

TEACHING MODULE SYLLABUSES' COUNTING SYSTEM DESIGN FOR THE INTEGRATED LEARNING COURSES

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Abstract

The modern integrating (modular) educational system implemented in the Higher Education Institutions for the specialty of "Medical Doctor" requires to design the flexible, easy-to-use, mobile approaches for the students' current and final assessment and as the logical consequence to develop the convenient calculation system for Midterm and Final Exam test-questions or test-pictures combination, based on the percentage distribution of teaching hours of the constituent components (disciplines / separates topics) of module. The presented calculation system is based on the teaching experience.

The appropriate Excel-files are suggested for each syllabuses as the blank-file. These files are design in e-version of Excel format with ready formulae for automatic calculations.

The suggested calculation system is already implemented and approved.

Introduction and aim:

To develop a flexible, easy-to-use, mobile system for the students' current and final assessment, to design calculation system for Midterm and Final Exam test-questions or test-pictures numbers, based on the percentage distribution of teaching hours of the components (disciplines / separates

Research methodology:

Analyses and synthesis of teaching experience

Results and implications:

The designed system for the students' current assessment and module components (disciplines/topics) teaching hours accounted percentage distribution, the calculated numbers of test-questions (diagram/test-pictures) for Midterm and Final Exam formed the bases for the integrated modules syllabuses relating the English-language Educational Program "Medical Doctor". The appropriate e-version of Excel-files are suggested for each syllabuses as the blank-file.

Conclusion:

The suggested system allows to calculate easily and fast the students' current and final (module) assessment, to account the test-questions (diagram/test-pictures) numbers for Midterm and Final Exam, based on the percentage distribution of teaching hours of the module components/disciplines.

Keywords: Integrated module, syllabus, test-question, assessment, score, etc.

In according of the Georgian Legislation relating to the Higher Education System and in the correspondence with the European Credit Transfer and Accumulation System (ECTS) the 100 Point Grading system is accepted [1], [2]. Among them the total maximal assessment (100 scores) includes the following components:

1. On-going assessment (min.40 scores, max.60 scores), with includes:
 - a) Current activity (max. 40 scores)
 - b) Mid-term exam (max. 20 scores)
2. Final exams (max. 40 scores)

The current activity is assessed as maximal 40 scores.

Group work activity (practical work in group, laboratory work, quizzes, discussions and etc.) of students is assessed for some points (disciplines or topics) as it is done in the below table: rated coefficient are calculated on the base of percentage (%) content of subjects loading (hours) and are given within the Module for different disciplines separately, such as anatomy, physiology, histology and radiology (**Table 1**).

Table 1. Multi-componential scale of scores distribution for attendance and activeness assessment – max. 40 scores

Anatomy of skeletal system	7
Joints	6
The muscular system anatomy	7
Anatomy Total:	20
Histology of skeletal system	11
Physiology of cross-striated muscle contraction	5
Bone Radiology	4
Total:	40

Number of Test- Questions (MSQ) for Midterm and Final Exam are calculated on the base of percentage (%) loading of each disciplines (anatomy, physiology, histology and radiology) separately (**Table 2**).

Table 2 demonstrates the Module teaching/learning hours distribution (lectures, group work and laboratory works) to calculate the percentage portion for each discipline of the Module and then to account the Midterm and Final exam test-questioner composition (see the column “Number of Questions”), on-going/current midterm assessment scores distribution and the final calculation of scores as the appropriate coefficients (see the column “Current Max. Scores”).

Table 2. Calculated Current (On-Going) Scores for Disciplines of Integrated Learning Course/Module “Locomotor System – Morphology and Physiology”

N/N	Module N/N	Module/Course Name	Number of Credit	Total Hours	Disciplines	Lectures	Laboratory Work	Group work (practic- ⁿ)	Total Hours	%relating total contact hours	Number of Questions for Midterr	Number of Questions for Final Exam	Current max score
1	7	Locomotor System Morphology and Physiology	6	150	Anatomy of skeletal system	4		12	16	18	7	14	7
					Anatomy of Joints	4		8	12	14	6	12	6
					The Muscular System Anatomy	4		12	16	18	7	14	7
					TOTAL: ANATOMY	12	0	32	44	51	20	40	20
					Histology of skeletal system	8		16	24	28	11	22	11
					Physiology of cross-striated muscle contraction	2	4	4	10	11	5	10	5
					Bone Radiology	3		6	9	10	4	8	4
			6X25	TOTAL: MODULE	25	4	58	87	100	40	80	40	

Current activity for each disciplines separately may be assessed as verbally, as well as in written form (like Quizzes) and recorded in according the suggested Worksheet (**Table 3**).

Table 3. Worksheet for the Current Assessment (as example)

Module “Locomotor System – Morphology and Physiology”
 Discipline: Histology/Anatomy/Physiology/Bone Radiology
 Students Group N_____

Note: *This worksheet should be filled by responsible teacher for each discipline separately.

** The maximal scores are indicated in table.

N/ N	List of Students		Quizzes				Sum of Current scores	Midterm Exam	Midterm Assessment	Final Exam	Sum of the scores	Notes
			1	2	3	4						
	Name	Surname	10	10	10	10	40	20	60	40	100	
1												
2												
3												
4												
5												

For assessment of four quizzes the 10 scores' system is used (in this case).

By the end of module the scores of all disciplines included in the Module should be collected by the Module coordinator and then recalculated mathematically to receive the final scores in according of below done **Table 4**.

Table 4. Worksheet for the Whole Module Final Assessment Calculation

N / N	List of Students		Anatomy	Recalculated Current Scores	Histology	Recalculated Current Scores	Physiology	Recalculated Current Scores	Bone Radiology	Recalculated Current Scores	Sum of recalculated Current	Midterm Exam	Midterm Assessment	Final Exam	Sum of the scores	Notes
			Received scores	Max scores	Received scores	Max scores	Received scores	Max scores	Received scores	Max scores	max scores	max scores	max scores	max scores	max scores	max scores
	Name	Surname														
		max scores	40	20	40	11	40	5	40	4	40	20	60	40	100	
		example scores	40,0	20,0	40,0	11,0	40,0	5,0	40,0	4,0	40,0					
1			30,0	15,0	30,0	8,3	30,0	3,8	30,0	3,0	30,0					
2			20,0	10,0	20,0	5,5	20,0	2,5	20,0	2,0	20,0					
3			10,0	5,0	10,0	2,8	10,0	1,3	10,0	1,0	10,0					
4			5,0	2,5	5,0	1,4	5,0	0,6	5,0	0,5	5,0					
5																

These files are done in e-version of Excel format with ready formulae for automatic calculations. The suggested method of scores calculation makes the assessment system for integrated modules easy-to use and convenient.

REFERENCES

- [1] Europa. Education and Training. Socrates Program. ECTS. European Credit Transfer and Accumulation System. European Commission ECTS information.
- [2] Moh.gov.ge. Official site of Ministry of Education and Sciences of Georgia.