









Professional Recognition and PGCert in Engineering STEM Learning

Primary Engineer have created a GTCS accredited Professional Recognition course and PGCert for Early Years, Primary and Secondary teachers and FE College lecturers it is designed to; facilitate practitioners to develop their understanding of the STEM educational landscape, create stronger links within engineering and manufacturing industry to inform their practice and, building on both of these, undertake practitioner enquiry/action research to improve their teaching. This course is worth 60 Master's level credits towards an MEd at the University of Strathclyde.

Course Structure

Part One

Developing an understanding of the current STEM educational landscape

- Intro to Master's level reading and writing
- Engaging with educational theory, industry papers, etc.

Part Two

Building links with engineers to understand their inspirations and aspirations

- Fieldwork to interview a minium of 6 engineers
- Sharing findings

Part Three

Practitioner enquiry /action research

- ldentify a research questions and rationale
- Action research in the classroom

Course Delivery

The course runs April-April and the is mostly delivered online. You will have the option to attend 7 twilight sessions throughout the year, designed to fit around the busy life of a teacher.

Assessment

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2000 - word essay into the STEM educational landscape ssment 2

15 - minute presentation into engineer interview findings

Assessment 3

Action Plan for practitioner enquiry/action research

Assessment 4

5000 - word action research paper







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Teacher Evalution

The strengths of the course are

"It was a really great experience and a great opportunity to work with engineers from all sorts of fields. It was an opportunity to practically use the readings from the course in the classroom. My research project explored an important issue of girl's engagement in STEM, which was very interesting. This has a positive impact on participation in the school. It was a genuinely great experience, that I would recommend to anybody with any kind of interest in the STEM subjects"

Teacher, 2017-18 cohort

"The course gave insight into industry practice and theory. This helps us at school level prepare our young people for life beyond the school, by developing our own pedagogy." **Teacher, 2017-18 cohort**

"The course was progressive, giving us time to develop academic thinking again. The tutorials were invaluable, especially the online ones for those who could not attend. The level of support was extremely high and responses timely." **Teacher, 2017-18 cohort**

Academic and Industry Endorsements

"Developing good attitudes and thinking processes when young should be a fundamental objective of education but we are only starting to be explicit about (a) the need to do that and (b) how we should do it. The Primary Engineer Engineering Skills course is well ahead of the game in this respect. It should be viewed as an important testing ground for ideas about how education can be made more relevant to the needs of society."

Iain MacLeod, Emeritus
Professor, University of
Strathclyde and Secretary
of IESIS

"The professional recognition course run by Primary Engineer is an outstanding example of meaningful and impactful STEM engagement with teachers. The teacher journey from having limited experience and exposure to engineering to developing a passion and well informed insight was both inspiring and impressive. I highly commend the team from Primary Engineer for their continued championing of engineering as well as the quality of guidance and support offered to teachers throughout the programme."

Douglas Morrison, Associate Director of Innovation and STEM at City of Glasgow College "It's superb to see the impact that has been made not just on the young Primary Engineers, which is obviously very positive, but also the impact on their teachers. It's genuinely heart-warming to hear educators say of the programme, 'I didn't think I could do this, but now I know that I can!', and it is greatly encouraging to me to know that they're applying that positive attitude and approach in looking after future generations of engineers."

Dr Lynne O'Hare, Advanced Forming and Research Centre

Contact

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