UNIVERSITY OF ICELAND

School of Engineering and Natural Sciences

Faculty of Industrial Engineering, Mechanical Engineering

and Computer Science

hereby makes known that:

Hallgrímur Davíð Egilsson

having completed all academic requirements and examinations in

Mechanical Engineering

is awarded the degree of

baccalaureus scientiarum BS

Reykjavík, June 25, 2016

Certified translation of the original Icelandic degree certificate

UNIVERSITY OF ICELAND

Graduation Transcript

Hallgrímur Davíð Egilsson

Born September 12, 1993
Id.nr. 120993-2329

Graduation date: June 25, 2016

Faculty of Industrial Engineering, Mechanical Engineering and Computer Science

Mechanical Engineering – BS

Number	Course	Credits	Grade	Finished
BYG101G	The Engineering Profession	2.0	Passed	Autumn 2013
IÐN101G	Operation Management	6.0	8.5	Autumn 2013
TÖL105G	Computer Science 1a	6.0	10.0	Autumn 2013
STÆ104G	Mathematical Analysis IB	6.0	8.0	Autumn 2013
STÆ107G	Linear Algebra B	6.0	7.5	Autumn 2013
EÐL102G	Physics 1 V	6.0	8.5	Autumn 2013
VÉL201G	Technical Drawing	6.0	8.0	Spring 2014
VÉL202G	Strength of Materials	6.0	9.0	Spring 2014
STÆ205G	Mathematical Analysis IIB	6.0	7.0	Spring 2014
STÆ203G	Probability and Statistics	6.0	7.5	Spring 2014
EÐL201G	Physics 2 V	6.0	9.0	Spring 2014
VÉL301G	Engineering Materials	6.0	9.5	Autumn 2014
VÉL302G	Microcomputers and Instrumentation	6.0	8.0	Autumn 2014
STÆ302G	Mathematical Analysis IIIB	6.0	8.5	Autumn 2014
EÐL302G	Classical Mechanics	6.0	9.5	Autumn 2014
EFN301G	General Chemistry V	6.0	8.0	Autumn 2014
VÉL401G	Mechanical Vibrations	6.0	9.0	Spring 2015
VÉL402G	Design of Machine Elements	6.0	8.5	Spring 2015
STÆ605G	Mathematical Analysis IVB	6.0	8.0	Spring 2015
STÆ405G	Numerical Analysis	6.0	9.0	Spring 2015
EÐL402G	Thermodynamics 1	6.0	6.5	Spring 2015
IÐN502G	Engineering Economics	6.0	7.5	Autumn 2015
VÉL502G	Fluid Mechanics	6.0	8.5	Autumn 2015
VÉL504G	Automatic Control Systems	6.0	9.5	Autumn 2015
VÉL103M	Finite Element Analysis	6.0	8.5	Autumn 2015
TÖL104G	Mathematical Structures for Computer Science	8.0	10.0	Autumn 2015
VÉL503M	Design and Building of an Electric Formula Race Car - Part A	3.0	9.5	Autumn 2015
VÉL403G	Manufacturing Processes	6.0	9.0	Spring 2016
IÐN401G	Operations Research	6.0	9.0	Spring 2016
VÉL601G	Heat Transfer	6.0	8.0	Spring 2016
VÉL606G	Study Tour Overseas	4.0	Passed	Spring 2016
TÖL203G	Computer Science 2	6.0	9.0	Spring 2016
VÉL606M	Design and Building of an Electric Formula Race Car - Part B	3.0	9.5	Spring 2016
Total completed credits		188.0 ECTS		

Fyrsta einkunn (First Class): 8.55

Reykjavík June 25, 2016

University of Iceland
Student Registration

Elín Ágústa Ingimundardóttir
Student Registration

Grading scale: As a general rule grades are expressed on the 0-10 scale. Course grades are given in increments of 0.5. In BS-studies pass requirements are 5.0. In MS- and Ph.D.-studies pass requirements are 6.0, i.e Second Class minimum in each subject. Grade averages are computed to two decimal places. 5.00 to 5.99 are Third Class, 6.00 to 7.24 are Second Class, 7.25 to 8.99 are First Class, 9.00 to 10.00 are First Class with distinction.

Data provided by the Student Registration, University of Iceland

Diploma Supplement

UNIVERSITY OF ICELAND

1 Information identifying the holder of the qualification

1.1 Family name(s)
Egilsson

1.2 Given name(s)
Hallgrímur Davíð

1.3 Date of birth (day/month/year)
12 September 1993

1.4 Student identification number or code (if available)
120993-2329

2 Information identifying the qualification

2.1 Name of qualification
BS

2.2 Main field(s) of study for the qualification
Mechanical Engineering

2.3 Name and status of awarding institution (in the original language)
Háskóli Íslands (University of Iceland), state recognised and state-financed higher education institution. Accredited by the Ministry of Education and Culture after an accreditation process in 2007 and 2008.

2.4 Name and status of institution (if different from 2.3) administering studies (in the original language)
Same as 2.3

2.5 Language(s) of instruction/examination
Icelandic. Most textbooks are in English.

3 Information on the level of the qualification

3.1 Level of qualification
Three years at first cycle of higher education.

3.2 Official length of programme
Full time study for three academic years.

3.3 Admission requirements
Icelandic matriculation examination (studentsprof: school leaving examination after four years of secondary school) or a comparable qualification. The faculty strongly recommends that students complete at least 24 credits in mathematics, 30 in science of which 6 should be in physics.

4 Information on the contents and results gained

4.1 Mode of study
Full time studies.

4.2 Programme requirements
180 ECTS credits have to be completed for the qualification. Organised as a three year programme. Compulsory courses are 150 ECTS credits, 30 ECTS credits are optional and of these 18 ECTS credits must fall within engineering subjects. 12 ECTS credits may be taken outside the the School of Engineering and Natural Sciences. A thesis project, 6 ECTS credits, can be a part of the programme.

Learning Outcomes

On completion of the study programme the student can demonstrate knowledge, skills and competence as detailed below:

1. Knowledge and understanding:
1.1. The student has the knowledge and comprehension of mathematics and physics to apply technical calculation methods and to solve common problems in mechanical engineering. Knowledge in mathematics comprises linear algebra, geometry, differential and partial differential equations, probability calculus, statistics and mathematical analysis. Knowledge in physics comprises kinetics, fluid mechanics and thermodynamics. Knowledge in chemistry comprises basic concepts for chemical equilibrium and reaction.
1.2. The student has knowledge and skills to analyse and solve diverse problems in the various fields of specialisation within mechanical engineering. The student must demonstrate independent and creative thinking when solving problems and complete the analysis such

that results are clear.
1.3. The student can work autonomously and confidently in practical assignments, can measure, work with equipment, review results, identify uncertainty factors and make reports in technical format.
1.4. The student can apply modern calculation methods and tools in solving technical problems, including graph and drawing software, programming languages and design/analysing software.

2. Type of knowledge:
2.1. The student has insight into fundamental aspects of statics, theory of vibrations and of machine elements and can apply insight when analysing relatively complex problems in this theoretical field.
2.2. The student has knowledge of manufacturing processes and of the main levels of design.
2.3. The student knows and understands the laws of thermodynamics and fluid mechanics and can apply them on real systems and understands their functionality and their limitations.
2.4. The student has knowledge and understanding of automatic control systems and can apply diverse methods in solving statistical problems.

3. Practical competence
3.1. The student has developed the ability to work independently, can define common tasks for mechanical engineering, define goals, make a work plan and follow it.
3.2. The student can divide common problems for mechanical engineering into parts, solve each part separately and find an integrated solution for the whole problem.
3.3. The student can understand a design description and implement the design using appropriate methods, software and tools.
3.4. The student is trained to adopt the methods most appropriate to specific problems in the field of mechanical engineering.

4. Theoretical skills:
4.1. The student knows the fundamental principles of thorough review of sources.
4.2. The student comprehends what constitutes conscientious and accepted academic practices.
4.3. The student understands complex theoretical problems and can provide solutions to them.

5. Communication competence
5.1. The student is independent and shows initiative in discussions and in communication with others.
5.2. The student is trained in group work and can handle communication problems within groups.
5.3. The student can express himself clearly and systematically both orally and in writing.

6. General academic competence
6.1. The student has gained sufficient learning competence to be able to undertake further studies in this field.
6.2. The student has gained self-confidence, broad-mindedness and critical thinking that helps him in his work.
6.3. The student understands the need to maintain and renew his knowledge and competence in the field of mechanical engineering.

4.3 Programme details (e.g. modules or units studied) and the individual grades/marks/credits obtained

Number	Course	Credits	Grade	Finished
BYG101G	The Engineering Profession	2.0	Passed	Autumn 2013
IÐN101G	Operation Management	6.0	8.5	Autumn 2013
TÖL105G	Computer Science 1a	6.0	10.0	Autumn 2013
STÆ104G	Mathematical Analysis IB	6.0	8.0	Autumn 2013
STÆ107G	Linear Algebra B	6.0	7.5	Autumn 2013
EÐL102G	Physics 1 V	6.0	8.5	Autumn 2013
VÉL201G	Technical Drawing	6.0	8.0	Spring 2014
VÉL202G	Strength of Materials	6.0	9.0	Spring 2014
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VÉL504G	Automatic Control Systems	6.0	9.5	Autumn 2015
VÉL103M	Finite Element Analysis	6.0	8.5	Autumn 2015
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VÉL503M	Design and Building of an Electric Formula Race Car - Part A	3.0	9.5	Autumn 2015
VÉL403G	Manufacturing Processes	6.0	9.0	Spring 2016
IÐN401G	Operations Research	6.0	9.0	Spring 2016
VÉL601G	Heat Transfer	6.0	8.0	Spring 2016
VÉL606G	Study Tour Overseas	4.0	Passed	Spring 2016
TÖL203G	Computer Science 2	6.0	9.0	Spring 2016
VÉL606M	Design and Building of an Electric Formula Race Car - Part B	3.0	9.5	Spring 2016
Total completed credits		188.0		ECTS

4.4 Grading scheme and, if available, grade distribution guidance

As a general rule grades are expressed on the 0-10 scale. Course grades are given in increments of 0.5. In BS-studies pass requirements are 5.0. In MS- and Ph.D.-studies pass requirements are 6.0, i.e Second Class minimum in each subject. Grade averages are computed to two decimal places. 5.00 to 5.99 are Third Class, 6.00 to 7.24 are Second Class, 7.25 to 8.99 are First Class, 9.00 to 10.00 are First Class with distinction.

4.5 Overall classification of the qualification (in original language)

Fyrsta einkunn (First Class): 8.55

5 Information on the function of the qualification

5.1 Access to further study

The BS-degree gives access to MS-studies in Iceland if the grade point average is 6.50 or higher.

5.2 Professional status (if applicable)

No professional status accompanies the degree.

6 Additional information

6.1 Additional information

6.2 Further information sources

The University of Iceland homepage: http://www.hi.is
University of Iceland, Office for Academic Affairs (NARIC/ENIC), Sudurgata, 101 Reykjavik.

7 Certification of the supplement

7.1 Date

June 25, 2016

7.2 Signature

Guðrún Helga Agnarsdóttir

Guðrún Helga Agnarsdóttir

7.3 Capacity

Administrative Officer

7.4 Official stamp or seal

UNIVERSITY OF ICELAND
SCHOOL OF ENGINEERING
AND NATURAL SCIENCES

8 Information on the national higher education system

The Ministry of Education, Science and Culture has the overall responsibility for higher education on Iceland. The legal framework covering higher education in Iceland is the Higher Education Institution Act no. 63/2006. This framework act applies to all educational institutions providing higher education leading to a degree and which have been accredited by the Ministry of Education, Science and Culture, according to rules on accreditation no. 1067/2006. Each institution of higher education is accredited in particular fields of study and subdivisions therein.

There are currently seven accredited institutions of higher education in Iceland. University of Iceland, University of Akureyri, The Agricultural University of Iceland and Holar University College are public institutions of higher education and are subject to the Act on Public Higher Education Institutions no. 85/2008 with amendments. Reykjavik University, Bifröst University and Iceland Academy of the Arts are private institutions and operate under structural charters approved by the Ministry of Education, Science and Culture. All higher education institutions receive state funding. The Ministry concludes performance-related contracts with all higher education institutions under its administration.

Quality assurance of higher education institutions, both with regards to research and teaching, is carried out by an internal evaluation of higher education institutions as well as by periodic external evaluation. The Icelandic Quality Board for Higher Education monitors the quality of the education offered in accordance with the Icelandic Quality Enhancement Framework and rules no. 321/2009.

The admission requirements for entry into tertiary education are a matriculation exam (Stúdentspróf) from an upper secondary school or an equivalent final examination. Some fields of study have additional entrance requirements. Currently, compulsory education in Iceland is between the ages of six and sixteen. Upper secondary education leading to matriculation examination is usually organized as three to four years of study.

According to the Higher Education Act no. 63/2006, teaching in higher education institutions shall be organised in courses that are evaluated according to standardized credits (ECTS). The higher education level applies credits equivalent to the European Credit Transfer System. A full study programme shall normally consist of 60 credits per academic year and reflect the total student workload during that time.

The academic year at Icelandic higher education institutions generally runs from August/September until May, and it is divided into two semesters, an autumn semester and a spring semester. Student assessment is generally based on written, oral or practical examinations, held at the end of each semester, in addition to semester papers and assignments carried out throughout the course of study.

The Minister of Education, Science and Culture issues a National Qualification Framework for Iceland, a systematic description of the structure and the degrees of higher education specifically based on learning outcomes (no. 530/2011). All accredited higher education institutes in Iceland shall follow this framework.

Organisation and structure of qualifications and degrees awarded at higher education institutions in Iceland:

ISCED		Credits (ECTS)	Total credits (ECTS)
5	**Cycle 1.1** Diploma	30 – 120	30 – 120
6	**Cycle 1.2** Bachelor´s degree	180 - 240	180 - 240
7	**Cycle 2.1** Qualification at master level	30 – 120	210 – 360
	Cycle 2.2 Master´s degree	90 – 120	270 - 360
8	**Cycle 3** Doctoral degree	180 -	450 -

The first higher education cycle includes two stages, Diploma (1.1) and Bachelor´s degree (1.2).
Diploma is defined as a qualification obtained at a higher education institution where the holder has completed 30 – 120 ECTS credits of an organised study programme.

Bachelor´s Degree (BA, BS, B.Ed.) is defined as a qualification obtained at a higher education institution where the holder has completed 180 – 240 ECTS credits of an organised study programme.

The second higher education cycle includes two stages, the first stage is a Qualification at Master level (2.1) and the second stage is a Master´s degree (2.2).
Qualification at Master level is defined as a qualification obtained at a higher education institution where the holder has completed 30 – 120 ECTS credits of an organised study programme at the second cycle of higher education. Qualification at Master level includes qualifications which either do not include a research project, or where the project is of less than 30 ECTS credits.
Examples of degrees and qualifications at this stage (2.1.) are MBA, Diploma at Master level, Cand. Med. et Chir. and Cand.Odont

Master´s Degree
is defined as a qualification obtained at a higher education institution where the holder has completed 90 – 120 ECTS credits of an organised study programme at the second cycle of higher education. A Master´s degree includes a research project of at least 30 ECTS credits.
Examples of qualifications at this stage (2.2) are: MS, MA, Mag.Jur, ML and Cand.Psych.

The third higher education cycle has one stage, the Doctoral degree (3) Doctoral degree (Ph.D.) is defined as a qualification from a higher education institution where the holder has completed at least 180 ECTS credits of an organised study programme at the third cycle of higher education. A Doctoral degree shall include a research project that fulfils international criteria for a Doctoral thesis.