliances, meters and relevant facilities in domestic premises ♦ Use typical symbols for the gas industry ♦ Explain correctly the specifications of various types of gas appliances and their installation requirements ♦ Understand the specifications and correct match of gas pipes, appliances, meters and relevant facilities ♦ Calculate the total gas consumption and power of gas appliances correctly ♦ Point out the correct way to protect the exposed pipes ♦ Point out the correct way to protect the concealed pipes ♦ Point out correctly the requirements on pipes for passing through floor slabs and walls

	6.2 Methods and procedures of installation design for gas pipes, appliances, meters and relevant facilities in domestic premises	♦ Accurately estimate, and measure at the work site, dimensions of the pipes or the works area ♦ Select suitable meters correctly ♦ Select pressure regulators with suitable gas flow rate and inlet and outlet pressure ♦ Select relevant facilities correctly ♦ Use graphical tools to find out the gas flow rate of pipes ♦ Draw the working drawing clearly ♦ Use typical symbols for the gas industry ♦ Point out the correct location of pipe support
	6.3 Professional knowledge of installation design for gas pipes, appliances, meters and relevant facilities in domestic premises	♦ 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 GU03 on [Installation Requirements for Domestic Gas Water Heaters] ♦ Apply other gas related regulations and codes of practice
7. Assessment Criteria	The integrated outcome requirement of this unit of competency is: (i) Capable to design and make suitable decision on the pipe route, the location of gas appliances to be installed, pipe diameter, meter and relevant facilities.	
8. Remarks	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】.	