

**SLOAN SCHOOL OF MANAGEMENT
MASSACHUSETTS INSTITUTE OF TECHNOLOGY**



Spring 2019 SYLLABUS

**Managing Minds:
The Limits and Possibilities of Science -
Lessons from Israeli Science**

(15.S16)

Prof. Gad Yair

Mon/Wed 10-11:30am, E62- 221

Office: E62 343, Office Hours: By appointment

Contact: msyairg@mit.edu

Is science culturally determined? Are thoughts culturally ordered? Can cultures compensate for lack of resources? What are some of the limitations that cultures set? How and why? And how can scientific administrators and leaders use cultural assets for promoting science? This course will provide students with managerial tools for assessing science while focusing on Israeli science as an in-depth case study. Using classic and contemporary readings in Science and Technology Studies (STS), students in this class would be able to understand and apply tools for assessing scientific productivity and innovation of elites (e.g. Nobel Prize); they would apply contemporary quantitative methodologies for assessing national achievements in science (by using Scimago); they will evaluate the productivity of selected scientists (e.g. by using Publish or Perish), and they would be able to rank universities and disciplines (by using various methodologies like ARWU). To understand how culture affects scientific achievements, in the latter half of the course students will use comparative methodologies for explaining how Israeli culture encourages innovation and helps scientists sustaining prolific careers. Students would decipher the role of culture in working habits in the lab, in strategizing careers, even in intellectual habits and styles. The instructor will share his experience as the Chief Scientific Officer of CoolCite, an Israeli Ed-Tech startup that develops tools for managing higher education with academic data. By using Israel as a cultural mirror, students would finally assess the scientific standing of their country of origin (using Scimago) and make a concrete analysis of one academic department - in Israel and in a country of choice (e.g. physics at Hebrew University and MIT). They would finally assess the limits and possibilities that their own culture may set on science and management.