

Specification of Competency Standards of the Watch & Clock Industry

**Unit of Competency**

**Functional Area: Design**

Title	Understand the Principles and the Functional Structure of a Complete Watch and a Quartz Movement
Code	104835L2
Range	This unit of competency (UoC) is applicable in the design department of timepiece companies. It covers the abilities to know about the structure and functions of different timepiece products, understand the assembling principle of a complete watch, and assist in carrying out duties related to timepiece design under supervision.
Level	2
Credit	3 (for reference only)
Competency	<p>Performance Requirements</p> <p>1. Understand the functional structure of a complete watch and a quartz movement and the principles of assembling a complete watch</p> <ul style="list-style-type: none"> <li>• Know about the structure, main system, components and operation principle of an analog movement</li> <li>• Know about the operation principle of an analog movement with date/day display</li> <li>• Know about the operation principle of an analog movement with chronograph function</li> <li>• Know about the main components, structure and functions of a liquid crystal display movement</li> <li>• Know about the operation principle of a liquid crystal display movement and the operation of some of its additional functions</li> <li>• Know about the specific function of an integrated circuit board of a movement</li> <li>• Know about the categories, basic structures and functioning of batteries</li> <li>• Know about the interchangeability of batteries with different origins or from different suppliers</li> <li>• Master the essential assembling parts of a complete watch, including the hands, dial, case, crown, band, glass, movement, etc.</li> <li>• Know about the materials and structural differences of watches with different functions, e.g.:             <ul style="list-style-type: none"> <li>• Structure of a complete watch with water-proof function</li> <li>• Structure of a complete watch with anti-vibration function</li> <li>• Structure of a complete watch with anti-magnetic function</li> </ul> </li> <li>• Understand the assembling principle, process and steps of a complete watch</li> <li>• Know about the assembling tools and method for a complete watch</li> <li>• Know about the inspection after a complete watch is assembled, e.g.:             <ul style="list-style-type: none"> <li>• Condition of cleanliness</li> <li>• Levelling of hands</li> <li>• Operation of functions</li> <li>• Water proof test</li> <li>• Tensile test</li> <li>• Impact test</li> </ul> </li> </ul> <p>2. Assist in carrying out duties related to timepiece design</p> <ul style="list-style-type: none"> <li>• Apply the knowledge and principle of assembling a complete watch and a quartz watch, assist in carrying out duties related to timepiece design under supervision</li> </ul> <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> <li>• Respect intellectual property when assisting to carry out duties related to timepiece design, do not plagiarize so as to prevent the individual and the organization from falling into the trap of infringement</li> </ul>
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"> <li>• Understand timepiece structure and the operation principle of quartz movement, and assist in carrying duties related to timepiece design under supervision.</li> </ul>
Remark	