האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

TEACHING SCIENCE: FROM RESEARCH TO CLASSROOM - 34068

Last update 27-09-2017

HU Credits: *2*

Degree/Cycle: *1st degree (Bachelor)*

Responsible Department: *teaching training - diploma*

Academic year: *0*

Semester: *1st Semester*

Teaching Languages: *Hebrew*

Campus: *Mt. Scopus*

Course/Module Coordinator: *Yaron Lehavi*

Coordinator Email: *Yarlehavi@gmail.com*

Coordinator Office Hours: *appointment*

Teaching Staff:
Dr. Yaron Lehavi

Course/Module description:
The course aims at learning the research based 2012 framework for science education and applying it to the teaching practice by means of action research.

Course/Module aims:
1. Read research papers in science education, critically
2. Practice simple research methods in science education.
3. Translate research based framework for science education to the practice in the classroom: Practice, document, present and reflect

Learning outcomes - On successful completion of this module, students should be able to:
1. Read and present research literature in science education.
2. Ask research questions and plan a small scale inquiry.
2. practice simple research methods, gather evidence, analyze interpret and discuss.

Attendance requirements(%):
80

Teaching arrangement and method of instruction: Inquiry learning, lectures, presenting work in progress as well as upon completion, feedback and reflection,

Course/Module Content:
1. A framework for k-12 science education: Practices, crosscutting concepts, and core ideas. NRC 2011
2. Approaches to science education
3. What is meaningful learning in science
4. Research workshop
+ "Journal club"(15 mins)
5. Introduction to qualitative research and action research
+ "Journal club"(15 mins)
6. Raising questions
+ "Journal club"(15 mins)
7. Planning the inquiry
+ "Journal club"(15 mins)

8. Issues arising from inquiry
+ "Journal club"(15 mins)
9. progress report presentations
10. Final presentations, discussion and reflection

Required Reading:
A framework for k-12 science education: Practices, crosscutting concepts, and core ideas. NRC 2011

The NSTA readers guide to the framework

Various articles

Additional Reading Material:
1. Jean McNiff. ACTION RESEARCH FOR PROFESSIONAL DEVELOPMENT. Concise advice for new action researchers. 2013

2.Qualitative research in education: A user's guide. Marilyn Lichtman. 2010

Course/Module evaluation:
End of year written/oral examination 0 %
Presentation 20 %
Participation in Tutorials 20 %
Project work 60 %
Assignments 0 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information:
Submission of the final task no longer than one month after the last meeting