

Deficiency course in chemistry

Van Hall Larenstein offers a course with which you can satisfy your entrance deficiency in the subject of chemistry. The course will begin on Monday August 13th 2012 and will comprise a total of two and a half weeks of study. This course will take place before the academic year begins. Classes will be given from 9:00 hours until 16:00 hours. The exam will be given on Tuesday August 28th 2012. It is possible to take the exam without having taken the course. However, this is not recommended. Experience has shown that the probability of success is much greater if you have taken the course.

Course information

For whom

- Students who want to be admitted to the propaedeutic exam for a study programme at Van Hall Larenstein, for which chemistry is a prerequisite and who have the following previous education:
- HAVO/VWO (upper general secondary education/pre-university education) with a curriculum without chemistry or without chemistry as an optional subject;
- MAO (upper vocational education in agriculture) having transfer certificates without chemistry;
- A different previous education with a deficiency in chemistry (in consultation).
- Other interested parties

Schedule

The course will be taught during two and a half weeks preceding the beginning of the academic year. The start is on Monday August 13th 2012 and the exam is on Tuesday August 28th 2012.

Language

This course will be taught in English.

Location

The classes and exams will take place at the Wageningen facility of Van Hall Larenstein.

Course fee

Fee for the entire course (including examination) € 400,- Examination only € 20,-

If you enrol in one of the study programmes of Van Hall Larenstein after completing the deficiency course, then half of the course fee (excluding the examination fee) will be refunded. In addition to the course fee, you will have to pay for books and possibly housing.

Study load

In Higher Professional Education, the study load for a specific study component is expressed in hours of study. This indicates how much time in total students will actually be involved with that study component (preparing for lectures, taking lectures, completing homework, preparing for interim exams, etc.). The study load of a deficiency course is 100 hours, which means that an 'average student' will require 100 hours in total to complete the course. This is the equivalent of 2 1/2 weeks of 40 hours of study per week.

Registration

You can register for the deficiency course using this registration form.

If it turns out that you do not have the correct set of courses when you register for a study programme at Van Hall Larenstein, then this form will be sent to you automatically. The registration form for the deficiency course, regardless of which study programme you will be enrolling in, must be received by 1 June 2012 at the infopoint of Van Hall Larenstein Wageningen, P.O. Box 411, 6700 AK Wageningen, the Netherlands.

Topics	Atomic structure and weight, formulas of ionic and molecular compounds, bonding types and consequences for solubility, gram to mole and/or molarity calculations and reverse; molecular weight and %, nomenclature; pH equilibrium reactions and constants, structure of most important biological molecules; reactions: formation from elements, combustion, metal + acid, precipitation of salts, dissolution of oxides and salts in water, acid-base, nomenclature of organic compounds and basics of carbohydrates, proteins and fats, hydrolysis of and condensation to organic macromolecules.
Teaching Method	The teaching method will involve brief discussions of theory components, plus several examples and/or applications, after which students will be required to work independently from the teacher. During the independent exercises, the instructor will be available to answer questions and provide additional instructions. This independent practice is essential to gain mastery of the material. The pace of the course is intensive. In addition to the scheduled contact hours, students must also spend time on homework; the course will require about 100 hours of self-study in total.
Exam style	The used book contains an enormous amount of exercises and questions throughout the text, and at the end of each chapter a self-test. The exam will be in the style of these exercises and questions; It will be open-end questions. There is no laboratory work, and therefore no practical exam component, below you find 4 sample questions.
Exam timing	Tuesday August 28th 2012, 9.00 - 12.00
Book	"A self-teaching guide CHEMISTRY: concepts and problems", 2nd edition, authors: Clif.C.Houk & Rich. Post, ISBN: 0-471-12120-7.
Additional reader	"Deficiency Organic Chemistry" Content: nomenclature of organic compounds and basics of carbohydrates, proteins and fats.
Science tables	BINAS English edition ISBN: 978 9001 70731 6 (publisher: Wolters Noordhoff). The Dutch edition BINAS, third edition or later; ISBN no. 9001 89377 5 can also be used for this course. A science table book is admitted on exams. Students must purchase study and table books themselves! The reader can be purchased at Van Hall Larenstein.
Instructor	W. Schurink

For substantive questions about Chemistry, you can contact

W. Schurink T+31 (0)317-486306 Email : wim.schurink@wur.nl

For more general questions, you can contact the Infopoint in Wageningen +31 (0)317 486330.

Example exam questions:

1. Give the proper electron dot structures of O₂ and CH₂O.
Then also give the structure formulas – each pair of electrons is represented with a single line. If there is a significant polar covalent bond, show it in one of the structures.
2. Write the compounds listed below that are insoluble in water: Al(OH)₃ , CaSO₃ , CaCl₂
Write the balanced equation of the reaction between a solution of (NH₄)₂SO₃ and a solution of calciumchloride.
3. 0,148 gram of calciumhydroxide is dissolved in 10 liter water.
What molarity does the resulting calciumhydroxide solution have?
And what is the molarity of the hydroxide?
4. Give the structural formulas of butane-2,3-diol, and of 3-methyl-2-amino-pentanoic acid.

Registration form for deficiency course in chemistry 2012

I hereby register for:

- the course with exam
 for the exam only on Tuesday August 28th 2012 (independent study is therefore required)
 other (please explain under 'remarks')

Student information

Last name: _____

Prefix: _____ First name(s): _____ male female

Date of birth: ____ ____ ____ Place of birth: _____

Address: _____ House or apartment number: _____

Postal code: _____ City: _____

Telephone: _____ Mobile: _____ E-mail: _____

I have enrolled in the following study programme at Van Hall Larenstein

- Food Technology (specialisation Food Innovation Management)
 Animal Husbandry (specialisations: Applied Animal Science, Equine, Leisure and Sports, Equine business and Economics, Livestock Management)
 Other _____

Information about previous education

Remarks

Signature

Date: _____ Place: _____ Signature: _____

Are you under the age of 18 years? Then your parents/attendants also have to sign:

Date: _____ Place: _____ Signature: _____

Return before 1 June 2012 to: Van Hall Larenstein, Attn: Office for Student Affairs, P.O. Box 411, 6700 AK Wageningen, infopoint.wageningen@wur.nl.