

## Example form for Module Handbook ( Đề cương tổng quát môn học)

A **Module Handbook** or collection of module descriptions that is also available for **students to consult** should contain the following information about the individual modules:

Module designation ( Tên môn học)	<i>CHEMISTRY FOR ENVIRONMENTAL ENGINEERING AND SCIENCE</i>
Semester(s) in which the module is taught ( Học kỳ giảng dạy)	<i>Semester 3</i>
Person responsible for the module (	<i>Vo Nguyen Xuan Que Ph.D.</i>
Language ( ngôn ngữ)	<i>English</i>
Relation to curriculum ( Các môn học liên quan)	<i>Compulsory</i>
Teaching methods ( Phương pháp giảng dạy)	<i>lecture, lab works, seminar</i>
Workload (incl. contact hours, self-study hours) (Thời lượng làm việc)	<i>(Estimated) Total workload: Total workload: - 24 hr of lecture, - 12 hr of exercise - 30hr of experiment - 135 hous of self-study</i>
Credit points ( số tín chỉ)	<i>3</i>
Required and recommended prerequisites for joining the module ( những yêu cầu kiến thức trước khi học)	<i>Basic knowledge on: - Chemistry; - Analytical chemistry;</i>
Module objectives/intended learning outcomes ( Mục tiêu môn học, yêu cầu CDR)	<i>This course provides the student with basic knowledge about environmental chemistry, analysis of pollutants in water and soil, and use them to assess environmental quality of water and soil. After finished the course, the student are require to understand the water and soil chemistry and analitycal parameters for natural water, waste water and soil environment, recognize the source of pollutants, predict the behavior of pollutant in water and soil.to/are able to..."</i>
Content ( Nội dung )	<i>- Water chemistry: chemical equilibrium in water, water quality parameter, pollutant tranformation - Soil chemistry: interation between soil components, chemical reactions, pollutant behavior and toxicity</i>
Exams and assessment formats ( Hình thức kiểm tra và thi)	<i>- Exercise: homework, exercise during class - Experiment - Final exam: Writing test</i>
Study and examination requirements ( Tỷ lệ đánh giá học tập)	<i>- Exercise: 20% - Experiment: 30% - Final exam: 50%</i>
Reading list ( Tài liệu)	<i>[1]. Werner Stumm; James J. Morgan (1995). Aquatic Chemistry: Chemical Equilibria and Rates in Natural Waters. Third edition. New York : John Wiley &amp; Sons. [2] Stanley E. Manahan (2000). Environmental chemistry, Seven Edition, Lewis. [3]. Donald L. Sparks, Environmental Soil Chemistry, Second Edition, Academic Press, 2003.</i>

