The University of Jordan

Accreditation & Quality Assurance Center

Course Syllabus

Course Name:

Basic Math concepts and their Teaching methods
0832480

1	Course title	Basic Math concepts and their Teaching methods •
2	Course number	0832480 •
3	Credit hours (theory, • practical)	3 •
	Contact hours (theory, • practical)	3 •
4	Prerequisites/corequisites	- •
5	Program title	Classroom teacher •
6	Program code	•
7	Awarding institution	University of Jordan •
8	Faculty	Faculty of Educational Sciences •
9	Department	Curriculum and Instruction •
10	Level of course	Undergraduate course •
11	Year of study and semester (s)	- •
12	Final Qualification	- •
13	Other department (s) involved in teaching the course	- •
14	Language of Instruction	Arabic •
15	Date of production/revision	September-2016 •

16. Course Coordinator:

Office numbers, office hours, phone numbers, and email addresses should be listed. •
Office – 24476
Office Hours:Day(s) time: 10-11 Sunday, Tuesday, and Thursday
11-12 Monday and Wednesday
E-mail: hala.alshawa@ju.edu.jo or halshawa3@yahoo.com

17. Other instructors:

Office numbers, office hours, phone numbers, and email addresses should be listed.

18. Course Description:

As stated in the approved study plan.

This course displays basic mathematical concepts and its teaching methods and strategies such as: numbers and its computational operations, base ten system, place values, fractions, decimals and its computational operations, rounding with respect to place value, percentage, powers and operations, prime factorization, perimeters, area, volume, proportion and ratio, integers, metric measure, linear measure, and time. Furthermore, this course addresses the objectives and the teaching methods and

strategies for the first three grades.

19. Course aims and outcomes: ١.

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A- Aims: •

B- Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to ... •

Upon successful completion of this course, students will be able to:

1. Implement different effective /modern strategy for teaching mathematical

   concepts/generalization\skills\and problem solving for the first thee grades.

2. Solve mathematical problems using concepts /theories in more than one method.

3. Explain mathematical concepts using different teaching strategies

4. Use high level skills such as analysis, prediction, connection, representation,… in teaching mathematics

   for the first thee grades.

5. Analyze a unit from math textbook (1st three grades) with respect to

   concepts/generalization/skills/problem solving.

6. Analyze a unit from math textbook (1st three grades) with respect to the NCTM content and operation

   standards.

20. Topic Outline and Schedule:

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Topic	Week		Achieved ILOs	Evaluation Methods	Reference
Introduction to the course Math curriculum for the 1st three grades 4.	1-2 ٥.	٦.	1- ٧.	assignment ٨.	1,2,4,6 ٩.
Analyzing the Jordanian math curriculum for the 1st three grades 10. Comparing Jordanian Math textbooks with other Arab Math textbooks	3-4 ١١.	١٢	1-2 ١٣.	In class work ١٤.	2,4,7,8 ١٥.
16. Geometric concepts and theories	5-8 ١٧.	١٨	1-2 ١٩.	presentation ٢٠.	7,8,10 ٢١.
22. Measurements	9-11 ٢٣.	٢٤	3-4 ٢٥.	assignment ٢٦.	11,1,2,8 ٢٧.
28. Time	12-13 ٢٩.	٣٠	5 ٣١.	presentation ٣٢.	12,4,7, ٣٣.
Integers 34.	14 ٣٥.	٣٦	5-6 ٣٧.	In class work ٣٨.	13,5,6, ٣٩.
Percentage and ratio	15-16 ٤٠.	٤١	5-6 ٤٢.	assignment ٤٣.	8,9,10 ٤٤.

٤٥.

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21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following <u>teaching and learning methods</u>: •
- Classroom discussion
- Group work
- Problem solving
- Creative thinking skills
- Critical thinking skills
- Cooperative learning strategies
- Emerging technology in teaching
- Emerging technology in learning

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following <u>assessment</u> •
<u>methods and requirements</u>:

Grades can be based on the following:

Assignments(projects, practicum, presentation)	25%
Participation	5%
Mid-term Exam	20%
Final Exam	50%
Total Points	**100**

23. Course Policies:

A- Attendance policies:
Students are expected to attend every class at the beginning of the session, unless you have an excused absence due to illness or an emergency. According to the university regulations, if you miss more than 15% of 48 hours during the term, you will fail the course.

Important Dates to Remember
Mid-term exam Nov-8-2016
Final Exam is based on the official announcement by the university

B- Absences from exams and handing in assignments on time:

Late Assignments
Any late assignment without an official permission will not be considered.
Classroom Protocol

C- Health and safety procedures:

Dissability
Any student with special needs should contact me and provide official documents at the beginning of the semester.

D- Honesty policy regarding cheating, plagiarism, misbehavior:

E- Grading policy:

Grades can be based on the following:

Assignments(projects, practicum, presentation)	25%
Participation	5%
Mid-term Exam	20%
Final Exam	50%
Total Points	**100**

F- Available university services that support achievement in the course:

24. Required equipment:

25. References:

A- Required book (s), assigned reading and audio-visuals:

Course Website(s)

- List any other web sites to be used
    1. http://www.homeschoolmath.net/online/geometry.php
    2. http://www.teachrkids.com/
    3. http://www.almakan.net/vb/showthread.php?p=278168
    4. http://www.instructorweb.com/lesson/geometryshapes.asp

Course Texts and Materials

5-أبو زينة، فريد، عبابنة، عبدالله. (2007). مناهج الرياضيات للصفوف الأولى. دار المسيرة للنشر والتوزيع والطباعة،عمان،الأردن.

6-عباس،محمد ومحمد العبسي (2007)مناهج وأساليب تدريس الرياضيات للمرحلة الأساسية الدنيا،دار المسيرة للنشر والتوزيع والطباعة،عمان،الأردن.

7-عقلان، إبراهيم (2002) مناهج الرياضيات وأساليب تدريسها.

8- اليونس ، يونس ؛ و أبو لوم ، خالد ؛ و المقدادي، أحمد (2005). بنية الأعداد لمعلمي المرحلة الابتدائية : موضوعاتها، وأساليب تدريسها وتقويم تعلمها. دار المسيرة للنشر والتوزيع والطباعة،عمان،الأردن.

9- عبيد ، وليم (2008). تعليم الرياضيات لجميع الأطفال . دار المسيرة: للنشر والتوزيع: عمان.

10-Musser, G. J Burger (2011). <u>Mathematics for elementary teachers: A contemporary approach</u> Macmillan publishing Company. New York.

11-Musser, G.J Burger, W.(2013). <u>Student resource handbook: Mathematics for elementary teachers</u>. Macmillan Publishing Company: New York.

11- Recommended books, materials, and media:

12- Hatfield, M., Edwards, N. & Bitter, G. (2010) Mathematics methods for the elementary and middle school. Needham Heights, MA: Allayn & Bacon.

13- Moore, K. (2011). Classroom teaching skills. Mc Grow-Hill, Inc: London.

26. Additional information:

Name of Course Coordinator: -------------------Signature: ------------------------ Date: ------------------------

Head of curriculum committee/Department: ------------------------ Signature: ---------------------------------

Head of Department: ------------------------ Signature: ---------------------------------

Head of curriculum committee/Faculty: ------------------------ Signature: -------------------------------

Dean: --- -Signature: ---------------------------------

Copy to:
Head of Department
Assistant Dean for Quality Assurance
Course File