

Course Title : Natural Sciences Teaching

Code	Course Type	Regular Semester	Lecture (hours/week)	Seminar (hours/week)	Lab (hours/week)	Credits	ECTS
PRD 315	B	5	3	0	0	3.00	5
Lecturer and Office Hours			Nihat Aksu, PhD				
Teaching Assistant and Office Hours							
Language			English				
Course Level			Bachelor				
Description							
Objectives							

Course Outline

Week	Topics
1	Introduction, The pleasure of finding things out
2	Organising how children learn science
3	Scientific understanding and mental models, Talk for learning in science
4	Scientific enquiry and the passionately curious
5	Planning and assessing children's science learning
6	The origins of scientific knowledge
7	Subject knowledge and ideas for practice, The Earth and beyond
8	Midterm exam
9	Energy and the well-being of the planet
10	Interdependence, Diversity
11	Health and well-being
12	Semestrial project
13	The particle nature of materials, Changing materials
14	Electricity and magnetism
15	Forces and motion
16	Final Exam
Prerequisites	
Textbook	<ul style="list-style-type: none">• Genç Kumtepe, E. (2008). Early childhood scientific concepts. A. Özdaş (Ed.), Science and Mathematics in Early Childhood Education (pp. 273-309). Eskişehir: Anadolu University.• Genç Kumtepe, E. (2008). Concept development in Early Childhood Education. A. Özdaş (Ed.), Science and Mathematics in Early Childhood Education (pp. 175-199). Eskişehir: Anadolu University.• Teaching Primary Science Promoting Enjoyment and Developing Understanding. Loxley Dawes Nicholls Dore (2012)
Other References	<ul style="list-style-type: none">• Genç Kumtepe, E. (2008). Science in early childhood Education .A. Özdaş (Ed.), Science and Mathematics in Early Childhood Education (pp. 151-174). Eskişehir: Anadolu University.
Laboratory Work	
Computer Usage	
Other	

Learning Outcomes and Competences

1	Students will be able to explain the main elements of science education in early childhood.
2	Students will be able to discuss the conceptual development in early childhood
3	Students will be able to to explain scientific concepts by content related to early childhood
4	Students and qualified teachers to develop their subject knowledge and to gain insights into ways of teaching that promote the value of scientific understanding
5	The use of scientific ideas to solve theme-based 'puzzles' as part of a storytelling approach.
6	Theme-based science subject knowledge to help teachers develop their understanding of key concepts.

Course Evaluation Methods

In-term studies	Quantity	Percentage
Midterms	1	30
Quizzes	0	0
Projects	0	0
Term Projects	1	20
Laboratory	0	0
Attendance	1	10
Contribution of in-term studies to overall grade		60
Contribution of final examination to overall grade		40
Total		100

ECTS (Allocated Based on Student) Workload

Activities	Quantity	Duration (hours)	Total Workload (hours)
Course Duration (Including the exam week : 16 x Total course hours)	16	3	48
Hours for off-the-classroom study (Pre-study, practice)	14	3	42
Assignments	1	16	16
Midterms	1	2	2
Final examination	1	11	11
Other	1	10	10
Total Work Load			129
Total Work Load / 25 (hours)			5,16
ECTS			5