

Specification of Competency Standards of the Watch & Clock Industry

Unit of Competency

Functional Area: Product Management

Title	Master the Technological Development of Timepiece Materials and Production
Code	104872L4
Range	This unit of competency (UoC) is applicable in the research and development department of timepiece companies. It covers the abilities to master the relation between the use of timepiece materials and production technology; select and apply appropriate technology in product development and production after making analysis.
Level	4
Credit	6 (for reference only)
Competency	<p>Performance Requirements</p> <ol style="list-style-type: none"> 1. Understand technologies related to timepiece production <ul style="list-style-type: none"> • Understand the channels to obtain, analyze and process technological information related to timepiece production • Understand the development trend of the timepiece market • Know about the commonly used materials for timepiece production <ul style="list-style-type: none"> • Characteristics of materials • Watch dial treatment tools • Electroplating equipment and tools • Safety standards for finished products 2. Master the technological development of timepiece materials and production <ul style="list-style-type: none"> • Select and apply appropriate technology in each process of timepiece product development according to the development trend of relevant technology, the conditions of the company and customers' demand <ul style="list-style-type: none"> • Introduce newly developed and improved materials to improve or develop new products <ul style="list-style-type: none"> • Know about the quality and application of newly developed materials • Test the quality reliability of newly developed materials • Implement improved or newly developed production technology to improve product quality and enhance cost effectiveness • Select appropriate investigation and survey technology to obtain accurate market information, so as to understand user needs (including the psychological index which has gained weight in recent years) • Master the degree of market recognition and acceptance of time-pieces or components made of newly developed materials <ul style="list-style-type: none"> • Exterior appearance • Health and safety (allergy/irritation to skin) • Stability • Master the supplementary technology of product research and development • Introduce appropriate supplementary technology according to the needs of the organization, such as: computer-aided design, analysis and tests, etc. to shorten the time cycle for product development and improve product quality 3. Exhibit professionalism <ul style="list-style-type: none"> • Ensure that the timepiece materials/finished products/technologies comply with international safety standards • Respect intellectual property to prevent plagiarization in product development process, so as to avoid individual person and the organization to fall into the trap of infringement
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"> • Master the technological development relevant to timepiece product development, and select new technology to meet organizational development after making careful analysis, so as to enhance the effectiveness in performing the duty of product development and manufacturing of timepiece products; and • Test the quality, application and reliability of newly developed materials.
Remark	