### Transcript

Leiden University hereby certifies that:



Followed a curriculum at Leiden University from 01 September 2019 until 31 January 2020 consisting of the courses mentioned below and was awarded the examination grades indicated, these grades being awarded in order of achievement from 1 to 10\*:

	Glade LOID	Level	L'Addit dute
Bachelor Research Project, Supramolecular & Biomaterials	GRADE AND	400	14-04-2020
Chemistry group, Leiden University (Leiden, The	ECTS	J	
Netherlands): Incorporation of photoresponsive			
4-azo-phenylalanine into coiled-coil peptides			

Leiden University Grading Table

Grade	6	6,5	7	7,5	8	8,5	9	9,5	10
Absolute %	22.0	8.8	22.0	12.9	20.3	6.7	5.7	1.1	0.5
Cumulative %	100.0	78.0	69.2	47.2	34.2	14.0	7.3	1.6	0.5

Drawn up and issued at

For the University

Exam date

### EXAMPLE SIGNATURE

Grade ECTS Level

JNERS/TEL	
EXAMPLE	
LEIDER	

EXAMPLE SIGNATURE

Leiden, on 12 May 2020

### Explanation of Marking and Credit Points System

<u>Grading system</u> The grading system runs from 1 (very poor) to 10 (outstanding).

Explanation of grades 10 outstanding 9 excellent 8 very good 7 good 6 sufficient 5 and lower, insufficient

P or V = Pass F or O = Fail WD or ND = Withdrawn I = Incomplete (may still be completed according to Departmental guidelines)

### <u>Study load – credit points</u>

The study load is specified in European Credit Transfer System (ECTS) credit points. An academic year consists of 60 credit points. One credit point is equivalent to 28 hours work and includes lectures/tutorials, reading, preparing for tests, exams, the writing and assessment of papers, etc. The weight of each varies from course to course.

### **ECTS Grading table**

As of 1 September 2017, Leiden University provides a grading table on the diploma supplement and transcript of records. The grading table on the diploma supplement provides statistics for the individual study programme or faculty. The grading table on the transcript of records provides statistics for the university as a whole (all study programmes). All Leiden University grading tables are published on: <a href="http://www.universiteitleiden.nl/en/grading-table">http://www.universiteitleiden.nl/en/grading-table</a>.

#### Information about courses

Information about Leiden University courses may be found in the online *e* Prospectus.

### Enclosures

- Course level structure (Leiden University)
- Grading Systems in the Netherlands (Nuffic)
- Higher Education System in the Netherlands (Nuffic)
- The Dutch Higher Education System (Nuffic)



### Higher education system in the Netherlands

Higher education in the Netherlands is organised around a three-cycle degree system, consisting of bachelor's, master's and PhD degrees. Two types of higher education programmes are offered: research-oriented degree programmes offered primarily by research universities, and professional higher education programmes offered primarily by universities of applied sciences.

### Primary and secondary education

### Access to higher education

Children are allowed to begin school at the age of four, but are not legally required to do so until the age of five. Primary education lasts eight years (of which seven are compulsory). During their last year, pupils are advised on the type of secondary education they should pursue.

Secondary education, which begins at the age of twelve and is compulsory until the age of sixteen, is offered in various forms and at different levels. Vmbo programmes (four years) combine general and vocational education and prepare pupils to go on to senior secondary vocational education and training (mbo), lasting one to four years. There are two types of general education that grant admission to higher education: havo (five years) and vwo (six years). Pupils are enrolled according to their ability. The last two years of havo and the last three years of vwo are referred to as the 'second phase' (*tweede fase*), or upper secondary education. During these years, pupils focus on one of four subject clusters (*profielen*), each of which emphasises a certain field of study in addition to satisfying the general education requirements. Each cluster is designed to prepare pupils for study at the tertiary level. A pupil enrolled at a vwo or havo school can choose from the following subject clusters:

- 1. Science and Technology (Natuur en Techniek)
- 2. Science and Health (Natuur en Gezondheid)
- 3. Economics and Society (Economie en Maatschappij)
- 4. Culture and Society (Cultuur en Maatschappij)

Only the six-year vwo diploma grants access to bachelor's programmes at research universities; the vwo diploma, havo diploma and the highest level of mbo grant access to bachelor's programmes at universities of applied sciences.

### **Higher education**

Higher education in the Netherlands is offered at two types of institutions: research universities and universities of applied sciences. Research universities include general universities, universities specialising in engineering and agriculture, and the Open University. Universities of applied sciences include general institutions as well as institutions specialising in a specific field such as agriculture, fine and performing arts or teacher training.



Whereas research universities are primarily responsible for offering research-oriented programmes, universities of applied sciences are primarily responsible for offering programmes of higher professional education, which prepare students for specific professions. These tend to be more practice oriented than programmes offered by research universities.

In this binary, three-cycle system, bachelor's, master's and PhD degrees are awarded. Shortcycle higher education leading to the associate's degree is offered by universities of applied sciences. Degree programmes and periods of study are quantified in terms of the ECTS credit system.

The focus of degree programmes determines both the number of credits required to complete the programme and the degree which is awarded. A research-oriented bachelor's programme requires the completion of 180 credits (three years) and graduates obtain the degree Bachelor of Arts, Bachelor of Science, or Bachelor of Laws. (BA/BSc/LLB), depending on the discipline. In most cases, a bachelor's degree awarded in the applied arts and sciences requires 240 credits (four years), to complete. Depending on the programme, graduates may obtain a degree indicating the field of study (for example, Bachelor of Engineering, BEng, or Bachelor of Nursing, BNursing) or a BA/BSc/LLB degree. Students who have a vwo diploma may be exempted from one year of study, allowing them to complete a bachelor's programme in the applied arts and sciences in three years (after completion of 180 credits). An associate's degree (Ad) in the applied arts and sciences requires 120 credits (two years), and students who complete the two-year programme can continue studying for a bachelor's degree in the applied arts and sciences.

A research-oriented master's programme requires the completion of 60, 90 or 120 credits (one, one-and-a-half or two years). In engineering, agriculture, and mathematics and the natural sciences, 120 credits are always required. Graduates obtain a Master of Arts, Master of Science, or Master of Laws (MA/MSc/LLM). A master's degree awarded in the applied arts and sciences requires the completion of 60 to 120 credits. Depending on the programme, graduates may obtain a degree indicating the field of study (for example, Master of Architecture, M Arch, Master of Business Administration, MBA) or MA/MSc/LLM.

The third cycle of higher education, leading to a PhD or to a Professional Doctorate in Engineering (PDEng), is offered only by research universities. The major requirement for the PhD, which is offered by all research universities, is completion of a dissertation based on original research that is publicly defended. In addition to PhD programmes, the three engineering universities offer technological designer programmes consisting of advanced study and a personal design assignment in a number of engineering fields. The technical designer programme requires two years of study to complete and graduates obtain the degree Professional Doctorate in Engineering (PDEng). The training of medical specialists is the responsibility of the professional group in an organisational setting at a university hospital.



### Requirements for access to higher education

For access to research-oriented bachelor's programmes, students are required to have a vwo diploma or to have completed the first year (60 credits) of a bachelor's programme at a university of applied sciences. For the latter category of students, additional selection criteria may apply. The minimum access requirement to universities of applied sciences is either a vwo diploma, a havo diploma or a diploma of secondary vocational education (mbo), provided certain conditions are met. The vwo diploma not only grants access to universities of applied sciences, but based on this diploma, students may receive exemption from one year of study as well. For access to both types of higher education, pupils with a vwo or havo diploma are required to have completed at least one of the subject clusters that fulfil the requirements for the higher education programme in question. A quotum, or numerus fixus, applies for access to certain programmes, primarily in the medical sciences. For numerus fixus programmes, institutions are permitted to select the students they admit based on academic performance, personal motivation, etc. Potential students older than 21 years who do not possess one of the qualifications mentioned above can qualify for access to higher education on the basis of an entrance examination and assessment (recognition of prior learning). For access to certain programmes, particularly those in the fine arts, students have to demonstrate the required artistic abilities. The only access requirement for the Open University is that applicants be at least eighteen years of age.

For access to all master's programmes, a bachelor's degree in one or more specific disciplines is required, in some cases in combination with other requirements. Graduates with a bachelor's degree in the applied arts and sciences usually have to fulfil additional requirements for admission to a research-oriented master's programme.

### Credit system and grading

A student's workload is measured in ECTS credits. According to Dutch law, one credit represents 28 hours of work and 60 credits represents one year of full-time study. The grading system used in the Netherlands is on a scale from 1 (very poor) to 10 (outstanding). The lowest passing grade is 6; 9s are seldom given and 10s are extremely rare. Grades 1-3 are hardly ever used. The academic year is 42 weeks long.

### Quality assurance and accreditation

A guaranteed standard of higher education, and alignment with the Qualifications Framework for the European Higher Education Area, is maintained through a system of legal regulation and quality assurance, in the form of accreditation. The Ministry of Education, Culture and Science is responsible for legislation pertaining to education. The agriculture and public health ministries play an important role in monitoring the content of study programmes in their respective fields.

Quality assurance is carried out through a system of accreditation, administered by the <u>Accreditation Organisation of the Netherlands and Flanders (NVAO)</u>. According to the Dutch Higher Education Act, all degree programmes offered by research universities and universities of applied sciences must be evaluated according to established criteria. Programmes that meet the criteria are accredited: i.e. recognised for a period of six years. Only accredited



programmes are eligible for government funding; students receive financial aid and graduate with a recognised degree only when enrolled in, and after having completed, an accredited degree programme. All accredited programmes are listed in the Central Register of Higher Education Study Programmes (CROHO).

As part of the accreditation system,, higher education institutions can request the NVAO to conduct an 'institutional quality assessment' to determine the extent to which the institution is capable of guaranteeing the quality of the programmes it offers. Programmes offered by institutions that receive a positive evaluation still have to be accredited, but the accreditation procedure takes less time and is not as extensive.

Besides the accreditation of degree programmes, the Netherlands has a system by which the Ministry of Education, Culture and Science recognises higher education institutions by conferring on them the status of either 'funded' or 'approved'. "Funded" indicates the institution is fully financed by the government. "Approved" indicates that the institution does not receive funds from the government and has to rely on its own sources of funding. Whether a degree programme is offered by a 'funded' or an 'approved' institution, it must be accredited and registered in CROHO to be considered recognised.

Please note: if a bachelor's or master's degree programme is not registered in CROHO, the quality is not assured by the Dutch quality assurance system. The quality may however be assured by another system.

### **National Qualifications Frameworks**

An important tool to facilitate the recognition of foreign qualifications is using overarching qualifications frameworks as a translation tool through which qualifications awarded in one country can be compared to qualifications awarded abroad. A comprehensive overarching framework used in the European Economic Area is the European Qualifications Framework for Lifelong Learning (EQF-LLL). The EQF-LLL describes the learning outcomes associated with qualifications at eight different levels and is used as a common reference framework to assist in comparing national qualifications systems and their levels. The qualifications framework in the Netherlands is referred to as the Dutch Qualifications Framework (NLQF). The NLQF was officially referenced to the EQF in 2012. The NLQF has a total of nine levels: an " entry level" which is below level 1 of the EQF-LLL and therefore not referenced to the EQF-LLL, and 8 levels which are referenced to the 8 levels of the EQF. Further information on the Dutch Qualifications Framework can be found on the website of the <u>National Coordination Point</u> NLQF, which is the organization responsible for the development and implementation of the NLQF.

### The Dutch education system

The higher education system in the Netherlands is based on a threecycle degree system, consisting of a bachelor, master and PhD. Two types of programmes are offered: research-oriented degree programmes offered by research universities, and professional higher education programmes offered by universities of applied sciences.





A dotted arrow (---+) indicates that some form of selection or bridging requirement may be applied.

Kortenaerkade 11/ P.O. Box 29777 2502 LT The Hague / The Netherlands +31 (0)70 426 02 60

# nuffic

# Grading systems in the Netherlands, the United States and the United Kingdom

### Suggestions for grade conversion

Grading scales in different education systems are often misinterpreted and grading practices in other countries are easily misunderstood. The world of international student mobility is full of examples of students applying for admission to a university in another country and being refused on the grounds that their grades are not good enough, even if their grades are considered high by the standards in their own country's system. In most cases the problem simply comes down to a lack of information. Experience shows that this problem is significantly mitigated when institutions provide degree and diploma supplements, explaining the grading scale used. Ideally, these supplements should include the percentages for which grades are awarded at the institution so that the grades of the student concerned may be clearly understood.

This article identifies some of the main differences between the Dutch grading system, which is based on a numeric scale of 1 through to 10, and the letter grades used in the United States and the United Kingdom. The article concludes with a grade conversion table for these three countries.

### The grading scale in the Netherlands

In the Netherlands, the traditional grading scale is from 1 through to 10, where 1 is the lowest and 10 the highest grade. The pass mark for a single subject is 6, but for school leaving examinations, where six or more subjects are examined, two 5s or one 4 may be condoned if compensated by high grades in other subjects. Grades 1 through to 4 are very rarely given, and the same is true for grades 9 and 10. The most common grades in both secondary and higher education are 6 and 7. Grading in secondary and higher education differs to the extent that high grades are slightly less frequent in secondary education than in higher education.

Data from 2010 on examination results for the pre-university stream (VWO<sup>1</sup>) reveal the following distribution (in percentages) of the grades awarded:

10 = 0.1 9 8 7 6 5 = 2.4 = = = 12.5 34.3 38.5 = 10.7 4 3 2 = 1.4 0.08 = = 0.01 0.0

VWO = Voorbereidend Wetenschappelijk Onderwijs, or preparatory university education. This is the most selective of the three main streams in general secondary education in the Netherlands. The VWO diploma grants access to university education.

Kortenaerkade 11/ P.O. Box 29777 2502 LT The Hague / The Netherlands +31 (0)70 426 02 60

# nuffic

### Grading culture

Grading practice in the Netherlands differs from that in the US and the UK inasmuch as the top grades (10 and 9) are rarely awarded, regardless of the actual achievements of a given group of students. This is part of the grading culture in the Netherlands. When the 1 through to 10 scale was officially introduced back to the late 19th century, it was decided that a 10 should only be awarded in cases of absolute perfection. Furthermore, as at the time it was felt to be almost blasphemous for mere mortals to be judging what constituted absolute perfection, a 10 was hardly ever awarded. A 9 was considered to be only a slightly less impossible goal to reach. With the advent of multiple choice testing and yes/no answers to questions, 10s and 9s actually came within reach of ambitious students. To this day, however, these grades are still very rarely awarded in oral examinations or open question testing, such as essays, presentations, project reports or dissertations.

This tradition is different from what is customary in the US, where high grades are awarded to reward and encourage rather than single out absolute perfection. Statistics show that North American educators have always been more generous in the awarding of grade As than their European counterparts. The danger in this practice is that it may lead to grade inflation, which in fact, has become a trend in American higher education over the past 30 years. Grade inflation may well be linked to a more competitive attitude in American higher education, where it is far more common for students to compete for scholarships and where admission to the best universities depends on having the best grades. By contrast, university admission in the Netherlands, as in most continental European countries, is not so much based on high grades as on having the right school leaving certificate. The type of secondary school attended and the type of examination subjects taken are accorded more importance than the individual grades obtained. In the Netherlands, secondary education is divided into different academic and vocational streams with differing educational aims. Of these, the pre-university stream (VWO) is the most selective, accounting for just 17% of the entire student population in secondary education. Consequently, the pre-university stream has always served as a selection mechanism in itself, and the examination results of individual students are considered to be less important than possession of the VWO diploma.

### The wrong approach

When thinking about grade conversion, differences in culture and education systems as described above must be taken into account. If grading scales are simply placed side by side, and, starting from the top, each grade in one scale is equated to the grade in the corresponding position in the other scale, serious mismatches will be the result. If, for example, we placed the Dutch numeric scale side by side either the American or the British letter scale, a Dutch 10 would be equated to an American or British A, a 9 to a B, an 8 to a C and so on. While it may seem unlikely that anyone would take such an approach, conversions like these have been known to happen. There are examples of foreign universities requiring a 10 in all seven examination subjects on the Dutch VWO diploma, where it was apparently reasoned that, if 10 is the top grade awarded in the Netherlands, a top student from the Netherlands should have a 10 in each subject. In reality, the chance of attaining a 10 in all seven subjects is close to nil.

### Frequency distribution

Clearly, this is not a realistic approach. If grades are to be compared fairly, grade conversion should instead be based on the frequency distribution of grades. Only when the percentages are known for the various grades awarded can grades from different systems be matched. Looking at the 2010 data on the highest-achieving VWO graduates for example, we know 12.5% were awarded a grade 8 (2.4% a grade 9 and 0.1% a grade 10). Therefore, in order to convert this properly to a grade under another country's grading system, we need to know which grade was awarded to the lower 12.5% of the top 15% of students in that system.

When analysing the frequency distribution of passes in the Dutch, American and British grading systems, the

www.nuffic.nl

Kortenaerkade 11/ P.O. Box 29777 2502 LT The Hague / The Netherlands +31 (0)70 426 02 60

# nuffic

pattern that emerges is that the two most common grades in the Dutch system are at the lower end of the scale of pass grades (6 and 7), while the two most common grades in the American and British systems are to be found at the higher end (A and B). In Dutch secondary education, grades 6 and 7 are awarded in 39% and 34% of cases respectively. In the UK, A\* and A are awarded in 27% of cases and the B in 26%<sup>2</sup>. National percentages for high school examination grades in the US are not available, but the occurrence of A and B in undergraduate studies at American universities is about 40% (and even higher in postgraduate education).<sup>3</sup>

### Conversion table

The following table is based on the data available for secondary education examinations in the Netherlands and the UK. For the US, the grades are taken from academic transcripts of undergraduate programmes issued by American universities.

Note: In pre-university education (*General Certificate of Education*) in the UK, grades run from A\*, A, B, C, D to E. In the US, pass grades normally only include A, B, C and D. In the British system the asterisk (\*) is only used in relation to a grade A, as the highest grade possible. In the US system, the \* is not used, but schools and universities may use + or - to differentiate grades.

NL	UK	US
10	A*	A+
9.5	A*	A+
9	A*	A+
8.5	A*	A+
8	А	А
7.5	A-	А
7	В	B+
6.5	С	В
6	D	С
5.5	E	D
5	F	F
4	F	F
3	F	F
2	F	F
1	F	F

<sup>2</sup> The distribution of grades obtained by GCE A-level graduates in 2011 is as follows:

 $A^* = 8.2\%$  B = 25.6% D = 15.1%

A = 18.8% C = 23.6% E = 6.5% U (unclassified) = 2.2\%.

<sup>(</sup>source: Joint Council for Qualifications).

<sup>&</sup>lt;sup>°</sup> These percentages are taken from a sample of 50 academic transcripts issued by American universities and submitted to Nuffic.

#### www.nuffic.nl

Kortenaerkade 11/ P.O. Box 29777 2502 LT The Hague / The Netherlands +31 (0)70 426 02 60

# nuffic

In the UK, honours bachelor's degrees are awarded with a class, indicating the overall performance of the graduate during the programme and at examinations. Classes are normally divided into four categories: first class honours (1), second class honours, upper division (2.i), second class honours, lower division (2.ii), and third class honours (3rd). In the following table lists the classes and the percentages of graduates awarded each class, next to the grades to which they correspond in the Dutch grading system (the class percentages are rounded off to the nearest multiple of 5).

UK honours bachelor's degree	corresponding Dutch grade
First class (ca. 15%)	grades 8, 9 and 10
Second class, upper division (ca. 50%)	7 to 8
Second class, lower division (ca. 30%)	6 to 7
Third class (ca. 5%)	5.5 to 6

This article was prepared by the International Recognition Department of Nuffic. By appointment of the Ministry of Education and Sciences this department serves as the Netherlands information centre or academic and professional recognition in the context of the networks of national information centres of the European Union (NARIC) and of the Council of Europe/UNESCO (ENIC): <u>http://www.enic-naric.net</u>.

<sup>\*</sup> Statistics are taken from the Higher Education Statistics Agency in the UK.

The information contained in this publication has been compiled with the greatest of care. Nevertheless, we are unable to guarantee its accuracy or completeness at the time of reading. The information may have been changed or updated. Nuffic cannot accept any liability for these changes. We recommend that you verify the accuracy of the information yourself where appropriate.



Nuffic, July 2013

Nuffic is the Netherlands organisation for international cooperation in higher education. Our motto is Linking Knowledge Worldwide. This means linking people, because it's knowledge that makes us unique as people. Nuffic works in line with Dutch government policy to serve students and higher education institutions in three key areas: This publication, with the exception of images and illustrations or where expressly stated otherwise, is subject to the Creative Commons Attribution-Non-Commercial 3.0 Unported Licence. Please visit <u>www.nuffic.nl/ccl</u> for the rules for reuse of this publication.

#### **Programme Management**

Administrating international mobility programmes (scholarships) and institutional cooperation programmes.

#### Information Services

Providing information about higher education systems in the Netherlands and in other countries; providing credential evaluation services; providing information in the Netherlands about studying abroad, and in other countries about studying in Holland; promoting Dutch higher education in other countries; encouraging international mobility.

#### Expertise

Conducting studies into international cooperation in higher education; providing information to expert groups and consultation forums; transferring our knowledge of international cooperation in higher education through courses and seminars.

Nuffic

Kortenaerkade 11 P.O. Box 29777 2502 LT The Hague The Netherlands t +31 (0)70 42 60 260 f +31 (0)70 42 60 399 www.nuffic.nl

Netherlands organisation for international cooperation in higher education