ROSS UNIVERSITY
SCHOOL OF MEDICINE
An Adtalem Global Education Institution

The Academy for Teaching and Learning

Graduate Programs Handbook

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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1 Introduction

1.1 Mission of RUSM and the Academy for Teaching and Learning

The Ross mission is to:

> *"prepare highly dedicated students to become effective, successful physicians. We do this by focusing on imparting the knowledge, skills, and values required for our students to establish a successful and satisfying career as a physician."*

To support the RUSM mission, the Academy for Teaching and Learning (ATL) mission is to:

> *To enhance the mission of supporting students' ongoing academic success, the ATL strives to empower learners, educators, leaders, and scholars to succeed in their educational endeavors.*
>
> *The ATL offers learners educators, leaders and scholars the opportunity to enhance their professional development through a variety of accredited pathways. These pathways are outlined in the Faculty Development Framework.*

1.2 Purpose of the ATL Handbook for Students

The ATL Faculty Development (FD) Handbook provides students and faculty information on policies and guidelines for managing their performance with the programs.

2 ATL Graduate Programs Overview

The Graduate Programs are based on six (6) focus areas and associated courses:

- 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

These areas cover the core competencies for medical educators and will provide the focus for development at each of the levels.

2.1 How the MEGC Program Enhances the Learner's Career in Medical Education

After completing the course requirements, MEGC participants will have acquired an understanding of essential medical education concepts in the six focus areas. They will have also gained both practical knowledge and skills to use directly in their basic science and clinical teaching setting, administrative skills for practical implementation, and principles for conducting research and scholarly activities in the medical education environment.

During the distance courses, MEGC participants will be able to study at their own pace within the parameters of the course timelines, and be provided with many opportunities to engage with other enrolled colleagues.

On satisfactory completion of the course activities and individual assignments, program participants will be awarded the *Medical Educator Graduate Certificate*, which conveys the following benefits:

- An accredited graduate level certification equivalent to six courses in a Medical Education specialization graduate degree program.
- Automatic Ross University School of Medicine (RUSM) Graduate Certificate Program alumni membership.

The MEGC is articulated with the MSc and participants who wish to upgrade their qualification will receive full credit from the MEGC toward the MSc. This will be revisited in the program description.

2.1.1 Audience for the Graduate Programs

Table 1 highlights the potential audience.

Table 1: Audience for Framework Levels.

Level	Clinical Skills Facilitators	Alumni	Clerkship Directors / Clinical faculty	Medical Education Researchers
MEGC	✓	✓	✓	
MSc / PhD		✓	✓	✓

3 ATL Graduate Program Objectives:

The goal of the MEGC and all graduate programs is to give medical educators the skills and knowledge necessary to pursue both excellence in teaching and learning, and career advancement in Medical Education.

Specifically, in the MEGC, the objectives are that students who complete the graduate certificate or degree programs will be able to:

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.

3.1.1 Program Outcomes Map

MEGC 'Anchor' Courses	*Graduate Program Outcomes*	*1*	*2*	*3*	*4*	*5*	*6*
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					✓	✓	✓

3.2 Medical Educator Graduate Certificate (MEGC 600) Program Overview

The Medical Educator Graduate Certificate (MEGC) Program is a graduate certificate program that introduces the knowledge, skills, and competencies required in the specialization of medical education.

The MEGC will be of interest to participants that are associated with RUSM and the MD program, and have a desire to enhance their professional development opportunities and understandings of teaching and learning, curriculum design and development, assessment and measurement, and who are interested in current best practices in medical education.

The program consists of six courses, each based on one of the focus areas, all offered at a distance. The minimum time for completion is 1 year.

- 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

Normally, only the specified courses will be offered during each semester. However, enrollment numbers and student requirements based on their progress in the program may influence this sequence. Note that while

there is a loose progression of ideas between the courses, the sequence is not rigid and therefore content cannot span courses.

The six courses can be taken in any order but are subject to availability as noted in the MEGC discussion. All courses must be completed before the research methods course and the thesis can be started. Please see the Appendix for the course catalogue.

3.2.1 MSc (600) / PhD (900)

The MSc and PhD programs are to be accredited. They are designed for RUSM Clerkship Directors, Clinical Faculty, Alumni and Medical Education Researchers.

The MSc coursework is articulated directly with the MEGC, and those who start either the MEGC or the MSc may transition at any time into the other program. The MSc adds to the MEGC one seminar course in research methods and a 5-course equivalent thesis.

The seminar course, in advanced medical education research, will also be conducted at a distance, but may be facilitated by the thesis supervisor, or by a course instructor depending on enrolment numbers.

Students will be assigned a thesis supervisor, and will have the opportunity to meet regularly with their supervisor. The final defense of the thesis will be conducted in person at a previously specified location to be determined at the beginning of the MSc portion of the course. However, unless otherwise specified, the defense will be conducted at the Miramar Campus in Florida.

The minimum completion time required for the MSc will be 3 years (9 semesters). The maximum time allowed to complete the MSc is 6 years.

The PhD research methodologies course and thesis will follow the same format as the MSc. However, the thesis portion will be increased in scope and length. The minimum completion time required for the PhD will be 4 years (12 semesters). The maximum time allowed to complete the PhD is 7 years. Recognition of Prior Learning will be an important factor in calculating the course work element of the PhD. Participants with no prior learning in Medical Education may be required to complete the course work elements of the MEGC prior to embarking on the PhD.

3.3 Graduate Programs Entry Requirements

To be accepted on the MEGC Program at any level, candidates should be actively engaged in Medical Education:

- as a clinician in a teaching role or with intent to pursue a teaching role.
- as a health care professional in a teaching role or with intent to pursue a teaching role.
- as a medical education professional associated with a medical school.

3.4 Tuition Costs

The following table outlines the tuition costs for the three programs as outlined in the "Intent to Offer" documents for Adtalem.

3.4.1 Medical Educator Graduate Certificate (MEGC)

<table>
<tr><td rowspan="6">Program Details:</td><td>Name of Proposed Program:</td></tr>
<tr><td>Medical Educator Graduate Certificate (MEGC)</td></tr>
<tr><td>Award level for the proposed program (certificate, associate degree, bachelor's degree, etc.):</td></tr>
<tr><td>Graduate Certificate in Medical Education</td></tr>
<tr><td>Program Length (Session/Semester/Terms for program completion):</td></tr>
<tr><td>$$\frac{6\ courses}{(2\ \text{courses}\ /\ \text{semester})\ \text{X}\ (3\ \text{semesters}\ /\ \text{year})} = 1\ \text{year.}$$
Credit hours:
1 course = 13 weeks X 7 hours / week = 91 'contact' hours = 2 credit hours*.
6 Courses = 12 credit hours
_____
*1 Standard US Dept. of Education credit hour = 3 hours engagement/week X 15 weeks = 45 'contact' hours.</td></tr>
<tr><td>Tuition and Fees:</td><td>
<table>
<tr><td>Program Name</td><td>Medical Educator Graduate Certificate</td></tr>
<tr><td>Cost Per credit hour</td><td>$665 per credit hour
Military Rates: $550 - $565 per credit hour
Alumni Rate: $550 - $565 per credit hour</td></tr>
<tr><td>Books & Supplies</td><td>$75 - 150 per session</td></tr>
<tr><td>Required Fees</td><td>Application Fee: $60
Student Services Charge: $160 per session
Course Resource Fee: $50 per course</td></tr>
<tr><td>Total Program Cost</td><td>12 credit hours X $550 / credit hour = $6,600
+fees $520
+ resources (average $100 X 6 courses = $600)
= $7,720</td></tr>
</table>
</td></tr>
</table>

3.4.2 Master of Science in Medical Education

Program Details:	Name of Proposed Program:
	Master of Science in Medical Education
	Award level for the proposed program (certificate, associate degree, bachelor's degree, etc.):
	Master's (MSc) degree: Specialization in Medical Education
	Program Length (Session/Semester/Terms for program completion):
	Core Course Work: $\frac{6\ courses}{(2\ \text{courses / semester})\text{X}\ (3\ \text{semesters / year})} =$ 1 Year Thesis Portion: 1 course + seminar + MSc thesis + final defense = 1 year **Minimum program duration = 2 years** **Maximum of 4 years to complete MSc Program (i.e., all course and thesis requirements)** **Credit hours:** 1 course = 13 weeks X 6 hours / week = 87 'contact' hours = **2 credit hours***. 7 Courses = **14 credit hours** Thesis **= 18 credit hours** **Total credit hours = 32.** **_____** *1 Standard US Dept. of Education credit hour = 3 hours engagement/week X 15 weeks = 45 'contact' hours.
Tuition and Fees:	Include detailed information regarding tuition and fees for the program. If form is for more than 1 location or credential level, create separate table for each

Program Name	Medical Educator Training Certificate
Cost Per credit hour	$665 per credit hour Military Rates: $550 - $565 per credit hour Alumni Rate: $550 - $565 per credit hour
Books & Supplies	$75 - 150 per session
Required Fees	Application Fee: $60 Student Services Charge: $160 per session

		Course Resource Fee: $50 per course
	Total Program Cost	32 credit hours X $550 / credit hour = 17,600 +fees $270 + resources (average $100 X 7 courses = $700) = $18,570

3.4.3 PhD in Medical Education

Program Details:	Name of Proposed Program:
	PhD in Medical Education
	Award level for the proposed program (certificate, associate degree, bachelor's degree, etc.):
	Doctoral degree
	Program Length (Session/Semester/Terms for program completion):
	Course Work: $\frac{6\ courses}{(2\ \text{courses / semester})\text{X}\ (3\ \text{semesters / year})} = 1\ \text{Year}$ Thesis Portion: 1 course + thesis = 2 years **Minimum program duration = 3 years (represents full, or near full-time study)** **Maximum of 6 years to complete PhD Program (i.e., all course and thesis requirements)** **Credit hours:** 1 course = 13 weeks X 6 hours / week = 87 'contact' hours = **2 credit hours***. 7 Courses = **14 credit hours** Thesis **= 36 credit hours** **Total credit hours = 50.** _____ *1 Standard US Dept. of Education credit hour = 3 hours engagement/week X 15 weeks = 45 'contact' hours.

Tuition and Fees:	Include detailed information regarding tuition and fees for the program. If form is for more than 1 location or credential level, create separate table for each	
	Program Name	Medical Educator Training Certificate
	Cost Per credit hour	$665 per credit hour

		Military Rates: $550 - $565 per credit hour Alumni Rate: $550 - $565 per credit hour
	Books & Supplies	$75 - 150 per session
	Required Fees	Application Fee: $60 Student Services Charge: $160 per session Course Resource Fee: $50 per course
	Total Program Cost	50 credit hours X $550 / credit hour = $27,500 +fees $270 + resources (average $100 X 7 courses = $700) = $28,470

3.5 RUSM ATL Tuition Benefit

3.5.1 Purpose of Initiative

The tuition fee waiver initiative is designed to allow access to the RUSM graduate programs to colleagues and dependents.

3.5.2 Options for tuition waiver for eligible candidates

Graduate Programs:

- 100% tuition benefits for regular full time colleagues at RUSM (20 Max)
- 35% tuition benefit for regular full time Adtalem colleagues (max 5 at any one time)
- 100% tuition for Barbados Government Colleagues. (limit to 10)
- 50% tuition benefit for dependents (Spouses and adult children) of regular full-time RUSM / Adtalem colleagues.
- 50% tuition benefit for RUSM Clinical faculty who have a faculty appointment with RUSM.

3.6 Graduate Programs Withdrawal Policy

3.6.1 Tuition

If a student withdraws within four weeks of the start of a course, they will be refunded 100% of the fee for that course. If they withdraw after this period, the following scale will apply:

Time span after start	% Refund
0 – 4 weeks	100%
5 weeks	75%
6 Weeks	50%
7 weeks or later	0%

3.6.2 Withdraw from course (Dropping a class)

- Student initiated requests (in writing) – require faculty/director sign off
- Deadline to request a drop
  - Not a hard stop – flexible
- If request to WD during course
  - Grade issued (W, WP, WF) at time of withdraw

3.6.3 Withdraw from the program/school

- Similar to MD – withdraw form required
- Required advising by director/faculty before processing

3.6.4 Administrative Withdrawal

- Apply for readmission is allowable
- When applicable:
  - Mid-term Review: student not meeting academic expectations
    - Received failing grades on assignments
    - Student will be advised and allowed opportunity to withdraw
  - Lack of participation: not meeting required participation
    - Failed to submit required assignments on time
    - Student will be advised and allowed opportunity to withdraw
  - No-shows: Registered but has not submitted assignments/no contact
    -

3.6.5 Failure to complete designated program within time limits

  - Certificate (4 years)
  - Master (6 years – must complete all coursework with 4 years with remaining time for thesis)
  - PhD (7 years – must complete all coursework within 4 years with remaining time for dissertation)
- Deadline to start and complete first class after matriculation (acceptance into program to time of first class registration)
- Will student be allowed to go into "undeclared" status or be placed in one of the three programs (latter due to time limits – but student can switch program status)

3.6.6 Approved Absences

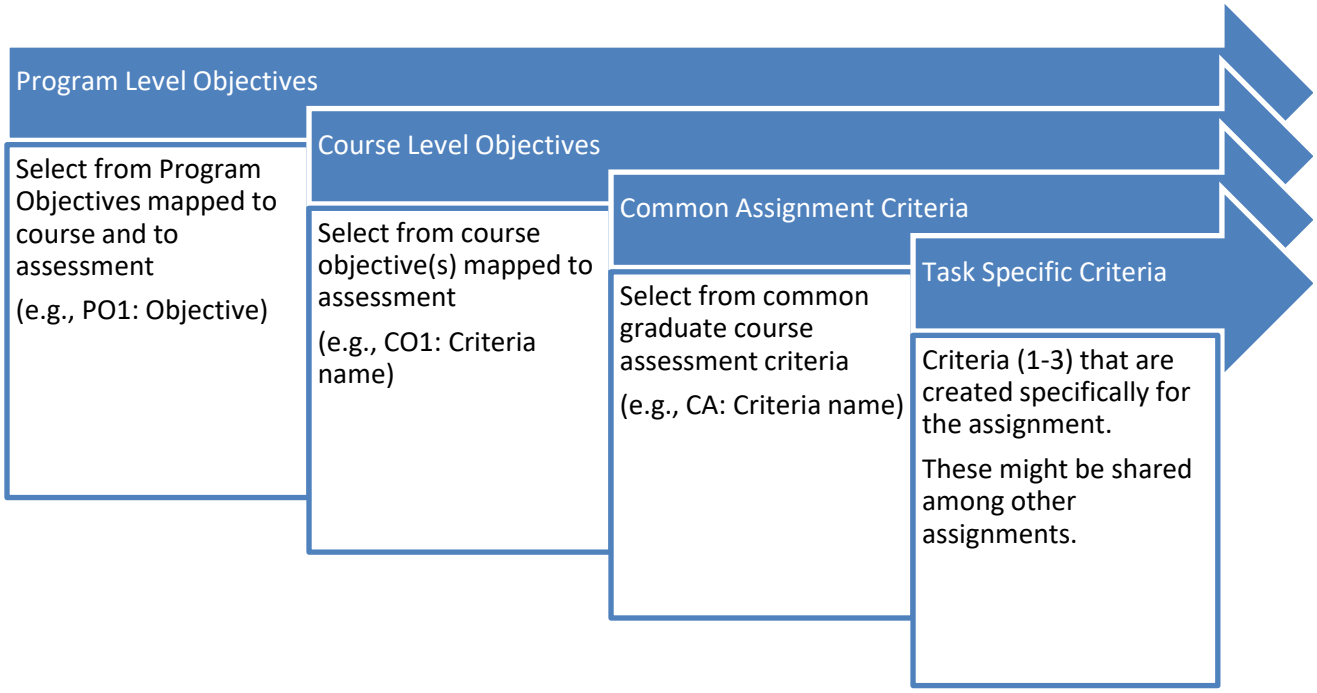
- Policy under review
    - Example: Medical reason
    - No extension to deadline to complete program
        - Extra time is already built into the deadline to complete (4 years to complete cores + additional time)
        - Does not "stop" deadline clock
    - Refund schedule
    - Grade if approved absence taken **during a course**
        - Grade of Incomplete or W, WP, WR?

3.7 Assessment Criteria and Standards

Each assignment in the graduate courses should be measured using rubrics built from criteria based on the program and course level objectives and from common and task-specific assignment criteria. These rubrics will help ensure consistency in marking (inter-rater reliability) and monitor our ability to meet institutional needs.

Please refer to the ATL Graduate Programs Rubric document.

Figure 1: Graduate Course Rubric Criteria



Every rubric should use criteria from each of the first three levels. There may not be a need for task-specific criteria for each assignment.

While the structure of the assignments themselves is left to the course designer and course facilitators to specify, the following list of assignment types may help to guide the development of assessments.

Table : Assignment Types and Assessment Criteria

Type	K/S/A[1] or C/P/A[2]	Example	Tool / format	Assessment Criteria[3]
Reflection	C / A	Reflect on teaching activity	Blog	1, 4, 5, 7
Discussion	C / A	Present opinions on concept or journal article	Discussion Board	1, 3, 4, 5, 7
Statistical Calculations	C	Describe relevance of statistical analysis.	File submission	1, 4, 5,
Experiential Report	C / P / A	Analysis of experience with teaching, other activity	File submission	1, 2, 4, 5, 7
Literature review	C / A	Review of opinions and analysis of published works.	File submission	1, 4, 6, 7
Paper	C / P / A	Formalized report with extensive literature review, and analysis of explicitly designed activity.	File submission	1, 4, 5, 6, 7
Performance	P	Teaching practice, Presentation	In-person observation	2, 4, 5, 7

[1]Knowledge / Skills / Attitudes
[2]Cognitive domain / Psychomotor Domain / Affective domain

[3]Assessment Criteria

1) Written Communication
2) Spoken Communication
3) Discussion Interactions
4) Discussion of Data
5) Interpretation of Data
6) Use of Literature
7) Task Completion

3.8 Grading Scale

Grade	GPA	%

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

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 minimum pass level for any course is 65%.

- Plus/minus scale – See Appendix B
- No "D" grades
- C+ or higher passing
- C or lower = failure, subject to dismissal
- Grade Amnesty will apply like the MD program – if allowed to repeat a failed course – failed grade will be replace with "R"

3.9 Recognition of prior learning

1. Transfer Credits
   - Create transfer credit worksheets
     - Credit hour equivalency
   - Grade mode: TR/P grades or acknowledge HP/P grades for transfer credits
     - Issue: Identifying the benchmark for HP vs P for transfer credits
     - Grade of HP/P would not impact cGPA
2. Audit/Work Experience
   - Demonstrated knowledge/experience
   - Auditing and issuing credit hours
   - Grade mode?
   - Fee for credit hours granted?

4 ATL Faculty Development Canvas Design Considerations

Each ATL FD course and certificate designed in Canvas should follow a reasonably consistent format to support participant activity within the Canvas environment.

4.1 Format

The course is supported by the Canvas learning management system. Activities within the courses may include:

- Live streaming webinars

- Pre-recorded video lectures
- Synchronous and asynchronous discussion forums
- Individual work
- Collaborative team work
- Critical discussion and analysis of selected texts

4.2 General Introduction Module

Each course or certificate in Canvas should begin with the "General Introduction to RUSM Courses and Certificates" Module. This can be imported in its entirety from the most recently developed course. Please check with ATL FD for support.

4.2.1 Linking to Journal Articles

The proper procedure to link to journal articles within any ATL workshop, certificate or course is through the publisher / vendor sites. Generally, if we do not have legal access to a particular article or text, we cannot use any information or base any work on that text. This restriction does not include references to widely recognized theories, approaches or people.

When finding new articles, note the database through which the article was accessed. All RUSM accessible journals are available through:

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EBSCO

If you already have articles and are unsure from which database they were retrieved, you can refer to the "Current Journal Subscriptions" spreadsheet in the RUSM MyPortal site.

Articles referenced in any course can be directly linked within the reading lists or at appropriate places.

4.3 Welcome Module

The second module in each ATL FD course should be the "Welcome to *YOUR COURSE NAME*".

To display the document in the Canvas module, the document must be uploaded to Canvas (preferably in the root folder or in a clearly labeled folder). When lining the image, ensure that the "auto-open" feature is selected.

There should also be a "Course Readings" page with all readings linked to the database locations.

4.4 Content Modules and Nomenclature

The basic structure of these modules is to *introduce* the content, then to provide the *content,* and then to help the participants *do something* with the content.

A content module might follow this layout:

- Week 1: Introduction to Teaching and Learning
    - This is the first content module. These modules should follow the same sequence of pages.
    - Introduction - Teaching and Learning
        - This page is an administrative introduction with the following suggested content:
            - Content Description
            - Required Readings
    - Presentation: Domains of Teaching
        - "Presentation" pages are displays of content in all its forms. Begin with PPTs and then return to complete upgrade or improve.
        - The presentations of content should be a 'narrative' or a map of how the designer sees the concepts and ideas from the various readings and other external sources of information relate to each other and support the course objectives.
        - Every notion or concept should be referenced in the content presentation.
    - Activity - Co-construction of Teaching Skills - Individual and Common Teaching Goals
        - Activities are ungraded. They can be discussion boards or other. Preferably, they involve group work or community involvement of some nature.
        - They should be directly and explicitly linked to the next assessment.
    - Assignment - Case Studies - Educational Strategies
        - Assignments are graded. They should be explicitly linked to the objectives.

5 Appendix: Domains of Teaching

The Domains of Teaching, as the basis of the framework, provide an overview of teaching roles and responsibilities.

1. **Professionalism** – This domain involves the demonstration and development of knowledge in pedagogy and content, and a commitment to professional ethics.

2. **Preparing to teach** – This domain includes planning effective teaching experiences that facilitate learning and promotes learners' success.

3. **Teaching -** This domain includes delivering effective teaching activities consistent with instructional objectives and student abilities within a safe and productive learning environment.

4. **Assessment of teaching** – This domain includes conducting evaluation and providing feedback to students that encourages student progress and measures student achievement.

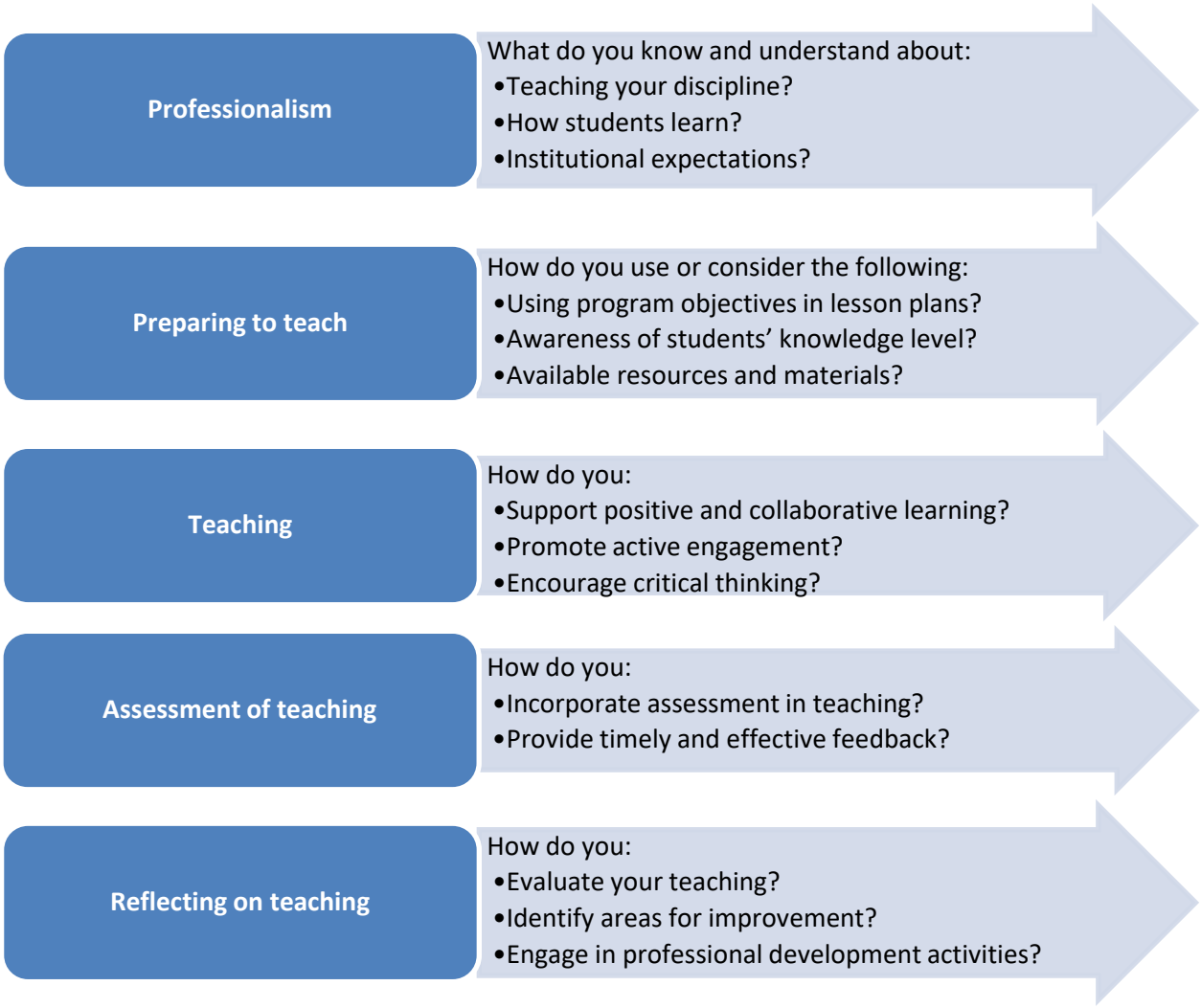
5. **Reflecting on teaching** – This domain includes continuous self-assessment and lifelong learning to improve teaching effectiveness and capacity as educators.

Educators can use these five focal points to align the various facets of their professional practice, and then to assess the effectiveness of their teaching and scholarship.

The order of the domains is based in part on the notion that "it matters who the teacher is" (Kelchtermans, 2009, p. 258). The teacher brings their own professionalism to their practice and so creates the first domain of teaching in the RUSM framework.

The remainder of the domains are ordered in part by the suggestion that, "The medium is the message" (McLuhan, 1964), the medium being the faculty and the message being the curriculum. This notion informs and outlines the process of preparing to teach, teaching, assessing what was taught and learned, and then reflecting on these processes in order to inform our practice.

The following graphic provides a set of guiding questions for each domain of teaching.


Professionalism
What do you know and understand about:
•Teaching your discipline?
•How students learn?
•Institutional expectations?
Preparing to teach
How do you use or consider the following:
•Using program objectives in lesson plans?
•Awareness of students' knowledge level?
•Available resources and materials?
Teaching
How do you:
•Support positive and collaborative learning?
•Promote active engagement?
•Encourage critical thinking?
Assessment of teaching
How do you:
•Incorporate assessment in teaching?
•Provide timely and effective feedback?
Reflecting on teaching
How do you:
•Evaluate your teaching?
•Identify areas for improvement?
•Engage in professional development activities?

6 Appendix: MEGC - Descriptions of Courses and Themes

Please note that in all instances, the courses and objectives are not fully set.

6.1 Course: Research in Medical Education

MEDS 601	Spring / Summer Semester	Distance

Research in medical education seeks to deepen the knowledge and understanding of curriculum design and development, teaching and learning, assessment and measurement, and more broadly, the educational processes across the medical education continuum. In this course, participants will gain an understanding of medical education research and scholarship and the processes involved in identifying a research area and related research and scholarly projects. They will also focus on how to translate medical education research into improved teaching and learning activities.

6.1.1 MEDS 601 Course Objectives

1. Understand and critically evaluate the scientific research process and publication in medical education research
2. Create research protocols and develop electronic databases
3. Conduct statistical analyses (e.g., descriptive statistics, graphs, correlation, ANOVA, regression) with Excel, SPSS and EQS
4. Interpret statistical output and level of significance and prepare tables of results
5. Prepare a manuscript for submission to a refereed journal.

6.1.2 MEDS 601 Course Assignments

Assignment	**Due:**	**Outcomes**
1) Labs (25%)		1-6
2) Research Review Paper/Manuscript (25%)		1, 4
3) Mid-term (25%)		2, 3
4) Take-home Final Exam (25%)		1, 2, 3, 5, 6,

6.2 Course: Curriculum Design and Development Methods

MEDS 603	Fall Semester	Distance

The course presents an overview of the key elements of curriculum design, management, and evaluation within the context of contemporary medical education research, learning and teaching theory, and teaching. Through discussion, reading and assignments, students will explore learning needs, objectives, the selection of teaching methods, the identification of resources, the implementation and monitoring of curriculum and evaluation.

All instructional sessions will present students with the theoretical background and practical skills needed through case scenarios and small group exercises to systematically create, implement, evaluate, and improve curricula.

6.2.1 MEDS 603 Course Objectives

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. Identify contexts for curriculum design opportunities in medical education.
   a. Continuum of medical education (undergraduate, graduate, continuing)
   b. Outcome- and Competency-based education (enabling and terminal objectives)
3. Critique objectives intended to guide the development and evaluation of a curriculum (cognitive, psychomotor, affective).
4. Analyze tools (questionnaires, focus groups, or other approaches) that can be used for needs assessment or curriculum evaluation.
5. Critique (identify strengths and weaknesses) a curriculum and related syllabi.
6. Consider context, and practicality in developing, implementing and evaluating curriculum.

6.2.2 MEDS 603 Course Assignments

Assignment	**Due:**	**Outcomes**
5) Discussions on Curriculum (X3) (30%)		1-6
6) Plan for Needs Assessment (20%)		1, 4
7) Critique Objectives (20%)		2, 3
8) Critique an Existing (printed/published) Curriculum or Course (30%)		1, 2, 3, 5, 6,

6.3 Course: Teaching and Learning Methodologies

MEDS 605	Fall Semester	Distance

Paradigms and theories shape the way that educators model their own teaching approaches. Developing awareness of one's teaching perspective is the first step towards fostering excellence in teaching. During this course, participants will gain an understanding of conceptual frameworks that underpin teaching and learning, apply these learning theories to improve their teaching approaches in large group, small group and clinical settings, and explore various active learning strategies and best practices to enhance student participation. The participants will be assessed on the practical application of teaching and learning theories to engage learners in their personal context-based teaching environment.

6.3.1 MEDS 605 Course Objectives

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

1. Apply various teaching and learning theories and conceptual frameworks to specific teaching scenarios.
2. Design student-centered teaching activities using a range of relevant, context-based approaches that clearly link learning to curriculum goals and objectives.
3. Assess effectiveness of teaching practices using effective feedback tools and methodologies that detail learner performance.
4. Develop a teaching philosophy based on individual teaching perspective and the knowledge of learning theories.

6.3.2 MEDS 605 Course Assignments

The assignments are aligned to assess practical application of pedagogical theories during the designing, delivering and assessment of learning activities including feedback in a context-based learning environment. The learners then reflect on their teaching practices with a focus on developing their own teaching philosophy.

1. LO1: Teaching and Learning theories assignment (20%)
   a. Completion of Teaching Perspectives Inventory (TPI) (10%)
   b. Discussion forum post: Submission of a teaching philosophy and a short reflective essay on comparison between the TPI feedback and the teaching philosophy. (10%)
2. LO2: Instructional Methods assignment (30%)
   a. Submission of a lesson plan for a context-relevant teaching activity (e.g. small group teaching, bedside teaching)
   b. Teaching – delivery of lesson
   c. Reflection assignment - Discussion forum post: reflection on the teaching activity
3. LO3: Feedback assignment (15%)
   a. Submission of a tool developed to provide feedback to learners e.g. rubric
4. LO4: Teaching Philosophy (40%)

a. Final assignment on submission of a Teaching Philosophy using the knowledge of teaching and learning theories.

6.4 Course: Assessment and Measurement Methods

MEDS 607	Winter Semester	Distance

This course focuses on the assessment issues related to the measurement of student achievement, competency, and performance in medical education settings. The principles of Classical Test Theory, Item Response Theory, Generalizability Theory and Factor Analysis will be introduced and explored through formal lectures, small group work and computer lab activities. Specifically, the course will focus on the assessment issues and psychometric characteristics related to undergraduate, post-graduate and continuing medical education program measurement.

6.4.1 MEDS 607 Course Objectives

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

1. Evaluate data that attests to the reliability and validity of an assessment for medical education.
2. Construct original assessment tools to assess knowledge, skills and attitudes relevant to their medical education environment.
3. Analyze the results of a given assessment tool in order to inform professional practice.

6.4.2 MEDS 607 Course Assignments

Although an emphasis is placed on both the theoretical and research components of measurement, the focus of this course will be on the practical aspects and applications of using measurement in medical education.

1. Validity and Reliability
2. Assessment methods and Test Construction
    a. Construct MCQ
    b. Design OSCE Scenario and corresponding Examiner Checklist.
    i. Incorporates Professionalism?
4. Measurement in Medical Education Paper
        a. Final Paper on a specific measurement method used in medical education.

6.5 Course: Learning Technologies and Emerging Media

MEDS 609	Spring / Summer Semester	Distance

Educational technologies pervade all aspects of higher education and our reliance upon internet-based technologies and media is near absolute. This course will introduce participants to the array of technologies and media with which faculty and administrators must develop familiarity. These include educational databases, online content, learning and content management systems, and related administrative tools. Participants will explore a range of technologies and their application to teaching and learning.

6.5.1 MEDS 609 Course Objectives

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

1. Employ digital tools appropriate to the management of personal documents, data and related information to facilitate scholarly activities (PIM)
2. Apply collaborative strategies utilizing digital media to generate, structure and capture new ideas related to the scholarship of teaching and learning (IM).
3. Access a range of digital sources to retrieve information and support materials relevant to their teaching and learning activities.
4. Employ a range of technologies and simulation tools that support the delivery and practice of teaching and learning activities and content.
5. Employ a learning management system (LMS) or other digital platform to support the delivery of teaching and learning activities.
6. Employ content management strategies and tools to support the administration and dissemination of teaching and learning activities (KM).

6.5.2 MEDS 609 Course Assignments

1. Personal Information Management (LOs: 1, 2)
    a. Share and critique your PIM / IM strategies and tools
    b. Propose improvements based on feedback and reference to literature
    c. Working Portfolio – Final reflection / next steps
2. Knowledge Management (LOs: 2, 6)
    a. Share and critique your institutional strategies and tools and propose improvements
3. Analyze their use of technology within the scope of medical education (LOs: 1, 3, 4)
    a. Case study on use of specific tool or suite of tools
        i. OR
    b. Technology review with specified range of resources
4. Design a module in Canvas (LMS) (LOs: 1, 5, 6)
    a. Include
    i. Content delivery
    ii. Student activity

iii. Assessment

6.6 Course: Medical Education Leadership and Administration

MEDS 611	Winter Semester	Distance

Participants will consider leadership styles in medical education, and consider how administrators can evaluate teachers and learners with faculty development in mind. They will then take a look at mentoring in the medical education context and investigate how reflective practice can be used to develop a personal teaching portfolio.

6.6.1 MEDS 611 Course Objectives

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

1. Explore the roles and qualifications of stakeholders to support the medical school institutional goals according to the LCME standard.
2. Examine the variety of leadership styles that align with the roles and responsibilities found in medical education institutions.
3. Reflect on values of the mentor-mentee relationship that would support career advancement in medical education.
4. Present desired career paths to the institution in order to develop and maintain a mutually beneficial and ongoing professional relationship.
5. Establish reflective practices that leverage technology tools to produce a medical education portfolio.
6. Analyze evaluation processes in relation to purpose and use with teachers and learners.

6.6.2 MEDS 611 Course Assignments

1) Mapping Organizational Charts
   a. Select (personal) role in organizational chart and highlight the vertical and horizontal responsibilities
2) Leadership Roles
   a. Examine the roles and responsibilities of a specific leadership role in relation to individual leadership styles.
3) Performance Evaluation
   a. Create a portfolio

7 Appendix: MEGC Program Overview

7.1 Program Objectives:

Students who complete the graduate certificate or degree programs will be able to:

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.

7.2 Program Outcomes Map

MEGC 'Anchor' Courses	***Graduate Program Outcomes***	***1***	***2***	***3***	***4***	***5***	***6***
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					✓	✓	✓

7.3 Individual Course Objectives

Course	Objectives
MEDS 601: Research in Medical Education	1. Understand and critically evaluate the scientific research process and publication in medical education research 2. Create research protocols and develop electronic databases 3. Conduct statistical analyses (e.g., descriptive statistics, graphs, correlation, ANOVA, regression) with Excel, SPSS and EQS 4. Interpret statistical output and level of significance and prepare tables of results 5. Prepare a manuscript for submission to a refereed journal.
MEDS 603: Curriculum Design and Development methods	1. Explain each of the key components and steps required to design, implement and monitor a curriculum. 2. Identify contexts for curriculum design opportunities in medical education. a. Continuum of medical education (undergraduate, graduate, continuing) b. Outcome- and Competency-based education (enabling and terminal objectives) 3. Critique objectives intended to guide the development and evaluation of a curriculum (cognitive, psychomotor, affective). 4. Analyze tools (questionnaires, focus groups, or other approaches) that can be used for needs assessment or curriculum evaluation. 5. Critique (identify strengths and weaknesses) a curriculum and related syllabi. 6. Consider context, and practicality in developing, implementing and evaluating curriculum.
MEDS 605: Teaching and Instructional Methods	1. Apply various teaching and learning theories and conceptual frameworks to specific teaching scenarios. 2. Design student-centered teaching activities using a range of relevant, context-based approaches that clearly link learning to curriculum goals and objectives. 3. Assess effectiveness of teaching practices using effective feedback tools and methodologies that detail learner performance. 4. Develop a teaching philosophy based on individual teaching perspective and the knowledge of learning theories.
MEDS 607: Assessment and Measurement Methods	1. Evaluate data that attests to the reliability and validity of an assessment for medical education 2. Construct original assessment tools to assess knowledge, skills and attitudes relevant to their medical education environment. 3. Analyze the results of a given assessment tool in order to inform professional practice.

MEDS 609: Learning Technologies and Emerging Media	1. Employ digital tools appropriate to the management of personal documents, data and related information to facilitate scholarly activities (PIM) 2. Apply collaborative strategies utilizing digital media to generate, structure and capture new ideas related to the scholarship of teaching and learning (IM). 3. Access a range of digital sources to retrieve information and support materials relevant to their teaching and learning activities. 4. Employ a range of technologies and simulation tools that support the delivery and practice of teaching and learning activities and content. 5. Employ a learning management system (LMS) or other digital platform to support the delivery of teaching and learning activities. 6. Employ content management strategies and tools to support the administration and dissemination of teaching and learning activities (KM).
MEDS 611: Leadership and Administration	1. Explore the roles and qualifications of stakeholders to support the medical school institutional goals according to the LCME standard. 2. Examine the variety of leadership styles that align with the roles and responsibilities found in medical education institutions. 3. Reflect on values of the mentor-mentee relationship that would support career advancement in medical education. 4. Present desired career paths to the institution in order to develop and maintain a mutually beneficial and ongoing professional relationship. 5. Establish reflective practices that leverage technology tools to produce a medical education portfolio. 6. Analyze evaluation processes in relation to purpose and use with teachers and learners.