

### UNIT DESCRIPTION

This unit will provide you with the knowledge and understanding of the legal metrology framework in the UK (and how it interacts with the EU). You will learn about the legal requirements for the principles of measurement of mass, length, volume follow and density. You will learn how to examine and test equipment and apply your regulatory powers and take appropriate enforcement action when errors are identified.

## WHAT TO EXPECT

Courses are offered each year for this and all Units. You will be taught in line with the unit learning outcomes. It is also expected that you will undertake your own learning, by ensuring you are familiar with all areas shown in the unit syllabi.

Qualification Framework courses will use different learning delivery methods. You will have two classroom-based days with the trainer. Access to an on-line portal that provides you with on-going detailed course notes, interblock assessments plus remote sessions, with the trainer and other trainees.

In addition to this, the trainer may choose to provide, via the online portal, videos or other learning materials, as they deem necessary; these additional learning materials will be provided throughout the duration of the course.

You are expected to complete all assessments/assignments, as notified to you, by your trainer. You will upload them for marking, by the designated deadline.

Written exam: You will register for Stage 2 and complete the associated 2 hour written exam and demonstrate the knowledge requirements for this subject.

**Practical and Oral exams**: are conducted at the OPSS Teddington offices.

**Reflective Statement:** The 2000-word reflective statement will be submitted online using the system provided by CTSI.

**Professional Interview:** The 20 min exam will be conducted face-to-face at a venue confirmed by CTSI each year. This will be under strict regulation. Your interview will be monitored by a separate moderator to ensure consistency within marking.

**Portfolio:** You will complete the associated portfolio and demonstrate the skills requirement for this subject. You may not take the professional interview or practical and oral examinations if the portfolio is not submitted.

### UNIT INFO

# Assessment types & Deadlines:

Written exam (2 hours) Practical (2 hours) Oral (30 mins) exams Professional Interview (20 mins) Portfolio (final submission deadline April) Reflective statement (2000 words) (final submission deadline 1 March)

### **Resources information:**

Portfolio guidance

Portfolio Matrixes area

Weights & Measures requirements

Previous examination papers

# Unit designated learning hours:

200 hours (delivered by both training and self-learning hours)

**Qualifications Team info:** Available Mondays to Fridays. 9am to 4pm

#### Team members

Sue Steward – Head of Education and Training Richard Cowles – Education and Training Manager Marianne Rickwood -Coordinator Rebecca Taylor - Coordinator Alex Jones – Education Assistant Sophia Robinson – Education Assistant



### CLASSIFICATION OF MARKS

All examinations are marked out of 100% and with a pass mark of 40%.

On passing an examination/coursework you will be graded with the following classifications: Distinction, Merit and Pass.

All effort should be made to gain the highest mark possible throughout the examining process.

### QUALIFICATION FRAMEWORK REGULATIONS AND POLICIES

All forms of assessment fall within strict regulations and you must ensure you understand and adhere to all regulation requirements.

The regulations that cover all aspects of the Qualification Framework qualifications can be found on our website:

https://www.tradingstandards.uk/practitioners/training-development/qualifications-resources/

Please ensure you are familiar with all aspects within the regulations, taking particular notice of any area relating to examinations, coursework and deadlines.

CTSI will publish policies surrounding the Qualification Framework qualification from time to time. These are found here:

https://www.tradingstandards.uk/practitioners/training-development/qualifications-resources

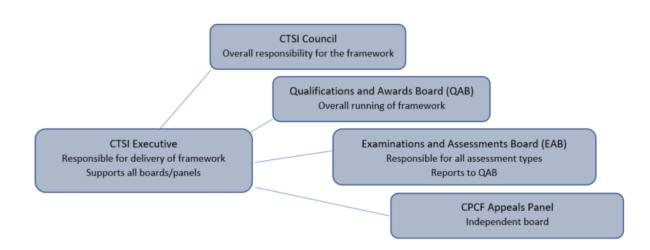
It is important that you are aware of any notifications provided by CTSI throughout the year to ensure you are meeting any/all requirements that the Executive or the Qualifications and Awards Board have put out.

### GOVERNANCE

For more detailed information on the governance of the Qualification Framework, you will find this within the regulations. Below outlines the governance structure approved by CTSI Council.

Classification		Marks
Distinction		70-100%
N	lerit	60-69%
Pass		40-59%
F	ails	0-39%





## **UNIT SYLLABI**

NOTE: The legislation outlined in this syllabus is not an exhaustive list. Candidates will be required to answer questions in accordance with this syllabus.

The examiners may expect candidates to show knowledge of legislation which is in place but not in force, i.e. has been enacted and regulations which have been made which are not yet in force if they are directly relevant to the subject-matter of the examination.

### **Learning Outcomes:**

At the end of this module, the student will be able to demonstrate knowledge of:

- 1. Knowledge and understanding of the requirements of metrology and the legal controls that regulates the consumer protection environment in this area.
- 2. Knowledge and understanding of relevant of case law which has interpreted the legislation.
- 3. Knowledge and understanding of specific powers and enforcement methodology specific to the legislation being studied.
- 4. Skills relating to the practical enforcement of each area of law, including evaluation of product, testing and sampling where appropriate.

### Indicative areas of study

The range, extent and limitations of legislation, specific powers provisions, statutory defences and relevant case law. The legislative requirement and associated which govern the enforcement of such legislation.

The following terms have been used to indicate the level of knowledge required in each element;

Detailed: To an in-depth level, and with a fine degree of distinction between concept

Working: With the ability to apply the learning to situations so as to resolve problems

Basic: Having an awareness of the organisations and concepts

Assessments will reflect the requisite level of knowledge in each given area of the syllabus.



### Syllabus

#### Detailed knowledge of:

• fundamental principles of measurement relating to mass, length, volume, flow and density

#### Detailed knowledge of the following general matters:

- The Weights and Measures Act 1985, including the arrangements of sections and schedules and relevant delegated legislation
- Local administration
- Powers and general enforcement (including the Consumer Rights Act 2015)
- Units and standards of measurement
- Legislative systems regulation weighing and measuring equipment and instruments, including public equipment
- Regulation of transactions in goods and the minimum and average quantity systems (including EU Regulation 1169/2011)
- Offences and defences
- Specific powers
- Responsibilities and duties
- Case law that assists in the interpretation of key aspects of the legislation

#### Working knowledge of:

- the principles of S.I units, national and international standards and the relevant regulations
- the processes of calibration and traceability of standards
- the construction, maintenance, handling and testing of standards used in legal metrology as outlined in BEIS RD specifications and relevant legislation
- the concepts of accuracy and uncertainty in measurement and the ability to perform uncertainty calculations and the process of preparing an uncertainty budget
- Principles of operation, metrological requirements and conformity assessment of non-automatic weighing instruments as outlined in BS EN 45501 (20150 and the implications of OIML (International Organisation of Legal Metrology) and WELEMC recommendations
- OIML (International Organisation of Legal Metrology) recommendations in reference to testing procedures and metrological requirements of prescribed weights and measures equipment in the UK.
- Principles of operation, metrological requirements and conformity assessment of a range of automatic weighing instruments encountered in legal metrology and the relevant regulations
- Principles of operation, metrological requirements and conformity assessment of a range of measuring equipment: (including material measures, fuel dispensers, road tankers, spirit measuring instruments, beer measuring instruments and water meters) and the relevant regulations
- Principles of operation and metrological requirements of instruments used for packaged goods (including automatic gravimetric filling instruments, catchweighing instruments and measuring container bottles with template) and the relevant regulations
- The average quantity system and associated calculations and the relevant legal requirements
- Influence factors that can affect standards and weighing and measuring equipment (including temperature, vibration, humidity, air buoyancy and electromagnetic influence); techniques and corrections that can be applied to reduce their effects
- The principle and structure of type approval documents and their relationship to the harmonised standards

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• The principle and form of conformity assessment certificates and their relationship to relevant harmonised standards

#### Working knowledge of the following general matters:

- The structures and roles of organisations that impact on legal metrology provision, including the Department for Business, Energy and Industrial Strategy (BEIS), BEIS RD, WELMEC (European Corporation in Legal Metrology) and OIML (International Organisation of Legal Metrology). How and why these bodies were established and their interaction with each other.
- The impact of the EU institutions on legal metrology, including the New Approach and Global Approach and the New Legislative Framework.
- The legislative regimes, whether UK or EU based, that control weighing and measuring equipment and instruments (i.e. "UK crown stamped", "EEC stamped", "NAWI and MID stickered / Marked"), associated offences and defences and administrative provisions.
- The law relating to deregulation, self-verification, accreditation and assessment methods, batch testing and notified bodies in relation to legal metrology.
- The implementation of the Non-automatic Weighing Instruments and Measuring Instruments Directives into UK law, including the provisions of the Directives, the implementing legislation and the controls on placing instruments on the market and putting them into use and in-service provisions.
- Conformity assessment under UK and EU legal provisions.
- The legislative controls and practical implications of the minimum and average quantity systems.
- The legal requirements and controls placed on transactions in goods, including sales by quantity, the legal status of goods, minimum quantity provisions, offences and defences and administrative procedures.
- The responsibilities placed on packers and importers under the average quantity system, including quantity, markings, equipment, checks and records, offences and defences and administrative procedures.
- The impact of the Consumer Protection from Unfair Trading Regulations 2008 on legal metrology, in particular with regard to misleading actions, omissions and professional diligence issues that impact on the use of weighing and measuring equipment /instruments, the regulation of transactions in goods and quantity systems.
- The impact of the Business Protection from Misleading Marketing Regulations 2008 on legal metrology, in particular with regard to misleading advertising that impacts on the use of weighing and measuring equipment / instruments, the regulation of transactions in goods and quantity systems.
- Current pricing legislation that impinges on legal metrology.
- The way in which weights and measures legislation is applied to everyday situations, (enabling candidates to show the knowledge and professional ability necessary to effectively tackle situations, take initiative, prepare communications and propose solutions to problems and circumstances common to the workload of a Weights and Measures Inspector).
- The use of associated legislation to ensure compliance with metrology law, e.g., the Enterprise Act 2002, enhanced consumer measures, etc.