

## PROCEDURE FOR MODULE DEVELOPMENT

### 1 Scope

EMQAL is an Erasmus Mundus master course offered by a consortium of eight universities from seven different countries. Lecturers may come from any country of the world. In order to achieve a coherent study programme, it is necessary to define a set of guidelines for lecturers to develop their modules in EMQAL. This procedure describes these guidelines. It is not intended to be restrictive and should not be interpreted as a set of rigid rules, but rather as suggestions to help lecturers build an equilibrated module within the master.

### 2 List of abbreviations

EMQAL – Erasmus Mundus Master in Quality in Analytical Laboratories

PMT – Programme Management Team

PC – Programme Coordinator

PD – Programme Director

ECTS – European Credit Transfer System

### 3 Responsibilities

PMT	<ul style="list-style-type: none"> <li>- Informs lecturers that they should follow this procedure</li> <li>- Evaluates each new module to check if it is in agreement with the guidelines stated in this procedure</li> <li>- Assures the quality assessment report is prepared and sent to the lecturers</li> </ul>
PD	<ul style="list-style-type: none"> <li>- Assures there are conditions for the module to take place: classrooms, schedules, laboratory material, etc</li> <li>- Assures communication between students and the lecturers</li> <li>- Collects grades from lecturers and transmits them to the students, after verifying they are complete and according to the EMQAL requirements</li> </ul>
Lecturer	<ul style="list-style-type: none"> <li>- Develops the module</li> <li>- Communicates to the PD the resources necessary to run the module</li> <li>- Runs the module</li> <li>- Evaluates the students and send the information to the PD</li> </ul>



## 4 Flowcharts

NA

## 5 Description

### 5.1 Definition of “Module”

One module is a part of a discipline offered in EMQAL, usually of 2 ECTS credits, lectured independently from other modules.

In the ECTS, 1 credit refers to 25 hours<sup>1</sup> of student workload and thus, 2 ECTS credits refer to 50 h of student total workload. This corresponds to one week (42 h) and an additional period of 8 h for preparing and making examinations.

In principle, a student will take a maximum of two modules at a time per week, and will be exclusively dedicated to these modules.

### 5.2 Module Descriptor

Lecturers are asked to complete a Module Descriptor (following the Model M0201) describing in detail the module they propose to lecture. This descriptor is analysed and approved by the PMT.

Lecturers are free to make small adjustments to the module descriptor, and are asked to provide the students and the PMT with its latest version before the first class.

### 5.3 Workload expected from students

Students are expected to work 50 h for each module. This includes both contact hours (classes) and lone study.

The number of contact hours may vary in each module from 20 to 40% (10 to 20 hours). Contact hours may be theoretical classes, practical classes (exercises and problem solving), laboratory practices, field work, seminars or tutorials, depending on the nature of the module. Modules that are more theoretical have about 20 % contact time, mostly theoretical and tutorial classes. Modules with a strong practical component, like the ones in the Analytical Methods discipline, can have about 40 % contact time, mostly laboratory and/or practical classes.

Typically, a theoretical module would have 10 h of classes, 2.5 h/day, 4 days per week. In this case, students should study by themselves an average of 5-6 h/day<sup>2</sup>. The lecturer should provide study material (chapters to read, notes, exercises, assignments...) to fill this time.

<sup>1</sup> Different countries and universities may adopt one of two standards, either 1 credit = 28 h or 25 h. Because EMQAL is organized by an international consortium, the rule is 25 h, even if this may differ from the standard adopted by one university of the consortium.

<sup>2</sup> Students are supposed to work 42 h per week.

## 5.4 Language

EMQAL classes are taught in English. Lecturers are advised to prepare classes in the clearest way possible taking into account the diversity of nationalities and backgrounds of the Erasmus Mundus students. For example, preparing written slides containing the subjects to be taught is a good way of helping students to follow the class, even if they have difficulty understanding some words.

## 5.5 Assessment methods

The examination criteria should be described fully in the Module Descriptor. The lecturer should also explain to the students in the first class how the evaluation will be done and the evaluation criteria.

Because modules are only 2 ECTS credits, student evaluations should be based on student output rather than examinations or tests. A range of different assessment methods are used based on work assignments such as laboratory reports, developing operating procedures, doing laboratory audits, writing literature reviews, seminars or poster presentations.

Lecturers should take into account that the students will have 8 h for preparing and doing examinations for one module. Either the evaluation method can be completed in 8 h, or it should be started during the lecturing week.

## 5.6 Module documentation: study materials and exams

Lecturers are strongly encouraged to make available lecture notes and other study materials. These should be sent to the PD for distribution among the students. The preferred format is electronic *pdf* format. These materials are uploaded to a portal which the students can access using a username and password.

Lecturers are also required to deliver to the PD a copy of the final exam, examination questions, examination assignment or other evaluation procedure used to grade the students.

## 5.7 Grading system

Two different grades are used simultaneously to evaluate students in EMQAL:

- The ECTS grading scale is used to facilitate credit transfer and transparency. This scale ranks students on a statistical basis, according to Table 1.
- An absolute scale of 0-100 is also used for the assessment of the students, according to their degree of achievement of the objectives of the module.

**Table 1 – ECTS grading system**

ECTS Scale	Definition	Percentage of Successful Students Normally Achieving the Grade	U.S. Grade Equivalents
A	EXCELLENT - outstanding performance with only minor errors	10	A
B	VERY GOOD - above the average standard but with some errors	25	B+
C	GOOD - generally sound work with a number of notable errors	30	B
D	SATISFACTORY - fair but with significant shortcomings	25	C
E	SUFFICIENT - performance meets the minimum criteria	10	C
FX	FAIL - some more work required before the credit can be awarded	-	F
F	FAIL - considerable further work is required	-	F

For new modules, when lecturers do not have enough data to apply a statistical (ECTS) scale, they may use the absolute grade and assign the ECTS scale as they find reasonable. A relation between these grades and the different national scales is suggested in Annex 1.

Lecturers are required to fill the Students' Grade Record (M0203), sign it and deliver it to the PD. It is recommended to the lecturers do not provide the scores directly to the students in order to guarantee the internal coherency and the proper coordination in case of complaints about the scores. The PD will communicate these to the students.

Lecturers are also encouraged to give feedback to the students about their evaluations (see 5.13 below). It is important for each student to have some information on what they did well and not so well in the assignment(s) and the reasons for their grades. In EMQAL, most lecturers will not be physically available for the students after the week of classes takes place. In these cases, lecturers should have a particular care on sending additional information about each student's performance, besides the grade.

### **5.8 Deadlines and process for delivering assignments**

Lecturers must provide assignments to the students no later than one week after the module has finished. As a general rule, the deadline for students delivering assignments is one month after the module classes have finished. A different deadline may be used, provided it is agreed in advance between the lecturer and the students.

A copy of all assignments submitted by the students must be kept by the PC. In this sense, when assignments are delivered to the lecturers by email, students are required to send a carbon copy to the email address [emgal2.assignments@gmail.com](mailto:emgal2.assignments@gmail.com). This address sends an automatic reply confirming reception of the email.

Lecturers are asked to provide the results of their evaluation within one month, maximum two months, after they receive the assignments.

**Feedback to students:** after receiving their grades, students are eager for detailed information about their evaluation. This can be particularly difficult after the lecturer has returned to a different country, and cannot spend time writing detailed reports for each student. Instead, we suggest that when performing the evaluations, lecturers fill a simple form for each student (model M0209 is provided as an example), which helps him/her understand why he/she was given a certain grade.

### **5.9 Availability and Presence of Lecturers**

Resident teaching staff at the host University is available to the students throughout the teaching week(s) devoted to the Masters.

The visiting teaching staff should be available to the students throughout the week(s) that they teach both in teaching sessions and other times as arranged. During the rest of the taught portion of the degree the visiting staff will be available via email.

### **5.10 Presence of Students**

Attendance to all classes is **mandatory** for all students, except in very special cases and with strong justification. These cases should be presented to and approved by the PMT.

The PMT provides the lecturers with an attendance list, which should be signed by all present students in each class. The lecturers are asked to pass this list, and remind the students to sign it. The signed presence lists should be returned to the PD.



Erasmus  
Mundus

### **5.11 Quality Assessment**

In the end of each module, both the students and the lecturer are asked to fill a questionnaire evaluating the global quality of the module, including classes, installations and study material. A Quality Assessment Report will be elaborated and later sent to the lecturer, who may use it to improve the module in future editions of EMQAL.

### **5.12 Additional Information for Lecturers**

Lecturers may consult the Calendar for Classes online in the form of a google calendar in the following address:

<https://www.google.com/calendar/embed?src=igk6008objtkud3j60avdptmco@group.calendar.google.com&ctz=Europe/Barcelona>

Before the beginning of each module<sup>3</sup>, lecturers are given by the PD:

- the study plan for all students, where it is possible to see which students are taking which modules and which modules they already have taken;
- a *pdf* file with general information about of each student including the academic background.

Lecturers will also receive the following documents, which should be filled and returned to the PD after the end of the module and the evaluations:

- M0203 – the format in which student's grades should be recorded;
- A questionnaire (M0502) for Quality Assessment;
- a *pdf* file – model M0209 - which the lecturer can use to give feedback about each student's evaluation.

### **5.13 Final Information required from Lecturers**

Lecturers are required to officialise their evaluation of the students by filling the M0203 – Student's grades record and signing it. It is essential to fill two grades – one in an absolute scale (0-100%) and the other in the ECTS scale (A-E). In case a student fails, an F should be recorded in the ECTS scale. The completed record should be signed and sent to the PD. An electronic copy may be sent by email, but eventually the signed hard copy must be delivered to the PD.

Lecturers are suggested to send, together with M0203, feedback about their evaluations in the form of model M0209. This document can be filled electronically and does not need to be printed. Nevertheless, in some operative systems it is not possible to save the changes made to the file. In this case, the model can be printed, filled by hand and returned to the PD. The PD will distribute this information among the students.

<sup>3</sup> Lecturers teaching the first modules in the academic year may receive this information only after their module has taken place, because the first weeks of classes are used to build the study plans for each student.



Erasmus  
Mundus

## MODULE DEVELOPMENT

TP0202  
Revision: 1  
Version: 1  
11 December 2013

### 6 Input / Output

Input	Output
	Module descriptor Quality Assessment Report

### 7 Additional information

Related documents:

*Models:*

M0201 – Module descriptor

M0202 - Module Quality Assessment Report

M0203 – Students' grades record

M0204 – Attendance List

M0501 - Student Questionnaire

M0502 - Lecturer Questionnaire

M0206 – Complete Study Plan

M0209 – Student Evaluation Feedback

## 8 Annexes

Annex 1 - A relation between the absolute and relative grades and the different national scales.

Scale 20 – 0 (Portugal)	Scale 5 – 2 (Poland)	Scale 10 – 0 (Spain)	Absolute grade	ECTS Scale Relative grade
20	5,0	10,0	100	A
20		9,9	99	
20		9,8	98	
19		9,7	97	
19		9,6	96	
19		9,5	95	
19		9,4	94	
19		9,3	93	
18		9,2	92	
18		9,1	91	
18		9,0	90	
17		4,5	8,9	
17	8,8		88	
17	8,7		87	
17	8,6		86	
17	8,5		85	
17	8,4		84	
17	8,3		83	
16	8,2		82	
16	8,1		81	
16	8,0		80	
16	7,9		79	
16	7,8		78	
16	7,7		77	
16	7,6		76	
15	4,0	7,5	75	C
15		7,4	74	
15		7,3	73	
15		7,2	72	
15		7,1	71	
15		7,0	70	
15		6,9	69	
14		6,8	68	
14		6,7	67	
14		6,6	66	
14		6,5	65	
14		6,4	64	
14		6,3	63	
14		6,2	62	
14	6,1	61		





Erasmus  
Mundus

## MODULE DEVELOPMENT

TP0202  
Revision: 1  
Version: 1  
11 December 2013

Scale 20 – 0 (Portugal)	Scale 5 – 2 (Poland)	Scale 10 – 0 (Spain)	Absolute grade	ECTS Scale Relative grade
13	3,5	6,0	60	D
13		6,0	59	
13		5,9	58	
13		5,9	57	
13		5,8	56	
13		5,8	55	
12		5,7	54	
12		5,7	53	
12		5,6	52	
12		5,6	51	
12		5,5	50	
11		3,0	5,4	
11	5,4		48	
11	5,3		47	
11	5,3		46	
11	5,2		45	
10	5,2		44	
10	5,1		43	
10	5,1		42	
10	5,0		41	
10	5,0		40	
9 - 0	< 3	4,9 - 0	< 40	F



Erasmus  
Mundus

**MODULE DEVELOPMENT**

**TP0202**  
**Revision: 1**  
**Version: 1**  
11 December 2013

**Information:**

*Procedure:*

*File:* TP0202\_Module\_development\_rev1\_vs1.doc

Directory in UiB portal:

Number of pages: 10

Number of information pages: 1

**Revisions:**

No.	Date (D/M/YY)	Brief description of the changes in document
		Document updated from the procedure developed for EMQAL 1 project.

**Approved by the PMT on \_\_\_\_\_, \_\_\_\_\_**

Signature:

Date: