# Irish Medtech Skillnet,

# Certified Quality Technician

Certified by The American Society for Quality (ASQ) in the USA







The Certified Quality Technician analyses and solves quality problems, prepares inspection plans, procedures and instructions, performs audits and can apply fundamental statistical methods for statistical process control. This course is designed to cover all modules of the American Society for Quality's Body of Knowledge (BoK) for the Certified Quality Technician examination.



## ABOUT IRISH MEDTECH SKILLNET

Working in partnership with Skillnet Ireland and our contracting organisation, the Irish Medtech Association (Ibec sector), the Irish Medtech Skillnet has over the past number of years grown substantially in direct response to the training needs of Industry. Total expenditure (2008 - 2017) is over €6.3 million with 42% contribution from member companies and the remaining 58% funded by the State. Targets of over 8,900 trainees and 46,000 training days have been achieved.

# ABOUT IRISH MEDTECH

The Irish Medtech Association is a business sector within Ibec that represents the Medical Technology sector and is a proactive membership organisation with over 180 members located throughout Ireland. It works directly with government and policy-makers nationally and internationally, to shape business conditions and drive economic growth. Led by a board of 18 industry leaders, and facilitated by a dedicated professional executive staff, our working groups, forums and task forces are the primary enablers of Irish Medtech's Association strategy.

## **ENTRY REQUIREMENTS**

Open to students who have at least four years of work experience in one or more of the areas of the Certified Quality Technician Body of Knowledge, as per course outline.

If you have completed a degree from a college, university, or technical school with accreditation accepted by ASQ, part of the four-year experience requirement will be waived as follows (only one of these waivers may be claimed):

- Certificate/diploma from a technical or trade school one year waived.
- Associate degree two years waived.
- Bachelor's, master's or doctorate three years waived.

# **PROGRAMME COSTS**

Irish Medtech Skillnet members residing and working in Ireland.

€1,975

# LOCATION

Shannon, Co. Clare

# **CERTIFIED QUALITY TECHNICIAN**

#### **COURSE OUTLINE**

#### I. QUALITY CONCEPTS

- 1. Customers and suppliers
- 2. Quality principles for products and processes
- 3. Quality standards, requirements and specifications
- 4. Cost of quality (COQ)
- 5. Six sigma
- 6. Lean
- 7. Continuous improvement techniques

#### **II. TEAM FUNCTIONS**

- 1. Meeting management
- 2. Team development
- 3. Team stages
- 4. Globalization

#### III. GENERAL STATISTICAL CONCEPTS

- 1. Terminology
- 2. Frequency distributions
- 3. Graphical methods

#### IV. STATISTICAL COMPUTATIONS

- 1. Measures of centrality and dispersion
- 2. Statistical inference
- 3. Confidence limits
- 4. Probability
- 5. Student's distribution

#### V. CONTROL CHARTS

**DELIVERY SCHEDULE** 

- 1. Techniques and applications
- 2. Control limits vs specification limit
- 3. Variables and attributes charts
- 4. Process capability measures

#### VI. METROLOGY AND CALIBRATION

- 1. Hand tools
- 2. Optical tools
- 3. Coordinate measuring machines
- 4. Force measurement tools
- 5. Gage repeatability and reproducibility
- 6. Calibration intervals
- 7. Calibration error
- 8. Customer-supplied M&TE

#### VII. INSPECTION AND TEST

- 1. Blueprint reading & interpretation
- 2. Inspection concepts
- 3. Inspection techniques and processes
- 4. Sampling

#### VIII. QUALITY AUDITS

- 1. Audit types
- 2. Audit components
- 3. Audit tools & techniques

### IX. PREVENTIVE AND CORRECTIVE ACTION

- 1. Design FMEA
- 2. Process FMEA
- 3. Mistake-proofing
- 4. Elements of corrective action
- 5. Failure analysis and root cause analysis
- 6. Non-conforming material
- 7. Material review process

## **DELIVERY**

The delivery method is blended learning. All lectures are delivered online and are available 24/7 on all devices. Lectures are supplemented by seven weekly, live, online tutorials and two one-day workshops.

Week	Date	Activity	Start	Finish
1 2 3 4 5 6 7	18-Oct-18 25-Oct-18 01-Nov-18 08-Nov-18 15-Nov-18 22-Nov-18 29-Nov-18 08-Dec-18	Classroom Day Online Tutorial Online Tutorial Online Tutorial Online Tutorial Online Tutorial Classroom Day ASQ CQT Exam	09:00 18:00 18:00 18:00 18:00 18:00 09:00 08:00	17:00 19:00 19:00 19:00 19:00 19:00 17:00 12:00

## **ASSESSMENT**

The assessment is a one part, 100 question, multiple choice four hour exam and is offered in English only. The programme is certified by The American Society for Quality (ASQ) in the USA.

## PROFESSIONAL PROGRESSION PATH

A Certified Quality Technician will naturally go on to become a Certified Quality Engineer by taking a CQE course and certification exam. A CQE is among the top earners in the manufacturing industry and her certification is recognized globally.



# **IRISH MEDTECH SKILLNET**

Gardner House, Bank Place, Charlotte Quay, Limerick
PHONE + 353 (0)61 431802 EMAIL michelle.reinecke-quain@ibec.ie
www.irishmedtechskillnet.ie



## **IRISH MEDTECH ASSOCIATION**

84/86 Lower Baggot Street Dublin 2
PHONE + 353 (0)1 605 1500 FAX + 353 (0)1 638 1500 EMAIL info@irishmedtechassoc.ie

www.irishmedtechassoc.ie

Irish Medtech Association is a business sector within Ibec