

COURSE LIST

Institute of Natural and Applied Sciences

Field : Secondary Education Science and Mathematics

Course Title	Code	ECTS Credit	COMU Credit	Lecturer
Conceptual Development and Alternative Evaluation Methods in Science Education	ULP-21-FM001	5	3	Yrd. Doç. Dr. Ajda Kahveci
Misconceptions in Chemistry Education	ULP-21-FM002	5	3	Yrd. Doç. Dr. Ajda Kahveci
Research Methods in Education	ULP-21-FM003	7	5 (4+2)	Assistant Prof. Dr. Murat Kahveci
Current Issues in Science Education	ULP-21-FM004	6	3	Yrd. Doç. Dr. Ajda Kahveci

Course Code	ULP-21-FM001
Name of the Course in English	Conceptual Development and Alternative Evaluation Methods in Science Education
Name of the Course in Turkish	Fen Eđitiminde Kavramsal Geliřim ve Alternatif Deęerlendirme Yöntemleri
Language of the Course	English
Level of the Course	Master
Lecturer	Yrd. Doç. Dr. Ajda Kahveci
ECTS Credit	5
COMU Credit	3
Description	This course is designed to include an analysis and synthesis of the ideas related with conceptual learning in science. Research on student understanding of science concepts will be scrutinized. Alternative assessment and evaluation methods that focus on conceptual

understanding will be explored in theory and practice.

Course Code	ULP-21-FM002
Name of the Course in English	Misconceptions in Chemistry Education
Name of the Course in Turkish	Kimya Eğitiminde Kavram Yanılgıları
Language of the Course	English
Level of the Course	Master
Lecturer	Yrd. Doç. Dr. Ajda Kahveci
ECTS Credit	5
COMU Credit	3
Description	In this course student misconceptions in chemistry at all levels of schooling will be explored. The emphasis will be primarily on common misconceptions found in the chemistry education literature that deal with topics such as the structure of matter, chemical bonding, chemical reactions, acids, bases, neutralization, stoichiometry, thermodynamics and chemical equilibria.

Course Code	ULP-21-FM003
Name of the Course in English	Research Methods in Education
Name of the Course in Turkish	Eğitimde Araştırma Yöntemleri
Language of the Course	English
Level of the Course	Master
Lecturer	Assistant Prof. Dr. Murat Kahveci
ECTS Credit	7
COMU Credit	5 (4+2)
Description	Research Methods in Education is a graduate level course offered to those whose need to conduct a thesis research in social and behavioral sciences. This course will cover various research methods and allow participants to develop basic research practices throughout the semester. Field trips will be necessary to actually design a small-scale research, including but not limited to writing-up research topic, research questions, choosing an appropriate research method,

	<p>site visits, data collection and preparation for further analysis, data analysis and reaching conclusions. This class should help the participant develop a philosophy and approach to conducting research in education.</p> <p>The focus of the course is to provide students with an opportunity for:</p> <ol style="list-style-type: none"> 1. familiarity with various empirical research methods, 2. familiarity with research terminology, 3. clarity and experience of data collection and analysis, and 4. ability to report research findings in a scientific manner.
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Course Code	ULP-21-FM004
Name of the Course in English	Current Issues in Science Education
Name of the Course in Turkish	Fen Eğitiminde Güncel Konular
Language of the Course	English
Level of the Course	Master
Lecturer	Yrd. Doç. Dr. Ajda Kahveci
ECTS Credit	6
COMU Credit	3
Description	In this course, current issues that are important in the field of science education will be explored. The course is designed as a survey course that spans the contemporary chemistry education literature and encourages the students to position themselves in an area of interest. By the end of the course, the students are expected to plan and develop a research agenda for their graduate work.

