

TEL AVIV UNIVERSITY INTERNATIONAL STUDY ABROAD SUMMER 2017

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SUMMER PROGRAMS 2017

Arrival at TAU (Undergraduate Summer Programs)

June 11th, 2017

Orientation June 12th, 2017

Summer in Tel Aviv: Undergraduate Summer Programs

June 13th- July 20th, 2017

Arrival at TAU (Business Entrepreneurship in the Start-Up Nation)

June 28th, 2017

Orientation June 29th, 2017

Summer in Tel Aviv: Business Entrepreneurship in the Start-Up Nation

July 2nd- July 20th, 2017

Last Day in the Dorms July 23rd, 2017



ACADEMICS

ACCREDITATION

For FFELP purposes, Tel Aviv University is registered with the Department of Education (Title IV Code 008373-00 or electronic G08373). In Israel, Tel Aviv University is accredited by the Department of Education and the Council for Higher Education.

ACADEMIC REQUIREMENTS

Credit & Course Load

Students have the opportunity to customize their experience by choosing two courses out of five available options.

- 2120-0999-05 The Strategic Revolution in the Middle East: The Roots of the 2011 Arab Uprisings (3 Credits)
- 2120-0533-05 One Hundred Years: History and Memory in Tel Aviv–Jaffa (3 credits)
- 2120-1004-05 Fundamental technologies of cyber systems (3 credits)
- 2120-1006-05 General Introduction to Programming (2 credits)
- 2120-1189-05 Business Entrepreneurship (4 credits)

Classes must not conflict in time. Attendance is <u>mandatory</u> in all of the courses. Missing lessons will be reflected in the final grade of the course. Up to Two justified absence from classes will be accepted (for example: emergency matter, doctor's note). Such cases of absence should be notified to your lecturer immediately. Students are required to arrive on time for classes. Teachers are entitled to treat any single case of lateness and/or repeated lateness as an unjustified absence.



INSTRUCTIONS FOR REGISTRATION TO COURSES

REGISTRATION PROCEDURE

- 1. Registration to all the Courses listed in the booklet is done through the Form at the end of the Booklet (REGISTRATION FORM SUMMER 2017).
- 2. The registration form must be handed personally or by <u>email</u> to Ms. Yael Gazit student secretary at TAU International (Carter Building, 108) by <u>the first day of the program</u>.
- 3. Students are responsible for entering the correct information on the registration form (available at the end of this booklet):
 - a. Personal information (Name, passport number, student number, etc)
 - b. Correct name and course number.

PASS / FAIL GRADING OPTION

Students may register for one course on a Pass / Fail basis. Students are required to choose the desired grading system within the first seven weeks of attendance, and to report this decision to the study abroad academic secretary.

■ Final Date for informing the office of your P/F choice is the <u>second week or the program</u>.

Forms are available in the office.

Universities have different policies about the acceptance of Pass/Fail grades. Students must consult with their home university advisors regarding the acceptance of Pass/Fail grades instead of letter/number grades (The Pass/Fail option is not open to SUNY, SYRACUSE, POMONA & PENN STATE students studying abroad).

Once a Pass/Fail grade is entered into a student's record, it cannot be changed to a letter grade, and vice versa.

A Pass grade indicates D or higher-level grade. In the event the student achieves A-/ A / or A+, that letter grade will appear on the transcript instead of (P) pass.

INCOMPLETE COURSES

Students who fail to complete any of the course requirements, (papers, exams etc.,) during the period of instruction, will have an (INC) Incomplete recorded on their transcript. It is the responsibility of the student to notify the international office of the reason for the incomplete and the estimated date of completion.



If the professor agrees and the academic committee confirms, a student may complete the course requirements after the semester; the incomplete grade (INC) will be changed accordingly. The time limit for satisfactory completion of course requirements will be set by the individual professor and the academic committee. In no case shall the time limit be later than July 1st, 2017. After this date an "F" (fail) will be automatically recorded.

GRADING SYSTEM

The following is the grading system of Tel Aviv University International:

A+	=	97-100%	B-	=	80-82%	D	=	63-66%

$$B+ = 87-89\%$$
 $C- = 70-72\%$

CODE OF HONOR AND ACADEMIC INTEGRITY

Students are expected to abide strictly by the Tel Aviv University and Tel Aviv University International Code of Honor:

Students in the program are expected to act with integrity and honesty and hold their fellow students to the same standard. As such the school and university administration will not under any circumstance tolerate cheating, plagiarism, fabrication, aiding and abetting dishonesty, falsification of records and official documents or any other act which could compromise a student's academic integrity.

Plagiarism: Submitting material that in part or whole is not entirely your work without attributing those same portions to their correct source.

Cheating: Using unauthorized notes, study aids or information from another student, student's paper, or student's electronic equipment (including but not limited to: phones, computers, and blackberry's) on an examination; altering a graded work after it has been returned, then resubmitting the work; allowing another person to do your work and submitting that work under your name; or submitting identical or similar papers for credit in more than one course without getting prior permission from the course instructors.

Fabrication: Presenting data in a piece of work that was not gathered in accordance with guidelines defining the appropriate methods of collecting or generating data and failing to include a substantially accurate account of the method by which the data was gathered or collected.



Aiding and Abetting Dishonesty: Providing material or information to another person with knowledge that this material or information would be used improperly.

Falsification of Records and Official Documents: Altering documents affecting academic records; forging signature of authorization or falsifying information on an official academic document, grade report, or any other document designed to ensure that a student meets or gains exemption from a program or university regulation.

Should a student violate the Code of Honor, the administration will review their case. This may lead to termination from the program, and expulsion from Tel Aviv University.

RIGHT TO APPEAL

Students have the right to appeal the results of a written examination within two weeks from the day the papers are returned to the office. If there has been no appeal during that period, the grade is final. The appeal process will be communicated to you during orientation week. The last grade given will be the determining grade (even if the grade received after the appeal is lower than that given for the exam/paper).

During the appeal period, students may not take their original papers/exams out of the office. They may look at their papers and make a copy if requested.

SPECIAL ACCOMMODATIONS

In accordance to University guidelines, students with learning disabilities or special needs must bring official documentation from their home country / university (translated into English by notary) and should be in touch with their respective program coordinator regarding any specific needs they have, and in accordance to the University's customary tools on this topic.

The Division of Foreign Languages at Tel Aviv University offers tutoring in English for students with special needs. For more information, please contact Elana Spector-Cohen, Head of English Programs, Division of Foreign Languages at espector@post.tau.ac.il.



BIBLIOGRAPHICAL SERVICES IN THE TAU LIBRARIES

Hereunder, please find practical information regarding libraries on campus, that we believe you will use the most. For more information in English regarding libraries, you can click here: http://english.tau.ac.il/libraries

Central Library (The Sourasky Library) - apply to main desk on ground floor for bibliographical information and other assistance:

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Sunday - Thursday - 8:30am - 8:00pm
Friday - 8:30am - 12:30pm
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Social Science and Management Library (The Brender-Moss Library): apply to main desk on ground floor for bibliographical information and other assistance:

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Sunday - Thursday - 9:00am - 7:45pm
Friday - 9:00am - 12:45pm
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Beit Milman Library:

Ask the librarian for information and assistance in the Carter Building (attached to the Diaspora Museum).

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Sunday - Thursday - 9:00am - 4:00pm
Friday - CLOSED
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TIMES FOR THESE LIBRARIES ARE SUBJECT TO CHANGE

MOODLE

Students have access to Moodle, the online course management system used at Tel Aviv University. Users can access course materials and activities, grades, and communicate with lecturers and other students in the program. Login information will be provided to students during academic orientation day. http://moodle.tau.ac.il/?lang=en

For more information please contact helpdesk: +972-3-640-8118 or Ms. Yael Plashevsky TAU International office secretary, email: plashevskyy@tauex.tau.ac.



SCHEDULE + EXAM TIMETABLE - SUMMER 2017

June 11- July 20, 2017

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	June 11	June 12	June 13	June 14	June 15	June 16	June 17
9:15-12:00	Students Arrival & Dorms Entrance	Orientation 10:00- 13:00		Programming			
13:15-16:00			Strategic Revolution		Strategic Revolution		
16:15-19:00			Cyber	Cyber	Tel Aviv		
	June 18	June 19	June 20	June 21	June 22	June 23	June 24
9:15-12:00	Programming			Programming		South Trip	
13:15-16:00	Strategic Revolution		Strategic Revolution		Strategic Revolution		



16:15-19:00	Cyber	Tel Aviv	Cyber	Tel Aviv	Tel Aviv		
	June 25	June 26	June 27	June 28	June 29	June 30	July 1
9:15-12:00	Programming			Programming			
13:15-16:00	Strategic Revolution		Strategic Revolution				
16:15-19:00	Cyber	Tel Aviv	Cyber		Tel Aviv		
	July 2	July 3	July 4	July 5	July 6	July 7	July 8
9:15-12:00	Business Entrepreneurship 9:15-12:45	Business Entrepreneurship 9:15-12:45	Business Entrepreneurship 9:15-13:00	Business Entrepreneurship 9:15-13:00	Business Entrepreneurship 9:15-13:00	North Trip	
13:15-16:00	Programming		Strategic Revolution	Programming			



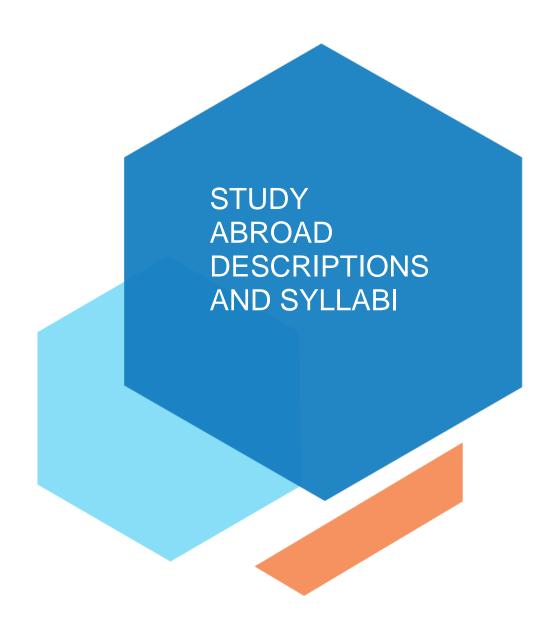
16:15- 19:00	Cyber	Tel Aviv	Cyber	Tel Aviv	

	July 9	July 10	July 11	July 12	July 13	July 14	July 15
9:15- 12:00	Business Entrepreneurship 9:15-13:00	Business Entrepreneurship 9:15-13:00	Business Entrepreneurship 9:15-13:00	Business Entrepreneurship 9:15-13:00	Business Entrepreneurship 9:15-13:00		
13:15-16:00	Programming		Strategic Revolution	Programming			
16:15- 19:00	Cyber	Tel Aviv	Cyber	Strategic Revolution	Tel Aviv		
	July 16	July 17	July 18	July 19	July 20	July 21	July 22
9:15- 12:00	Business Entrepreneurship 9:15-13:00	Business Entrepreneurship 9:15-13:00	Business Entrepreneurship 9:15-13:00	Business Entrepreneurship 9:15-13:00	Business Entrepreneurship- Final Exam	Check (the Dor	Out Days from ms-



13:15- 16:00	Programming- Final Exam	Strategic Revolution	Strategic Revolution- Final Exam			July 23- Last Day in the Dorms
16:15- 19:00	Cyber	Tel Aviv		Tel Aviv- Last Class	Cyber- Final Exam	







COURSE NAME: FUNDAMENTAL TECHNOLOGIES OF CYBER SYSTEMS

MR. AMIT KLEINMANN

<u>Chapter 1 – Introduction</u>

Review of course topics, cyber and its future, cyber warfare, the threats, the types of enemies.

Chapter 2 – Overview of Cyber Security

Domains of cyber security, security objectives, taxonomy of authentication techniques, access control, confidentiality, (data) Integrity, availability/serviceability, non-repudiation, trust, privacy, standards.

Chapter 3 – Representation of problems and data

Number bases, floating point, Boolean algebra, the notion of Algorithm, Artificial Intelligence.

<u>Chapter 4 – Introduction to Cryptography</u>

Part 1 – Fundamental cryptography concepts:

What is Cryptography? History - the classical era, Substitution & Transposition ciphers, Monoalphabetic & Polyalphabetic ciphers, Steganography, the concepts of encoding versus encryption, Cryptoanalysis

Part 2 - Hash function:

Function, Hash function, Cryptographic hash functions, Passwords, Attacks, Rainbow Tables

Part 3 - Basic crypto-techniques:

Communication Channel and Participants, The Building Blocks of a crypto system, Symmetric Encryption, Key Management, Diffie-Hellman, Stream ciphers vs. Block ciphers

Part 4 - Asymmetric Encryption:

Public Key Cryptography, Number Theory, Modular Arithmetic (Prime numbers, Co-prime numbers and the Totient function), Euclid Algorithm for finding GCD, DLP (RSA & Elliptic curve), Side channel attacks, Digital signatures

<u>Chapter 5 – Computer structure and computer security</u>

Part 1: Computers

Architecture and components, Memory Safety, Types of computer languages, Assembler, compiler and interpreter, Operating system

Part 2: The computer security challenge



Types of Malware, Zero day attacks, Monetization of finding and exploiting vulnerabilities

Chapter 6 – Communication network

Circuit switching versus packet switching, layering, the 7 Layers of the OSI Model, packet encapsulation, WAN, MAN and LAN, network architecture, client-server model versus peer-to-peer model, addresses, the concept of protocol.

<u>Chapter 7 – Fundamentals of the Internet network</u>

Internet history, Internet architecture IP protocol, IP address, ARP, ICMP, routing, NAT, Standardization

<u>Chapter 8 – Internet – transport layer and application layer</u>

Connection oriented, communication port, UDP, TCP (incl. detailed description of its 3-way handshake, Syn flood DoS, flow control, congestion control, Shrew attack)

Chapter 9 – The application layer

Application protocols, DNS, SMTP, SPAM, from IRC to Botnets

<u>Chapter 10 – Vulnerability of the World Wide Web</u>

Part 1: History and general structure

History, from SGML to HTML and XML, browsers, web servers, HTTP, JavaScript, DOM, cookies, CDNs,

Part 2: Web security

Web structure, mobile web, Search Engines, Cookies, standardization, Web exploit - main threats, vulnerabilities, risks, exploits (e.g. XSS, SQL injection, file inclusion, Dorks), and mitigations, PKI

Chapter 11* – Virtual money and the Dark-net

Web privacy, the deep-web, virtual money, the dark-net

Chapter 12* - Risks in cloud computing

Virtual machine and Hyperjacking, what is cloud computing? Types of cloud computing (taxonomy), regulations in creation, Homomorphic Encryption, Risks

<u>Chapter 13 – Common Attacks and Defense Tools</u>

Common Attacks (DoS/DDoS, MITB, Phishing, Smishing, and Vishing, key loggers, Watering Hole, Network Steganography), botnets, rootkits, Supply Chain Attacks, Emission/emanations security (EMSEC), Air Gap, Attack Vector, Taxonomy of Attacks, How Can We Achieve Security (concepts and tools e.g.: Firewall, NIDS, anti-virus, honeypot)

* Optional (If time will allow)



COURSE NAME: BUSINESS ENTREPRENEURSHIP - 4 CREDIT COURSE

DR. GIL AVNIMELECH

OBJECTIVES

The purpose of this course is to explore the many dimensions of new innovative venture creation, development and financing. We will deal with issues such as sources of ideas, type of opportunities, creativity and idea generation, business model design, business model validation, stages of start-up development, the lean startup approach, IP protection, business plan writing, and sources of finance for new innovative ventures. Many of the examples and cases presented in the course will be taken from the Israeli context. The course will include guest lecturers for the Israeli high tech industry.

COURSE CONTENTS

In the introduction module we present the entrepreneur's role in the global economy as an agent of change and accelerator of innovation and economic development. This module will build the theoretical foundation of the course. The second module deals with sources of ideas, opportunity identification, creativity, idea generation, idea development and idea scanning and selection. The third module deals with business model generation including the concept of Business Model Canvas, design and visual thinking concept, business model development, and business model validation. The fourth module discuss the unique characteristics of start-up companies and it implications on development and strategy. In this module we will introduce the lean startup approach and the concept of Minimal Viable Product (MVP). The fifth module discuss the topics of business plan writing and IP protection. The last module presents the venture capital market including business angles, crowdfunding platforms, startup accelerators and technological incubators, venture capital funds, and corporate VC. We will discuss the characteristics of each type of investor, the advantages and disadvantages for the start-up of being finance by each type of investors.

PROGRAM



#	Date	Topic
1a		Introduction: The Role of Entrepreneurs in Economic Growth and Development
1b		Identifying opportunities + Idea Generation and Scanning
2a		Introduction to the Value Proposition Canvas
2b		Practicing the Value Proposition Canvas
3a		The Lean Startup Approach
3b		Types of MVPs
4a		Visit to an Accelerator
4b		Guest Lecture from Accelerator Manager
5a		Presenting Task 1
5b		Presenting Task 1
6a		Introduction to Business Model
6b		Business Model Typologies
7a		Business Model Innovation
7b		Practicing Design Thinking
8a		Customer Development
8b		Types of Markets
9a		Better Place Case Study
9b		Guest Lecture – A leading Israeli Entrepreneur
10a		Presenting Task 2
10b		Presenting Task 2



11a	Business Plan Writing + Investor presentation
11b	Introduction to Intellectual Property and Patents
12a	Introduction to Entrepreneurial Finance + Venture Capital
12b	Corporate VC (Strategic Investors) + Business Angels + CF
13a	Technological Incubators and Startup Accelerators + Government support
13b	Guest lecture – A partner in a Leading VC
14a	Visit to an Incubator
14b	Guest Lecture from Incubator Manager
15	Exam

^{*} During the course we will have 3-4 guest lecture from leading figures from the Israeli entrepreneurial cluster

EVALUATION CRITERIA

3 Compulsory Tasks

80% Compulsory Attendance

Grade: 100% Exam + Bonus on 3 Class Tasks

BIBLIOGRAPHY

Introduction

Bhide, A. 1996. "The Questions Every Entrepreneur Must Answer" <u>Harvard Business Review</u>, November-December, pp. 120-130.

Hsu, D., Gans, J. and S. Stern, 2003. "When Does Start-up Innovation Spur the Gale of Creative Destruction?", <u>RAND Journal of Economics</u>, 33, pp. 571-586.

Identifying and evaluating opportunities

Ardichvili, A Cardozo and S. Ray, 2003. "A theory of entrepreneurial opportunity identification and development", <u>Journal of Business Venturing</u> 18(1), pp. 105-123.



Eckhardt, J.T. and S.A. Shane, 2003. "Opportunity and Entrepreneurship", <u>Journal of management</u>, 29(3), pp.333-349.

Stages and issues in startup development

Brush, C.G. et al., 2001, "From initial idea to unique advantage: the entrepreneurial challenge of constructing a resource base", Academy of Management Executive, 15(1), pp. 64–78.

Carter, N.M. Gartner, W.B. and P.D. Reynolds, 1996, "Exploring Start-Up Event Sequences", <u>Journal of Business Venturing</u>, 11(3), pp. 151-166.

Greiner, L.E., 1998. "Evolution and Revolution as Organizations Grow", <u>Harvard Business Review</u>, May-June, pp. 3-11.

Scott, M. and R. Bruce, 1987, "Five stages of growth in small businesses", <u>Long Range Planning</u>, 20(3), pp. 45-52.

Business Plan

Sahlman, W.A. 1997. "How to Write a Great Business Plan", <u>Harvard Business Review</u>, July-August 1997, pp.98-108.

Hormozi, A.M., Sutton, G.S., McMinn, R.D. and W. Lucio, 2002, "Business plan for new or small businesses: paving the path to success", <u>Management Decision</u>, 40(7/8), pp. 755-763.

Business Models

Amit, R. and C. Zott 2012. "Creating value through business model innovation". MIT Sloan Management Review, 53(3), pp. 41-49.

Osterwalder, A. (2004). The Business Model Ontology: a proposition in a design science approach. Institut d'Informatique et Organisation. Lausanne, Switzerland, University of Lausanne, Ecole des Hautes Etudes Commerciales HEC, 173.

Lean Startup



Blank, S.G. 2005, The four steps to the epiphany. Cafepress. com., Chapter 1, pp. 1-11.

Geoffrey A. Moore, 1999. Crossing the Chasm: Marketing and Selling High-tech Products to Mainstream Customers, A HarperBusiness Book, New York, NY.

Geoffrey A. Moore, 2004. Inside the Tornado: Strategies for Developing, Leveraging, and Surviving Hyper-growth Markets, A HarperBusiness Book, New York, NY.

Entrepreneurial Finance

Gompers, P. and J. Lerner, 1999, The Venture Capital Cycle, Cambridge, Massachusetts, MIT Press.

Gompers, P. and J. Lerner, 2001, <u>The Money of Innovation</u>, Boston, Massachusetts, HBS Press.

Gompers, P. and J. Lerner, 2001, "The Venture Capital Revolution", <u>Journal of Economic Perspectives</u>, 15 (2), pp.145-168.

Gompers, P. 1994, "The rise and fall of venture capital", Business and Economic History, 23 (2), pp. 1-26.

Corporate VC

Dushnitsky, G. and M.J. Lenox (2006), "When does corporate venture capital investment create firm value?", Journal of Business Venturing 2, pp. 753–772.

Chesbrough, H. (2004), "Corporate Venture Capital In The Context Of Corporate Innovation", DRUID Conference.

Chesbrough, H. (2002), "Making Sense of Corporate Venture Capital", HBS.

Business Angels

Mason, C.M. and R.T. Harrison (2000), "The Size of the Informal Venture Capital market in the UK", Small Business Economics, 15, pp. 137-148.

Mason, C.M. and R.T. Harrison (1997), "Business Angel Networks and the Development of the Informal Venture Capital Market in the U.K.: Is There Still a Role for the Public Sector?", Small Business Economics, 9, pp. 111-123.

Erikson, T. and R. Sørheim (2005), "Technology Angels and Other Informal Investors", Technovation, 25, pp. 489–496.

Wiltbank, R. (2009), "Investment Practices and Outcomes of Informal Venture Investors", Venture Capital: an International Journal of Entrepreneurial Finance.



Sohl, J.E. (2003), "The US Angel and Venture Capital Market: Recent Trends and Developments", Journal of Private Equity, 6 (2), pp. 7-17.

Van Osnabrugge, M. 2000, "A Comparison of Business Angel and Venture Capitalist Investment Procedures: An Agency-Based Analysis", Venture Capital, 2(2), pp. 91-109.

Technology Incubators

Aernoudt, R. 2004. "Incubators: Tool for Entrepreneurship?", <u>Small Business Economics</u>, 23(2), pp. 127-135.

Colombo, M.C. and M. Delmastro, 2002. "How effective are technology incubators?: Evidence from Italy", Research Policy, 31(7), pp. 1103-1122.

Rothschild, L. and A. Darr, 2005. "Technological incubators and the social construction of innovation networks: an Israeli case study", <u>Technovation</u>, 25(1), pp. 59-67.

Crowd-Funding

Agrawal, A., Catalini, C., and Goldfarb, A. 2011, "Friends, Family, and the Flat World: The Geography of Crowdfunding", Working Paper, University of Toronto.

VC Structure and Contracts

Hellmann, T., 1998, "The Allocation of Control Rights in Venture Capital Contracts", <u>RAND Journal of Economics</u>, 29 (1), pp. 57-76.

Kaplan, S.N. and P. Strömberg, 2001, "Venture Capitalists As Principals: Contracting, Screening, and Monitoring", <u>American Economic Review</u>, 91(2), pp. 426-430.

Kaplan, S.N. and P. Strömberg, 2003a, "Characteristics, Contracts, and Actions: Evidence from Venture Capitalist Analyses", <u>Journal of Finance</u>, 59 (5), pp. 2177-2210.

Kaplan, S.N. and P. Strömberg, 2003b, "Financial Contracting Theory Meets the Real World: An Empirical Analysis of Venture Capital Contracts", <u>Review of Economic Studies</u>, 70 (2), pp. 281-315.

VC Valuation Techniques

Smart, G.H. 1999. "Management assessment methods in venture capital: an empirical analysis of human capital valuation", <u>Venture Capital</u>, 1(1), pp. 59-82.



OTHER INTERESTING DATA

Gil Avnimelech is a faculty member and head of the entrepreneurship center at Ono Academic College. Previously he was a post-doctoral research associate at the Public Policy Department, UNC-CH and at Recanati School of Management at tel Aviv University. He conducted his Ph.D. at the School of Management, Ben Gurion University. He has MA thesis in Strategy and a BA in Economics from the Hebrew University, and an MA in Financial Economics from Tel-Aviv University. His fields of expert are entrepreneurship, and entrepreneurship finance, innovative cluster development, and innovation and science policy. He published 15 articles in leading academic journals and 14 chapters in edited book. He lectures at the Business Schools of Tel Aviv University, Ben Gurion University, and Ono Academic College. Gil has been involved in research activities in five European Framework projects (TSER, IFISE, ESTER, PRIME and OMC-NET. Gil Is also involved in consulting to startup companies on strategy, business model development and sources of finance.



COURSE NAME: GENERAL INTRODUCTION TO PROGRAMMING- 2 CREDIT COURSE

MR. AMIR RUBINSTEIN

MS. MICHAL KLEINBORT

Computers and computer communication have experienced a revolution in the last 30 years. Following this technological revolution, computers are widely used in most modern societies, and in fact society itself has been changed in many non-technological aspects.

Most users of computers and powerful processors (e.g. in smart phones) are not aware at all of what happens "under the hood".

In this course, we will introduce some of the elegant concepts and ideas underlying Computer Science. We will demonstrate course topics using a modern programming language called Python.

<u>Course topics</u> (this is a suggested list, may change over the semester):

- 1. Python programming language: variables, conditionals and loops, lists and strings, functions
- 2. Basic algorithms (e.g. search, sort) and the notion of complexity
- 3. Introduction to cryptography: substitution ciphers and distribution of letters in natural languages
- 4. Intractability and the P vs. NP open problem
- 5. Undecidability and the halting problem
- 6. Error detection and correction codes: repetition and parity bit
- 7. Digital images: synthetic images, basic image processing
- 8. Basic notions in graph theory

Recommended Reading:

- 1. Python 3 documentation, http://docs.python.org/py3k/, is the official language manual, and a very useful resource.
- 2. Think Python, by Allen B. Downey, which is available online.
- 3. A book by John Zelle, Python programming: an introduction to computer science:, second edition. Fraklin, Beedle & Associates.
- 4. Algorithmics, David Harel, the Open University

Grade: 80% final exam, 20% HW assignments, including "wet" programming



THE STRATEGIC REVOLUTION IN THE MIDDLE EAST: THE ROOTS OF THE 2011 ARAB UPRISINGS - 3 CREDITS COURSE

MS. RACHEL KANTZ FEDER

Course Overview:

This course explores modern Middle Eastern politics and society with the aim of gaining a nuanced understanding of the transformations underway in key Arab states. We will begin with historical analysis of the prevailing political, economic, and social structures that underpinned Arab countries on the eve of the uprisings. The course will incorporate insights from political science and sociology in an attempt to explain the processes and conditions that led to the recent uprisings. We will explore the shared characteristics of the Arab states and analyze the political and social landscape of each country individually in order to identify cultural trends and the evolving geopolitics in the Middle East. Some of the themes that we will cover include: attempts at democratization and reform, theories of social movement and revolution, the resilience of authoritarian regimes, nationalism and communal identities, American foreign policy and external interventions, political Islam, religion and state, the role of new media, sectarianism, tribalism, and the plight of women and minorities.

Grading:

The course consists of 14 meetings. In most of our 3 hour sessions we will view a variety of media clips, documentaries, and other audio-visual materials. Although class discussions will incorporate such viewing material, your participation grade will rely heavily on your demonstrated engagement with the weekly reading assignments. The course also includes a case study project for which you will form groups and prepare a presentation on selected countries.

Attendance and Participation: 40%

Case Study Project: 20%

Final In-class Exam: 40%

Recommended reading to supplement weekly reading assignments:

James Gelvin, The Arab Uprisings: What Everyone Needs to Know, (Oxford: Oxford University Press, 2012).

Lin Noueihed and Alex Warren, *The Battle for the Arab Spring: Revolution, Counter-Revolution and the Making of a New Era* (New Haven, CT: Yale University Press, 2012).

1) Introduction

Early Assessments and Depictions of the Arab Spring in the West



Reading to be completed **BEFORE** first meeting:

James Gelvin, *The Arab Uprisings: What Everyone Needs to Know,* (Oxford: Oxford University Press, 2012), pp. 1-23.

Arab Spring or Islamist Winter? Three Views, World Affairs, January/February 2012, pp. 23-42.

Asher Susser, "The 'Arab Spring' The Origins of a Misnomer"

http://www.fpri.org/enotes/2012/201204.susser.arabspring.html

2) "The Democracy Deficit"

Prevailing Explanations for Arab Exceptionalism:

Gambill, Gary C. "Explaining the Arab Democracy Deficit: Part I," *Middle East Intelligence Bulletin,* Vol. 5, No. 2, (February-March 2003), pp.1-11.

Diamond, Larry. "Why Are There No Arab Democracies?" *Journal of Democracy*, Vol. 21, No. 1, January 2010, pp. 93-104.

Brynen, Rex, Bahgat Korany, and Paul Noble, Political Liberalization and

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Kemrava, Mehran, "The Question of Democracy," in *The Modern Middle East*, (Berkeley: University of California Press, 2005), pp. 331-358.

3) Political Elites, Structures, and Thought on the Eve of the Arab Uprisings

The Past as Prologue and the Durability of Authoritarian Regimes***

Kemrava, Mehran, "States and Their Opponents," in *The Modern Middle East*, (Berkeley: University of California Press, 2005), pp. 283-330.

Bellin, Eva. "The Robustness of Authoritarianism in the Middle East: Lessons from the Arab Spring." *Comparative Politics*, Vol. 36, No. 2 (204), pp. 139-157.



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Worth, Robert F. "The Arab Intellectuals Who Didn't Roar," The New York Times, October 29, 2011.

4) Explaining Revolutions and Protest in the Middle East

Social Movement Theory

Snow, David and Soule, Sarah, *A Primer on Social Movements* (New York: W.W. Norton, 2010) chap. 1: "Conceptualizing Social Movements," pp.1–23.

Tilly, Charles. "Revolutionary Trajectories," in *Dynamics of Contention*, ed. Charles Tilly, Douglas McAdam, and Sidney Tarrow (New York: Cambridge University Press, 2001), pp. 193–226.

Kurzman, Charles. "The Arab Spring Uncoiled," *Mobilization* Vol. 17, No. 4 (December 2012), pp. 377–90.

5) Explaining Revolutions and Protest Continued

Beinin, Joel and Vairel, Frédéric. "The Middle East and North Africa: Beyond Classical SocialMovement Theory," in *Social Movements, Mobilization, and Contestation in the Middle East and North Africa*, ed. Joel Beinin and Frédéric Vairel (Stanford: Stanford University Press, 2011), pp. 1–23.

Bayat, Asef. "Revolution without Movement, Movement without Revolution: Comparing Islamic Activism in Iran and Egypt," in *Comparative Studies in Society and History*, Vol.40, No.1 (Jan., 1998) pp. 136-169.

Gause III, F. Gregory. "Why Middle East Studies Missed the Arab Spring." ForeignAffairs. July 1, 2011.

http://www.foreignaffairs.com/articles/67932/f-gregory-gause-iii/why-middle-east-studies-missed-the-arab-spring



6) Demographics and Economics of the Arab Spring

The Human Development Reports, the Youth Bulge and Trade Unions

Executive Summary of Arab Human Development Report, United Nations Development Programe, 2002.

http://www.arab-hdr.org/publications/contents/2002/execsum-02e.pdf

Springborg, Robert. "The Precarious Economics of Arab Springs." *Survival: Global Politics and Strategy*, Vol. 53, No. 6 (2011), pp. 85-104.

Ayeb, Habib. "Social and Political Geography of the Tunisian Revolution." *Review of African Political Economy*, Vol. 38 (2011), pp. 467-479.

Chayes, Sarah. "How a Leftist Labor Union Helped Force Tunisia's Political Settlement," Carnegie Endowment for Peace, March 27, 2014–03–

http://carnegieendowment.org/2014/03/27/how-leftist-labor-union-helped-force-tunisia-s-political-settlement/h610

Case Study: Tunisia

7) The Effect of Social Media - Youth Activism and the Interplay of Various Social Actors

Tufekci, Zeynep and Christopher Wilson. "Social Media and the Decision to Participate in Political Protest: Observations from Tahrir Square." *Journal of Communication*, Vol. 62, no.2 (2012), pp. 363-379.

Aday, Sean, et al., "Watching from Afar: Media Consumption Patterns Around the Arab Spring." *American Behavioral Scientist*, Vol. 57, No.4 (2013), pp. 1-21.

Case Study: Egypt



8) Counter-Revolution and the Middle Eastern Monarchies

The Role of Sectarianism and Tribalism

Al-Rasheed, Madawi. "Sectarianism as Counter-Revolution: Saudi Responses to the Arab Spring," *Studies in Ethnicity and Nationalism*. Vol. 11, No. 3, (2011), pp. 513-526.

Gengler, Justin. "Royal Factionalism, the Khawälid, and the Securitization of 'the Shï'a Problem' in Bahrain," Journal of Arabian Studies Vol. 3, No. 1 (2013), pp.53-79.

Yom, Sean L. and Gause III, Gregory F. "Resilient Royals: How Arab Monarchies Hang On," *Journal of Democracy*, Vol. 23, Issue 4, (2012), pp. 74-88.

Case Study: Bahrain

9) External Forces: American Policy and Foreign Interventions

Lin Noueihed and Alex Warren, *The Battle for the Arab Spring: Revolution, Counter-Revolution and the Making of a New Era* (New Haven, CT: Yale University Press, 2012), pp. 164–94.

"Working Group on Egypt Letter to the President," *Carnegie Endowment for International Peace*, January 29, 2014.

Wael Nawara, "US Working Group Gives Wrong Advice on Egypt," al-Monitor, February 4, 2014.

Sharp, Jeremy M. "U.S. Democracy Promotion Policy in the Middle East: The Islamist Dilemma," Congressional Research Service Report for Congress, June 15, 2006

Case Study: Libya

10) Iraq: The First Spring and the "Neighborhood Effect"?

Makya, Kanan. "The Arab Spring Started in Iraq," New York Times, April 6, 2013.

Further reading TBA.



11) Islam and Democracy in the Middle East

"One Person, One Vote, One Time?"

Guilain Denoeux, "The Forgotten Swamp: Navigating Political Islam," Middle East Policy, <u>Vol. 9, Issue</u> 2, (2002), pp. 56–81.

Kramer, Gudrun. "Islam and Pluralism," in Brynen, Rex, Bahgat Korany, and Paul Noble, Political Liberalization and Democratization in the Arab World: Volume 1, (Boulder and London: Lynne Rienner Publishers, 1995), pp. 113-148.

Islam and Democracy in the Middle East, Eds. Larry Diamond, Marc F. Plattner, Daniel Brumberg, (Baltimore, Johns Hopkins University Press,) 2003. TBA.

"Democracy in the Middle East," US Army College, March 15, 2006.

12) Islamists in Power: Sharia and State

Brown, Nathan. "Contention in Religion and State in Postrevolutionary Egypt," *Social Research*, Vol. 79, No. 2 (2012), pp.531-552.

Fadel, Mohammad. "Judicial Institutions, the Legitimacy of Islamic State Law and Democratic Rransition in Egypt," *International Journal of Constitutional Law*, Vol. 11, No.3 (2013), pp. 646-665.

Madhi, Khalid. "Islamism(s) and the Arab Uprisings: Between Commanding the Faithful and Mobilizing the Protestor." *The Journal of North African Studies* (2012), pp. 1-24.

13) New Geopolitics in the Middle East

Non-Arab Actors, Al-Qaeda, and the Arab Spring

Barkey, Henri. "Turkish-Iranian Competition after the Arab Spring." Survival Vol. 54, No .6 (2012), pp. 139-162.



"Anything But Politics: The State of Syria's Political Opposition," Middle East Report No.14617, International Crisis Group, Oct 2013

http://www.crisisgroup.org/~/media/Files/Middle%20East%20North%20Africa/Iraq%20Syria%20Leb anon/Syria/146-anything-but-politics-the-state-of-syrias-political-opposition.pdf

"Syrias's Kurds: A Struggle Within a Struggle," Middle East Report No. 13622, International Crisis Group, January 2013.

Case Study: Syria

14) New Geopolitics Continued

Prospects

Weiss, Mark. "How Obama's Syria Policy Fell Apart," Politico. January 2, 2014.

http://www.politico.com/magazine/story/2014/01/how-obamas-syria-policy-fell-apart-101704.html#.U1eu31WSyGM

Sheri Berman, "The Promise of the Arab Spring," Foreign Affairs, January/February 2013.

Byman, Daniel. "Regime Change in the Middle East: Problems and Prospects." *Political Science Quarterly*, Vol. 127, No.1 (2012), pp. 25-46.

Ibrahim Sharqiyeh, "Tunisia's Lessons for the Middle East: Why the First Arab Spring Transition Worked Best," *Foreign Affairs*, September 17, 2013.

http://www.foreignaffairs.com/articles/139938/ibrahim-sharqieh/tunisias-lessons-for-the-middle-east



ONE HUNDRED YEARS: HISTORY AND MEMORY IN TEL AVIV-JAFFA- 3 CREDIT COURSE

DR. MARTIN J. WEIN

This course addresses issues of history and memory in Tel Aviv from its inception as a 'green' garden city, to the 'white' Bauhaus boom and the discourse about South Tel Aviv and Jaffa as a 'black city.' The course's aim is to open up narratives about society and public space in Israel, where the relationship between history and memory has been marked by political conflict, collective trauma, urban problems and uncertainty about the future.

We will familiarize ourselves with multidisciplinary methodology that will enrich our understanding of Tel Aviv–Jaffa, Israel, the Holy Land, and the Middle East. As part of the course we will walk through the city from North to South, discussing history, architecture, language and municipal politics on the way.

Topics of discussion in the classroom and on the way will include prehistory and ancient history, Palestinian Arabs and Zionist Jews, ports and maritime history, industrialization and urban planning, politics and government, business and crime, education and cultural venues, old British influences and Asian migrant workers or African refugees today, sports and parks, transportation and infrastructure, memorials and archeological sites, language use in public space, and the city's representation in Israeli film and literature.

You will be required to participate in a walking lecture of three and a half hours, in small groups, "hands on" and on—site. It is important that you come well fed, bring comfortable shoes and clothes, a cap, umbrellas/sun glasses/sun lotion and water, as well as change for drinks and the bus. We will stop for explanations, discussions, visits and a coffee break. In case of strong rain check your e-mail for weather related changes up to two hours before tours.

Requirements:

- presentation of readings in class, 20 points
- a mid-term test, 10 points
- one obligatory tour participation, 20 points
- a 10 full pages double spaced final paper (due by e-mail by July 15, 2016), 50 points



 minus 10 points of total grade for every missed or partly missed class without a doctor's note scanned and submitted by e-mail within one week of absence; it is your responsibility to assure that your presence has been noted on the sign-up sheet.

Please buy the following item: Tel Aviv or Gush Dan pocket guide & atlas or city map. Tel Aviv, Israel: MAPA - Mapping and Publications, 2010 or other recent edition (English, Hebrew or Russian).

Recommended books for additional readings are: Rotbard, Sharon. *White City – Black City, Architecture and War in Tel Aviv-Jaffa*. London: Pluto Press, 2014; LeBor, Adam. *City of Oranges*. New York and London: W. W. Norton, 2006.

Tel Aviv University School for Overseas Students Martin J. Wein, Ph.D. www.mjwein.net

Final Paper FAQs

What should I write?

Please choose one neighborhood of Tel-Aviv Jaffa or Gush Dan and try to reconstruct its history and current state

How much should I write?

10 pages, double spaced, 12 size font, not including pictures, empty spaces, or bibliography!

How about footnotes?

You should have 3 or more footnotes (or endnotes/short notes) <u>per page</u>. You can use any formatting style you like, just be consistent. If you use short notes (e.g. Kark 1990:12) you must add a full and formatted bibliography at the end.

How many sources should I cite/quote?

At least 5 different academic sources, including at least 2 used in this course.

When is the deadline and how do I hand in the paper?

For deadline see syllabus, send by e-mail to martinjwein@yahoo.com

Where do I find sources?



- 1. Class readings (all scanned on my webpage, further most books are in the Educational Library, check the indexes for passages on your topic throughout the books, and book bibliographies for further readings)
- 2. **TAU libraries, talk to a librarian!!!** (Check online catalogue by key words, there are catalogues for books, journals and online journals: http://aleph3.libnet.ac.il/~libnet/malmad.htm

Also check RAMBI, an index of articles on Jewish- and Israeli-related topics: http://jnul.huji.ac.il/rambi/) When in the stacks browse for similar books nearby

3. Online (e.g. haaretz.com newspaper web archive in English for small payment; academic websites, official web pages of buildings or institutions etc.)

Please note:

to plagiarize (third-person singular simple present <u>plagiarizes</u>, present participle <u>plagiarizing</u>, simple past and past participle <u>plagiarized</u>)

1. (transitive or intransitive) To <u>use</u>, and <u>pass off</u> as one's own, someone else's <u>writing/speech</u>.

Good luck!!!

1. Session: Introduction

- Introduction
- Slide Show of Tel Aviv–Jaffa
- Overview of Walking Routes
- Map Exercise

2. Session: Campus

- Discussion of the Syllabus and Questions
- Overview of Walking Routes
- Distribution of Reading Presentations
- Campus Tour Slide Show
- Mini Walking Tour on Campus

3. Session: Slide Shows North Tel Aviv



Slide Show:

- The Yarkon/Al-Auja River Valley
- Tel Aviv University Campus/Sheikh Munis
- Eretz Israel Museum/Tel Qasile
- Gan Habanim
- Reading Power Station and River Mouth
- Levant Fair/Tel Aviv Port
- Wadi Ayalon
- Habima/Heyhal Hatarbut
- Tel Aviv Museum/Opera
- Sarona German Village
- Azrieli Towers

Slide Show:

- Rabin Square/City Hall
- Gan Ha'ir/Former Orange Grove/Zoo
- Ibn Gevirol Street: Migdal Hame'ah, Summel, New Herzliyah High School
- Kikar Hamedina
- Ben Gurion House and Boulevard
- Atarim Square/Gordon Pool and Marina
- Gan Ha'atzma'ut/Muslim Cemetery

4. Session: Tour 1

Walking the Boulevard Ring, 4:45-8:30 pm

Excursion: meeting on Kikar Atarim Square

Finish on Herzl Street near Shalom Tower

5. Session: Slide Shows Central Tel Aviv and Jaffa

Slide Show:

- Dizengoff Square and Street
- Trumpeldor Cemetery
- Gan Meir
- Old City Hall and Bialik Street
- Magen David Adom Square, Shenkin Street
- Rothschild Boulevard



- Old Herzliya High School/Shalom Tower
- Nahalat Binyamin

Slide Show:

- Shuk HaCarmel/Kerem Hateymanim
- Kovshim Street Gan Hakovshim/Manshiyah, Hassan Beck Mosque, Dolfinarium
- Charles Chlor Park, Tayelet Promenade, Etzel Museum, Old Train Station
- Neve Tsedek, Suzan Dalal Dance Center, Shlush Street
- Florentin, American Village/Small German Templar Colonies
- Noga Compound, Jerusalem Boulevard, Raziel Street
- Clock Square Jaffa, Old City, Egyptian Archeology Site, Jaffa Port
- Jaffa Seaside Park (Landfill), Ajami, Peres Peace Center

6. Session: Tour 2

Walking the Hyphen, 4:45-8:30 pm

Excursion: meeting on Dizengoff Square

Finish in Old Jaffa

7. Session: Reading Presentations North Tel Aviv

Midterm Map Test

A. TAU Campus History (all five items together constitute one reading!):

- Doley, Diana, "Shaping a Modernist University Campus." *Docomomo* 40, 3/2009, 52-56.
- PalestineRemembered.Com "Welcome To al-Shaykh Muwannis." Available from: http://www.palestineremembered.com/Jaffa/al-Shaykh-Muwannis/index.html [follow up on the tabs for pictures and other material]
- Rapaport, Meron. "History Erased." Haaretz, 06/07/2007.
 - "TAU History: The Making of a University." Available from: http://www.tau.ac.il/tauhistory-eng.html
 - Zokhrot, "Sheikh Munis." Available from: http://www.zochrot.org/index.php?id=143
 - LeBor, Adam. City of Oranges. New York and London: W. W. Norton, 2006, 112-34

B. Schlör, Joachim, Tel Aviv: From Dream to City. London: Reaktion Books Ltd, 1999, 162-211.

C. Mann, Barbara E. A Place in History: Modernism, Tel Aviv, and the Creation of Jewish Urban Space. Stanford, Calif.: Stanford University Press, 2006, 186-228.



D. Azaryahu, Maoz. *Tel Aviv: Mythography of a City*. Syracuse, N.Y.: Syracuse University Press, 2007, 224-244 AND Mann, Barbara E. *A Place in History: Modernism, Tel Aviv, and the Creation of Jewish Urban Space*. Stanford, Calif.: Stanford University Press, 2006, 229-252.

E. Mann, Barbara E. A Place in History: Modernism, Tel Aviv, and the Creation of Jewish Urban Space. Stanford, Calif.: Stanford University Press, 2006, 26-71.

F. Architectural Styles (all seven items together constitute one reading!):

- Bauhaus Foundation Dessau. Available from: http://www.bauhaus-dessau.de/en/index.asp
- Levin, Michael. "The Modern Movement in Israel." Docomomo 40, March 2009, 36-40.
- Smolsky, Raz. "History in the Unmaking." *Haaretz*, December 1, 2008.
- Zandberg, Esther. "The legend of the white city." Haaretz, May 16, 2004.
- "The White City of Tel Aviv." <u>UNESCO</u>, 2003. Available from: http://whc.unesco.org/archive/advisory body evaluation/1096.pdf
- Ziesling, Yael. "Bauhaus Architecture." *Jewish Virtual Library*, 2000. Available from: http://www.jewishvirtuallibrary.org/jsource/Society & Culture/Architecture/Bauhaus.html
 - Rotbard, Sharon. *White City Black City, Architecture and War in Tel Aviv-Jaffa*. London: Pluto Press, 2014, 1-13. Available from: http://issuu.com/plutopress/docs/pages_from_21-10-14-1?e=2066883/9830501

8. Session: Tour 3

A City Built on Sand? 4:45-8:30 pm

Excursion: meeting on Clock Tower Square, Jaffa

Finish at the Old Central Bus Station

9. Session: Reading Presentations Central Tel Aviv and Jaffa

G. Azaryahu, Maoz. *Tel Aviv: Mythography of a City*. Syracuse, N.Y.: Syracuse University Press, 2007, 106-155.

H. Azaryahu, Maoz. *Tel Aviv: Mythography of a City*. Syracuse, N.Y.: Syracuse University Press, 2007, 156-190.

I. LeVine, Mark, Overthrowing Geography: Jaffa, Tel Aviv, and the Struggle for Palestine, 1880–1948. Berkeley: University of California Press, 2005, 60-120.

J. Kark, Ruth. Jaffa: A City in Evolution, 1799–1917. Jerusalem: Yad Izhak Ben–Zvi Press, 1990, 13-52, 291-303.



K. Kark, Ruth. *Jaffa: A City in Evolution, 1799–1917*. Jerusalem: Yad Izhak Ben–Zvi Press, 1990, 53-134 [incl. extensive tables and visual material].

L. Kark, Ruth. *Jaffa: A City in Evolution, 1799–1917*. Jerusalem: Yad Izhak Ben–Zvi Press, 1990, 135-185.

10. Session: Conclusions: Jaffa, Tel Aviv, Jerusalem and the Global Outlook

Reading Presentations:

M. LeVine, Mark, *Overthrowing Geography: Jaffa, Tel Aviv, and the Struggle for Palestine, 1880–1948*. Berkeley: University of California Press, 2005, 182-248.

N. Azaryahu, Maoz. *Tel Aviv: Mythography of a City*. Syracuse, N.Y.: Syracuse University Press, 2007, 208-223 AND Ellman, Michael and Smain Laacher. *Migrant Workers in Israel*. Euro-Mediterranean Human Rights Network and International Federation for Human Rights, 2003 AND Kipnis, Baruch A. "Tel Aviv, Israel A World City in Evolution: Urban Development at a Dead End of the Global Economy." In: *Cities in Transition*, by M. Pak, ed. Ljubljana: University of Ljubljana Press, 2004, 183-194.

O. Ram, Uri. *The Globalization of Israel: McWorld in Tel Aviv, Jihad in Jerusalem*. New York, NY: Routledge, 2007, 179-234.

General Discussion and Futures Game

11. Session: Film Festival in Class

12. Session: Graffiti Workshop in Class



REGISTRATION FORM – SUMMER 2017

PASSPORT NO STUDENT NUMBER STUDENT NAME HOME ADDRESS								
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- Courses Registration Deadline: *First day of the program.*
- Courses with less than 10 students will be cancelled.