

5.00 credits

30.0 h + 30.0 h

Q1

Teacher(s)	. SOMEBODY ;Jeanmart Hervé ;Proost Joris ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	<i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i>
Learning outcomes	
Evaluation methods	<p>Students are assessed individually and in writing. The questions in the written examination are formulated to test the above-mentioned disciplinary learning outcomes. This written examination is based on the answer to questions related to the understanding of the theory as well as the ability to solve exercises of the same type as those proposed or available during the course activities.</p> <p>A written examination may also be organised to test the disciplinary knowledge acquired towards the middle of the term. The mark of this examination counts for one third of the final mark, provided that the result is higher than the mark of the examination alone.</p> <p>Finally, other forms of certification activities can be set up during the term. The laboratory mentioned below is an example.</p> <p>The examination consists of three parts:</p> <ul style="list-style-type: none"> - open questions in chemistry (equilibria, kinetics, etc.) - open questions in thermodynamics (thermal cycles, etc.) - a MCQ on the whole subject <p>The final mark is a weighted average of the marks obtained in the various parts. Depending on the length of the examination, the weighting is 1/3, 1/3, 1/3 (4 hours of examination) or 0.375, 0.375, 0.25 (3 hours of examination). If the average out of 20 is between 9.01 and 9.99, the mark is rounded up to 9.</p> <p>Active participation in the compulsory laboratories is also assessed and included in the grade for the "chemistry" part (Prof. Proost's part) of the course. An unjustified absence from the laboratory(s) will result in an absence grade for the examination.</p>
Teaching methods	The course consists of 12 lectures, 9 tutorials (APE), and one or two laboratories.
Content	<ul style="list-style-type: none"> - ideal gases and kinetic theory of gases - complements on the first principle of thermodynamics and application to thermal cycles - first principle for open systems - second principle of thermodynamics applied to thermal cycles - chemical kinetics - chemical equilibrium - phase equilibria
Inline resources	https://moodleucl.uclouvain.be/course/view.php?id=8134
Other infos	Participation in the laboratories is mandatory. These are organized only once during the year. It is impossible to repeat them in the second session.
Faculty or entity in charge	BTCI

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Engineering	FSA1BA	5	LEPL1301	