Technologies for Learning

Course Code: 12920003

Instructor: Dr. Iris Tzuk

Office Hours:

Objectives:

Technologies for learning are an important element in today's educational framework. Tools, like any other tools, can support various activities and thus expand, improve, and optimize activities, including learning and teaching processes. However, merely having technological tools does not guarantee the realization of the potential they contain. The course will discuss how technological tools can contribute to the enhancement of teaching and learning, and the challenges and barriers that stand in the way of adoption and intelligent use.

- Historical perspective on computer-based learning environments
- Using computers in Israeli schools
- The capabilities and challenges of computer-based learning environments (in science as a case study)
- Geographical information systems as a resource in history studies
- Learning technologies as a tool for innovation in design and evaluation
- (ubiquitous) smartphones as a technology for learning and learning in all places and at all times
- Advantages and disadvantages of Web 2.0 for learning
- Digital media games as targeted learning environments
- Digital media games and learning in a guided or random way
- Robots as learning technologies

Requirements:

- Reading and summarizing the course literature
- Reading and discussing chapters from the literature
- Following the course materials throughout the course
- Performance of a project on the topic of the course
- Assessment of learning achievements in the computer field
- Participation and attendance at all course sessions
- Preparation of a project on the topic of the course
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**רשימה ביבליוגרפית:**

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Journal/Book</th>
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<tbody>
<tr>
<td>Barab, S., Gresalfi, M., Ingram-Noble, A., Jameson, E., Hickey, D., Akram, S., &amp; Kizer, S.</td>
<td>Transformational play and Virtual worlds: Worked examples from the Quest Atlantis project.</td>
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<td>Landauer, T. K., Lochbaum, K. E., &amp; Dooley, S.</td>
<td>A New Formative Assessment Technology for Reading and Writing.</td>
<td>Theory Into Practice, 48(1), 44-52. doi: 10.1080/00405840802577593</td>
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<td>Luckin, R., Clark, W., Graber, R., Logan, K., Mee, A., &amp; Oliver, M.</td>
<td>Do Web 2.0 tools really open the door to learning? Practices, perceptions and profiles of 11–16-year-old students.</td>
<td>Learning, Media and Technology, 34(2), 87-104.</td>
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Learning technologies hold a prominent position in the current educational landscape. Like any other tool, technological tools can support, extend, improve, and optimize learning and instruction. However, the mere inclusion of technological tools does not guarantee that the potential that technological tools can offer will be met. The course will provide an overview of the affordances of technology enhanced learning (TEL), as well as the challenges and obstacles that confront mindful adoption of learning technologies.

Chapters:
- Historical overview of learning technologies
- The use of learning technologies in Israeli schools
- Affordances and constraints of learning technologies – science as a case example
- GIS and history education
- Learning technologies in formative and summative assessment
- Smartphones as a ubiquitous learning technology
- Affordances and constraints of Web 2.0 technologies as learning environments
- Digital gaming as intentional learning environments
- Digital gaming as incidental learning environments
- Robots as learning technologies
**Requirements:**

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<td>Attendance (requires) &amp; Participation</td>
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<td>Assignments (reaction papers, leading discussion)</td>
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<td>Final Paper</td>
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**Bibliography:**


