



ROSS UNIVERSITY

SCHOOL OF MEDICINE

An Adtalem Global Education Institution



The Academy for Teaching and Learning

Rubrics

The Academy for Teaching and Learning (ATL) Faculty Development Medical Educator Graduate Certificate (MEGC) Program introduces the knowledge, skills, and competencies required in the specialization of medical education. Building on the MEGC, RUSM will offer externally accredited MSc and PhD programs. These programs will be of interest to affiliates of RUSM, and potentially the larger medical education community, who have a desire to enhance their professional development through a greater understanding of teaching and learning, curriculum design and development, and assessment and measurement in medical education.

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Overview of Rubric Design

The Academy for Teaching and Learning Faculty Development Framework provides a set of Program Objectives that help to guide the development of all MEGC courses. The program objectives are mapped to each of the graduate level courses.

Each objective is then written into a rubric criterion with five standards (and a 'Not Completed' column) as shown in Table 1.

Table 1: Criteria standards for MEGC courses.

Extrapolates from / beyond requirements 10 Points	Synthesizes elements of requirements 9 Points	Elaborates on Requirements 8 Points	Identifies basic requirements 6-7 Points	Develops evidence of requirements 0-5 Points	Not completed 0 Points
A to A+	A- to A	B to B+	C+ to B-	F to C	NC
<i>Standards</i>	<i>Standards</i>	<i>Standards</i>	<i>Standards</i>	<i>Standards</i>	

The criteria standards are also aligned with the Graduate Programs grading scale as shown in Table 2.

Table 2: Graduate programs grading scale.

Grade	GPA	%
A+	4.0	96-100
A	4.0	90-95
A-	3.7	85-89
B+	3.3	80-84
B	3.0	75-79

Grade	GPA	%
B-	2.7	70-74
C+	2.3	65 (MPL) - 69
C	2.0	60-64
C-	1.7	55-59
F	0	0-54

The program level rubric criteria come from the program objectives:

- 1) Develop curricula that draw upon a coherent interpretation of educational theory and best practices in medical education.
- 2) Develop teaching and learning activities grounded in approaches relevant to specific medical education teaching and learning environments.

- 3) Design assessments and instruments that assess specified learning outcomes appropriate to medical education learning environments.
- 4) Plan teaching and learning interventions based on interpretations of medical education assessment.
- 5) Demonstrate broad familiarity with issues surrounding the administration and delivery of medical education.
- 6) Conduct research in support of medical education scholarship.

Table 3 shows the program objectives mapped to the graduate courses.

Table 3: Program objectives map.

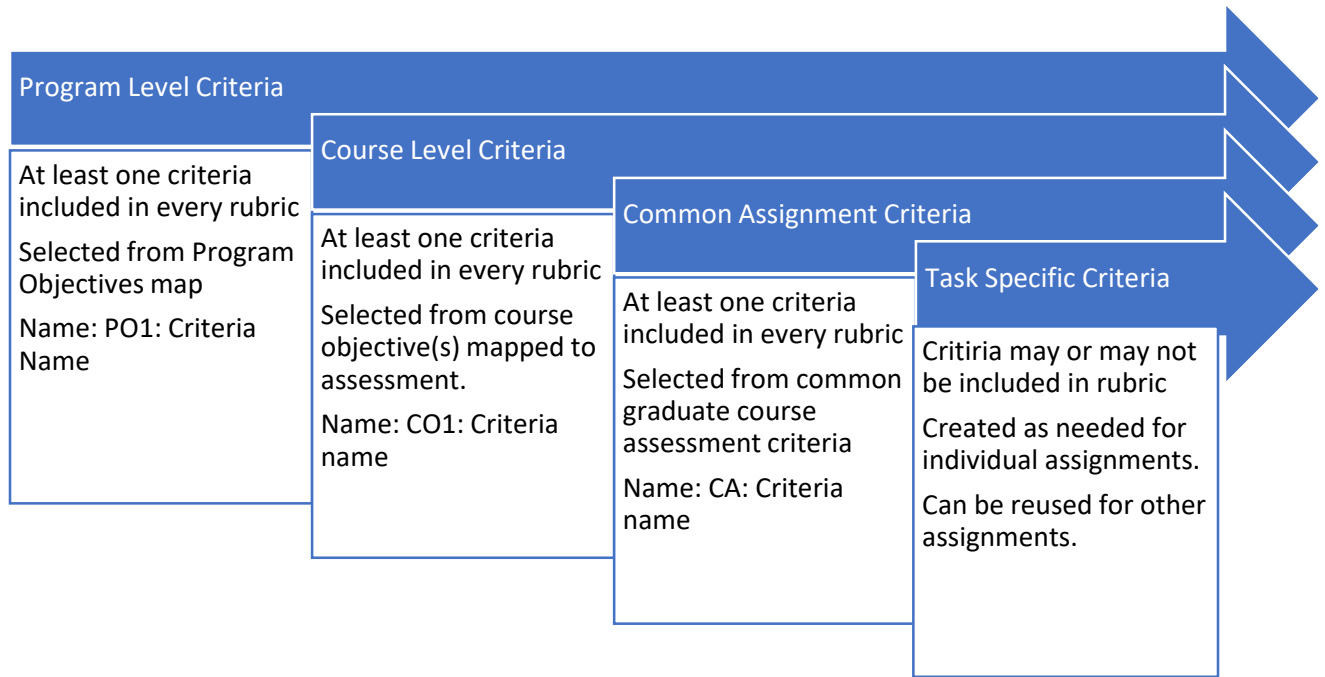
<i>MEGC Courses</i>	<i>Graduate Program Outcomes</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
MEDS 601 - Research in Medical Education		✓				✓	✓
MEDS 603 - Curriculum Design and Development		✓		✓	✓		✓
MEDS 605 - Teaching and Learning Methodologies		✓	✓	✓	✓		✓
MEDS 607 - Assessment and Evaluation		✓	✓	✓	✓		✓
MEDS 609 - Learning Technologies and Emerging Media			✓	✓		✓	✓
MEDS 611 - Leadership and Administration					✓	✓	✓

Rubric Construction

Each rubric also contains criteria based on the course level objectives and on a generic set of common assignment criteria, as shown in Figure 1. In particular assignments, there may also be task-specific criteria included in the rubric.

Each criterion is labeled according to its level – e.g., *PO1: Criteria name*. This will allow identification of program objectives, course objectives and task criteria within individual rubrics.

Figure 1: Graduate Course Rubric Criteria.



Each assignment in the graduate courses will be measured using rubrics built from these criteria. These rubrics will help to ensure reliability and validity in grading. They will also support our ability to track learner progress longitudinally between courses.

Program Level Criteria

PO1: Curriculum

Develop curricula that draw upon a **coherent** interpretation of educational theory and best practices in medical education.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops evidence of requirements	Identifies basic requirements	Not completed
>> Designs thorough curriculum project from relevant theoretical frameworks across disciplines. Generates new directions.	>> Integrates several theoretical frameworks into the curriculum Intimates new directions in curriculum design.	>> Develops critical elements of the curriculum. Develops elements of a theoretical framework .	>> Develops basic evidence, examples, or theories of curriculum.	>> Presents minimal awareness of curriculum requirements.	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

PO2: Teaching and Learning

Develop teaching and learning activities **grounded** in approaches relevant to specific medical education teaching and learning environments.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Creates innovative teaching and learning activities. Produces insightful defense of theoretical and practical approaches.	>> Synthesizes various approaches into coherent teaching and learning activity. Cross references theoretical approaches and practical considerations	>> Elaborates on development of teaching and learning activities. Discusses connections to applicable theoretical and practical approaches.	>> Develops basic elements of teaching and learning strategies. Develops connections to teaching and learning environments.	>> Presents minimal awareness of teaching and learning strategies. 1 to 6 points at grader discretion	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

PO3: Assessment

Design assignments *and* instruments that **assess** specified **learning objectives** appropriate to medical education learning environments.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Creates innovative assignment and instrument to assess specified learning objectives. Measures validity and reliability.	>> Synthesizes assignment and instrument design to effectively assess specified learning objectives. Cross references multiple measures of validity and reliability.	>> Elaborates on assignment and instrument design to appropriately assess specified learning objectives. Discusses multiple appropriate measures of validity and reliability.	>> Develops basic elements of assignment and instrument design, including specified learning objectives. Employs measures of validity and reliability.	>> Presents minimal awareness of assessment and/or instrument design. 1 to 6 points at grader discretion	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

PO4: Interventions

Plan teaching and learning interventions based on **interpretations** of medical education assessment.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Designs longitudinal teaching and learning interventions from multiple assessment measures.	>> Correlates multiple assessment measures to inform teaching and learning interventions	>> Describes adequate planning of teaching and learning interventions based on assessments.	>> Develops basic planning of teaching and learning interventions based on assessments.	>> Presents minimal awareness of how assessment informs teaching and learning strategies. 1 to 6 points at grader discretion	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

PO5: Leadership

Demonstrate competence with issues surrounding the administration and delivery of medical education.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Designs an innovative, integrated overview of the issue or question under consideration.	>> Correlates the related key concepts to individual elements of the issue or question under consideration.	>> Defines the overall scope and related key concepts of the issue or question under consideration.	>> Develops questions related to the issues under consideration.	>> Identifies minimal awareness of how administration of medical education functions. 1 to 6 points at grader discretion	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

PO6: Research

Conduct research in support of medical education scholarship.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Creates a research project.	>> Integrates elements of related research or program evaluation into a research topic	>> Elaborates on a multi-level research topic.	>> Develops a measurable research topic.	>> Identifies minimal awareness of how medical education scholarship contributes to teaching and learning. 1 to 6 points at grader discretion	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

Common Assignment Criteria

CA1: Communication

Communicate clearly and succinctly to the current audience.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Creates innovative message using multi-media within context, audience, and purpose.	>> Integrates multiple communication formats within context, audience, and purpose.	>> Demonstrates basic ability to communicate within context, audience, and purpose.	>> Develops awareness of principal audience, context, and purpose.	>> Identifies minimal benefits of effective communication. 1 to 6 points at grader discretion	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

CA2: Discussion Forum Interactions

Provide teaching presence to the discussion by asking challenging questions that generate cognitive dissonance and thus generate new understandings and foster the co-construction of knowledge.

Provide cognitive presence to the discussion by fully answering questions in a timely fashion.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Creates new directions through challenging questions. Extrapolates from question and comments posed by others.	>> Integrates comments from others' posts into challenging questions Expounds beyond the questions posed.	>> Elaborates on others' posts through challenging questions. Responds to multiple questions.	>> Develops points of discussion from others' posts. Acknowledges questions on own post.	>> Identifies minimal benefits of the social construction of knowledge. 1 to 6 points at grader discretion	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

CA3: Discussion of Evidence

Develop a coherent argument from a clear and logical assemblage of evidence.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Creates compelling argument citing numerous relevant sources and points of view.	>> Synthesizes evidence from multiple, relevant sources Integrates various points of view / approaches	>> Elaborates on evidence from relevant sources Responds to one or two differing points of view / approaches	>> Develops argument based on evidence from relevant sources Acknowledges one or two differing points of view / approaches	>> Identifies minimal elements of an argument. 1 to 6 points at grader discretion.	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

CA4: Interpretation of Evidence

Analyze evidence using acceptable parameters and to reach defensible conclusions.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Extrapolates innovative arguments from patterns, differences, or similarities to related to the thesis statement.	>> Synthesizes defensible patterns, differences, or similarities into argument related to the thesis statement.	>> Elaborates on defensible patterns, differences, or similarities related to the thesis statement.	>> Develops patterns, differences, or similarities related to the thesis statement.	>> Identifies minimal awareness of how to interpret evidence. 1 to 6 points at grader discretion.	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

CA5: Use of Literature

Ability to incorporate relevant literature to support arguments.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Extrapolates innovative arguments from multiple relevant sources.	>> Synthesizes ideas from multiple relevant sources to support ideas.	>> Elaborates on relevant sources to support ideas.	>> Develops appropriate sources to support ideas.	>> Identifies minimal sources of literature. 1 to 6 points at grader discretion.	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

CA6: Task Completion

Meets the task requirements.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Creates an innovative and insightful solution to the task based on all relevant contextual factors.	>> Synthesizes complete task from all relevant contextual factors.	>> Elaborates on relevant contextual factors to construct a solution to the task.	>> Develops relevant contextual factors necessary to complete the task	>> Identifies minimal elements of the task. 1 to 6 points at grader discretion.	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

Course Level Objectives

MEDS 603

By the end of the course, participants will be able to:

1. Explain each of the key components and steps required to design, implement and monitor a curriculum.
2. Analyze tools (questionnaires, focus groups, or other approaches) that can be used for needs assessment or curriculum evaluation.
3. Examine objectives intended to guide the development and evaluation of a curriculum (cognitive, psychomotor, affective).
4. Design a syllabus to deliver learning activities that complement learning objectives.
5. Synthesize considerations of context, and practicality in developing, implementing and evaluating curriculum.

CO1: Curriculum Design

1. Explain each of the key components and steps required to design, implement and monitor a curriculum.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Expounds on insightful analysis of curriculum design elements.	>> Synthesizes evidence from multiple sources to discuss curriculum design.	>> Elaborates on relevant evidence that contributes to curriculum design.	>> Develops basic elements of curriculum design.	>> Identifies minimal elements of curriculum design. 1 to 6 points at grader discretion.	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

CO2: Needs Assessment

2. Analyze instruments (questionnaires, focus groups, or other approaches) that can be used for needs assessment or curriculum evaluation.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Creates effective needs analysis instrument.	>> Synthesizes feedback to determine appropriate analysis format	>> Elaborates on use of needs analysis instruments.	>> Develops basic overview of needs analysis instruments.	>> Identifies minimal needs analysis instruments. 1 to 6 points at grader discretion.	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

CO3: Objectives

3. Examine objectives intended to guide the development and evaluation of a curriculum (cognitive, psychomotor, affective).

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Expounds on comprehensive set of learning objectives.	>> Synthesizes input from various sources to defend learning objectives.	>> Elaborates on appropriateness of learning objectives.	>> Develops basic overview of learning objectives.	>> Identifies minimal elements of learning objectives. 1 to 6 points at grader discretion.	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

CO4: Syllabus

4. Design a syllabus to deliver learning activities that complement learning objectives.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Creates insightful and practical syllabus.	>> Synthesizes learning objectives and assessments to propose syllabus	>> Elaborates on sequence of objectives to provide syllabus.	>> Develops basic syllabus.	>> Identifies minimal elements of syllabus. 1 to 6 points at grader discretion.	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

CO5: Curriculum Development

5. Synthesize considerations of context, and practicality in developing, implementing and evaluating curriculum.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Produces insightful report on specific elements of curriculum.	>> Synthesizes relevant elements of a curriculum into report.	>> Elaborates on various elements of curriculum.	>> Develops basic curriculum report.	>> Identifies minimal elements of curriculum in report. 1 to 6 points at grader discretion.	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

MEDS 607

By the end of the course, participants will be able to:

1. Examine evidence that establishes reliability and validity of assessments for medical education.
2. Analyze the structure of a range of assessment tools that inform teaching and learning in medical education.
3. Construct original assessment tools to assess knowledge, skills and attitudes relevant to their medical education environment.

CO1: Reliability and Validity

1. Examine evidence that establishes reliability and validity of assessments for medical education.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Expounds on insightful interpretation of evidence that establishes reliability and validity.	>> Synthesizes evidence from multiple sources to establish reliability and validity.	>> Elaborates on relevant evidence that helps to establish reliability and validity.	>> Develops relevant evidence that establishes reliability and validity.	>> Identifies minimal reliability and validity evidence. 1 to 6 points at grader discretion.	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

CO2: Assessment Instruments

2. Analyze the structure of a range of assessment instruments that inform teaching and learning in medical education.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Proposes innovative range of assessment instruments.	>> Synthesizes analysis from multiple examples of assessment instruments.	>> Describes the functions of relevant features of assessment instruments.	>> Develops relevant features of assessment instruments.	>> Identifies minimal structures of assessment instruments.	>> Presents no evidence or awareness of the assignment. Does not submit.

				1 to 6 points at grader discretion.	
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points

CO3: Construct Assessments

3. Construct original assessment tools to assess knowledge, skills and attitudes relevant to their medical education environment.

Extrapolates from / beyond requirements	Synthesizes elements of requirements	Elaborates on Requirements	Develops basic requirements	Identifies evidence of requirements	Not completed
>> Designs innovative assessment instrument.	>> Synthesizes features from multiple examples of assessment instruments.	>> Elaborates on the included features of assessment instruments.	>> Develops basic features of assessment instruments.	>> Identifies minimal structures of assessment instruments. 1 to 6 points at grader discretion.	>> Presents no evidence or awareness of the assignment. Does not submit.
10 Points	9 Points	8 Points	7 Points	1-6 Points	0 Points