



*Your career, Your industry, Your institute*

# Certificate in Aluminium Casting Production, Metallurgy and Quality Control

## Certificate in Aluminium Casting Production, Metallurgy and Quality Control

### What it is

18-month blended-learning programme aimed at developing your skills and knowledge in the castings production and quality control of aluminium.

Modular programme, delivered on a short block basis, with short practical and work based projects coupled with foundry visits. This blended learning model will allow individuals to develop their knowledge of all types of aluminium casting processes.

The programme includes basic Aluminium metallurgy for both sand cast and die cast products coupled with more specialised Aluminium grades.

The programme will include Aluminium casting processes and characteristics, heat treatment processes, the effect of grain refining and modification, solution treatment and precipitation hardening. This will include shop floor process controls associated with the included disciplines. There will also be quality assurance and validation of properties through mechanical and non destructive testing, typical aluminium casting defects and how to avoid them, principles of running system design for aluminium, as well as post casting operations.

The programme will include charge make-up & melt controls, alloying and metal treatments employed in the foundry, shop floor process controls, quality assurance and validation of properties through mechanical and non-destructive testing, typical aluminium defects and how to avoid them, principles of running system design for aluminium, as well as post casting operations including heat treatment of aluminium grades.

### Who it is aimed at?

Ideal for individuals who want to improve their knowledge of aluminium casting metallurgy and production control, including recent Apprentices or students who now want to develop their non-ferrous metallurgical and foundry knowledge, QA technicians, laboratory technicians, team leaders or chargehands, melt shop supervisors, methods engineers and production managers.

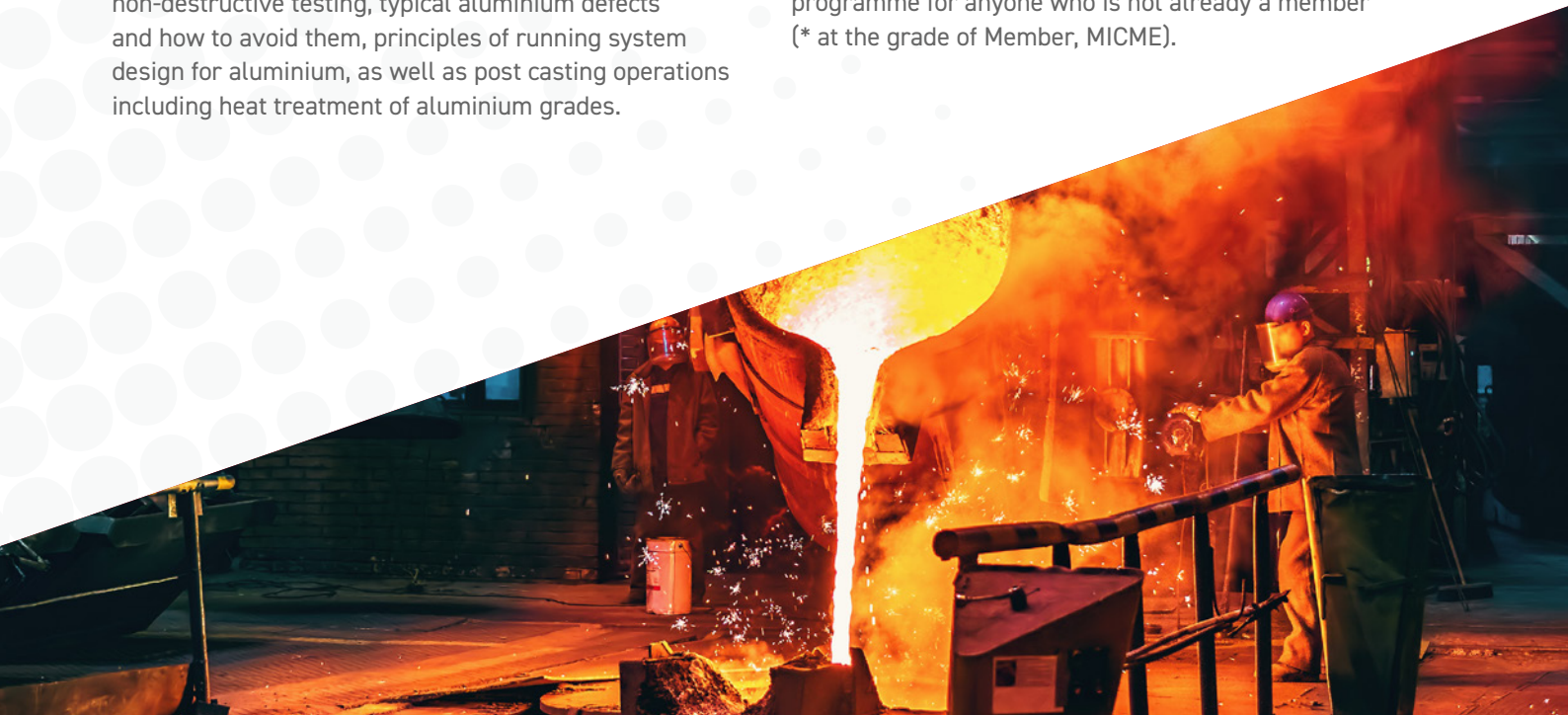
### What's included?

The programme is delivered by Industry Experts over an 18-month duration through 6 modules. There is an additional optional unit that focuses on High Pressure Die Casting available for an additional cost.

Our innovative course combines theory and practical learning sessions to develop knowledge and competence that can be transferred into your role.

You will complete some work-based projects for each of the modules to develop your understanding, such as practical assignments carried out in the workplace, with a workplace mentor to guide you through the programme when applying your knowledge and skills.

The course is ICME accredited, complete with ICME accredited CPD hours and all those completing the course will receive an ICME certificate of achievement and \*ICME membership for the duration of the programme for anyone who is not already a member (\* at the grade of Member, MICME).



## What impact will it have?

Develop your skills and knowledge of aluminium casting metallurgy and be able to apply your knowledge in the workplace to help solve shop-floor issues, reduce the incidence of scrap casting and increase productivity and profitability through greater quality control and quality assurance in the foundry.

## What will your journey look like?

The programme will utilise a mix of group classroom based and practical sessions with tutor-led support. The blended learning approach will allow you to take control of your learning and apply your new skills and knowledge immediately in your role.

Each group session will be inclusive of theory and practical work to support the learning experience. The taught sessions will provide individuals with the knowledge and skills to complete a project per module to prove competence and understanding. It is intended that each group session will take place on a quarterly basis.

You will be supported by a workplace mentor and have monthly tutor support sessions throughout and the programme will also provide you with the chance to meet with other like-minded individuals from the industry.

## How much will it cost?

### Price:

#### **ICME/CMF Member Price £6,750 + VAT**

\*Price includes attendance, drinks, lunches, and Certificate.

#### **Non-Member Price £7,750 + VAT**

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## Help with fees

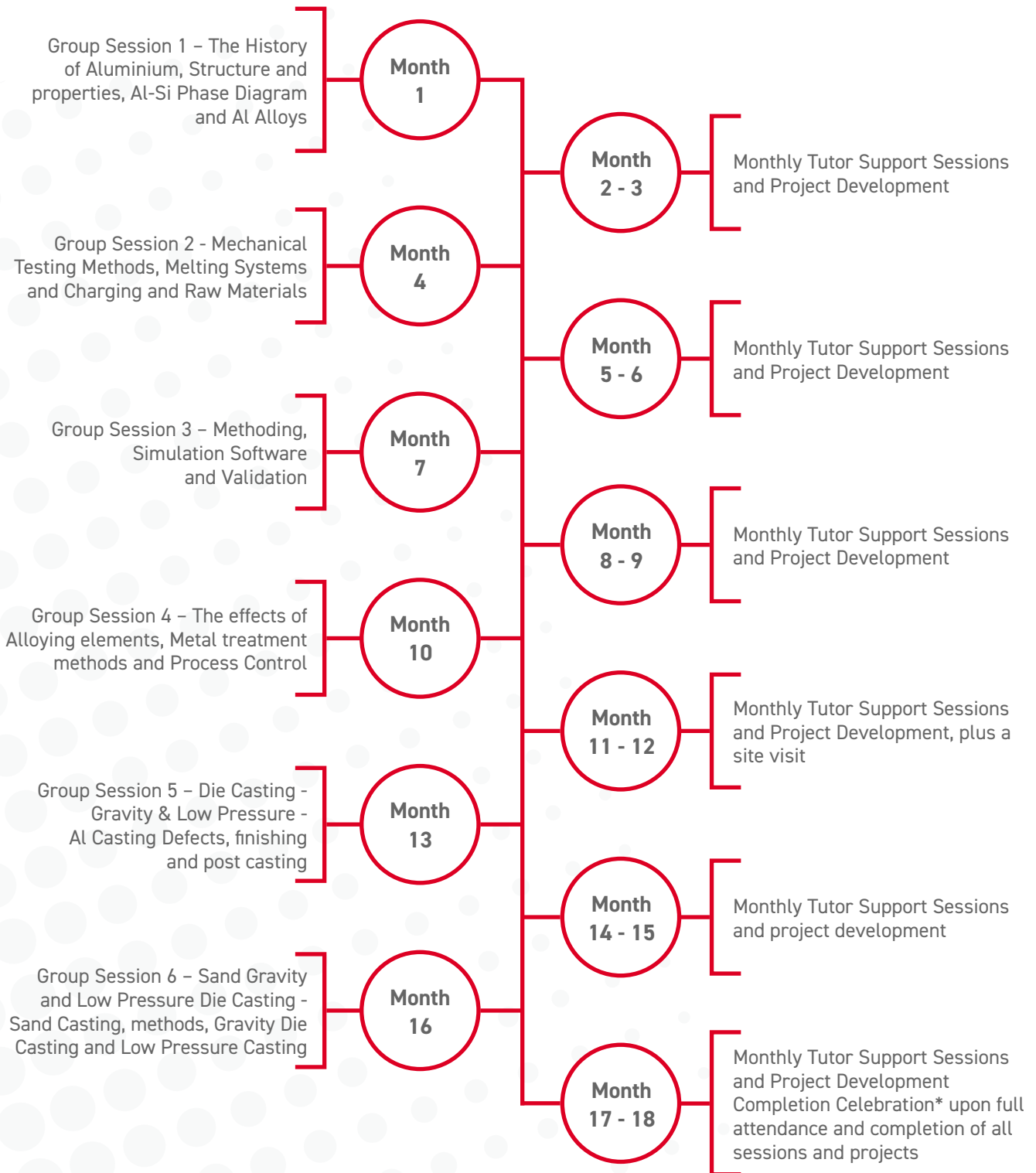
Foundry Training Trust grant support will be available\* towards the cost of the course. A grant of £3,375 is available towards the fees for this course. Additional grant funding is also available towards the costs of travel and accommodation.

Visit [www.foundrytrainingtrust.uk](http://www.foundrytrainingtrust.uk) to contact the Clerk of the Trust for details and for the application form.

\*Subject to application and Trustee approval.



# Outline of modules\*\*



\*\* this is an indicative journey and may be subject to change.

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