AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Development of Science and Mathematical Concepts in Children								
Course Code	ÇGEL542		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	8	Workload	194 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	To recognize the importance of science and mathematics education in childhood.								
Course Content	The importance of childhood science and mathematics activities, the development of science and mathematics concepts, preparation and evaluation of science and mathematics activities.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Case Study, Individual Study								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Final Examination	1	50
Assignment	2	25
Term Assignment	1	25

Recommended or Required Reading	
1	Aktaş Arnas ,Y., Bilaloğlu Günay, R. ve Aslan D. 2007. Okul Öncesi Dönemde Fen Eğitimi, Kök Yayıncılık, Ankara
2	Aktaş Arnas,Y. 2005. Fen ve Matematik Öğreniyorum. Morpa Yayınevi, İstanbul
3	Aktaş Arnas,Y. 2006. Okulöncesi Dönemde Matematik Öğretimi. Adana Nobel Tıp Kitabevi, Genişletilmiş 3. Baskı, Adana.
4	Güven, Y.1999. Okulöncesinde Matematik. Ya-Pa Yayınları, İstanbul.
5	Metin, N. 1992. Okulöncesi Dönemdeki Çocuklarda Matematik Kavramların Gelişimi. Ya-Pa Yayınları, İstanbul.

Week	Weekly Detailed Course Contents	
1	Theoretical	Importance of science and maths in childhood period
2	Theoretical	Development of science and maths concepts in childhood period
3	Theoretical	The effect of science and maths activities on children's development in childhood period
4	Theoretical	Science activities in childhood period
5	Theoretical	Science activities in childhood period
6	Theoretical	Science activities in childhood period
7	Theoretical	Maths activities in childhood period
8	Theoretical	Maths activities in childhood period
9	Theoretical	Maths activities in childhood period
10	Theoretical	Points to paid attention while planning science activities in childhood period.
11	Theoretical	Points to paid attention while planning science activities in childhood period.
12	Theoretical	Methods of science and maths activities in childhood period
13	Theoretical	Preparation of science and maths activities examples and discussion of these examples
14	Theoretical	Preparation of science and maths activities examples and discussion of these examples
15	Final Exam	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	4	4	112
Assignment	2	10	4	28
Term Project	1	30	2	32
Final Examination	1	20	2	22
			Total Workload (Hours)	194
			[Total Workload (Hours) / 25*] = **ECTS**	8

**25 hour workload is accepted as 1 ECTS*

Learning Outcomes	
1	Explains the importance of science and math in childhood period.
2	Lists science and maths activities in childhood period.
3	Plans science activities for children.
4	Plans math activities for children.
5	Develops suitable materials for science and maths activities
6	ets examples to materials which can be found in science and maths corner.
7	Applies science and maths activities.

Programme Outcomes *(Child Development Master)*	
1	1. Has a deep and systematic level of knowledge about self-care, physical-motor, cognitive-language, social-emotional development areas of 0-18 year old children.
2	Knows all concepts about the development and the education of 0-18 year old children and youth by developing the habit of research and learning, keeping consciousness and knowledge constantly throughout life, and follows the studies on this subject.
3	Uses his/her knowledge about self-care, physical-motor, cognitive-language, social-emotional development of 0-18 year old children for the developmental and educational diagnosis of children, in the units related to his/her profession for the benefit of children, families and society.
4	Identifies the problems in his/her country on health, developmental, educational and social services issues of 0-18 year old children and their families, produces appropriate solutions and original ideas using his/her basic knowledge about these problems.
5	Using his/her basic information on the topics of Child Development and Education, makes suggestions, transfers the learned topics into practice, interprets information and results from practice. Analyzes the scientific research published in the field with a critical point of view.
6	Can use his/her accumulated information on his/her profession in favor of health, educational and social services organizations, particularly for children and their families, takes active roles in developmental and educational programs and related projects; participates in researches.
7	Acts in accordance with the ethics of science, observes the psychological state of the children and their families in experimental researches on children.
8	Behaves in accordance with laws, regulations and legislation and respectful of democracy, human rights, social, scientific and professional ethical values, presenting an example for the society with his/her attitude, behavior and appearance.
9	Has adequate awareness about quality management and processes, individual and environmental protection and occupational safety issues including infants, children and families, participates and behaves accordingly in these processes.
10	Can integrate his/her accumulated information about his/her profession with information from different disciplines, and can create multidisciplinary workspaces by participating team work.

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5	L6	L7
P1	5	5	5	5	5	5	5
P2	5	5	5	5	5	5	5
P3	5	5	5	5	5	5	5
P5	5	5	5	5	5	5	5
P6	5	5	5	5	5	5	5
P7	5	5	5	5	5	5	5