WHO/WFME PRACTICAL GUIDELINES FOR ALLOCATION AND USE OF ECTS CREDITS IN MEDICAL EDUCATION

By

Leif Christensen
WFME, University of Copenhagen

INTRODUCTION

The actual status of the European Credit Transfer and Accumulation System, ECTS has to be taken into account by all universities and other institutions of higher education in the European region, including the medical schools. It has to be acknowledged that ECTS is going to be or already is the Pan-European credit system

Today ECTS is used by more than 1000 institutions of higher education, used for all institutions and programmes in several countries and included in their national rules and regulations and now being introduced in more countries in the European region. ECTS is supported by EU, by the European University Association (EUA) and other international organisations.

However, the ECTS system, the credits and allocation of credits can pose problems for some institutions, especially institutions not accustomed to assess workload for the students and/or to describe volume or size of courses by points, credits etc.

The present guidelines or manual is intended as recommendations regarding application of ECTS in basic medical education. Hopefully, the first

sections on credits and their uses and on the development of ECTS will provide an overview and understanding of ECTS. The following sections with emphasis on the more technical aspects should provide advice regarding fairly simple procedures for allocating credits to a medical programme.

Contents

1. UNDERSTANDING CREDITS AND THEIR USE

1.1 About credits

The invention of credits is ascribed to the American system of higher education, characterised by a large number of institutions, a great diversity and many students moving from institution to institution. In such an environment there was early a need for a way to describe educational achievements in a fairly simple way and credits are used to specify the amount of teaching in a course. The intention was that credits should be a transparent and comparable measure of the volume or size of courses completed.

1.2 Users and uses of credits

Use of credits in mobility

The most obvious and widely discussed use of credits is in connection with all types of mobility: The internal mobility of students between institutions within a country, international mobility or exchange between institutions in different countries and the international mobility of graduates or medical doctors.

For mobile students whether it is a permanent change of institution or a study visit for a limited period at another institution a transfer of credits should take place. The credits are part of the information on academic standing and the fulfilment of requirements making it possible to decide on the placement of the student in the programme at the receiving institution. If the student is returning to the home institution the credits are part of the information on the results of the study visit, the courses completed and the credits earned.

Likewise, credits are part of the information on the completed study programme needed in assessment of the educational credentials of a graduate or medical doctor applying for a position in a foreign country. It will in many cases make a difference whether for instance the transcript

shows 2 credits in gynaecology and obstetrics or 18 credits of clinical rotation in gynaecology and obstetrics. Consequently, credits are of interest also for regulatory bodies and the health care delivery system as employer of medical graduates.

Use of credits by students, teachers & medical schools

However, credits can have a wider and maybe less formalised use for students, teachers and the medical school. The students sometimes use the credits as guidance, as an indication of the expectations regarding their efforts and how to manage their time and they use the credits as a check on their progression in the programme, especially when a certain amount of optional courses is required. Also, the teachers can use the credits as guidelines. The credits are an indication of the limits set for their course. Used in this way the credits can facilitate suppression or at least a reduction of curriculum overload. Besides being an instrument in registration and check of the progression of students in the programme, the medical schools can make use of the credits in monitoring and development of the curriculum

Use of credits in curriculum design

In connection with curriculum design and planning information on credits can have several functions. Within a study programme credits can facilitate comparisons between units of the programme and between parts, years and semesters. In reforms of a study programme credits can facilitate comparisons between the existing curriculum and different proposals for a new curriculum. Finally, credits can facilitate comparisons with curricula at other medical schools.

It should be noted that credits as a quantitative measure of size or volume in itself is of very limited use. Credits are provided with a meaning in connection with information on other aspects of the curriculum.

Credits & content/outcome

The first question is obviously credits for what or volume of what? We need information on the unit of the curriculum, the course, discipline, subject matter, module, block etc. Often we need more information on the course

than simply the name. A common solution to this problem about the actual content of the unit is a brief course description stating the main topics to be covered in the course, sometimes extended with a reading list. Increasingly, such a description is supplemented by or substituted by a statement on the intended learning objectives or outcomes.

Credits & level

In many cases we also need to ask about the level. Is it for instance chemistry at the level taught in secondary schools and in pre-med courses or is it chemistry in the medical programme at university level. Normally, we also distinguish between different levels within higher education. In medical education it makes a difference whether we are talking about an introduction to internal medicine or an advanced clinical course in internal medicine. Often the level is indicated by the placement in the curriculum of the unit or the course in the programme e.g. in year 1, year 2 etc. and/or by the placement in a sequence e.g. anatomy I and anatomy II, where anatomy I is a prerequisite for anatomy II.

Credits & forms of teaching/ learning

The forms of teaching or learning also enter into our list of information needed. It makes a difference whether we a talking about a theoretical course taught in the form of lectures alone or a course which includes both lectures and practicals such as lab work, clinical rotations etc. A theoretical course in anatomy is different from an anatomy course including dissection, a theoretical course in biochemistry is different from a course in biochemistry including laboratory exercises, a theoretical course in community medicine is different from a course also involving visits or stays in community clinics and other institutions and obviously the clinical course taught in the form of lectures differs from the clinical course also involving clinical rotations, bedside teaching etc.

Credits & student assessment

Finally, for practical purposes we are interested in the student assessment connected with the course. Primarily, we need to know whether there is an assessment at all to be able to decide if a student has earned the credits in question or not. Sometimes, we are interested also in the number and forms

of assessment e.g. is the course regarded as completed on the basis of presence or attendance, active participation in the course, in discussions or by assignments, sitting for one or more exams oral and/or written, special forms of exams, clinical examinations, OSCE etc.

2. THE DEFINITION OF ECTS CREDITS

Credits allocated & credits earned

As mentioned we are in this paper focused on the allocation of credits to a study programme in basic medical education. Another thing is the use of the credits when describing the accomplishment of a student such as in a transcript. What is in the transcript is the credits related to courses and being successfully completed by the student as documented in assessment. If this is going to be used in connection with transfer to another institution the receiving institution will have to make a decision on recognition, i.e. to evaluate the transcript in relation to its own programme and can decide that only the credits, the number of credits and the type, subject/level etc. which roughly fall within their own programme will be recognised. It means that the credits can be too few (and there is a need to supplement) or too many (and they can not all be used within the programme at the receiving institution).

2.1 Definition of ECTS credits

The basis for defining the ECTS credit is that the total student workload of one academic year of full time study is determined to equal 60 ECTS credits. Consequently, a semester equals 30 credits and a term equals 20 credits.

ECTS credits & study time

It should be noted that the workload must be based on stipulated, planned or official time/lengths of study (the so-called notional learning time), not on the actual average study time.

ECTS & working hours

It is often stated that one ECTS credit normally corresponds to 25 – 30 working hours. However, the total number of yearly working hours expected of a full time student and consequently the number of working hours supposed to be related to one ECTS credit will be somewhat influenced by local traditions (the number of working hours pr. week on the labour market, the number of weeks in the academic year or semester etc.).

Misunderstandings of the basis for credit allocation

When an institution is not used to assess student workload and/or to use credits there is a tendency to confuse the allocation of credits on the basis of student workload with other aspects of the programme. This is a misunderstanding of the credits as a pure measure of workload and volume of a unit of the programme and will jeopardise the correct and efficient use of the credits. For instance the allocation of ECTS credits is not to be influenced by

- Teaching method or form of delivery of course (One form of teaching will not automatically be more demanding and get more credits than another teaching method)
- Type of course e.g. compulsory or optional (A compulsory course is not inevitably more or less demanding than an optional course)
- Position/status of teacher (Workload for the students is not determined by the status of the teacher)
- Importance of subject matter (Importance of a subject matter is often a very biased judgment. Importance academically/professionally could be reflected in the number of contact hours and/or in other characteristics of a unit for instance whether the subject matter is compulsory or optional)
- Quality of course (Quality of a course will have unpredictable consequences for the student workload: Is the quality high because the students are working harder or do the students have to work harder in a low quality course?)
- Costs or resource allocations

It should be noted that introducing these or similar aspects in the assessment of workload and the allocation of credits will make the consultations and discussions diffuse and consensus difficult to obtain.

Credit allocation & curriculum change

Finally, using ECTS credits will not require and should not be the reason for changes in the curriculum. The ECTS system do not impose any specific

form of curriculum on the medical school. ECTS do not favour a particular curriculum model (a discipline organised or an integrated curriculum), do not prefer certain teaching methods (teacher controlled lectures, classroom teaching or student-activating methods like PBL, case-based teaching etc.) or any specific assessment method. Nor do the ECTS system prescribe ways to handle or administrate credits, for instance how to handle students earning more or less than 60 credits in a year, rules regarding earning credits by attendance, exemptions from exams etc.

ECTS is intended to be applicable on any curriculum and so far it has not been disproved. Using ECTS and allocating credits to units of the curriculum is a "translation" into ECTS language of the size or volume of units of the existing curriculum. The ECTS system is neutral to the curriculum and can be used on any curriculum, but the application can be more or less cumbersome.

Maybe experience will show that there is one interesting exception: The allocation of ECTS credits provide the medical school with new information on its curriculum which can lead to a more equal distribution of workload over the years and semesters

2.2 Assessing Student Workload

The cornerstone in applying ECTS credits is the student workload and the key to allocation of ECTS credits is the assessment of student workload. The following is intended as a set of fairly detailed but simple guidelines for assessing student workload especially for the medical school not used to assess workload

As a starting point it makes sense to look for possible information on planned workload and actual workload.

Planned workload

The planned/stipulated student workload

- Workload should always be estimated for a specific activity in connection with a specified unit of the programme

- The workload to be estimated is the planned time to be spend on the activity, not actual use of time by the students
- However, the planned time to be spent on an activity is seldom stated by the curriculum and course planners and/or the intentions are not made publicly known. In other words, we can not count on information on the intentions behind the present study programme to be available for all units as a basis for assessing workload

Actual workload

Actual student workload and the curriculum

- In principle, in a well planned curriculum there will be no difference between the planned or stipulated time and the average time spend by the students or the students completing the unit
- Many curricula reveal some curriculum overload and/or uneven distribution of workload over the years and semesters causing actual use of time by students to differ from the planned or stipulated time
- Also changes in the composition of the student population, the prerequisites and learning capacity of the students can result in discrepancies between planned or stipulated time and actual use of time
- Consequently, we can not in estimating the workload in all cases count on the planned or stipulated time to be supported by empirical observations of the use of time by the students

Steps in assessing workload

Assessment of student workload will normaly involve the following activities or steps:

- Define the unit of the programme, ”course”
- List all teaching or learning activities required of the student in connection with the specified unit (no activity required/necessary to complete the unit should be excluded)
- The teaching/learning activities will include activities requiring presence of the student in classroom, lab., ward etc. and activities not requiring presence e.g. reading and other forms of preparation

and will include activities with a teacher, lectures, seminars and other supervised activities as well as self-study

- Estimate the time needed for each activity and the total for the unit in question

Good practice in estimating workload

In estimating student workload the following rules should be observed:

- Use all available information on the activities
- Use if possible available, more precise information on an activity as basis for estimating workload (number of reports and number of pages to estimate workload related to written assignments)
- Use if possible available, more precise information on an activity as an indicator of workload related to another activity (contact hours as indicator of preparation)
- Accept that the estimated workload for the individual activities and the total for the unit will be an approximation to be adjusted in relation to other activities and units and monitored in the coming years

3. DESCRIBING THE STUDY PROGRAMME - THE NEED FOR INFORMATION ON THE STUDY PROGRAMME

Several times reference has been made to characteristics of the study programme and how they are to be used in assessing student workload. Clearly, this implies a need for a fairly precise and detailed description of the study programme.

Most medical schools publish several different descriptions of their study programme in basic medical education for different target groups and different use. Some are brief providing an overview of the programme based on the formal national or university rules pertaining to the programme, some are more informal descriptions of requirements, content, assessment and conditions of study and some are lengthy and detailed descriptions of the programme or part of the programme with course descriptions, reading lists etc. The information on the programme needed for assessing student workload and for allocating credits is rarely found in one single description but the necessary bits and pieces can be collected from the different sources.

3.1 Information on structure:

Firstly, we need information making it possible to establish the structure of the programme to be used in the description of the programme:

- Parts of the programme, years and semesters
- Units, disciplines, subject matters, courses, clinical rotations etc. in each part, year and semester

3.2 Basic information

Secondly, we need the basic information to estimate student workload and to establish the first or preliminary allocation of credits i.e. for each unit of the programme information on:

- Contact hours
- Periods of study in weeks

3.3 Supplementary information

Thirdly, we need the supplementary information to correct and revise the estimate of workload and preliminary allocation of credits. For each unit of the programme this encompasses essential information on:

- Types of teaching/learning
- Preparation and/or amount of readings
- Assignments (oral presentations, written reports, exercises etc.)
- Other scheduled and supervised activities requiring presence (excursions, group work, exams etc.)
- Required self-study, projects etc.
- Assessment of students (number and types of exams etc.)
- Requirements at exams

Summary

The study programme and the need for information

Information needed for preparing a description of the study programme for allocation of credits:

- Information on the structure of the programme (for each part, year and semester information on the units of the programme (disciplines, courses etc.)
- Basic information on the number of contact hours and/or the duration of periods of study in weeks for each unit of the programme
- Supplementary information on required activities connected with each unit of the programme

4. ALLOCATING ECTS CREDITS - A PROCEDURE FOR ALLOCATION OF CREDITS

The allocation of credits to units of the study programme could take place in 2 stages: Firstly, an allocation or rather a calculation of credits based on the simple quantitative information on the units of the programme and their volume or size in hours and weeks, resulting in a first or preliminary allocation of credits. Secondly, a more refined allocation of credits making use of supplementary information on other aspects of the programme to make corrections of the preliminary allocation resulting in new and corrected allocation of credits. It should be noted that this second stage can be repeated several times after consultations with stakeholders, committees, departments and students.

4.1 Preliminary allocation of credits

As a starting point for a first and preliminary allocation of ECTS credits to a study programme any existing stipulation of volume or size of units of the curriculum can be used. Apparently, descriptions of programmes in medical education always include information on

- Formalised teaching in contact hours (e.g. lectures, seminars, tutorials, lab.-.work)
- Periods of specified study in weeks or months (e.g. clinical rotations)

The first or preliminary allocation of credits to a programme can be produced by simple calculations converting hours and weeks to ECTS credits. The following 3 examples, 1 - 3 (from different programmes) illustrate such calculations for a theoretical semester with the size of all units stated in contact hours, for a clinical semester with size of all units stated in periods of study and finally a semester with a mixture of units stated in contact hours and periods of study.

Example 1

Calculating credits 1: Conversion of contact hours to credits

Year	Semester	Course	Contact hours	Distribution %	Credits
1	2	Medical Chemistry II	57	23.1	6.9
		Anatomy II	110	44.6	13.4
		Medical Psychology	30	12.1	3.6
		Clinical Introduction	10	4.0	1.2
		Early General Practice	40	16.2	4.9
Total			247	100.0	30.0

Example 2

Calculating credits 2: Conversion of periods of study to credits

Year	Semester	Course	Weeks*)	Distribution %	Credits
5	9	Clinical rotation, Internal Medicine	6	30.0	9.0
		Clinical rotation Surgery	6	30.0	9.0
		Clinical rotation Anaesthesiology	2	10.0	3.0
		Special Study Module	6	30.0	9.0
Total			20	100.0	30.0

*) Frequently as in this case one semester normally comprise 20 weeks, if so: 1 week = 1.5 ECTS credits

When the semester is a mixture of contact hours and periods of study it is recommended first to calculate the credits for the periods of study, then to calculate the distribution of the residual as shown in the following example.

Example 3

Calculating credits 3: Conversion of a mix of contact hours and periods of study *)

Year	Semester	Course	Weeks	Distribution %	Credits
4	7	Clinical rotation I	4	50.0	6.0
		Clinical rotation II	4	50.0	6.0
Total			8	100.0	12.0

*) Total study periods 8 weeks of 20 weeks in the semester or 40 %
Total ECTS credits for study periods 40 % of 30 credits or 12 credits
30 – 12 or 18 credits for courses based on contact hours

Year	Semester	Course	Contact hours	Distribution %	Credits
4	7	Parasitology	35	20.7	3.7
		Infectious disease	37	21.8	3.9
		Pneumology	43	25.4	4.6
		Nephrology	54	32.1	5.8
Total			169	100.0	18.0

It should be noted, that if a unit or course includes both formalised teaching in contact hours and a period of study it is important to know where the contact hours are placed whether it is within or outside the period of study. If the contact hours are within the period of study they are not to be counted, if they are outside the period of study they should be added to the workload.

Summary

Preliminary allocation of credits

Use as starting point the information on contact hours and periods of study connected with each unit in the programme:

- Calculate the distribution of credits between all units of the individual semesters or years on the basis of contact hours and/or periods of study
- Prepare a description of the programme with the preliminary allocation of credits

4.2 The Corrected allocation of credits

The rough initial allocation of credits should be adjusted using available supplementary information indicating student workload in connection with the individual unit of the programme and the required teaching or learning activities involved in the unit. The aspects of the programme most likely to result in adjustment of the preliminary allocation of credits are the following correction factors:

- Preparation and/or amount of readings
- Assignments (e.g. oral and written reports, exercises)
- Other scheduled and supervised activities requiring presence (e.g. excursions or visits, group work, exams)
- Required self-study, projects etc.
- Requirements at exams

It should be noted, that the allocation should be corrected only when the other or supplementary information indicates a workload significantly above or below the average workload for other units in the same year or semester. Also, it should be remembered that perceived importance of a course or subject, status of the teacher etc. are not admissible motivations for corrections, nor ideas about the quality of a course or subject

The following two examples, 4 & 5 of a brief description of a programme and of the preliminary as well as the corrected allocation of credits illustrates the procedure.

Example 4

Description of the Programme 1

Year	Se-mester	Course	Remarks	Contact hours	Period Of Study
1	1	Introduction	Introduction to the medical programme		1 week
		Human Biology & Medical Chemistry	Integrated course in-cluding lab. exercises & reports	168	
		Early General Practice & Medical Psychology I	Integrated course in-cluding stay in practice	69	+ 3 days
		Patobiology I		10	
		Clinical Skills & Communication I		15	

Allocation of credits 1

Year	Se-mester	Course	First allocation	Corrected Allocation	Remarks
1	1	Introduction	1.7	0	- Req. (no requirements)
		Human Biology & Medical Chemistry	17.8	19	+ Req. (assignments)
		Early General Practice & Medical Psychology I	7.6	8	
		Patobiology I	1.2	1	
		Clinical Skills & Communication I	1.7	2	

Example 5

Description of Programme 2

Year	Se-mester	Course	Remarks	Contact hours	Period of Study
6	12	Introduction to Pediatrics & Gynaecology/ Obstetrics	Content & readings evenly divided	(Included in the period of study)	3 weeks
		Gynaecology & Obstetrics	Clinical rotation		4 weeks
		Pediatrics	Clinical rotation		4 weeks
		General Medicine	Clinical rotation		4 weeks
		Emergency Medicine	Clinical rotation		3 weeks

Allocation of credits 2

Year	Se-mester	Course	First allocation	Corrected allocation	Remarks
6	12	Introduction to Pediatrics & Gynaecology/ Obstetrics	5.0 (0)	0	
		Gynaecology & Obstetrics	6.7 (+2.5)	10	+ Req. (Readings)
		Pediatrics	6.7 (+2.5)	10	+ Req. (Readings)
		General Medicine	6.7	5	- Req.
		Emergency Medicine	5.0	5	

Summary

Corrections of first allocation of credits

Correction only if supplementary information document workload significantly above or below the stipulated average workload for other units in the same year or semester:

- Review the available supplementary information on activities connected with the unit in question
- Specify the reason and documentation for the correction
- Correct the allocation of credits
- Prepare a revised description of the programme with the corrected allocation of credits

ANNEX I: THE DEVELOPMENT OF ECTS

1. Origin of ECTS

The European Credit Transfer System, ECTS was conceived as a part of the EU programme The Erasmus Programme. The purpose of ECTS was to facilitate credit transfer in connection with student mobility and exchange programmes. ECTS was introduced and tested in a 6 year pilot project

2. The ECTS pilot project

The pilot project was commenced in 1989/90 and concluded in1994/95. The pilot study embraced a variety of subject areas. Five subject areas were included in the pilot project: Business Administration, Chemistry, History, Mechanical Engineering and Medicine. You will notice that medicine was one of the selected subject areas. It was partly because medicine was expected to be a difficult subject area being a very complex field including disciplines from the sciences, the social sciences, the humanities, the clinical disciplines etc. and compared to other subject areas being highly regulated by national and university rules. As one EU official put it: If it can work for medicine, it will work for any subject. In fact, despite a slow start, it turned out that ECTS was fairly easy to apply to medicine due to the study programmes normally being highly structured and well described.

Medical education and the pilot project

A total of 80 institutions/faculties/departments participated in the pilot project from the beginning, 16 being medical schools or faculties. With new members of EU and access to the programme for EFTA countries the number of participating institutions were increased in 1991 to a total of 145 institutions in all five subjects, 28 being medical schools.

3. The original ECTS concept

ECTS was a designed as a system of credit transfer with 3 core elements:

- An information package
- A learning agreement

- Use of ECTS credits

An additional element was the ECTS grading scale. It was intended to be used alongside the national scale as a means to translate grades in one national scale into grades in the grading scale of another country.

4. Elements of the ECTS System

The information package

The information package included for each participating institution:

- Information on the institution, faculty/department and on the organisation and structure of the study programme
- Information on course units: For each unit information on content, level (prerequisites, aims and objectives, readings), credit rating, teaching and learning methods, assessment

The learning agreement

The learning agreement was a mutual agreement between the partner institutions and the student, stating the agreed programme of study to be completed and the ECTS credits to be awarded for satisfactory completion. The learning agreement was a commitment for both the home and the host institution as well as for the student. The learning agreement was prepared on the basis of an application form, a transcript of records of previous studies and a plan for the programme to be completed. The learning agreement was not able to solve all problems and insecurity in connection with mobility, but it certainly reduced problems to a small amount for instance in relation to scheduling and cancellation of courses

The ECTS credits

Finally, the ECTS credits were a numerical value allocated to units of the curriculum, courses to indicate the student workload required to complete the courses. The credits were included in the information package as part of the description of the courses offered. Furthermore, the credits were used in the learning agreement both in the description of the courses completed at home before the exchange and in the description of the planned and actually completed programme at the host institution.

Evaluation of ECTS

It can be argued that the success of the ECTS system was based primarily on the combination of the credits with the information package, the success in facilitating mobility was primarily due to the combination of the credits with the learning agreement.

5. ECTS and other credit systems

ECTS was conceived as a reaction to and improvement compared to other credit systems. Other systems are normally based on contact hours in formalised teaching alone and in some cases with adjustments for the type of teaching (lectures, seminars and lab. work) and the academic position of teacher. ECTS is based on workload for the student/learner in connection with all types of study activity within the programme

6. Advantages of ECTS

Primarily, the ECTS system has two advantages. Firstly, ECTS credits are intended as a pure measure of the size or volume of a study activity and are not to be contaminated by other considerations or aspects of a programme. Consequently, this pure measure of volume is to be used together with information on content/outcome and level. Secondly, ECTS credits can be used in connection with all types of teaching and learning (not only formalised teaching but also self-study, not only basic education but also postgraduate education and continuing or lifelong education)

7. ECTS in the Bologna Process

No doubt the Bologna Process has accelerated the development towards ECTS becoming the credit system in Europe. ECTS was mentioned in the declaration and its role in the Bologna process was firmly established at the Berlin meeting in 2003 also appointing ECTS as one of the priorities for the period 2003-2005. The importance of ECTS has been further emphasised in reports etc.

Changing perceptions of ECTS

During the Bologna Process some changes in the understanding of ECTS can be observed. In the early stages of the Bologna Process ECTS was

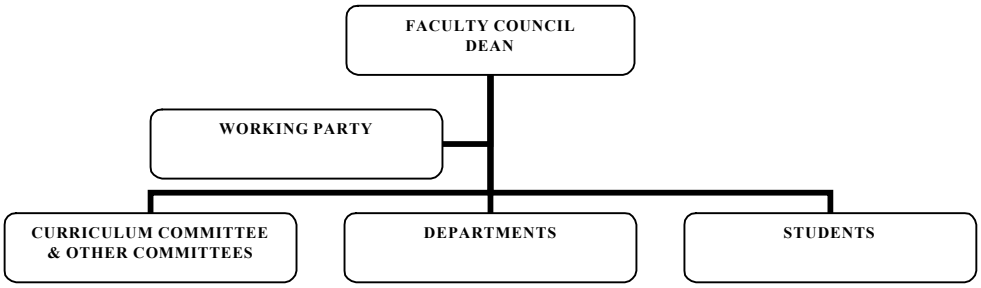
understood as the ECTS credits only. Then followed an extension of the purpose. ECTS credits should be used for both transfer and accumulation of credits. The present understanding of ECTS is more in line with the original conception regarding the credits as one part of a credit system. Within the Bologna Process it is being recognised that credits should be combined with descriptors of content/outcome and level.

ANNEX II: ORGANISING THE WORK – AN ORGANISATION AND A PROCEDURE FOR ALLOCATION OF CREDITS

1. An organisation

It is proposed to avoid establishing a large and complicated organisation to handle the allocation of credits and the preparation of a proposal. Instead it is suggested to appoint a small ad.hoc.working party to do the task. The working party should be appointed by the faculty council, by the dean or in any other way in accordance with local traditions. The working party should comprise one or two representatives from the basic sciences, one or two representatives from the clinical sciences, one or two of the administrative staff and one or two students. The working party should be responsible for extensive consultations with the curriculum committee and other relevant committees, with all departments and with representatives for the students. The working part finalise its task when the final proposal for allocation of credits to the programme is submitted to the faculty council, dean etc. for approval.

An organisation like the one described above has successfully been used in several cases.



2. Steps in allocation of credits

- Establish a detailed description of the curriculum or programme with information for each unit or course on subject or discipline, types of teaching and learning, specification of hours or periods separately for each year (or better: for each semester) of the programme
- Appoint a small working party to prepare the first draft of allocation of credits based on contact hours and periods of study
- The working party make the most obvious corrections of the preliminary allocation based on other available information and prepare the second draft
- Submit second draft to all committees, to all departments and to representatives for the students for comments and proposals for changes of the credit allocation. Proposed changes should be motivated and documented
- The working party revise the credit allocations based on the consultations and the third draft is submitted to the curriculum committee and/or the faculty council for approval

3. Revision of credit allocation

The allocation of credits should be continuously and carefully monitored. This is of course important especially if it is the first time the medical school use credits and apply the ECTS to its programme in medical education. In monitoring the credit allocation the medical school should use available data on student performance and progress, course evaluations and interview with panels of students. Identified problems should result in revision of the credit allocation, but frequent and big changes of the credit allocation should be avoided as it will reduce the transparency and usefulness of the credits and jeopardise the trust in the system. Finally, it should be mentioned that any change in the curriculum should result in considerations of the need for revision of the credit allocation.

ANNEX III: SHORT GLOSSARY

It should be noted that the terminology used to describe educational programmes vary considerably across countries: similar terms are used to denote different aspects of a programme and different terms are used to cover the same aspect. The following brief and selected list of terms is primarily intended to clarify the use of the terms in the present paper.

Block	A teaching/learning unit in the curriculum (Often used as synonymous with course or module. However, sometimes block denote a group of courses or modules)
Contact hour	A scheduled/formalised teaching session lasting one hour (45-60 minutes) with one or more teachers and one or more students
Course	A well-defined teaching/learning unit in the curriculum (The customary term for a unit of the curriculum)
Clerkship	Clinical rotation during basic medical education (Clinical rotations can take place in university-hospitals, other hospitals, community clinics other clinics and in general practice)
Credit	A unit to measure the volume or size of a unit in the curriculum
Curriculum	A structured educational plan that determine goals or objectives to be achieved, topics or content areas to be covered, mode of presentation

	and methods to be used in learning and assessment (A curriculum can cover a full programme or a part of a programme)
ECTS Credits	The volume or size of a unit in the curriculum is measured by the student workload in time supposed to be needed to fulfil the requirements and complete the unit
Module	A well-defined teaching/learning unit in the curriculum (Mostly used as synonymous with course. A module can be used for a single discipline or for an integrated unit. Sometimes module is used in a more narrow sense to designate a smaller, delimited unit finished with student assessment)
Student workload	Time spend on all teaching or learning activities required to fulfil the learning objectives related to a unit in the curriculum or a study programme
Study programme	A programme leading to a degree, comprising specification of the totality of required learning and teaching activities and their sequence, including the learning objectives, content, learning and teaching methods and sites, assessment methods etc. (The description of a study programme will normally be more comprehensive and detailed than the description of the curriculum)

ANNEX IV: A WHO/WFME WORKSHOP ON ECTS AND ALLOCATION OF ECTS CREDITS

Structure of workshop: Each day will consist of 2 sessions of 3 hours, a morning session (9.30 – 12.30) and an afternoon session (14.00 – 17.00).
The first part of the workshop (1½ days or 3 sessions) is devoted to a more theoretical discussion of ECTS and its application with the objective of reaching a full and shared understanding of ECTS credits. The second part (1½ days or 3 sessions) is intended as a hands-on exercise with the objective of producing a proposal for the allocation of credits to the local study programme.
The workshop is based on active involvement by all participants. Both parts will include supervised work in small groups. Size and composition of the groups will be decided when the number of participants and their position is known. (The groups in the first part will work on identical tasks and the distribution of participants could be random. The working groups in the second part will be working on different parts of the study programme and the distribution of participants should be in line with their obligations for teaching and managing teaching in the programme.) Each group will be asked to appoint a chairman and a rapporteur.

Hand-outs: The 'WHO/WFME Practical Guidelines for Allocation and Use of ECTS Credits in Medicine' will be handed out to the participants.

Background information: A detailed description of the existing study programme should be available for all participants. This description should separately for each year of the programme (if possible for each semester) provide available information on all units being constituent parts of the programme (courses, disciplines, modules, blocks, clerkships, etc.), their name, length, contact hours/periods of study etc.

Programme:

Session 1

Introduction: Presentation of participants. General introduction to the workshop, objectives and programme. Especially introduction to the first part: Understanding ECTS.
Presentation: The origin and development of ECTS – advantages and problems. (Approx.1 hour)
Group discussions: Why credit systems? Users and uses of credits. (Approx. 1 hour)
Plenary: Reports from group discussions, questions and summary. (Approx. 1 hour)

Session 2

Presentation: Definition of ECTS credits. (Approx. ½ hour)
Group discussions: How to assess student workload? Problems connected with estimating student workload. (Approx.1½ hours)
Plenary: Reports from group discussions, questions and summary. (Approx.1 hour)

Session 3

Presentation: A procedure for allocation of ECTS credits. (Approx. 3/4 hour)
Group discussions: What do we need to know about the study programme. Necessary information/data on the curriculum. (Approx. 1½ hours)
Plenary: Reports from group discussions, questions and summary. (Approx. 3/4 hour)

Session 4

Introduction: Introduction to the second part: ECTS in Practice. Allocation of credits to the local study programme and especially to session 4, The study

programme and the need for information (Approx. 1/4 hour)
Working groups: Allocation of credits to a specified part of your study programme. Producing a description of the study programme. (Approx. 1 3/4 hour)
Plenary: General discussion of problems encountered and decisions on solutions. (Approx. 1 hour)

Session 5

Introduction: Preliminary allocation of credits. (Approx. 1/4 hour)
Working groups: Allocation of credits to a specified part of your study programme. Preliminary allocation of credits based on contact hours and periods of study. (Approx. 1 3/4 hours)
Plenary: General discussion of problems encountered and decisions on solutions. (Approx.1 hour)

Session 6

Introduction: Corrections of first allocation of credits – preparing the proposal for credit allocation. (Approx. 1/4 hour)
Working groups: Allocation of credits to a specified part of your study programme. Corrections of first allocation of credits. (Approx. 1 3/4 hours)
Plenary: Presentation of results. General discussion of problems encountered and decisions on solutions. Plans for further work to finalise the allocation of credits and to obtain formal approval. (Approx. 1 hour)