

**American University of Beirut  
Faculty of Arts and Sciences  
Department of Education**

**Course Number and Title: EDUC 309: Foundations of Mathematics Education**

**I. Learning outcomes**

As a result of their involvement in the course, students are expected to:

1. Acquire an understanding of the bases of mathematics education as a discipline
2. Acquire, from a historical perspective an understanding of the mathematical, psychological, societal and epistemological bases of mathematics education as a field of practice.
3. Acquire an awareness and understanding of the mathematical, psychological, societal and epistemological bases related to aims, content, methodology and assessment of pre-university mathematics curricula.
4. Critically assess mathematics curricula.

**II. Program**

<u>Session</u>	<u>Topic</u>
1	Foundation of mathematics education as a discipline
2	Foundation of mathematics education as a professional field
3	Historical review of math education up to the fifties
4	Historical review of math education up to the eighties
5	Historical review of math education up to the present
6	Goals and objectives: Foundational issues
7	Mathematical content: Foundational issues
8, 9	Methodology: Foundational issues
10	Assessment in math education: Foundational issues
11	Mathematics education and culture
12, 13	Curriculum case studies
15	Final Exam

**III. Resources**

1. Assigned readings: To be distributed during the semester according to topic
2. Required text: To be announced at the beginning of the semester
3. Curriculum resource in SMEC Library.

#### **IV. Assignments and Evaluation**

1. Written reflections (20%)
2. Classroom Participation (20%)
2. A paper presenting a mathematics curriculum case study (30%).
3. Final examinations (30%)

#### **Written Reports and Reflections**

These are reports on topics that will be assigned in class It requires searching the topic and writing a report with your own analysis and reflections. All writings and references should be according to APA.

#### **Classroom participation**

This will be based on oral presentations of reports and participation in discussion in class

#### **Curriculum Case Study**

Each student will select a curriculum for a certain level and make an assessment of the curriculum based on criteria that will be developed during the course. About the 7<sup>th</sup> week of the semester, each student will propose a topic to the professor with an outline of the report. You will be given feedback by the 8<sup>th</sup> week.

#### **V. Course Policy**

1. The quality of your ideas as well as their presentation in writing or oral reports will be taken in consideration
2. Plagiarism will not be tolerated. Consult APA for that.
3. Attendance is required