

Mr Tom Hamilton  
Director of Education and Professional Learning  
The General Teaching Council for Scotland  
Clerwood House  
96 Clermiston Road  
Edinburgh  
EH12 6UT

14<sup>th</sup> May 2013

Dear Mr Hamilton

## **Memorandum on Entry Requirements to Programmes of ITE in Scotland**

The Institute of Physics welcomes the opportunity to comment on this draft memorandum.

The Institute of Physics is a scientific charity devoted to increasing the practice, understanding and application of physics. It has a worldwide membership of over 40,000 and is a leading communicator of physics-related science to all audiences, from specialists through to government and the general public. Its publishing company, IOP Publishing, is a world leader in scientific publishing and the electronic dissemination of physics.

We are concerned that there is no requirement for any Science in this document.

In the past there was a general requirement that all school pupils should study a science at Standard Grade - effectively SCQF level 5. This ensured that entrants to Primary ITE programmes had at least some science in their background. With the advent of CfE, this requirement to study science now ends at SCQF level 3. It is therefore likely that some future applicants will have no science beyond this level.

There is good evidence from the research Wynne Harlen and others have done over many years, and in the Royal Society State of the Nation reports, that primary teachers lack knowledge, skills and confidence in STEM subjects. Whilst it could be argued that this should or could be addressed during ITE and through CPD, in reality this does not happen. The proportion of time that primary ITE students are required to spend on science and technology during a degree is often little more than a few hours and whilst there are some very good examples of primary science CPD around such support is not available on the scale required to up-skill the current primary teaching workforce, let alone future teachers with little in the way of STEM qualifications.

Given the rhetoric about the importance of the STEM subjects to the future wellbeing of our country, we think this opportunity to address the deficiency in science skills should not be missed.

Last year's SSEAG report<sup>1</sup> included the following recommendation:-

*Recommendation 2.4*

*It is recommended that in order to move the profession to a stronger base the Scottish Government in partnership with universities establishes targets for increasing the number of trainee teachers admitted to Primary Teaching ITE with enhanced STEM qualifications*

*by:*

- admitting an increased number of students with STEM qualifications up to and including degree level*
- raising now the qualification requirement for Primary Teaching students to include a minimum of SCQF level five or above in a science and mathematics, increasing to SCQF level 6 or above in a science and mathematics within five years*
- acquiring and making available on an annual basis data on the TEM qualifications of ITE applicants and recruits.*

We would endorse this recommendation and would urge you to reconsider your draft memorandum.

Indeed, since it appears to be acceptable to introduce the requirement for SCQF 6 in a modern language immediately, we can see no reason for not doing the same for mathematics and a science.

Yours sincerely



Professor Jim Hough FRS FRSE FInstP FAPS FRAS  
Chair, Scottish Education Committee



Professor Peter Main  
Director, Education and Science

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<sup>1</sup> <http://www.scotland.gov.uk/Publications/2012/02/4589/0>