

Specification of Competency Standards of the Watch & Clock Industry

**Unit of Competency**

**Functional Area: Design**

Title	Master the Mechanism and Functions of a Mechanical Multi-function Movement
Code	104850L4
Range	This unit of competency (UoC) is applicable in the design department of timepiece companies. It covers the abilities to understand the system and functions of a mechanical multi-function movement, and supervise subordinates to carry out timepiece design duties.
Level	4
Credit	6 (for reference only)
Competency	<p>Performance Requirements</p> <p>1. Know about the operating principles, system structure and functions of a mechanical multi-function movement</p> <ul style="list-style-type: none"> <li>• Know about the definitions of “multi-function”, “additional function” and “complicated timepiece” from a technical point of view</li> <li>• Know about the functions and operation principles of mechanical movements that possess additional functions apart from hour, minute and second display <ul style="list-style-type: none"> <li>• With self-winding function <ul style="list-style-type: none"> <li>• Principle of winding motion driven by oscillating rotor and self-winding mechanism</li> </ul> </li> <li>• With calendar (date) display function <ul style="list-style-type: none"> <li>• Principle of calendar mechanism driven by motion work mechanism</li> <li>• Principle of calendar mechanism adjusted directly by winding and setting mechanism</li> </ul> </li> <li>• With calendar and day display function <ul style="list-style-type: none"> <li>• Principle of calendar and day mechanism driven by motion work mechanism</li> <li>• Principle of calendar and day mechanism adjusted directly by winding and setting mechanism</li> </ul> </li> <li>• With time alarm function <ul style="list-style-type: none"> <li>• Principle of alarm device driven by motion work mechanism</li> <li>• Principle of alarm device adjusted directly by winding and setting mechanism and the power source (winding) of the alarm device</li> </ul> </li> <li>• With international time/GMT display function <ul style="list-style-type: none"> <li>• Principle of international time display mechanism driven by gear train transmission</li> </ul> </li> <li>• Basic principle of complicated mechanical movement with chronograph <ul style="list-style-type: none"> <li>• Operation principle of start/stop push buttons</li> <li>• Operation principle of reset push butto</li> </ul> </li> <li>• Moon phase function</li> <li>• Flyback display</li> </ul> </li> <li>• Understand the quality features and key points of mechanical multi-function movements of different origins <ul style="list-style-type: none"> <li>• Swiss Made</li> <li>• Germany Made</li> <li>• Japan Made</li> <li>• China Made</li> </ul> </li> </ul> <p>2. Carry out timepiece design</p> <ul style="list-style-type: none"> <li>• Master the structure and functions of a mechanical multi-function movement to carry out timepiece product design duties</li> <li>• Supervise subordinates to carry out duties related to timepiece design</li> </ul> <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> <li>• Respect intellectual property to prevent plagiarization, so as to avoid individual person and the organization to fall 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 the structure and functions of a mechanical multi-function movement system and apply them to timepiece design; and</li> <li>• Supervise subordinates to carry out duties related to timepiece design.</li> </ul>
Remark	