

## **The Domestic Professional Title “Verkfræðingur” (e. Chartered Engineer) Definition and Rules on the Assessment of Applications**

The Minister of Industries and Innovation (hereinafter referred to as the Minister) and the Association of Chartered Engineers in Iceland (hereinafter referred to as VFI) have agreed on the following rules for the assessment of applications for permission to use the domestic professional title Verkfræðingur (e. Chartered Engineer), cf. Art. 1–3 of Act No. 8/1996 with later amendments, concerning the certification of several professional titles within the fields of technology and design.

### Art. 1.

These are the rules used for the assessment of applications for permission to use the professional title Verkfræðingur (e. Chartered Engineer). VFI is the body responsible for ascertaining whether the applicant’s education is fully in accordance with these rules.

### Art. 2.

Applications for permission to use the professional title Verkfræðingur (e. Chartered Engineer) shall be submitted to the Minister. Together with the application, a confirmed transcript of the applicant’s education (grades and credits) shall be submitted, as well as the original diplomas or certified copies thereof.

The Ministry then sends the received applications for permission to use the professional title Verkfræðingur (e. Chartered Engineer) to VFI for review and evaluation. The applicant can also submit his application directly to VFI for review and evaluation.

### Art. 3.

VFI’s Committee of Education (hereinafter referred to as MVFI) reviews and evaluates all the submitted applications according to these rules, and makes recommendations to the Minister accordingly. MVFI shall endeavour to respond to the Ministry’s enquiries as soon as possible, and not later than two months after receiving an application together with the necessary documentation. If the documentation received proves to be insufficient, the MVFI shall inform the Minister that the application is inadequate and explain which documents are missing.

### Art. 4.

MVFI objectively assesses all applications received. MVFI’s evaluation is based on VFI’s defined requirements for the education of the applicant.

MVFI shall recommend to the Minister, that an applicant shall be given the Minister’s permission to use the professional title Verkfræðingur (e. Chartered Engineer) if the following conditions are fulfilled:

The applicant has completed a degree in engineering from a university or a university of technology, which MVFI finds capable of providing adequate education in the relevant field of specialisation. The degree shall be equivalent to a Master’s degree in engineering regarding duration and contents, normally 300 ECTS credits, but never less than 270 ECTS credits. The degree shall meet the following minimum requirements defined by VFI regarding the contents:

a)	“Fundamental subjects in Engineering”	50 ECTS
b)	“Engineering fundamental subjects”	50 ECTS
c)	“Engineering subjects”	120 ECTS

In addition to this, there shall be 50-80 ECTS credits, generally as “Engineering subjects”, but these may also be “Fundamental subjects in Engineering” or “Engineering fundamental subjects”.

These additional credits may also be subjects of a different type, provided that the resulting degree can be regarded as an integrated and coherent study programme.

*Annex 1* contains a list of degrees that generally fulfil the aforementioned criteria, provided that the applicant has completed the entire education at a university or a university of technology which MVFI finds capable of providing adequate education in the relevant field of specialisation. Annex 1 also contains an explanation of the assessment of degrees from non-Icelandic educational institutions.

*Annex 2* contains guidelines on the definition of “Fundamental subjects in Engineering, Engineering fundamental subjects, and Engineering subjects”. It also contains the definition of ECTS credits.

Art. 5.

The results of MVFI’s evaluations are sent to the Managing Director of VFI, who submits them to the board of VFI for approval.

Art. 6.

If MVFI’s evaluation is positive, the board of VFI shall recommend to the Minister that the applicant is granted permission to use the professional title Verkfræðingur (e. Chartered Engineer).

If MVFI’s evaluation is negative, the board of VFI shall recommend to the Minister that the applicant is denied permission to use the professional title Verkfræðingur (e. Chartered Engineer).

Art. 7.

The Managing Director of VFI reports the results of the evaluation process to the Minister.

Art. 8.

The above rules were approved at a VFI board meeting on November 20<sup>th</sup> 2015.

Art. 9.

The above rules are adopted on the basis of Paragraph 3 of Act No. 8/1996, concerning the certification of several professional titles within the fields of technology and design. The rules come into effect upon being made public in “Stjórnartíðindi”.

Temporary provisions.

Those who were enrolled in engineering programmes before January 1<sup>st</sup> 2016 and graduate within a timeframe which MVFI deems reasonable, are entitled to have their degrees evaluated in accordance with rules that were applicable at the time of their enrolment.

*The Ministry of Industries and Innovation, November 30<sup>th</sup> 2015.*

**Ragnheiður Elín Árnadóttir**  
Minister of Industries and Innovation

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## Annex 1. Titles/degrees and assessment of degrees from non-Icelandic educational institutions.

### 1.1 Titles/degrees.

Below is a list of educational titles/degrees that generally fulfil the criteria in Article 4, provided that the entire education was carried out at a university or a university of technology which MVFI finds capable of providing adequate education in the relevant field of specialisation. *The list may be used as a guideline only.*

*The study programme must always fulfil the criteria set forth in Article 4.*

Country	Degree / Educational title <sup>1)</sup>	Notes
Iceland	MS/MSc in Engineering	-
Denmark	Civilingeniør	Not Teknikumingeniør, Akademiingeniør or Diplomingeniør
Finland	Diplomi-insinööri	Not Insinööri
Norway	Sivilingeniør	Not Ingeniør
Sweden	Civilingenjör/Teknologie Mastersexamen	Not Högskoleingenjör
Austria	Diplom-Ingenieur/MSc in Engineering	-
Belgium	Ingénieur Civil, Ingénieur Chimiste...	Not Ingénieur Industriel
Britain	MSc in Engineering	-
France	Ingénieur Diplômé de ...	-
Greece	Diplomatouchos Michanikos ...	-
Holland	Ingenieur	Not Technical Ingenieur
Ireland	MSc in Engineering	-
Italy	Laurea Dottore in Ingegneria	-
Poland	Magister Inzynier	Not Inzynier
Portugal	Engenheiro	-
Switzerland	Diplom-Ingenieur, Ingénieur diploma	-
Spain	Ingeniero Superior	Not Ingeniero Técnico
Germany	Diplom-Ingenieur, MSc in Engineering	Examination degree shall be from Universität, Technische Universität, Technische Hochschule or Gesamthochschule, but not Fachhochschule (Dipl.-Ing. (FH))
United States	MSc in Engineering Also MEng, ME or ScM	See the explanation 1.2 below.

<sup>1)</sup>In some cases, the above titles/degrees may not comply with the conditions of Article 4.

### 1.2 Assessment of non-Icelandic educational institutions:

For the assessment of European degrees, MVFI mainly relies on the assessment of FEANI (European Federation of National Engineering Associations). FEANI publishes a list of accredited study programmes in engineering in FEANI's member countries (31 member countries in 2011). This list is the "FEANI Index", and is available on the FEANI website. A link to EUR-ACE accredited programmes, recognised by FEANI since 2007 in parallel with the FEANI Index, is also available on the FEANI website.

For the assessment of degrees from the USA, MVFI mainly refers to the database of ABET (Accreditation Board for Engineering and Technology) of accredited study programmes in engineering at universities in the USA, see the ABET website. Although ABET first and foremost assesses study programmes at the BS level, MVFI presumes that a corresponding MS level study programme at the same university possesses a sufficient level of quality, insofar as the BS-programme is accredited by ABET.

Regarding degrees from other countries, MVFI has mostly approached the Engineering Associations of these countries. Study programmes in engineering are usually accredited by those associations, as a rule BS-programmes, but in some instances also Master's programmes.

Examples:

Canada: Canadian Engineering Accreditation Board.

Australia: Engineers Australia. Program Accreditation.

New Zealand: Engineers New-Zealand. Accreditation of Engineering Education Programs.

## Annex 2: Guidelines on the definition of subjects and ECTS credits.

2.1. “Fundamental subjects in Engineering” are mainly subjects as listed below.

Calculus/Mathematical Analysis	(approximately 18-24 ECTS)
Linear Algebra and Geometry	(approximately 6-8 ECTS)
Probability and Statistics	(approximately 6-8 ECTS)
Physics	(approximately 12-18 ECTS)
Chemistry	(approximately 6-12 ECTS)
Biophysics	(approximately 6-8 ECTS)

These subjects shall, as a rule, be completed at a School of Engineering or School of Science.

2.2. “Engineering fundamental subjects” include general subjects such as programming, numerical analysis, economy, CAD etc. They also include subjects that may vary according to engineering discipline / field of study within engineering. Examples:

Civil Engineering:	Structural Mechanics, Materials Science, Hydraulics, etc.
Software Engineering:	Algorithms, Database Theory, Programming Languages, etc.

These subjects shall generally be completed at a School of Engineering or School of Science.

2.3. “Engineering subjects” involve the application of engineering analysis and design to the solution of projects. A final thesis in Engineering is generally considered to belong to this group of subjects, as also design courses and specialised courses that are specific for each field of engineering. Examples:

Civil Engineering:	Timber Structures, Steel and Concrete Structures, Hydropower, etc.
Software Engineering:	Software Development, Quality Management, Software Testing, etc.

These courses shall generally be completed at a School of Engineering.

2.4. ECTS credits (European Credit Transfer and Accumulation System) are defined as follows:

ECTS is based on the assumption that 60 Credit Units correspond to the student’s work load in a full-time programme over the duration of one academic year.

The work load of a student studying in a full-time programme at a European university in most instances corresponds to 1500 – 1800 hours annually, and thus it may be assumed that one ECTS credit corresponds to approximately 25- 30 working hours.