



## Teacher registration and accreditation policies: Implications for out-of-field teaching and upgrading teaching qualifications

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## Questions


1. What are the implications of state/territory teacher registration/accreditation policies, practices and requirements for out-of-field teaching?
2. How can a culture of developing, endorsing and credentialling programs for upgrading teacher qualifications in new specialisations be fostered?

I will largely be talking about out-of-field teaching in terms of subject specialisation requirements, which typically apply to secondary school teaching.

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## Critical points (and terminology)

<b>Accreditation</b>	<b>Registration</b>	<b>Certification</b>
... of initial teacher education programs	... of teachers	... of teachers to teach specific subjects

Accreditation requirements may be informed by:

- Research into what teachers need to know and be able to do
- Cultural and social assumptions about what it takes to be a good teacher

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Rise, and shine.

When we talk about registration and accreditation, I will identify three kinds of critical points which are connected to each other. But I know that we don't necessarily have a common language for naming these points.

Accreditation of ITE programs (and teachers, in NSW).

Registration of teachers – name added to the register.

Certification means recording the subjects that a teacher is formally qualified to teach by virtue of having completed an accredited teacher education program. So not only is your name on the register, so too are the subjects you are certified to teach. This process happens in NSW, but is not a practice in other jurisdictions. So straight away we have differences within Australia.

(We've also heard about data that would be useful to have recorded, such as which registered teachers are not currently teaching, and what subjects are currently being taught by teachers compared with the subjects they're qualified to teach).

We might like to think that requirements for accrediting and then designing initial teacher education programs are informed by research into what teachers need to know and be able to do, e.g. categories of professional knowledge of the type proposed by Shulman. But there are also cultural and social assumptions about what it takes to be a good teacher.

In some countries, teacher education programs give high emphasis to subject matter knowledge and low emphasis to pedagogical content knowledge, while in other countries the emphasis is the other way around.

# 1. Implications ... comparing accreditation requirements between countries

Australia  
(AITSL, 2019)

Secondary programs	
Discipline-specific curriculum and pedagogical studies must prepare graduates to teach across the years of secondary schooling.	
Undergraduate programs – mandatory content requirements	
Secondary programs must provide a sound depth and breadth of knowledge appropriate for the teaching area(s) the graduate intends to teach.	
These programs must provide <u>disciplinary studies</u> :	
a. of at least a <u>major study in one teaching area</u> , and	Equivalent to <u>two courses of a year EFTSL</u> <sup>14</sup>
b. preferably a second teaching area, which must comprise at least a <u>major study</u> .	Equivalent to <u>half a year EFTSL</u> <sup>14</sup>
In addition, these programs must include:	
c. <u>discipline-specific curriculum and pedagogical studies</u> <sup>17</sup>	<u>At least one-quarter of a year EFTSL for each teaching area</u>
Graduate entry programs – mandatory content requirements	
These programs must provide:	
a. <u>discipline-specific curriculum and pedagogical studies</u> <sup>17</sup>	At least one-quarter of a year EFTSL for each teaching area

Subject matter knowledge:  
6 semester courses  
+ 4 semester courses

Pedagogical content knowledge:  
2 + 2 semester courses

To illustrate these differences between and even within countries, I want to compare accreditation requirements in Australia and Ireland, and think about what the implications might be for OOF teachers.

This is an extract from the AITSL standards for accrediting initial teacher education programs.

# 1. Implications ... comparing accreditation requirements between countries

Ireland  
(Teaching Council, 2013)

## Mathematics

In order to meet the registration requirements set down in the Teaching Council [Registration] Regulations in respect of the curricular subject of Mathematics, an applicant must meet all of the following criteria:

- (a) Applicants must hold a degree-level qualification, with Mathematics studied up to and including third-year level or higher (or modular equivalent).
  - (b) The qualifying degree must be equivalent to at least Level 8 on the National Framework of Qualifications (NFQ) and with a minimum pass<sup>1</sup> result in all examinations pertinent to the subject of Mathematics.
  - (c) The qualifying degree must carry at least 180 ECTS (European Credit Transfer System) credits (or equivalent) with the specific study of Mathematics comprising at least 80 ECTS credits (or equivalent) and with not less than 10 ECTS credits (or equivalent) studied at third-year level or higher (or modular equivalent).
2. The study of Mathematics during the degree must show that the holder has acquired sufficient knowledge, skills and understanding to teach the Mathematics syllabus<sup>2</sup> to the highest level in post-primary education (see [www.curriculumonline.ie](http://www.curriculumonline.ie)). To meet this requirement the degree must include the study of all of the following essential areas to a minimum of 40 ECTS credits (or equivalent):

### Essential areas of study

- |   |                              |
|---|------------------------------|
| (a) Analysis <sup>3</sup>                   | - minimum of 10 ECTS credits |
| (b) Algebra <sup>4</sup>                    | - minimum of 10 ECTS credits |
| (c) Geometry <sup>5</sup>                   | - minimum of 5 ECTS credits  |
| (d) Probability and Statistics <sup>6</sup> | - minimum of 5 ECTS credits  |

The remaining 20 ECTS credits (or equivalent) may be in any of the above essential areas, or be drawn from the following optional areas:

### Optional areas of study

- |   |
|---|
| (e) Dynamical Systems and Chaos                     |
| (f) Calculus of Variations                          |
| (g) Numerical Analysis or Computational Mathematics |
| (h) Mathematical Modelling                          |
| (i) Discrete Mathematics                            |
| (j) History or Philosophy of Mathematics            |
| (k) Mathematical Logic                              |
| (l) Set Theory and Cardinality                      |

- Applicants must also have completed a programme of post-primary initial teacher education (age range 12-18 years) carrying a minimum of 120 ECTS credits (or equivalent)<sup>7</sup>. The programme should include a module(s) on the teaching of Mathematics carrying a minimum of 5 ECTS credits (or equivalent)<sup>8</sup>.



Subject matter knowledge:  
10 semester courses

Prescribed topics  
and minimum credits for  
each subject matter course

PCK:  
1 semester course

When I arrived in Ireland in 2017, these Irish Teaching Council accreditation requirements had just come into effect for initial teacher education programs preparing secondary mathematics teachers.

Applies to undergraduate (concurrent) programs and also postgraduate (consecutive) programs. The tightly prescribed subject matter content therefor makes it almost impossible for people to change careers into teaching (e.g., engineers don't have the necessary mathematical qualifications to enrol in a postgraduate teaching program).

# 1. Implications ... comparing accreditation requirements within countries

Ireland  
(Teaching Council, 2020)

## Mathematics

In order to meet the registration requirements set down in the Teaching Council [Registration] Regulations in respect of the curricular subject of Mathematics an applicant must meet all of the following criteria:

- (a) Applicants must hold a degree-level qualification, with Mathematics studied up to and including third-year level or higher (or modular equivalent).
  - (b) The qualifying degree must be equivalent to at least Level 8 on the National Framework of Qualifications (NFQ) and with a minimum pass result in all examinations pertinent to the subject of Mathematics.
  - (c) The qualifying degree must carry at least 180 ECTS (European Credit Transfer System) credits (or equivalent) with the specific study of Mathematics comprising at least 60 ECTS credits (or equivalent).
2. The study of Mathematics during the qualification must show that the holder has acquired sufficient knowledge, skills and understanding to teach the Mathematics syllabus/specification to the highest level in post-primary education (see [www.curriculumonline.ie](http://www.curriculumonline.ie)).

To meet this requirement the degree must include the study of all of the following

### Essential areas of study

- Analysis (must include a module or modules in multi variable calculus)
- Algebra (must include a module or modules in linear Algebra)
- Geometry (must include a module or modules in Euclidean and Non-Euclidean Geometry)
- Probability
- Statistics (must include a module or modules in Statistical Inference)

The remaining credits (or equivalent) may be in any of the above essential areas, or be drawn from the following optional areas:

### Optional areas of study

- Dynamical Systems and Chaos
- Calculus of Variations
- Numerical Analysis or Computational Mathematics
- Mathematical Modelling
- Discrete Mathematics
- History or Philosophy of Mathematics
- Mathematical Logic
- Set Theory and Cardinality



Subject matter knowledge:  
10 semester courses

Prescribed subject  
matter topics but no  
minimum credits for each

No requirement for  
courses in pedagogical  
content knowledge

These requirements come into force for people applying for teacher registration from January 2023.

Now technically universities can do away with subject-specific teaching methods courses ... which will not only have implications for how well graduates are prepared to teach a subject, but may also affect how out-of-field teaching is defined, how data on the incidence of out-of-field teaching are interpreted, and the eligibility of teachers to participate in programs designed to upgrade the qualifications of out-of-field teachers.

These comparisons not only draw attention to the surface features of accreditation requirements (types of courses, relative emphasis on content and pedagogy), but also should make us think about the underlying question of what does it take to prepare a good teacher?

## Questions

1. What are the implications of state/territory teacher registration/accreditation policies, practices and requirements for out-of-field teaching?
2. How can a culture of developing, endorsing and credentialling programs for upgrading teacher qualifications in new specialisations be fostered?

Upgrading ... then culture.



## 2. Upgrading ... to what? How far? With what emphasis?



- **Programs conferring a formal qualification:**
  - Full upgrade to meet specialism requirements as laid out in program accreditation guidelines (e.g., PDMT)
  - Partial upgrade of subject matter knowledge and/or pedagogical content knowledge (e.g., Graduate Certificate)
- **Short term professional development programs/workshops/webinars**
- **Microcredentials that provide a badge or count as credit towards a formal qualification**

What does it mean to upgrade qualifications? Do we want to upgrade out-of-field teachers' qualifications to the level of fully qualified subject specialist, as that is defined by program accreditation requirements? Do we want to place more emphasis on gaining subject matter knowledge or pedagogical content knowledge, or some combination of these?

I've tried to list some possibilities ranging from most demanding (time and content) to least demanding.

You might think that a full-upgrade program is impossible and unnecessary, but such a program does exist - in Ireland, where a particular set of circumstances and a particular culture made it possible

In Australia, we're more likely to get support for a partial upgrade program such as a Graduate Certificate (e.g. UQ 2 maths + 2 maths education)

## 2. Upgrading ... fostering a culture of support and endorsement



- What motivates teachers to participate in upgrading programs? (salary, permanency, confidence, identity)
- What are the costs (funding, time, in-school support)?
- How can upgrading programs be quality assured?
- How should participation in upgrading programs be recognised? (especially if there is no process for recording/certifying subject qualifications)

## 2. Upgrading ... fostering a culture of support and endorsement



What are the consequences of NOT developing and endorsing upgrading programs?

Acknowledge a problem exists and turn the question around ...