האוניברסיטה העברית בירושלים
The Hebrew University of Jerusalem

Department of Geography

Self-Evaluation Report

Submitted to the Israeli Council of Higher Education

August 2011

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Executive Summary

The Department of Geography at the Hebrew University of Jerusalem was the first Department of Geography to be founded in Israel. The late Prof. David H. K. Amiran, the founder of Israeli academic geography, established the Department in 1949. A large number of the senior professors (active and emeriti) and faculty members in other geography departments in Israel, as well as professionals in the public and private sectors, are our alumni. Four emeriti from the Department have been recipients of the Israel Prize, which is the highest prize for academic excellence in Israel: Prof. David H.K. Amiran, Prof. Dov Nir, Prof. Arie Shachar, and Prof. Yehoshua Ben-Arieh.

The Department of Geography was built on the integrative tradition in geography. The past and current vision of the Department strive to inter-relate the sub-fields of Physical and Human Geography. This tradition is not unique to our Department and is common amongst many of the leading geography departments around the world.

The Department seeks to develop and maintain high standards of teaching and research in the various sub-fields of geography. Members of the Department are involved in high profile research in both Israel and abroad. Over the last five years, department faculty members have been awarded the equivalent of over 4 million US Dollars in external funding. As the leading Department of Geography in the country, faculty members also have a tradition of commitment to public service with numerous professional contributions in all walks of civic society.

The Department of Geography (and the Institute of Urban and Regional Studies) were last reviewed by an International Evaluation Committee in 2006. Following the department's self-evaluation process preceding this committee's visit and the suggestions made by this committee (see appendix 6.4), the department established a special committee comprised of the senior faculty members from all the sub-fields established to implement its recommendations. This departmental committee worked in conjunction with the University Committee for "Academic Policy". As a result of this process the department has spent much time deliberating, planning, and implementing changes in its program of studies in the past five years, as described in chapter 3 of this report. We see the current review as a direct continuation of the self evaluation process initiated in 2006 and another milestone in the Department's continual strive for excellence in teaching and research.

As a result of the last international review, modifications have been made to the B.A. program, primarily to create a more distinct differentiation across the different years of study. This goal was advanced by creating distinct specialty fields at the undergraduate level and developing clusters of courses by subject, including methodological courses and seminars relevant to each specialty. The rapid developments in Geoinformatics have been integrated by offering an honors program for undergraduate students in this area.

Over the course of the past academic year, the Department launched a new MA program entitled "Geography, Planning and Environment". The program's goals are twofold: first, to emphasize practical aspects of the study of geography and second, to

provide a common base of geographic knowledge through core courses given to all graduate students, regardless of their specific field of specialty. The collaboration with the Institute of Urban and Regional has yielded a new specialization as part of the new MA program in Urban and Regional Planning. The Department places emphasis on its graduate studies programs. MA students increasingly tend to specialize, in the program offered by the Institute of Urban and Regional Studies, the Environmental Management Policy and Planning Program (EMPP) or the intra-Departmental specializations in Physical Geography or Historical Geography.

At the present the Department is highly satisfied with the BA and MA programs, which are based on providing a balanced education in all areas of geography. We feel that both the theoretical and the practical curricula train first-class geographers, and this, together with the introduction of the new MA program, allows the Department to provide a coherent approach to modern geography, moving into the twenty-first century. We believe that the Department of Geography at the Hebrew University offers a very extensive research-oriented program. We see ourselves as the leading geography department in the country; a department that compares favorably with most first-class geography departments in other countries.

In light of changes that have taken place in geographical research over the past decade, both in terms of geographic information systems (GIS) around the world and, more specifically, in the work of a number of researchers in the Department of Geography, the need to establish a center dedicated to supporting numerical and computerized research has become evident. The newly-established Center for Computational Geography provides infrastructure and assistance to researchers and students preparing graduate and doctoral work based on GIS, remote sensing, advanced tracking technologies, large data sets, etc.

As geography is a highly varied discipline and closely integrated with widely divergent bodies of knowledge, the Department strives to maintain a broad base in anticipation of future breakthroughs in the discipline. Therefore the Department seeks to diversify the epistemic base of its faculty, while allowing research groups to form and create centers of excellence.

At present the department faces several challenges:

- Due to retirements and planned retirements of several faculty members in recent years, there are several areas that are under-represented in the department. In particular we are lacking in the areas of: cultural geography, political geography (geo-politics and urban politics), behavioral geography and geomorphology. Active efforts to recruit new faculty members in these areas are ongoing.
- Severe budget constraints in recent years have had their toll on the teaching and learning experience. As the number of adjunct teachers has been cut, we were forced to reduce the number of elective course offered. As the number of teaching assistants has been reduced, the size of exercise classes increased, fewer assignments are given than in the past, and an increasing number of assignments are prepared jointly (mostly in pairs) rather than individually. Fieldtrips, which are an essential component of the teaching of geography, are expensive and are not covered under the Faculty's general budgetary formula. The allocation given by

the Dean's office for fieldtrips covers only part of the actual costs. Due to cuts in these allocations the number of field trips had to be reduced.

- Currently the Department cannot grant a M.Sc. degree to its graduates in the physical geography program. The result is that two thirds of the students in this program who write their theses under the supervision of the department's physical geography faculty are actually registered in other departments in the Natural Sciences. This creates a financial loss for the Department and hinders many more students who wish to undertake graduate studies in physical geography.

- The computer programmer of the Department is funded by the "soft money" component in the budget of the Department, since a permanent position is not currently available. The shrinking budget of the department will not allow this arrangement to continue over the long run. This is a threat to the current level of service provided to the laboratories, our Center for Computational Geography and the Geoinformatics program.

Despite these difficulties, we believe that the Department of Geography currently offers state of the art teaching programs for its students and high level international research opportunities for faculty members and graduate students in all the major fields of Geography.

Chapter 1 - The Institution

1.1 Background

The proposal to establish a Jewish institution for higher education was first raised as far back as 1882, yet the cornerstone of the Hebrew University was only laid in Jerusalem in 1918. On April 1, 1925, the University was officially opened on Mount Scopus. The academic life of the University (courses and research) took place on Mount Scopus until 1948, the year of the establishment of the State of Israel. During the War of Independence, the road to Mount Scopus was blocked and the University was forced into exile; it continued its activities thereafter in rented facilities scattered throughout various parts of Jerusalem. In 1955, the government of Israel allocated land in the Givat Ram neighborhood for a new Hebrew University campus. In 1967, the road to Mount Scopus was reopened, and in the early 1970s, academic activities were restored on the Mount Scopus campus.

The University has since continued to grow, with the addition of new buildings, the establishment of new programs, and the recruitment of outstanding scholars, researchers and students, fulfilling its commitment to excellence.

The Hebrew University in Jerusalem was accredited as an institution of higher education by the President of Israel, Mr. Itzhak Ben-Zvi, in accordance with the Law of the Council of Higher Education, 1958, on the 23rd of August 1962.

The Hebrew University operates on five campuses:

- Mount Scopus campus, site of the Faculty of Humanities and the School of Education, the Faculty of Social Sciences, the School of Business Administration, the Faculty of Law and the Institute of Criminology, the School of Occupational Therapy, the Paul Baerwald School of Social Work and Social Welfare, the Truman Institute for the Advancement of Peace, the Center for Pre-Academic Studies, the Rothberg International School, and the Buber Center for Adult Education.
- Edmond J. Safra campus in Givat Ram, site of the Faculty of Mathematics and Natural Sciences, The Rachel and Selim Benin School of Engineering and Computer Sciences, The Center for the Study of Rationality, The Institute for Advanced Studies, and the Jewish National and University Libraries.
- Ein Kerem campus, site of the Faculty of Medicine (The Hebrew University–Hadassah Medical School, Braun School of Public Health and Community Medicine, School of Pharmacy, and the School of Nursing) and the Faculty of Dental Medicine.
- Rehovot campus, site of the Robert H. Smith Faculty of Agriculture, Food and Environment (The School of Nutritional Sciences and The Koret School of Veterinary Medicine).
- An additional site is the Interuniversity Institute for Marine Science in Eilat, operated by the Hebrew University for the benefit of all institutions of higher learning in Israel.

Below is the over-all number of students studying towards academic degrees in the institution according to degree:

Students of the Hebrew University (2009)			
1st degree	2nd degree	Ph.D	Total
11,445	6,820	2,667	23,249

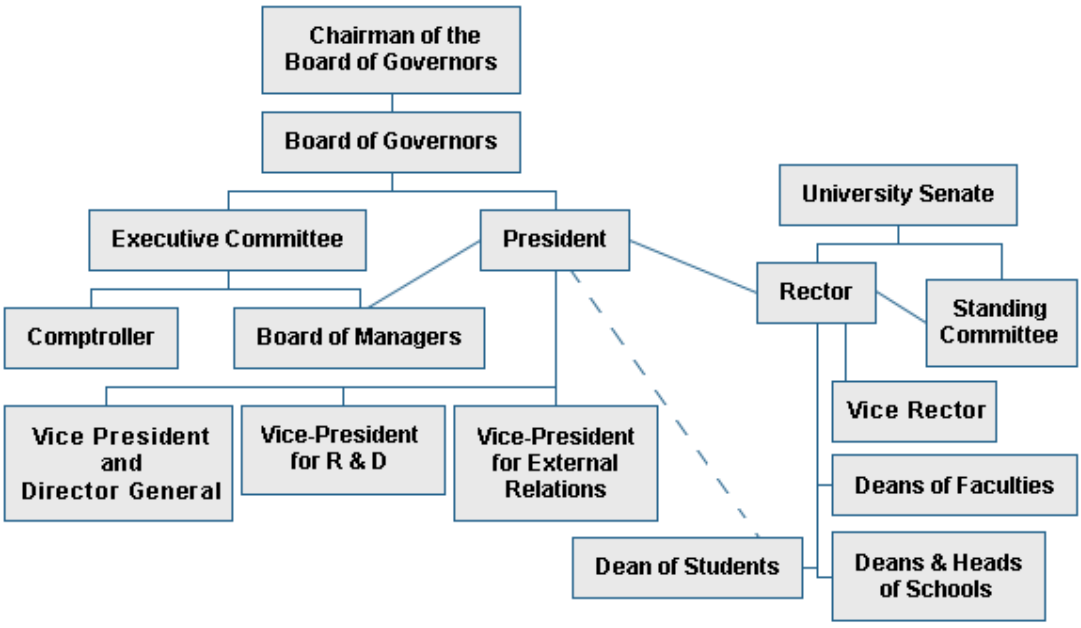
1.2 Mission statement of the institution, its aims and goals

As the first research university in Israel, The Hebrew University's mission is to develop cutting edge research, and to educate the next generations of leading scientists and scholars in all fields of learning. The Hebrew University is part of the international scientific and scholarly network: we measure ourselves by international standards and we strive to be counted among the best research universities worldwide.

The Hebrew University is a pluralistic institution, where science and knowledge are developed for the benefit of humankind. At the same time, the study of Jewish culture and heritage are a foremost legacy of the Hebrew University, as indicated by both its history and its name.

The goal of the Hebrew University is to be a vibrant academic community, committed to rigorous scientific approach and characterized by its intellectual effervescence. These will both radiate and enlighten the University's surrounding society.

1.3 Description of Institution's organizational structure



1.4 Names of holder of senior academic and administrative positions

Chairman of the Board of Governors:	Michael Federmann
President:	Prof. Menahem Ben Sasson
Rector:	Prof. Sarah Stroumsa
Vice-President and Director-General:	Billy Shapira
Vice-President for Research and Development:	Prof. Shai Arkin
Vice-President for External Relations:	Carmi Gillon
Vice-Rector:	Prof. Yaacov Schul
Vice-Rector	Prof. Oded Navon
Comptroller:	Yair Hurwitz

Deans:

Faculty of Humanities:	Prof. Reuven Amitai
Faculty of Social Sciences:	Prof. Avner de Shalit
Faculty of Law:	Prof. Barak Medina
Faculty of Mathematics & Natural Science:	Prof. Gad Marom
Faculty of Agriculture, Food & Environment:	Prof. Aharon Friedman
Faculty of Medicine:	Prof. Eran Leitersdorf
Faculty of Dental Medicine:	Prof. Adam Stabholtz
School of Business Administration:	Prof. Dan Galai
School of Social Work:	Prof. John Gal
Dean of Students:	Prof. Esther Shohami

Chapter 2 – The Faculty of Social Sciences

2.1 – 2.2 History and Objectives

The first essays at teaching and conducting research on social topics at the Hebrew University were already under way in the 1930s and 1940s. At first, particular disciplines such as Jewish sociology, the sociology of religion, and the economy and sociology of Israel and the Middle East developed separately within the various departments of the Faculty of Humanities. Later, these subjects were joined with others to form a Social Sciences Department within the Faculty of Humanities.

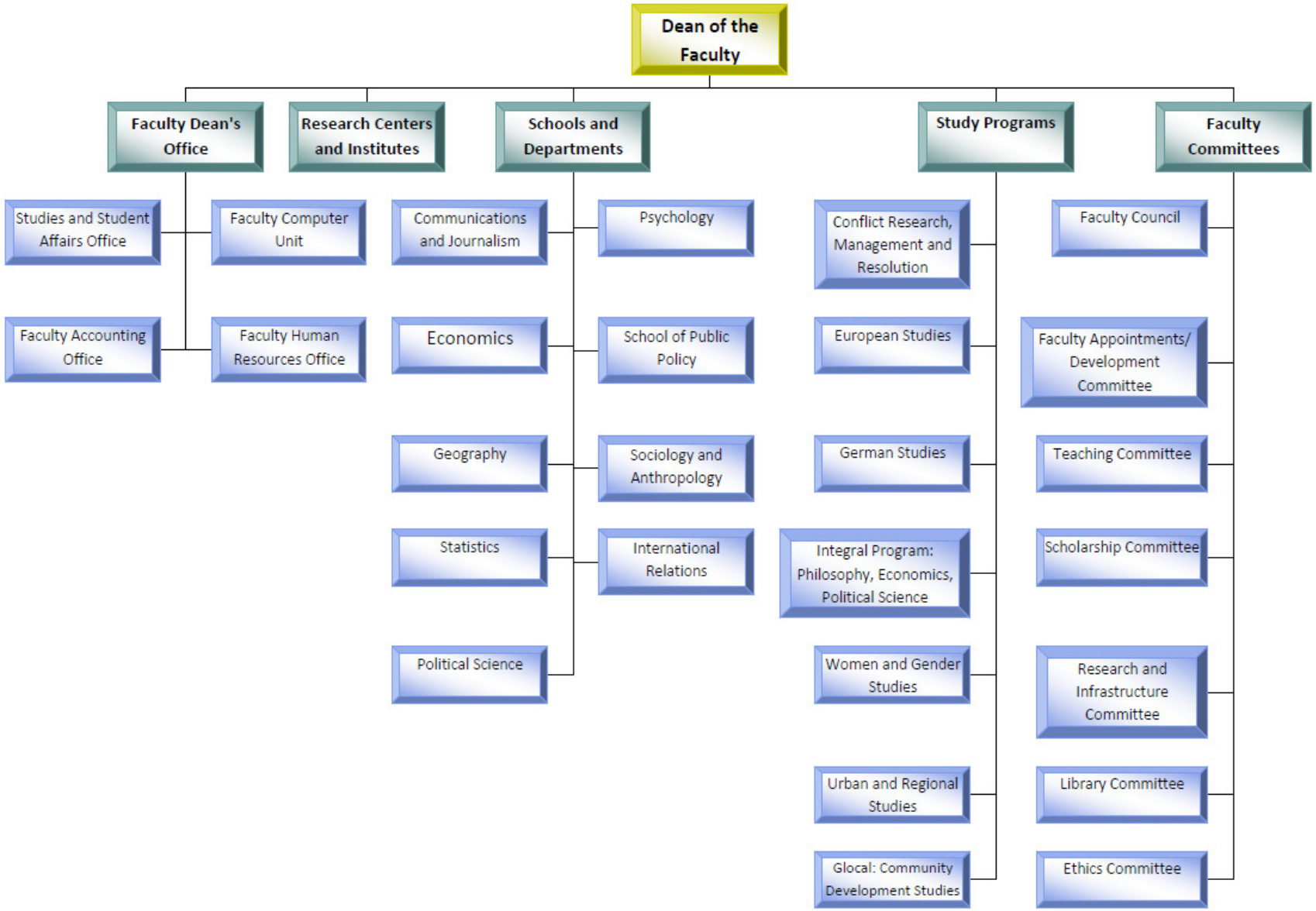
The social transformation that came in the wake of the War of Independence elucidated the need to develop this area of knowledge even further. Mass immigration had doubled Israel's population within just a few of years and had fundamentally transformed the social fabric. The economy was quickly expanding, and had run up against some serious obstacles. These conditions brought about an acute and sudden need for economists, sociologists, statisticians and management professionals in both the public and the private sectors. The University at that time viewed its *raison d'etre* to educate the young in these professions and to systematically develop research and tuition in the fields of economics, social studies, and management. The University was finally able to assume this function when its initiative coincided with a similar program put forth by friends and admirers of the late Eliezer Kaplan (lead by Yossef Sprinzak of blessed memory). These men wanted to honor the memory of Israel's first Minister of the Treasury, who had contributed greatly to the establishment of a national economy under public administration, by lending his name to a new institution charged with securing a future for that economy and its proper administration.

That institution was launched in 1953 and was recognized as a separate Faculty, though it maintained a special relationship with the Faculty of Humanities for some time thereafter, developing its curriculum within the framework of the latter. The class of '54-'55 already numbered 360 students, and their numbers grew annually. The joint framework of authority was divided in the spring of 1968, rendering the Faculty of Social Sciences separate and independent from then on. In the academic year of 1955-1956 the new Faculty was entrusted with a new building in Givat-Ram. However, it later returned to the Mt. Scopus campus in 1987 for the first time since the War of Independence.

Today the Faculty is comprised of eight departments (Psychology, Sociology and Anthropology, Geography, Communications and Journalism, Statistics, Economics,

Political Science, International Relations), the Federman School of Public Policy and Government, and the following study programs: Integrative Program in Philosophy, Economics and Political Science; Urban and Regional studies; European Studies; and Conflict Research, Management and Resolution; Woman and Gender Studies; German Studies. The Faculty views tuition and research in the social studies as its prime objective, educating students in the social sciences on the one hand, while on the other laying the theoretical foundations for knowledge in the social sciences via foundational and applied research.

2.3 Structural Organization (next page)



FACULTY COMMITTEES

Faculty Council

All tenure-track faculty members sit on the Faculty Council. The Dean serves as Chair. Issues of principle significance are brought before the Council after having been discussed and authorized by the Academic Matters Committee or other Faculty Committees.

Faculty Appointments/Development Committee

Chair: Prof.Avner De-Shalit, Dean

The Faculty Appointments/Development Committee discusses the acclimatization and appointment of new Faculty members. It also discusses faculty development programs and initiatives.

Teaching Committee

Chair: Prof. Vered Vinitzky Seroussi, Vice Dean

The Academic Matters Committee deals with issues related to study curricula and tuition. Committee members are chosen by the Dean and represent the Faculty's various departments. The representative of the student body of the Faculty also participates in the Committee meetings. The Academic Matters Committee incorporates a Subcommittee of Student Affairs, which addresses extraordinary student requests that depart from the rules and regulations laid down in the Faculty course catalogue.

Scholarship Committee

Chair: Prof. Rehav Rubin

The Scholarship Committee determines students' and visitors' eligibility for scholarships. Such scholarships include: Merit scholarships for post-graduate students, comprehensive scholarships for doctoral students, the Rothschild Scholarship for post-doctoral research, the Lady Davis scholarship for Professors and Post-Doctoral visitors.

Research and Infrastructure Committee

Chair: Prof. Ram Frost

The Faculty Research and Infrastructure Committee assists in procuring equipment and means essential to Faculty researchers. The Committee coordinates vis-à-vis the University authorities the allocation of acclimatization resources to Faculty newcomers, allocates Faculty resources, and serves as a conduit for general coordination between the Faculty and the University Research and Development Authority.

Library Committee
Chair: Prof. Moshe Maor.

The Library Committee is primarily responsible for expanding the libraries and databases at the disposal of researchers and students in the Faculty. The Committee oversees the transfer of printed journals to electronic databases, and ensures efficient and effective use of budgetary funds earmarked towards updating the libraries of the various departments. The Committee is also responsible for directing Faculty resources towards procuring quality high-ranked journals and towards updating the map library and social sciences database.

Ethics Committee
Chair: Prof. Jonathan Huppert.

The Ethics Committee discusses research proposals and ensures that all research conforms to the principles established in the Helsinki Declaration.

2.4 FACULTY ADMINISTRATION

Dean, Prof. Avner De-Shalit
Vice Dean, Prof. Vered Vinitzky Seroussi
Associate Dean, Ms. Miri Stern Lev
Academic Secretary, Ms. Margalit Drori
Accountant, Ms. Dalit Chen

2.5 FACULTY ACADEMICS: DEPARTMENTS AND STUDY PROGRAMS

Department of Communications and Journalism
Department Head – Prof. Menahen Bloondheim

Department of Economics
Department Head – Prof. Shaul Lach

Department of Geography
Department Head – Prof. Noam Shoval

Department of International Relations
Department Head – Prof. Alfred Tovias

Department of Political Science
Department Head – Prof. Mario Sznajder

Department of Psychology
Department Head – Prof. Asher Cohen

Department of Sociology and Anthropology
Department Head – Prof. Guy Stecklov

Department of Statistics
Department Head – Prof. Moshe Haviv

Graduate Program in Conflict Research, Management and Resolution
Program Director – Prof. Ilana Ritov

Graduate Program: Glocal: Community Development Studies

Program Director – Prof. Steve Kaplan

Graduate Program in European Studies
Program Director – Prof. Bianca Kuhnel

Graduate Program in German Studies
Program Director – Prof. Bianca Kuhnel

Honors Graduate Program in Public Policy
Head of School of Public Policy – Dr. Momi Dahan

Integrative Bachelor's Program: Philosophy, Political Science and Economics (PPE)
Program Director –Dr. Shlomi Segall

Urban and Regional Studies

Program Director- Prof. Daniel Felsenstein

Women and Gender Studies

Program Director- Prof. Nurit Yirmiah

EXACT WORDING ON DEGREE CERTIFICATE

BACHELOR'S DEGREE

ENGLISH WORDING	נוסח התעודה בעברית (HEBREW)	סוג התעודה
Bachelor of Arts Upon completing the required course of studies and passing the prescribed examinations In the departments of… (name of the department) & (name of the department)	בוגר אוניברסיטה במדעי החברה .B.A לאחר שסיים (שסיימה) את מסכת הלימודים בחוגים (1. חוג ממדעי החברה) (2. חוג ממדעי החברה)	בוגר דו חוגי שני חוגי הפקולטה למדעי החברה
Bachelor of Arts Upon completing the required course of studies and passing the prescribed examinations In the departments of… (name of the department) & (name of the department)	בוגר אוניברסיטה במדעי החברה וב..(פקולטה נוספת) .B.A לאחר שסיים (שסיימה) את מסכת הלימודים בחוגים (1.חוג ממדעי החברה) (2.חוג מפקולטה אחרת)	בוגר דו חוגי חוג מהפקולטה למדעי החברה וחוג מפקולטה אחרת
Bachelor of Arts Upon completing the required course of studies and passing the prescribed examinations In the departments of… (name of the department) & (name of the department) - minor	בוגר אוניברסיטה במדעי החברה והרוח .B.A לאחר שסיים (שסיימה) את מסכת הלימודים בחוגים (1. חוג ממדעי החברה) (2. חוג ממדעי הרוח) - חוג משני	בוגר דו חוגי חוג מהפקולטה למדעי החברה וחוג משני מהפקולטה למדעי הרוח
Bachelor of Arts	בוגר אוניברסיטה במדעי החברה	בוגר חד חוגי

ENGLISH WORDING	נוסח התעודה בעברית (HEBREW)	סוג התעודה
Upon completing the required course of studies and passing the prescribed examinations In the department of… (name of the department) & Supplementary studies	לאחר שסיים (שסיימה) את מסכת הלימודים בחוג (שם החוג) ובלימודים משלימים	חוג ממדעי החברה ולימודים משלימים
Bachelor of Arts Upon completing the required course of studies in the joint program in the departments (name of the departments)	בוגר אוניברסיטה במדעי החברה והרוח B.A. לאחר שסיים (שסיימה) את מסכת הלימודים בתכנית משולבת: פילוסופיה, כלכלה, מדע המדינה	בוגר בתכנית המשולבת – פכ"מ
Bachelor of Arts Upon completing the required course of studies and passing the prescribed examinations In the departments of… (name of the department) & (name of the department)	בוגר אוניברסיטה בפקולטה למדעי החברה ובמוסיקה B.A MUS / ובמחול B.A DANCE לאחר שסיים (שסיימה) את מסכת הלימודים באוניברסיטה העברית – בחוג.... באקדמיה למוסיקה ומחול – בחוג ל....	תכנית משותפת לתואר בוגר של האוניברסיטה והאקדמיה למוסיקה ע"ש רובין בירושלים

MASTER'S DEGREE

EXACT ENGLISH WORDING ON CERTIFICATE		נוסח התעודה בעברית (HEBREW)		סוג התעודה
NON-THESIS TRACK	THESIS TRACK	לא מחקרי	מחקרי	
Master of Arts Upon completing the required course of studies in the department of (name of the department / name of the program)	Master of Arts Upon completing the required course of studies and submitting the prescribed thesis in the department of (name of the department / name of the program)	מוסמך אוניברסיטה במדעי החברה M.A. לאחר שסיים (שסיימה) את מסכת הלימודים בחוג / בתכנית מוסמך	מוסמך אוניברסיטה במדעי החברה M.A. לאחר שסיים (שסיימה) את מסכת הלימודים וחיבר (וחיברה) עבודת גמר בחוג / בתכנית מוסמך	מוסמך בחוג/תכנית לימודים
Master of Arts Upon completing the required course of studies in the department of (name of the department) Program in…/ Specialization in…	Master of Arts Upon completing the required course of studies and submitting the prescribed thesis in the department of (name of the department) Program in…/ specialization in…	מוסמך אוניברסיטה במדעי החברה M.A. לאחר שסיים (שסיימה) את מסכת הלימודים בחוג במגמה ל... / בהתמחות ב...	מוסמך אוניברסיטה במדעי החברה M.A. לאחר שסיים (שסיימה) את מסכת הלימודים וחיבר (וחיברה) עבודת גמר בחוג במגמה ל... / בהתמחות ב...	מוסמך במגמה/במגמות ו/או בהתמחות/התמחויות
Master of Arts Upon completing the required course of studies in the joint program in the departments of economics business administration /	Master of Arts Upon completing the required course of studies in the joint program and submitting the prescribed thesis in the departments of	מוסמך אוניברסיטה במדעי החברה M.A. לאחר שסיים (שסיימה) את מסכת הלימודים בתכנית משולבת בחוגים כלכלה מינהל עסקים / סטטיסטיקה	מוסמך אוניברסיטה במדעי החברה M.A. לאחר שסיים (שסיימה) את מסכת הלימודים וחיבר (וחיברה) עבודת גמר בתכנית משולבת בחוגים	תכנית משולבת כלכלה וסטטיסטיקה/ כלכלה מנהל עסקים עם התמחות/ או בלי התמחות (תכנית משולבת עם

EXACT ENGLISH WORDING ON CERTIFICATE		נוסח התעודה בעברית (HEBREW)		סוג התעודה
NON-THESIS TRACK	THESIS TRACK	לא מחקרי	מחקרי	
statistics Specialization in…	economics business administration / statistics Specialization in…	התמחות ב....	כלכלה מינהל עסקים / סטטיסטיקה התמחות ב....	ביה"ס למנהל עסקים)
Master of Arts Upon completing the required course of studies / individual program in the departments of (1.name of the department) Program in…/ Specialization in… (2.name of the department) Program in…/Specialization in…	Master of Arts Upon completing the required course of studies and submitting the prescribed thesis / individual program in the departments of (1.name of the department) Program in…/ specialization in… (2.name of the department) Program in…/ specialization in…	מוסמך אוניברסיטה במדעי החברה M.A. לאחר שסיים (שסיימה) את מסכת הלימודים בתכנית אישית בחוגים (חוג 1) במגמה ל...ו/או התמחות ב... (חוג 2) במגמה ל...ו/או התמחות ב...	מוסמך אוניברסיטה במדעי החברה M.A. לאחר שסיים (שסיימה) את מסכת הלימודים בתכנית אישית וחיבר (וחיברה) עבודת גמר בחוגים (חוג 1) במגמה ל...ו/או התמחות ב... (חוג 2) במגמה ל...ו/או התמחות ב...	תכנית אישית למוסמך עם או בלי מגמה/מגמות ו/או התמחות/התמחויות
Master of Arts in social sciences upon completion the studies in the program Israel :Society and Politics		מוסמך אוניברסיטה במדעי החברה M.A. לאחר שסיים (שסיימה) את מסכת הלימודים בתכנית הלימודים ישראל:חברה ופוליטיקה	לא קיים	תכנית מוסמך ישראל:חברה ופוליטיקה (בחוגים מדע המדינה או סוציולוגיה ואנתרופולוגיה לתלמידי ביה"ס לתלמידים מחו"ל ע"ש רוטברג)

2.6 NUMBER OF STUDENTS ADMITTED OVER THE LAST FIVE YEARS, LISTED BY DEGREE:

	B.A.	M.A	Thesis track	Non-thesis track	PhD
2011	1358	1090	432	656	299
2010	1557	1097	481	610	302
2009	2187	1048	469	579	283
2008	2258	1062	469	587	295
2007	2279	1080	467	613	313

NUMBER OF STUDENTS GRADUATED OVER THE LAST FIVE YEARS, LISTED BY DEGREE:

	B.A.	M.A	Thesis track	Non-thesis track	PhD
	527	302	121	178	31
	606	308	128	176	39
2009	559	277	96	181	30
2008	557	365	144	225	37
2007	604	344	112	232	27
2006	612	321	103	218	26
2005	577	291	100	191	31

2.7 PLANNING AND POLICY-MAKING BODIES

The Faculty has a **Development Committee** to assist the **Dean** with policy making.

Periodically the Dean, with the assistance of the development committee, submits a Faculty Development Plan. No such plan was written or submitted in the last five years. However, all departments submitted to the Dean departmental development programs in 2006.

Each department, and on occasion also a teaching program, is monitored periodically by an **External Evaluation Committee**, which is either appointed by the Rector or by the Council for Higher Education and comprised mostly of high standing academics from abroad. The committee evaluates the department or program in terms of research, personnel, teaching and its international status, submits proposals for changes and improvements. In the last five years until 2006 the following programs were monitored: The department of geography, the B.A. PPE program (philosophy, political science and economics), the M.A. program in conflict resolution and the M.A. program in Middle Eastern studies. The last program was closed as a result of the monitoring committee's report. During 2007 the departments of political science and international relations were monitored, and in 2008, the departments of communication and journalism,

sociology and anthropology, and psychology were monitored. The reports of the monitoring committees are discussed by the university's **Academic Policy Committee**, and the Dean has to report to the committee about changes introduced in response to the evaluations committee's recommendations.

Proposals for new teaching programs are submitted by departments or groups of faculty members to the **Faculty Teaching Committee**, which includes representatives of all departments and convenes several times during each semester. If approved by the teaching committee, the proposals are discussed in the **Faculty Council**, which includes all tenure-track faculty members and convenes once or twice every semester. If approved by the faculty council, the proposal is submitted for approval to the university's **Standing Committee of the Senate**. In cases of new academic degree, it is also submitted for approval to university **Senate**. An example of a new teaching program recently (2007) approved through this process is an M.A. program in German Studies.

Changes in existing teaching programs are initiated by the departments quite frequently. These are submitted for approval to the faculty teaching committee. A recent example is a change in the structure of the M.A. program in international relations. More substantial changes such as offering new specializations within departments are submitted, after the approval of the teaching committee, to the approval of the faculty council. A recent example from last year is a new M.A. specialization in political communication offered by the departments of political science and communication and journalism.

Appointments of new faculty members are carried out as follows: The departments issue a call for applications. The applicants are screened, evaluated and ranked by the **Department Selection Committee**, which is appointed by the standing committee of the senate. The files of the candidates chosen by the departments are submitted to the **Faculty Appointments Committee** (also appointed by the senate's standing committee) which evaluates and ranks the candidates comparatively, taking into consideration both the qualifications and achievements of the candidates and the departments' needs. Depending on the number of available positions, the committee decides on new appointments. The committee's decisions have to be approved by the **Rector** and the **President** of the University.

2.8 UNIVERSITY'S PLAN FOR CREATION OF THE ADVANCED SCHOOL FOR ENVIRONMENTAL STUDIES

The Hebrew University is currently advancing a proposal to establish an Advanced School for Environmental Studies, whose goal is to train the best researchers and leaders in the environmental field.

This initiative stems from the understanding that the ability to cope with increasing pressures on the environment while improving the quality of life in the world is largely dependent on the ability to adapt and respond to environmental challenges. This is largely premised on the ability to develop research tools for understanding large-scale processes and an informed evaluation of technological solutions to address environmental problems. Israel is a country where the pressures on the environment are particularly severe due to the combination of rapid growth, limited resources, high population density, and rapid population growth relative to other developed countries. Consequently, Israel's ability to continue to develop its economy and reduce social gaps, while preserving opportunities for future generations to enjoy a livable environment is largely dependent on its ability to continually adjust and respond to the environmental challenges it faces. This capability is primarily a function of the quality of the researchers and leaders involved in the environmental field.

In order to enable graduates to work in multi-disciplinary teams, and deal with broad issues with a wide perspective that goes beyond the borders of single discipline the proposed School will train Masters and PhD students to engage in interdisciplinary work and research on a wide variety of environmental issues. However, the nature and quality of research is determined primarily by the proficiency in the discipline that the advanced students were trained in. Consequently, the School will not replace the existing departments and institutes; rather it will serve as an additional step, which will provide core courses that will prepare students in different departments for work on a broad spectrum of environmental issues.

In addition the School will serve as a base for developing new areas of research on environmental issues, which will not develop spontaneously within the existing departments. The School will encourage multi-disciplinary collaborations with leading academic institutions around the world and will bring the results of the studies and discussions that take place within its framework to the attention of the general public and decision makers in Israel.

Graduate programs would be anchored in the current departments. However, all students would be required to study several core courses that will give them an understanding of the questions and methods which guide environmental research in various disciplines, aside from their disciplinary department's view. These courses will allow students to look at environmental issues with a broad, global perspective, beyond the boundaries of their fields of research. Furthermore, all students would be required to participate in a workshop where they will be required to work on a multi – disciplinary project within a group comprised of students from all three disciplinary programs.

The School will include three Master programs. The first (environmental science) is from the natural sciences, the second (environmental protection and natural resources in agriculture) from agriculture, and the third from the social sciences. The existing programs will continue in their present structure with the exception of the social sciences program, which will become an independent M.A. program. The curriculum will include joint core courses and an introductory course in Environmental Science adapted to suit the various faculties. The scope of studies for each program (total credits) will be determined by the faculty in coordination with the School.

Students registered as a research students in environmental fields will register within the School's framework after they pass the School's admissions committee. Students will concurrently be required to register in the faculty and department where their advisor is based. Enrollment at the School will grant a partial scholarship and will require students to take a number of unique courses designed exclusively for research students. These courses will develop students' ability to deal with "big" issues, beyond those faced during the preparation of a thesis. The aim of these unique courses is to build a foundation that will allow research students to respond to future academic opportunities and new challenges. In addition the School will offer methodological courses, where students will learn methods that serve different disciplines (such as GIS and remote sensing), and will illustrate current theoretical debates.

The School aspires to serve as a focal point for research and debate on environmental issues, for both the University and the general public. To achieve this goal the School will allow students from other programs to audit courses, some of which currently serve the specialization in Planning Policy and Environmental Management. Moreover, the school's academic committee, which will include faculty members from all the three programs, will promote and approve a development program for environmental issues that will serve as an umbrella across the University. In this context, the academic committee will serve as a liaison to various parts of the University, including those that currently do not have an environmental program.

In addition to its role within the University, the School will initiate and organize conferences, seminars and roundtables dealing with environmental issues. While conferences and seminars will expand the circle of interested parties, and are basically open to the public, round tables are used as a meeting point between the "actors" in various areas of environmental policy that can utilize a round table as a neutral ground to maintain an open dialogue on the issues at stake. It's a service that the School can give decision-makers. This activity can be done in collaboration with the School of Public Policy and Governance and the Bauman Foundation, currently active in the Planning Policy and Environmental Management specialization.

Chapter 3 - The Evaluated Study Program

Department of Geography

3.1 The Goals and Structure of the Study Program

3.1.1. The name of the study program, a brief summary describing its development since its establishment.

The Department of Geography at the Hebrew University of Jerusalem was founded in 1949 by the late Prof. David Amiran, making it the first geography department in Israel. The Department of Geography is well established – and operates today – in the geographical tradition of integration and reciprocity between physical and human geography.

Research and instruction in the early years of the department focused principally on regional geography. Different areas in the newly founded State of Israel were studied systematically (e.g. the Hula valley, the Sharon plain, the Beit She'an valley, the Kinneret, and the South), as can be seen in the master and doctoral dissertations written in those years. Later on, as a result of worldwide trends in the field of geography, the curriculum and fields of research in the department shifted. At the beginning of the 1960s, the second generation of researchers laid the foundations for the thematic fields of geographical investigation which still exist in the department: physical geography (Prof. Ran Gerson, Prof. Asher Schick, Prof. David Sharon, and Prof. Aaron Yair), historical geography (Prof. Yehoshua Ben-Arieh) and urban, social, and economic geography (Prof. Arie Shachar, Prof. Amiram Gonen, Prof. Shalom Reichman, and Prof. Yehoshua Cohen). In the subsequent decades, the department has grown and expanded in accordance with the thematic structure that was created; different fields were added to the department's instruction and research, such as environmental policy and, more recently, geoinformatics.

Within the framework of the department, numerous studies are conducted in Israel and abroad on a significant scale. Much of the research is multidisciplinary and deals with different disciplines at the forefront of the social sciences, natural sciences, and humanities. Numerous past and present faculty members are involved in various applied projects in Israel and abroad, projects with wide public contributions on the local, regional, and national levels – for example, urban and national planning, transportation, environment, social and political geography, historical preservation, and physical geography.

Most faculty members in geography departments in Israel and senior geographers in the public and private sectors are alumni of the department. Four researchers in the department were recipients of the Israel Prize over the years: Prof. David Amiran, Prof. Dov Nir, Prof. Arie Shachar, and Prof. Yehoshua Ben-Arieh.

3.1.2. Mission statement of the study program, its aims and goals

Geography is an integrative science. As the Department of Geography at the Hebrew University was the first of its kind in Israel, and has striven to maintain its position as the leading department, it has sought since its establishment to advance the full scope of the discipline, by establishing centers of excellence in all the major sub-fields of the discipline: physical, urban, historical, and economic geography. Reflecting the continuously evolving nature of geography the Department has sought to widen the range of centers to include environmental geography, as well as the utilization of new technologies in geographic research. Having accomplished this, the department's current vision has several components:

(1) Utilizing its unique position in a historical city, holy to three major religions, between east and west, on the edge of two climatic zones, the Department strives to position itself as a leader in areas in which it enjoys a relative advantage globally. To this end, the department aims to build on existing strengths in advancing new fields of research, some of which may straddle the existing sub-fields, and employ new technologies.

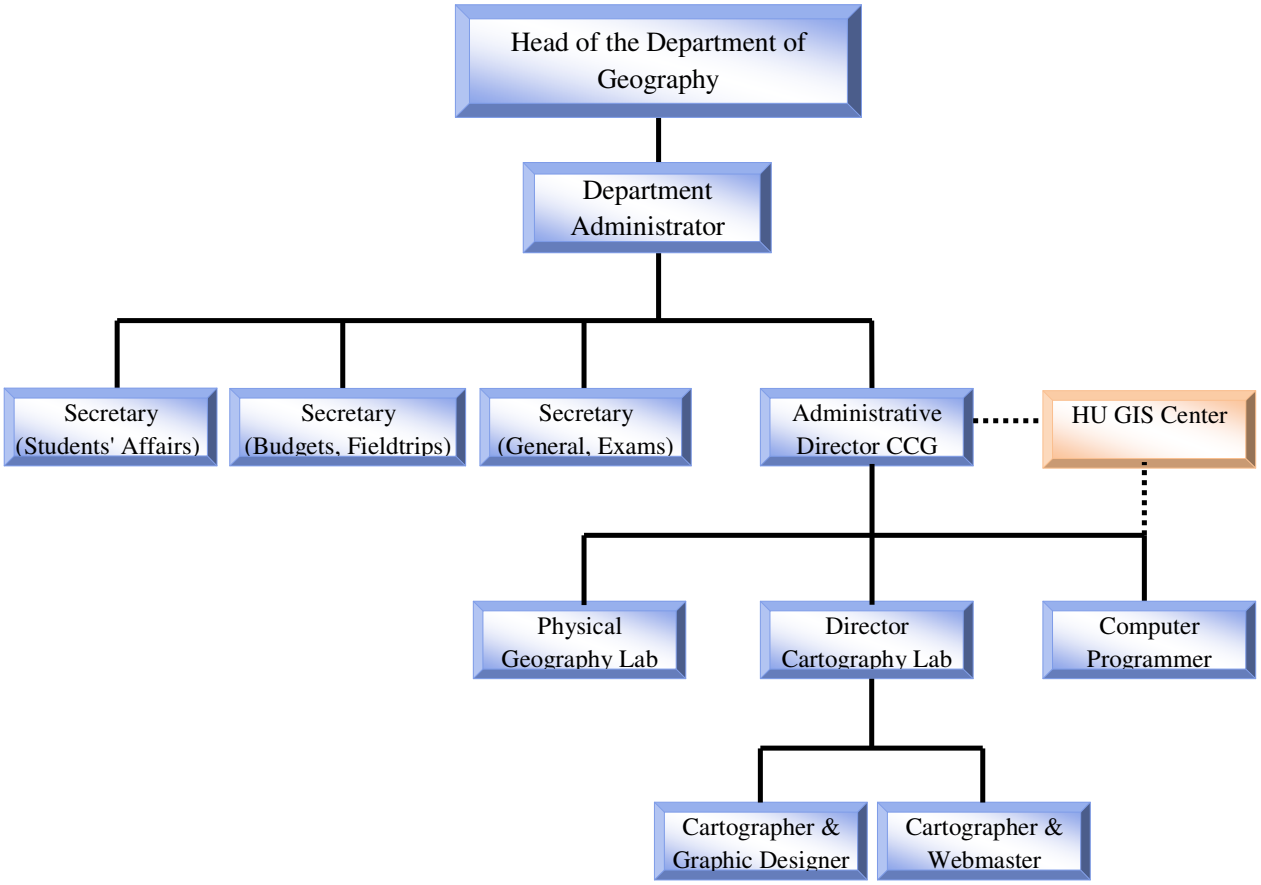
(2) To advance new innovative directions for research and new teaching programs the Department seeks to recruit outstanding faculty who can advance the traditional sub-fields.

(3) The Department seeks to attract top-level (post) graduate students, and provide them with the full scope of the most advanced research methods in geography, as well as a broad basis in the thematic areas of the discipline, in order for them to meet the rapidly changing expectations of scholars and professionals in the field.

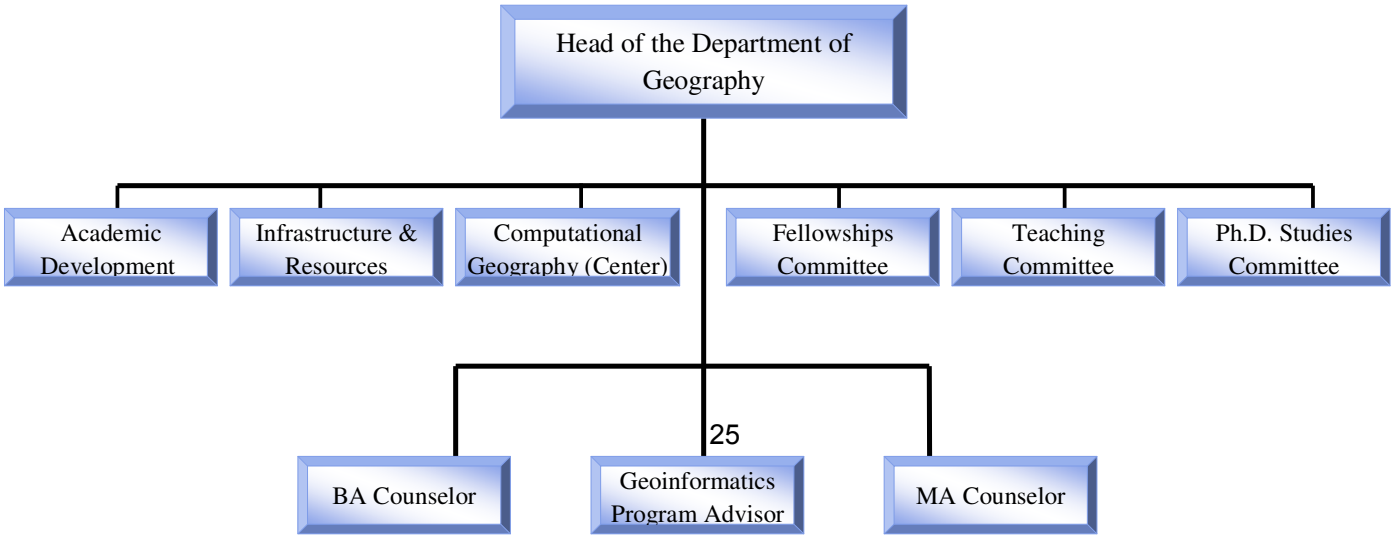
(4) Situated near the seat of government, in a city which attracts international attention and is at the focal point of acute conflicts, the Department strives to generate policy relevant research that will serve to advance research-based approaches for addressing the complex multi-faceted issues facing Israel and Jerusalem.

3.1.3. Description and chart of the academic and administrative organizational structure of the study program

Administrative Organizational Structure



Academic Organizational Structure



3.1.4. Names of holders of senior academic and administrative positions.

Academic Staff

Head of the Department of Geography – Prof. Noam Shoval
Center for Computational Geography (CCG) – Prof. Daniel Felsenstein
MA Advisor – Dr. Noam Levin
BA Counselor – Dr. Galit Cohen- Blankshtain
BA Geoinformatics Program Advisor – Dr. Efrat Morin

Chairs of Department Committees
Development Committee - Prof. Eran Feitelson
Teaching and Doctorate Committees - Prof. Noam Shoval
Fellowship Committee - Prof. Noam Shoval
Infrastructure and Digital Resources Committee - Prof. Daniel Felsenstein

MA Programs Coordinators
Urban and Regional Planning – Prof. Eran Razin and Prof. Daniel Felsenstein
Environmental Management, Policy and Planning (EMPP) – Dr. Itay Fischhendler
Historical and Cultural Geography – Dr. Ran Aaronson
Physical Geography – Dr. Efrat Morin

Administrative Staff

Department Administrator – Mrs. Meital Stein
Students' Affairs Secretary – Mrs. Ora Achituv
General Secretary (fieldtrips and budgets) – Mrs. Sarit Azran
General Secretary – Mrs. Dalia Nachum

Center for Computational Geography:
Administrative Director – Dr. Tamir Grodek
Director of Cartography Lab. – Mrs. Tamar Soffer
Cartographer and Graphic Designer – Mrs. Miri Schmida
Cartographer and Webmaster– Mrs. Michal Kidron
Computer Programmer – Mrs. Tali Aviram
Physical Geography Lab. – Mr. Menashe Zaken

3.1.5. Please provide in the format of a table, the number of students enrolled in the program in each of the last five years according to level of degree (first degree, second degree with thesis, second degree without thesis, doctoral degree)

Year	B.A.	M.A. Non Research Track	M.A. Research Track	M.A. Total	Ph.D
2010-2011	210	89	13	102	28
2009-2010	199	87	26	113	28
2008-2009	195	77	25	102	27
2007-2008	220	85	25	110	33
2006-2007	249	94	36	130	36

3.2.6. Please provide in the format of a table, the number of graduates from the program in each of the last five years according the level of degree (first degree, second degree with thesis, second degree without thesis, doctoral degree).

Year	B.A.	M.A. Non Research track	M.A. Research track	M.A. Total	Ph.D
2010-2011	51	16	9	25	2
2009-2010	48	27	8	35	8
2008-2009	48	22	2	24	3
2007-2008	68	29	10	39	5
2006-2007	62	25	9	34	2

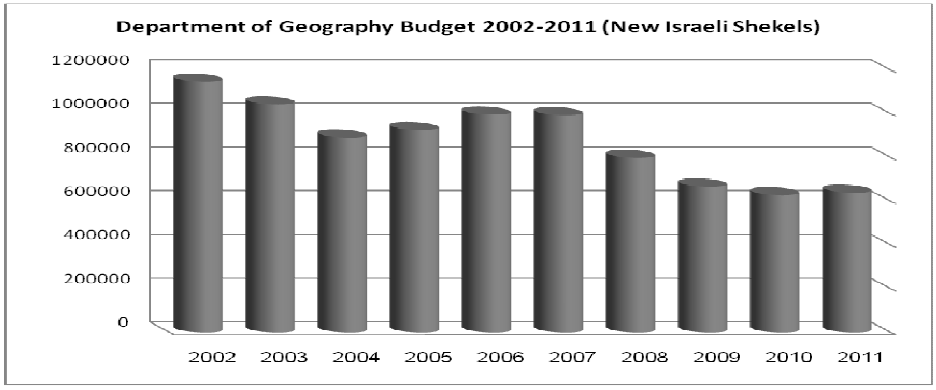
3.1.7. Department budget.

The Department has control over only part of its budget, i.e. the 'soft' component. This part of the budget finances adjunct teaching, teaching assistants, general office and management expenses and fellowships given by the Department to MA and PhD students.

The budget is calculated according to a complicated formula that takes into account various elements but is based mainly upon the number of students in the BA, MA, and PhD programs and research grants raised by the Department's faculty. The Department suffers from several budgetary problems:

1. While most of the other departments in the Faculty of Social Sciences have other sources of income, the Department of Geography does not have external sources of income such as a research center.
2. The Environmental Management, Policy and Planning specialization requires a large share of the Department's external teaching budget.
3. Fieldtrips, which are an essential component of the teaching of geography, are expensive. They are not covered under the Faculty's general budgetary formula. The allocation given by the Dean's office for fieldtrips covers only part of the actual costs.

Severe budget constraints in recent years have affected the Israeli higher education system and the Hebrew University; the cuts have had a heavy impact on the Department budget over these past years. The graph below visualizes this process.



3.2 The Program – Contents, Structure and Scope

3.2.1 The name of the study program, specializations/tracks within the program, the campus where it is taught.

The Department of Geography offers 3 main degree programs:

- A 3-year program towards the Bachelor of Geography (BA) degree with an option for a program in Geoinformatics
- A 2-3 year program towards the Master of Geography Planning and Environment (MA) degree
- A 5-6 years program towards the Doctorate (PhD)

The Department offers a broad undergraduate program, which aims to present a reflection of modern geography, its corpus of knowledge and its research methods. The MA program trains students in four areas of Geography: Physical Geography, Historical and Cultural Geography, a specialization in Environmental Policy, Planning and Management and a specialization in Urban and Regional Planning (in collaboration with the Institute for Urban and Regional Studies). The PhD program at the Hebrew University (HU) is administered by the Authority for Research Students.

All three programs are taught exclusively on the Mount Scopus campus. Master's students in Physical Geography may have to study several courses in the Edmund Safra Campus at Givat Ram.

3.2.2 Please provide in the format of a table the structure of the study program its content, and scope (years of study, semesters, hours per year and credits) and the distribution of the studies throughout the academic year. Does the study program supply courses to other units within the institution?

A Bachelor of Arts (BA) degree program at the Hebrew University is usually completed in three years, in a two-semester system. The BA program in Geography offers the following tracks:

- A Double Major in Geography and any other field of study offered by HU (all students must enroll in the double major track during their first year).
- A Single Major in Geography with complementary studies from other programs (a student may choose to switch to this track at the end of the first year (upon completion of the first-year requirements of both majors).
- A 32 credits program in Geoinformatics. A student can join this competitive program upon completion of the first-year requirements in Geography.

Number of students enrolled in the Geoinformatics program

	From Geography Department	From other Departments in the HU	Total
2009	11	1	12
2010	21		21
2011	21	6	27

Table 6.1 in the appendices describes in detail the course structure of the BA program (double major) in Geography, its content, and scope (years of study, semesters, hours per year and credits).

Master Program in Geography Planning and Environment (MA)

Over the last two decades, graduate studies at the MA level in the Department of Geography have been slowly transformed. From a largely unitary MA program, graduate studies have evolved into a set of structured graduate specializations with a common core. The MA Program today offers several core-courses that are required of all the graduate students and four[1] different tracks that have each their own course of studies with their respective core and elective courses:

1. MA in Geography Planning and the Environment with specialization in Urban and Regional Planning (in collaboration with the Institute of Urban and Regional Studies - IURS).
2. MA in Geography Planning and the Environment with specialization in Environmental Management Policy and Planning Program (EMPP).
3. MA in Geography Planning and the Environment and a program in Physical Geography.
4. MA in Geography Planning and the Environment and a program in Historical Geography.

The specializations in Urban and Regional Planning (given by the IURS) and the EMPP are formal programs that are open also to students from other departments. The MA program is designed to prepare students for a career in both academic and applied settings, and to equip them with a general proficiency of research, geoinformatic knowledge, statistical methods, and competence in research skills, and professional skills relevant to their field of specialization.

Distribution of MA students by program/specialization

Year	M.A. Total	Urban & Regional Planning	EMPP	Physical Geography	Historical and Cultural Geography	General M.A. (no program or specialization)
2010-2011	102	66	10	4	6	16
2009-2010	113	60	13	4	8	28
2008-2009	102	46	18	4	8	26
2007-2008	110	46	21	3	6	34
2006-2007	130	60	28	2	6	34

A Master of Arts (MA) degree program is usually completed in two or three years. Two tracks of studies are offered to the students:

Track A – Research track including writing an MA thesis. An average grade of at least 85 in the B.A is required.

[1] It is possible also to take an MA in geography without any specialization.

Track B – Non-research track. An average grade of at least 80 in the B.A is required.

The Department offers the following special MA programs and specializations within the Master Program in Geography Planning and Environment:

Specialization in Environmental Management Planning and Policy Program (EMPP) (804)

The Environmental Management Planning and Policy Program offer a graduate level multidisciplinary specialization within the Department of Geography. The curriculum and research agenda focus on public policy issues, land use and environmental planning, environmental economics, as well as natural resource management issues.

Development pressures in Israel, as in many other places, are often in conflict with environmental quality. Politicians and technocrats have to address multiple considerations in addressing such conflicts. To do so, they have to assess or critically review assessments of the consequences of alternative policy directions. The program is geared towards educating professionals who interact with decision makers and will eventually become decision makers in the public or private sectors, to deal with complex social choices in the environmental field. The program includes a number of core courses and a wide variety of elective courses taken from various environmental programs at the Hebrew University.

The program offers a focus on a number of areas related to the environment:

- Open land policies and planning, national parks and nature reserve protection and outdoor recreation habits
- Water policies, transboundary water management
- Transportation policy and planning
- Environmental planning in urban areas
- Sustainable development

Students who fulfill the specialization requirements are entitled to a notation of the specialization in their master diploma.

The program is also available to students outside the Department of Geography and as can be seen from the table below, they in fact constitute the majority of the students who take this specialization. Unfortunately, the new financial model of the Hebrew University is not supportive of this arrangement from the Department of Geography's point of view

Number of students in the specialization

Year	Geography and EMPP	Another MA and EMPP	Total
2010-2011	10	21	31
2009-2010	13	30	33
2008-2009	18	23	41
2007-2008	21	25	46
2006-2007	28	32	60

It should be noted that as part of the proposal to establish a supra-faculty school for Environmental Studies the department a proposal has been made to upgrade the EMPP into a full degree program. This proposal is detailed in appendix 6.6. This proposal has been approved by the Faculty's teaching committee, and is currently awaiting further discussions at the university level.

Specialization in Urban and Regional Planning (803) (with the Institute of Urban and Regional Studies)

The Institute of Urban and Regional Studies (IURS) offers a MA specialization program in urban and regional planning. This program can be studied in conjunction with a wider disciplinary graduate program in the Faculty of Social Sciences, or as part of relevant disciplinary studies in other faculties such as Law, Humanities and Agriculture. The program can be taken both in the research-oriented track (which includes the preparation of a MA dissertation) and in the non-research MA track (which comprises additional courses and seminar essays but no MA dissertation). The purpose of IURS program of studies is to deepen students' understanding in the realm of urban and regional planning and to provide them with knowledge of urban planning theories and techniques applicable to their future work in urban planning, policy, research and associated professions.
The majority of IURS students take Geography as their main disciplinary department, either because their BA degree is in Geography or because Geography is considered to be the disciplinary anchor that best fits the IURS program both in terms of content and integration with the Geography department's wider program of studies.
The teaching program is based on courses given by faculty members of the Department of Geography, and by adjunct faculty. The latter comprise mainly practitioners holding senior positions in the public service and in the private sector, and occasionally faculty members from other universities and researchers (holding a Ph.D. degree). The IURS teaching program also includes selected relevant courses from programs of other departments.

Core courses (including clusters of courses from which students are offered a limited choice) provide the essentials of urban planning: planning theory, planning law, planning procedures, real estate development, urban and regional models and planning studios. Elective courses cover major aspects of urban studies and urban planning, local government, planning and the environment, etc. Although the teaching program is rooted in an integrative social science approach to urban studies and urban planning, the IURS program does include some elective courses that aim to introduce architectural and design-based approaches to urban planning and urban design. Familiarity with such approaches, knowledge of the vocabulary used by architects is essential for the fruitful participation of IURS graduates in multi-disciplinary planning teams.

Number of students in the specialization

Year	Geography and IURS	Another MA and IURS	Total
2010-2011	66	20	86
2009-2010	60	19	79
2008-2009	46	20	66
2007-2008	46	9	55
2006-2007	60	18	78

Program in Historical Geography

Historical Geography deals with questions of how historical processes shape the geographical landscape of the past, present and future. In addition Historical Geography examines how geographic factors affect historical and cultural processes, as well as the relationship between geography and history. Historical Geography deals with these two fields of knowledge on a global, national, regional and local level. The Department of Geography has several lecturers who specialize in these areas, in both teaching and research, spanning periods from antiquity to the present day.

In recent decades there has been a surge in integrating planning, tourism and spatial development. Until recently nurturing environments of the past, conserving archaeological sites and historic buildings had been considered a burden. Today, they are increasingly perceived as cultural and economic resources. This concept is reflected in the establishment of the Council for the Preservation of Buildings and Places of Settlement (currently called the Society for the Preservation of Heritage Sites), legislation that promotes conserving sites, enforcement of the Antiquities Act and large investments in sites as well as in archaeological and historical museums.

The Historical Geography curriculum attempts to reflect this new emphasis. It is designed to provide training for graduates from various disciplines (such as geographers, architects, landscape architects, archaeologists, historians, planners, archivists and museologists), seeking to combine aspects of theoretical study and historical geographic research, along with practical aspects of conservation and development. It is possible to combine this study track with an additional program or specialization in the Department of Geography.

Program in Physical Geography

The Physical Geography program deals with the investigation of natural processes: climate, weather systems, hydrology, geomorphology, karst, soil, and lithology. These processes are examined for different historical and geological time periods and on different space and time scales. In addition, the program focuses on the study of interrelationships between natural processes and human related processes from prehistoric to modern times. The program aims to furnish students with skills that they can subsequently apply to investigating research questions related to the natural environment. The program courses provide students with knowledge, research approaches, methodologies and theoretical

aspects of natural processes, field and lab experimental work, mathematical and statistical models, remote sensing, and GIS.

Mandatory and selective courses are in areas of meteorology, climate, hydrology, geomorphology, karst, GIS, remote sensing and modeling, among others. According to the student background and thesis research area, the students are required to take courses in Mathematics, Physics and Chemistry and additional courses from other department (e.g., Institute of Earth Sciences). Field trips are an integral part of the program.
The MA program in Physical Geography consists of 36 credit points. General required courses are quantitative methodology in geography and the departmental seminar. The students are also required to participate in at least 10 days of field trips. Students take additional elective courses in Physical Geography to complete the 36 required credit points.
Elective courses for MA degree include: Karst, Paleoclimate and Environment; Speleology: processes and environment in caves; Climate and the Human Environment; Guided Work in Climatology; Natural Hazards; Raster GIS Workshop; Remote Sensing and others.

For more details on the structure of the MA program in Geography, its content, and scope (years of study, semesters, hours per year and credits) and the distribution of the studies throughout the academic year, please refer to table 6.1 in appendices.

Doctoral Program in Geography (PhD)

Doctoral studies at the Hebrew University are administered by the Authority for Research Students. Students interested in the PhD program apply to the Department. The Department Doctoral Committee screens the applicants based on their achievements and academic potential. Only students approved by the committee can proceed to register at the Authority for Research Students.

Courses offered to students outside the department:
The Department of the Geography is the leader in the Geoinformatics field (Geographic Information Systems, Remote Sensing, Tracking Technologies, etc.) at the Hebrew University. As a result BA students from relevant fields across the University increasingly choose to study in the newly established (2009) Geoinformatics program, which is offered to all BA students at the Hebrew University. The same pattern exist at the MA and PhD levels where students who need Geoinformatics skills take courses in the Department. This is done on an individual basis..

Field Trips
Fieldtrips are an essential part of the curriculum offered by the Department of Geography. Due to budget cuts in recent years, the Department has had to reduce the amount of day trips offered to the students, as seen in the table in the next page.

Year	B.A.	M.A.	Total Days
2011	25	23	48
2010	47	9	56
2009	39	22	61
2008	53	13	66
2007	46	18	64

3.2.3 Specify what bodies are responsible for the planning and managing of the study program. What are the mechanisms responsible for introducing changes and updating the study program, and how do they operate. If fundamental changes have been introduced into the study program during the last five years, please specify what they are.

The Head of the Department is responsible for planning and managing the undergraduate and graduate study programs. The Department Administrator is responsible for the actual program offered each year, including the on-going administration of the programs, enforcing program rules such as prerequisites, enrollment for courses, and fulfillment of all program requirements.
Changes in the study programs are discussed by the Teaching Committee, composed of faculty members representing the various teaching areas in the department, and headed by the department chair. Changes can be suggested by any teacher. Significant changes and reforms have to be approved at a department meeting of all faculty members. Once approved by the department, major changes also have to be approved by the Teaching Committee of the Social Science Faculty and the Dean. Decisions approved by these forums are implemented by the Department Administrator, who is responsible for incorporating the changes into the curriculum.

Over the past five years, the department has undergone an extensive process of evaluation, planning, and implementation of changes in the study program. This process was an outcome of the recommendations made by the International Evaluation Committee that reviewed the Department of Geography in 2006 as part of the Hebrew University's initiative to monitor and evaluate various academic units. As a result of the international committee's suggestions (see appendix 6.4), a departmental committee was established to implement the recommendations, working in conjunction with the University Committee for "Academic Policy".

Fundamental changes introduced into the study program over recent years are:

(1) During the 2008/9 academic year, a number of changes were implemented with regard to the B.A. program; these modifications were intended primarily to create clear distinction between the different years of study. This goal was advanced by creating distinct specialty fields within the undergraduate degree and developing clusters of courses by subject, including methodological courses and seminars relevant to each specialty.

(2) In the 2009/10 academic year, a new program of studies for BA students was launched in the field of Geoinformatics (see appendix 6.5). Since its inception, the program has been in great demand from the Department's students and there is also growing demand on the part of external students.

(3) Over the course of the past academic year (2010/11), the department launched the new program for M.A. studies entitled: "Geography, Planning and Environment". The program's goals are twofold: it emphasizes practical aspects of the study of geography; and at the same time, it provides a common foundation through core courses that are given to all graduate students regardless of their specific field of specialty. The collaboration with the Institute of Urban and Regional Studies has yielded a new specialization as part of the new MA program entitled: "Urban and Regional Planning", replacing the older specialization in Urban and Regional Studies.

(4) A new program in "Hydrology and Water Resources" was launched in the past academic year (2010/11), as a joint program of three faculties: Faculty of Science (Institute of Earth Sciences), Faculty of Social Sciences (Department of Geography) and Faculty of Agriculture, Food and Environment (Department of Soil and Water Sciences). The program is intended for MSc and PhD students and its main goal is to provide the students with theoretical and practical knowledge of the physical aspects of hydrology science (see appendix 6.5).

3.2.4 Describe the mechanism for coordinating and examining the contents that are, in fact, being taught, if such a mechanism exists.

The teaching committee examines and coordinates course content. From time to time the Department Head convenes teachers of a certain subject (e.g., Geoinformatics and Urban Geography) to discuss the material covered; structuring the courses to make sure they cover all of the intended material and minimize overlap.

3.2.5 Are additional non-academic bodies involved in the running and the activities of the parent unit and study program?

No non-academic bodies take part in the operation of the Department.

3.2.6. What are the future development plans of the evaluated study program, and how were they decided upon?

In the coming years, we intend to continue developing the teaching program in the Department along a number of different tracks. The first initiative, which was approved by the faculty's teaching committee in March of 2011, involves a shift in the Geoinformatics program for undergraduates. This transformation will begin in the 2011/12 academic year, and will change the program to one for honors students only. This will be combined with a series of changes intended to improve the program, including a change in the curriculum so that all courses required are mandatory and the addition of a requirement for an annual practical project. This step comes as a result of experience and feedback over the past two

years and given the demand for the program both within and outside the Department. In the more distant future, we intend to consider creating a Geoinformatics specialty in the MA degree as well. But this, of course, is contingent on recruiting appropriate faculty and staff members in the relevant fields and the continued development of this field in the Department.

A second initiative, also approved by the faculty's teaching committee in March 2011, is the inauguration of an additional M.A. degree to be given by the Department of Geography in cooperation with the proposed Advanced School for Environmental Studies currently being considered at the Hebrew University. If approved, this new school will be inaugurated in the 2012/13 academic year (see appendix 6.6). The Department of Geography, in cooperation with the school, will grant a graduate degree in "Management and Policy of Environment and Natural Resources". This program, which will hopefully begin in the 2012/13 academic year, will accept only students with especially high academic achievements (a B.A. average of 85 or higher); the track will be suitable for exceptional students and characterized by a high academic level. The degree will constitute a significant upgrade to the environmental specialty program that has existed within the Department of Geography for more than two decades. Moreover, the program will facilitate the continued development of teaching and research in the field of environment, making the Department competitive with similar programs that have been created over the years in other institutions in Israel.

Over the long term, the Department is considering developing a graduate degree (and not only a specialization) in Urban Geography and Planning in cooperation with the Institute of Urban and Regional Studies, as recommended by the international committee in 2006. This, however, is contingent on the allocation of additional teaching positions to the department as well as "soft" financial resources for the funding of adjunct instruction necessary for this type of program.

3.2.7 In summary, to what extent has the program achieved its mission and goals? What are its strengths and weakness?

Given the extensive modifications in the program described above, the Department is highly satisfied at present with the BA and MA programs. We feel that these programs provide a balanced education in all areas of geography, balancing both the theoretical and the practical (in the MA) facets of the discipline, thereby providing curricula to train first-class geographers. In recent years, the rapid developments in geoinformatics have been integrated into the program, and this, together with the introduction of the new MA program, allows the Department to provide a coherent approach to modern geography, moving into the twenty-first century. We believe that the Department of Geography at the Hebrew University offers a very extensive research-oriented program. We see ourselves as the leading geography department in the country; a department that compares favorably with most first-class geography departments in other countries.

At present the department faces several challenges:

- Due to retirements and planned retirements of several faculty members in recent years, there are several areas that are under-represented in the department. In particular we are lacking in the areas of: cultural geography, political geography (geo-politics and urban politics), behavioral geography and geomorphology. Active efforts to recruit new faculty members in these areas are ongoing.
- Severe budget constraints in recent years have had their toll on the teaching and learning experience. As the number of adjunct teachers has been cut, we were forced to reduce the number of elective course offered. As the number of teaching assistants has been reduced, the size of exercise classes increased, fewer assignments are given than in the past, and an increasing number of assignments are prepared jointly (mostly in pairs) rather than individually. Fieldtrips, which are an essential component of the teaching of geography, are expensive and are not covered under the Faculty's general budgetary formula. The allocation given by the Dean's office for fieldtrips covers only part of the actual costs. Due to cuts in these allocations the number of field trips had to be reduced.
- Currently the Department cannot grant a M.Sc. degree to its graduates in the physical geography program. The result is that two thirds of the students in this program who write their theses under the supervision of the department's physical geography faculty are actually registered in other departments in the Natural Sciences. This creates a financial loss for the Department and hinders many more students who wish to undertake graduate studies in physical geography.

3.3 Teaching and Learning Outcomes

3.3.1 What steps are taken in order to evaluate teaching and improving teaching? How the results of these activities are used, specifically, the negative findings about staff members' teaching? Does the unit act in order to locate and encourage excellent teachers? Does the unit or the institution offer the teaching staff regular and systematic activity, including courses/in-service training/instruction and guidance programs in order to improve the quality of teaching? Do new staff members receive special support?

The Hebrew University and the Department of Geography place considerable emphasis on the quality of teaching. Students are asked to fill out evaluations for every course they take. In recent years the evaluation process was adapted for internet use and all students of a given course can fill out the forms and submit them at their convenience using the Internet. These evaluations are taken very seriously at the University and faculty levels. The compiled students' evaluations for each course are now available to students as part of the course description in the course catalog. Outstanding teachers are awarded commending letters from the Rector and the Department Head, and their names are publicized by the University on Outstanding Teacher posters in each department. The best teachers are also awarded a Rector's prize for outstanding teachers.

A workshop is offered annually for teachers with poor evaluations from their students, in an attempt to improve their teaching skills. The Dean and the Department's Head follow up on such teachers and assess the improvement in their teaching. Teaching skills are an important factor in faculty promotion and are seriously considered by promotional committees for all levels of promotion. In cases of promotion with tenure, a senior teacher attends a typical lecture given by the candidate and submits a Teaching Skills Report to the promotion committee.

According to the regulations for appointments and promotions which were recently adopted by the University, new lecturers are assigned a mentor from the senior faculty, who assists them in the initial stages of their academic career. In addition, the Faculty of Social Sciences offers a short introductory course in teaching methods for new faculty. From time to time, the School of Education, together with the Rector's office, offers workshops open to all teachers to improve their teaching skills, and workshops to advance the use of technology (i.e., preparing PowerPoint presentations, advances in Office, etc.).

3.3.2 Please provide in an appendix to the report, the rankings of the courses as found in the results of the teaching surveys given by the program in the last 5 years (those of faculty members and those of adjuncts). Please divide the information by obligatory courses, elective courses, seminars, and labs/workshops. If the program is using other methods of evaluation, please specify them.

See appendix 6.3.

3.3.3 Describe the use of information technology in teaching and learning: methods, scope, types of course etc.

The use of information technology in teaching and learning is expanding rapidly. Below we list several examples of technology uses in teaching, in ways that greatly aid both students and teachers.

- The current on-line learning system, HighLearn, provides an easy way for setting up a website for a course. During the next academic year the whole University will switch to Moodle (which were adapted to the Hebrew University needs), which is another on-line learning system. Almost all courses in the department have their sites on HighLearn. On the site students can access course material, including the syllabus, PowerPoint presentations, reading material (especially PDF files of assigned articles), and assignments. Some teachers use the course site for discussion forums, posting messages to students and receiving feedback.
- Access to E-journals, databases, on-line catalogues, book reservations, and the like is available on and off-campus using the Mount Scopus library database.
- The number of "smart" classrooms – equipped with multimedia devices – is continuously growing in the Faculty of Social Sciences. Such classes provide for the use of PowerPoint and overhead presentations, videotape and movie displays, and in-class use of internet resources.
- All students are provided with a university email account. Students' email accounts, together with text-messaging to their mobile phones, are a common means of communication with the university. The entire process of individual study programs is completed on the Internet. Students' evaluations of their teachers are conducted on the Internet. Information about grades, class cancellations, schedule changes, and the like are sent via email and text-messaging services.
- A spacious 'computer farm' was recently established in the Faculty of Social Sciences, with hundreds of computers available for students, including associated services such as printers, scanners, etc. The computer farm includes a number of classrooms equipped with a computer for each student and a master computer for the instructor. Some classes are conducted in these computer classrooms, such as statistics and various GIS courses.

Almost all courses have a website from which the course's learning material (syllabus, PowerPoint presentations, reading material, class assignments, etc.) can be downloaded. Most teachers use various computer-assisted presentations in their lectures, such as PowerPoint, videos and movies, PDF files, and sometimes the Internet. The demand for "smart" classrooms is growing.

3.3.4 Learning Outcomes

3.3.4.1 What are the program's intended Learning Outcomes (LO)? How were they set?

The learning outcomes of the department were developed during the past decades and are the legacy of the former generations of faculty. The learning outcomes are being evaluated on an annual basis and are modified if needed by the

department's teaching committee. The full list of learning outcomes for the different programs appears in appendix 6.16.

The BA Program

The purpose of the undergraduate program is to introduce our students to the core issues in geography, to provide them with basic concepts and scientific tools in the various areas of geography, and to acquaint them with the possible applications of this field of study.

The compulsory courses in the undergraduate program achieve these aims. Our BA program puts a special emphasis on research. Students are required to take 2 courses in statistics and research methods (8 credits), a course in GIS (3 credits) and a course in computer use (SPSS+Excel; 2 credits), which acquaints them with the experimental approach and methodological tools. These courses lay the foundations for research planning and statistical thinking, including the basics of geo-statistical analysis using GIS and SPSS. Unfortunately, due to budget cuts in the higher education system in Israel in recent years, there has been a parallel cut in the junior academic staff and teaching assistants the department employs. As a result, we now offer fewer exercise classes per course (more students per group) in each of the compulsory courses.

During their undergraduate program, students are required to take 7 core courses. These courses provide a broad perspective on the various areas of geography. The program ensures that students are introduced to a broad perspective on the theories and empirical concepts in the entire field of geography.

Another goal of the BA program is to prepare students for continuing education, MA or PhD, in geography.

All students are required to submit a final seminar paper (4 credits) during the BA program. The writing task is supervised by the department's teachers, who also grade the final report.

To summarize, the BA curriculum achieves its goal of laying a strong foundation for the understanding of the diverse areas of the broad field of geography. The program provides the knowledge base of geographic theories and concepts through the core courses; research methods and statistical skills by presenting quantitative and qualitative methods in the discipline; learning skills, critical thinking and reasoning through small seminar groups; and writing skills through term papers and the final seminar paper. Field trips add the necessary training of a geographer in the field. This solid foundation prepares the students for continuing education, in the Master's or doctoral program, in research or applied areas.

The MA Program

The goal of the MA program is to prepare students for careers in both academic and applied settings, and to equip them with a general knowledge of research and statistical methods, competence in research skills, and professional skills relevant to their field of specialization. As described above, the Department offers an MA program in several areas.

The diversified and complex programs imply a diversity of professional requirements and training approaches. However, students from all programs have to participate in at least three core courses (6 credits) aside from methodological

courses. Research skills are achieved with compulsory first-year courses of Advanced Statistics and Research Methods (6 credits).
Altogether, the department achieves a fine balance between the research and applied requirements of the various areas. The goal of the MA program is realized through the combination of compulsory and elective courses, research and professional training, and theoretical and applied courses.

The PhD Program
The primary goal of the PhD Program is training researchers for academic and applied settings, to broaden and deepen the knowledge base on which the science of geography rests. Students perform their doctoral work under the supervision of a faculty member of the department. As mentioned above, doctoral programs at HU are administered by the Authority for Research Students. The authority appoints a PhD committee, chaired by the student's advisor, which assists the student in planning the research and provides critical feedback as necessary. The committee approves the dissertation proposal and complementary course work for the doctoral student, monitors his/her progress, and approves the submission of the written dissertation, which is finally judged by external referees. The dissertation has to be based on an original scientific contribution to geographic knowledge, including extensive research work or theoretical study.

3.3.4.2 Describe the methods applied to measure Learning Outcomes according to the following:

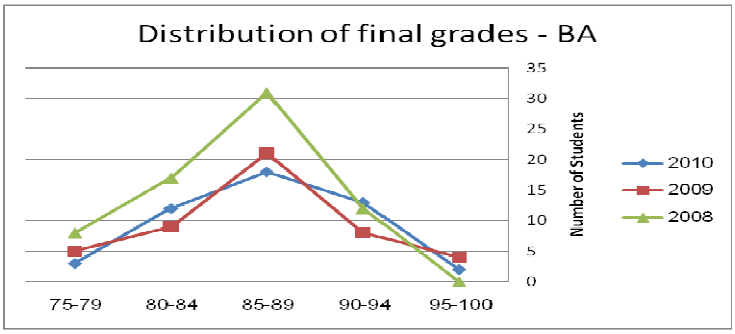
3.3.4.2.1 Examinations

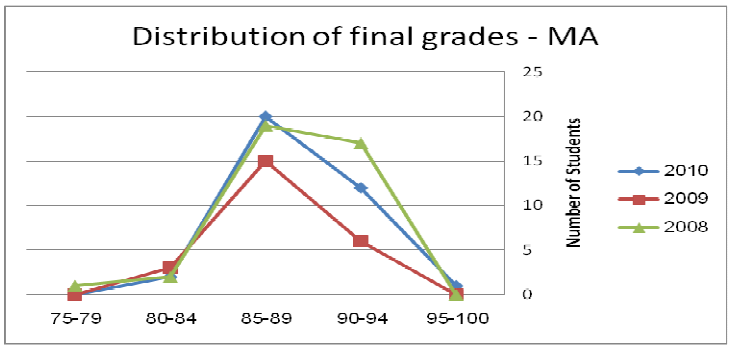
a. Describe the method of examinations and their character, the relative weight of each type of examination in the final grade (written/oral/open/multiple-choice etc.).

And

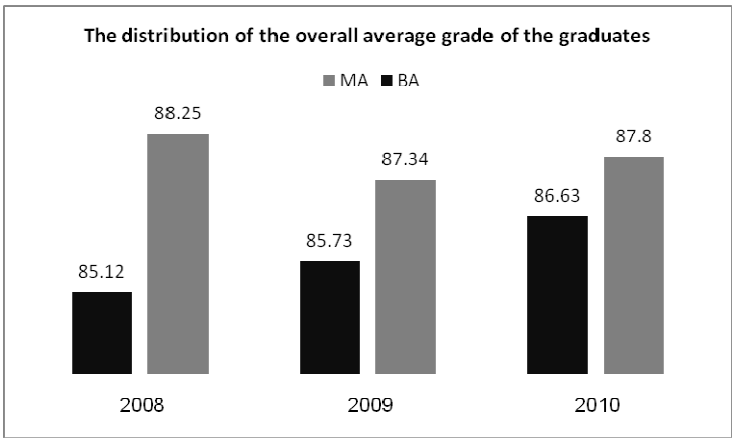
b. Who constructs the examinations and how is the validity of the examinations assessed?
All the exams except in Geoinformatics courses are written exams. The majority of the exams in compulsory, core courses, and in many elective courses consists of a combination of open-questions, multiple-choice questions and short open questions (with a limited amount of space allotted for each answer). The weight of the exam score in the final grade varies among courses. In many core courses the final exam constitutes 100% of the course grade. In courses with assignments, the average score for the assignments may account for 20-40% of the final grade. Some courses hold a midterm exam that may account for 20-30% of the final grade. Exams are constructed by the lecturer responsible for the class and should reflect the relevant learning outcomes.

c. Please provide in the format of a histogram how the final grades are distributed in all study programs and all degree levels in the last 3 years.





d. If the relevant information is available, please present (in the format of histogram) the distribution of the overall average grade of the graduates (not including the grade of the thesis for the second degree) for each of the last three years.



<u>3.3.4.2.2 Written assignments (projects, thesis, dissertations)</u>

a. Describe the types of written assignments and other projects required in the program, their contents and scope (seminar papers, degree papers, thesis, training period, practical training etc).
AND

b. What are the methods applied to evaluate written assignments and projects? What kind of feedback, apart from the grade, is given to the students in relation to these assignments and projects?

There are several types of written assignments. Compulsory courses in the BA program are accompanied by weekly or bi-weekly assignments, to make sure that students have assimilated the new material and to encourage them to prepare for future classes. These assignments are submitted regularly, and are returned to the students with a written feedback (with or without a grade).

Many of the seminars, and all of the research seminars, require a written paper, which often serves as the sole basis for the final grade. The number of written assignments and their relative weight in the final grade is determined by the teacher and announced to the students in the syllabus. These written assignments demand individual efforts by each student, and are graded by the teacher.

All students in the BA program are required to submit a final seminar paper. The goals of this assignment are to train students to focus on a particular topic, search for references, decide on the subtopics of the paper, and write the paper in a way that demonstrates understanding of the issues at hand, assimilation of the reading material, and writing skills. The seminar paper is written within a dedicated seminar course. The students meet with the seminar teacher (always a senior faculty) on a one-to-one basis to discuss the seminar paper and the progress they have made in preparing it. The work is an individual effort of the student. Students have to present their paper to the class and their performance is evaluated. Finally, the seminar paper is submitted to the faculty member who supervised the process, who then grades the final paper.

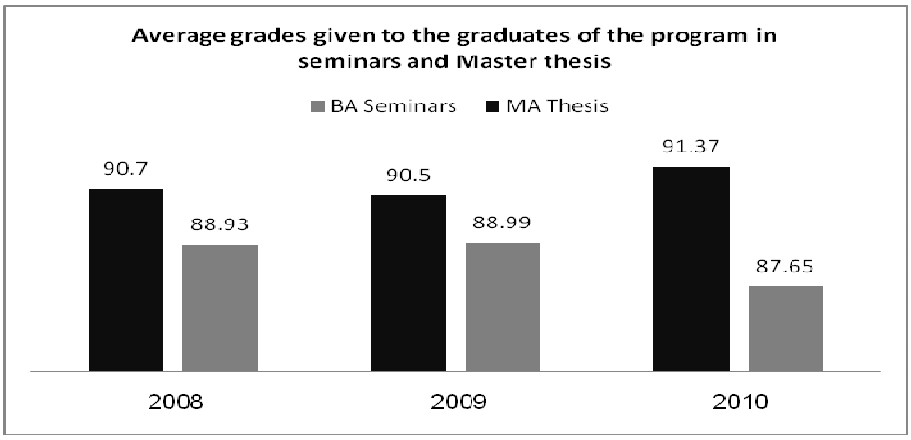
In the MA program students write more papers. These writing assignments are conducted as described above.

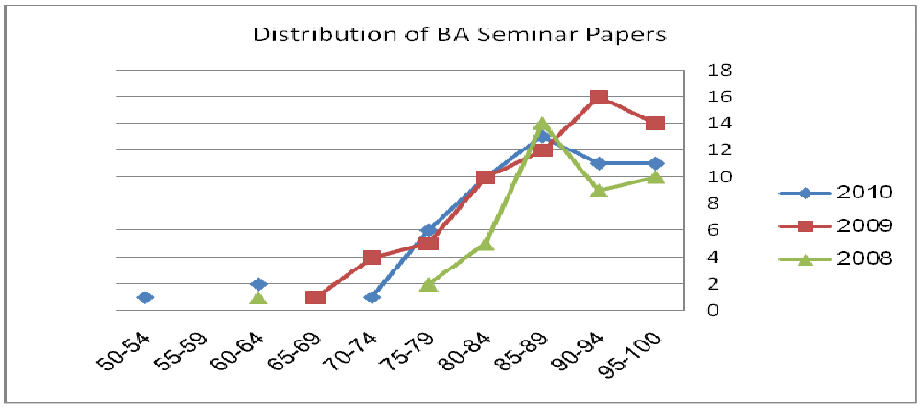
The Department of Geography has two tracks for MA studies. One of the tracks requires a research thesis. The MA thesis is an independent research project carried out by individual students and supervised by individual faculty members, and is intended to demonstrate the student's ability to carry out an original research. Once a student finds a faculty member with whom he/she plans to conduct the work for the thesis, and they discuss the research question, the student is required to submit a thesis proposal. When the proposal is submitted to the MA advisor, he/she review it and make comments. Once the advisor is satisfied with the quality of the proposal, a committee is appointed by the Department's Chair. The committee has to approve it. Only then the student can go on to conduct the research. Students work intensively on a one-to-one basis with the advisor(s).

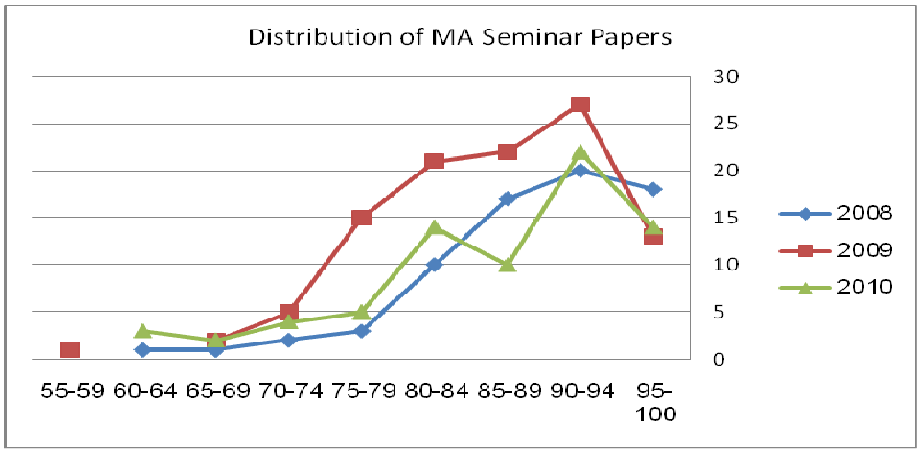
The written thesis is evaluated by the thesis advisor(s) and another faculty member appointed by the Department Chair. This second reader may suggest or require revisions and indicate whether or not these revisions will affect the student's grade. Reviewers provide a full written evaluation, as well as a numerical grade. The final grade on the written thesis is the average of the grades given by the advisor and second reader. In general, we are quite satisfied with the quality of our MA theses. Some of them have been published, or have been a basis for publication, in refereed journals; and some of them have served as the basis for a follow-up dissertation.

As described earlier, the PhD program at the HU is administered by the Authority for Research Students, which sets very high standards for doctoral dissertations and is responsible for the evaluation of the dissertations.

c. What is the average grade given to the graduates of the program in the final project/ final seminar/thesis in each of the last three years? Please present (in the format of histogram) the grades distribution of the final project/final seminar/thesis.







3.3.4.3 Please specify the number of graduates who graduated with honors.

Year	Summa Cum Laude		Cum Laude	
	B.A.	M.A.	B.A	M.A.
2009-2010	2	1	10	1
2008-2009	3	0	3	2
2007-2008	0	0	9	3

3.3.4.4 <u>Other</u> - any other methods applied to measure the achievements of the students used by the institution.

Some teachers assign a value to class attendance, to participation in class discussions, or to contributions made to class forums. These requirements are made known to the students in the course syllabus and in the first meeting of the course, and are incorporated into the final grades by the teacher.

3.3.5 In summary, to what extent have the methods applied to measure the teaching and learning outcomes achieved their goals? Do you think that the intended LO were achieved by the students?

Although no form of assessment is foolproof, we believe that the assessment methods used in the Department to measure students' knowledge and skills provide an accurate picture and are therefore satisfactory. In required and core courses we mostly employ a combination of open-questions, multiple-choice questions and short open questions. Seminar courses generally use a combination of an exam with a term paper, or just a paper, to assess students' achievements. Students are also required to submit a seminar paper in both the BA and the MA programs. These are supervised assignments that provide an opportunity to assess the students' ability to cope individually with scientific material, their thinking processes, and their writing skills. Thus, we feel that the assessment methods we use are effective.

<u>Weaknesses</u>: Severe budget constraints in recent years have had their toll on the teaching and learning experience. The number of Teaching Assistants has been reduced, resulting in larger exercise groups, fewer assignments than should be given, and in some courses the execution of assignments collectively (in pairs) rather than individually.

3.4 Students

3.4.1 Please provide in the form of a table the number of students enrolled in the program (on all levels) over the past 5 years.

Year	B.A.	M.A. Non Research Track	M.A. Research Track	M.A. Total	Ph.D
2010-2011	210	89	13	103	28
2009-2010	199	87	26	114	28
2008-2009	195	77	25	102	27
2007-2008	220	85	25	110	33
2006-2007	249	94	36	130	36

3.4.2 What are the entry requirements/criteria for the program and the actual admission data (first degree and advanced degrees), including the "on probation" status.

Please submit data concerning the number of applicants, admitted students, and enrolled students in the program in the last five years (divided by degree) as follows:

a. The number of candidates that applied to the program, the number of admitted students, the number of students that began their studies, and the number of students that completed their studies, including those admitted "on probation".

Number of students (candidates, accepted, and registered for courses)

		2010/11	2009/10	2008/09	2007/08	2006/07
B.A.	Candidates	139	151	157	164	188
	Accepted	85	89	95	91	106
	Registered*	53	59	48	55	63
M.A.	Candidates	63	55	57	59	73
	Accepted	49	42	38	34	50
	Registered	38	32	27	28	34
M.A. 804	Candidates	22	37	39	35	34
	Accepted**	14	29	26	20	20
	Registered	8	11	11	12	13

* Registered refers to candidates who were accepted to the Department as first year students and registered for courses.

** Includes candidates who were accepted to the program and then canceled after being accepted to another Department that ranked higher on their list of priorities

b. What are the de facto admission criteria for the program? If there is a discrepancy between the admission criteria and the de facto admission data please specify.

Averages of the matriculation exams and psychometric exam scores for accepted students, and for students who began their undergraduate studies in Geography, by year.

Group	Admissions Data	Statistics					
			2010-2011	2009-2010	2008-2009	2007-2008	2007-2006
Accepted	Matriculation Exams	Average	10.05	10.08	10.04	9.88	9.76
		Std. Dev	0.70	0.57	0.60	0.56	0.66
		Number	75	70	84	78	77
	Psychometric Exam	Average	640.6	631.6	631.9	625.8	614.5
		Std. Dev	66.7	66.2	71.8	61.6	63.7
		Number	81	78	84	81	96
Registered	Matriculation Exams	Average	9.88	10.03	10.02	9.92	9.80
		Std. Dev	0.68	0.57	0.59	0.63	0.70
		Number	43	48	45	44	44
	Psychometric Exam	Average	623.7	624.3	637.9	632.0	607.3
		Std. Dev	70	68.6	68.4	61.6	69.7
		Number	50	51	42	46	52

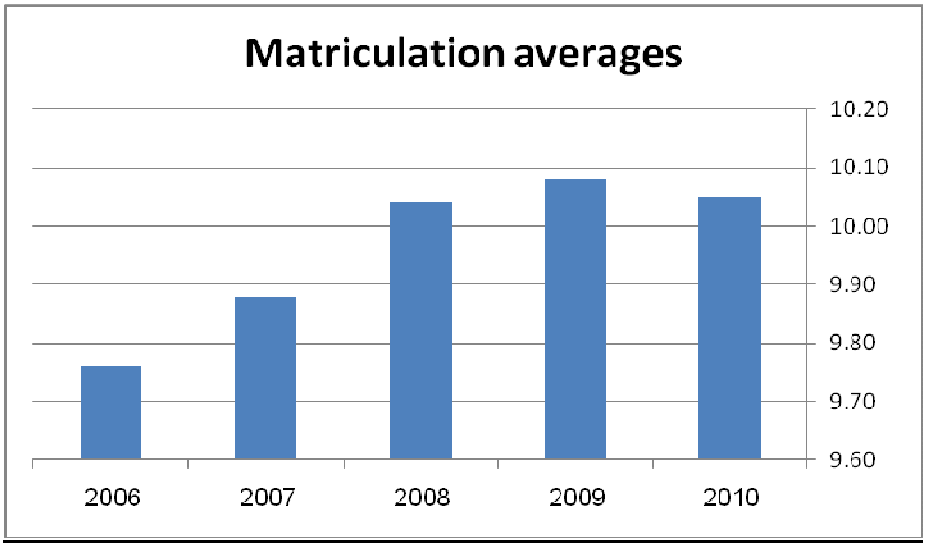
Notes:

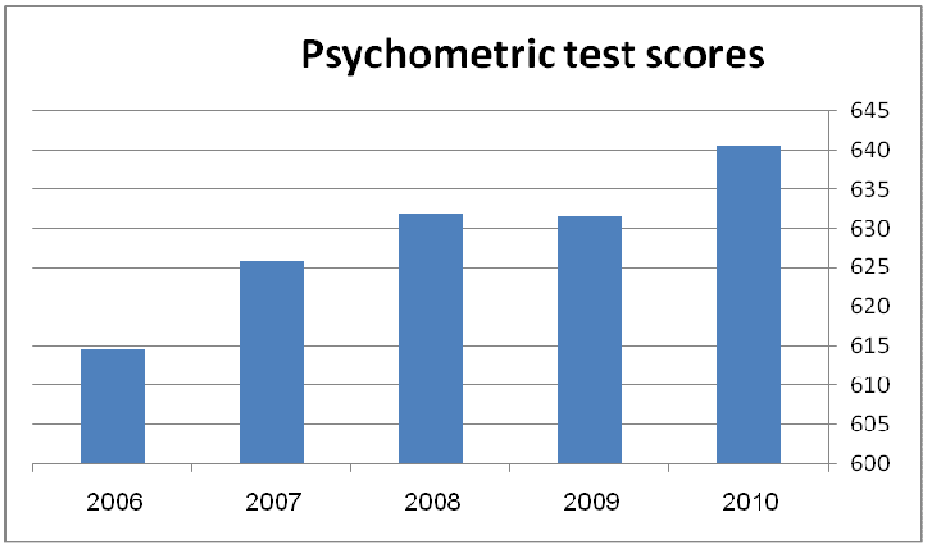
- We do not have all the data for every student. The student's grade average from the preparatory unit, or a previous academic degree, may be substituted for a Matriculation grade average in the adjusted calculation with the Psychometric Test. New immigrants who do not hold an Israeli Bagrut Certification (Matriculation) may be accepted based on their Psychometric Test score or a substitute score from abroad.

- The grades in the psychometric test range between 200 and 800, with a mean of 560 and a standard deviation of 90. The maximum Matriculation grade can be greater than 10 because students can get bonus points if they are enrolled in advanced classes.

Students with a BA or MA from another department who would like to be accepted for MA studies in Geography need an average of at least 80 in their BA studies at the Hebrew University or any other acceptable higher education institution in Israel or abroad.

c. In the format of a histogram, please present the range of psychometric test scores or the equivalent as well as the range of matriculation averages of the students that were admitted to the program in the last five years.





d. Data regarding the alumni of the programs (in all levels): E.g., the number of students who continued on to advanced studies, employment data.

Unfortunately the department does not maintain formal contact with its graduates; therefore accurate employment data is not available. However, the Department's graduates have found positions in planning, development, and protection of environmental quality in government offices (the Prime Minister's Office, Ministry of the Environment, the Planning Authority of the Ministry of Interior, local authorities, the Israel Nature and National Parks Protection Authority) non-governmental organizations (Society for the Protection of Nature in Israel, Council for Restoration and Preservation of Historic Sites in Israel, etc.), as well as in private consulting firms (mainly in the fields of urban environmental and regional planning and transportation). 71 BA graduates over the years 2007-2010 continued to graduate studies at the Hebrew University.

3.4.3 Describe the selection and admission process, the criteria of advancement from year to year and for completion of the studies, including the requirements for being entitled to receive an academic degree. Is there a policy of affirmative action and standards for the admittance of candidates with special needs? In case such policy and standards have been established, please describe them. How are the admission criteria decided upon, and to what extent are the criteria and procedures for admission related to the aims of the program? What have been the lowest admission data (psychometric score and matriculation grades) for the program?

Undergraduate studies

Conditions of Admission to Undergraduate Studies in the Department of Geography

- Entitlement to the Israeli Matriculation Certificate ("Bagrut" Certificate)
- An appropriate score on the Israeli Psychometric Test.
- Knowledge of the English language – meeting the University's minimum requirements (Level 3).
- Knowledge of the Hebrew language – meeting the minimum language requirements for students whose did not attend a Hebrew-language high school.

These conditions apply to all candidates for entering the University, with the aim of identifying and admitting candidates with the greatest chances of succeeding in their studies.

Admission Procedure

- Admission is based on an adjusted calculation of the Bagrut Certificate score and the Israeli Psychometric Test score. Candidates with the highest calculated average are accepted, according to the number of places available. The admission requirements may change from year to year.
- Previous studies – Grades achieved in other academic programs (such as the Hebrew University or Tel Aviv University preparatory programs (Mechina) or previous academic studies) may be substituted for the Bagrut score in the adjusted calculation. If a student has several academic achievements, the highest grade is used in the adjusted calculation.

- Students from abroad are required to hold a high-school certificate equivalent to the Israeli Bagrut Certificate, a certificate of studies in a Mechina (Hebrew language) program, or academic studies from their native country. The Mechina programs at any of the universities are accepted as providing equivalency to the Bagrut certificate in the absence of that certification. The student's final grade at the Hebrew University's Rothberg International School is calculated together with the Psychometric Test score. Other Mechina programs only entitle equivalency to the Bagrut certificate, but the grade is not taken into account; and the student's weighted grade is calculated solely on the basis of the psychometric grade. There is no differential admission threshold for candidates from abroad. These candidates are required to meet the same criteria as the Israeli candidates.
- A candidate may request admission to a maximum of four fields of study, according to personal preference. The admission procedure follows the order of preference listed in the registration form. If a candidate's first preference is Geography and the candidate is accepted, then his/her qualifications are reviewed to determine whether s/he can be accepted to his/her second choice, provided that it is compatible with Geography in the dual-major track. If so, further options are not checked. If a student is not accepted by his/her first preference, then his/her suitability for the second preference is reviewed, and so forth. If the decision regarding a student's admission to the first preference is still pending, then the suitability for the second preference is reviewed. If a student is accepted in his/her second preference and is later admitted into the first preference, then the acceptance to the second preference is cancelled, and so forth. As a consequence, there are some students who are accepted by the Department of Geography, but when they are accepted later by their first preference, their admission to Geography is cancelled.
- A candidate whose qualifications do not meet the standard admissions criteria, but who holds other relevant qualifications, may apply for special consideration. Such applications are reviewed by an Appeals Committee.

Determining the conditions for admission

The Selection and Assessment Unit assesses the selecting and sorting processes of the admissions procedure. They examine the correlations between the various admission criteria and academic achievement (failure, success, grade point average) and how these components should be weighted to improve prediction of academic achievements. These tests employ data from several years to increase the stability of the findings. The results are discussed by a professional committee that includes experts in the fields of psychology, statistics and education, which may recommend changes in the procedure of selecting the candidates.

Affirmative action

• Since 2002 the Hebrew University has been applying affirmative action to admission to all fields of study, including Geography.

• Candidates to the Department of Geography who belong to a group recognized as requiring advancement based on the criteria of the Education Advancement Association can be accepted by the Department of Geography even if their

calculated grade is slightly lower than the required grade, according to the number of places available for this group.

Acceptance of candidates with special needs
Candidates with disabilities (visually impaired, blind, or hard of hearing) may be administered the Psychometric Test under special conditions, based on their specific disability. If they do not achieve the required acceptance criteria, then their request is evaluated by the Appeal Committee.

Graduate studies
There are two tracks for the MA program – a research track, including a master's thesis or a non-research track. Four areas are offered, as described in section 3.2.

Conditions for acceptance to the program
Students with a BA or MA from another department who would like to be accepted for MA studies in Geography needs an average of at least 80 in their BA studies at the Hebrew University any other acceptable higher education institution in Israel or abroad. Then they are accepted into the 'Completing' program (Limudei Hashlama) for graduate studies in Geography, which includes all the required undergraduate courses.

3.4.4 What are the de facto criteria for advancing to the next year in the program as well as the criteria for completion of the degree, including the graduation requirements.

Criteria for advancement in the undergraduate program
- The criteria for advancing from year to year are specified by the Faculty of Social Sciences. A student must achieve a minimal grade of 55 to pass a course. The prerequisites for each course must be met before a student can enroll in the course.
- Exemption from the language requirement by the end of the first year, in English (minimum grade of 70) and/or Hebrew (minimum grade of 75).
- The criteria for completion of the degree are passing grades in all the required courses. Students with a double major must complete 60 credits in geography courses, while students with a single major must complete 63-67 credits.

Criteria for completion of graduate studies
The types and number of courses depend on the particular area. Graduate studies toward the MA degree include general required courses that are common to all the areas, required and elective courses within each area, seminar papers based on research (amount depends on the different specialization and if the student study is on the research-thesis track or not), and one Master's thesis if on the research-track. It is necessary to complete all the required first-year courses in order to take more advanced courses.

3.4.5 What is the yearly drop-out rate of students from the program over the last five years, and what are the reasons for their leaving (academic/financial/other)? Is there satisfaction with the drop-out rate? If not, what steps does the unit take in order to prevent, reduce or increase drop-out?

	B.A.				M.A.	
	From First Year to Second Year		From Second Year to Third Year		From First Year to Second Year	
	%	Numbers	%	Numbers	%	Numbers
2011	4.76	3	12.50	7	8.82	3
2010	-3.70*	-2	13.79	8	7.69	3
2009	7.94	5	25.00	17	23.53	8
2008	8.11	6	17.39	12	22.50	9

* Negative dropout rate- new students joined the second year of the program

3.4.6 To what extent are the program's students involved in research projects of the staff members? Specify in which projects, the number of students involved and the scope of their involvement. Is there a procedure for encouraging students to carry out independent research of their own?

BA, MA and PhD students are employed as research assistants in the department laboratories. This number increased dramatically in recent years due to the immense success of the Department's faculty in raising research grants in recent years (see elaboration regarding this issue in chapter 4). Over the past 5 years faculty members in the department have supervised 110 MA students, 59 PhD students, and 9 post-doctoral students (see appendix 6.7).

3.4.7 <u>Counselling systems</u>:
3.4.7.1 Describe the system of academic counselling for students before and during the period of study (including reference to the structuring and approval of the study curriculum). Do students with special needs receive special support? If so, please specify.

BA Program

Students who are about to begin their undergraduate BA studies are referred to the BA counselor for information regarding the BA and advice on structuring their curriculum. The BA counselor also helps find solutions for students with special needs, mostly by directing them to the appropriate faculty and University services, making sure they receive the support they need. This includes, for example, directing students in need of psychological support to the University psychological-counseling services, directing blind students to the Center for the Blind where they receive help and guidance, etc. The counselor also makes sure that students with language difficulties or learning disabilities receive the adjusted conditions they are entitled to (e.g. special exam conditions, a reader and/or a writer, extra time).

MA Program

MA students consult with the MA councilor and the specialization coordinators before and during their studies to receive guidance regarding their program, including special requests. For example, students wishing to take courses from other departments may do so with the approval of the specialization coordinator. Additional meetings are held throughout the academic year, providing the students with the opportunity to discuss relevant issues with the area coordinator.

Students with special needs

There are a number of facilities available for Hebrew University students with special needs. A detailed list of these facilities follows. This description is available for students on the Web (Hebrew University homepage http://www.huji.ac.il/ and click on Information for Students – Dean of Students Office or direct link: http://studean.huji.ac.il/).

- Students with physical disabilities: In 2003 the Hebrew University began implementing a long-range plan to render all campuses accessible to students with physical disabilities. Currently, construction has been completed at the Mt. Scopus campus, where appropriate pathways and elevators were added to accommodate wheelchairs and enable handicapped students access to public facilities, lecture halls, seminar rooms, laboratories, computer facilities, libraries, toilet facilities, cafeterias etc. The plan will be extended to other campuses when funds become available.
- Students with learning disabilities: Professional personnel provide individual and group counseling and tutoring for students with various types of learning disabilities. The University provides a unique learning environment, which is aimed at helping learning-disabled students maximize their academic achievements.
- Blind students and students with impaired vision: The HU houses a unique study center for blind students and students with impaired vision. The center provides sophisticated instrumentation, including an audio library and specially designed computers which are available both at the center and on long-term loans for home and classroom use. All computer facilities are equipped with special software programs. Private tutoring is available both for academic needs and orientation around the campus.
- Students with hearing disabilities: Special audio equipment is available for long-term loan. If needed, tutors, photocopies of study material and other aids are provided. Several lecture halls on Mt. Scopus are equipped with special hearing aids.
- Psychological counseling: Counseling by experienced personnel is available on all campuses for HU students requiring help with personal crises.
- The Computer Centers on the Mount Scopus campus are accessible to physically handicapped people. The main computer center is equipped with a stair lift, and there is a direct passage between the main computer center and the center for the blind. In the second computer center, which is situated all on one floor, there is a ramp which leads from the entrance to the computer area. Also, there is direct access to the center from a parking lot. All the computers at both of the Mount Scopus computer centers are equipped with special software to assist students with disabilities. Zoom Text is a program

to assist vision-impaired students. Please Read enables the computer to read the text aloud. A Word tool called Dyslexia contains special editing features for dyslexic students.

- In the Central Library of the Mount Scopus campus, all areas are accessible to the handicapped by ramps and elevators. A new worksite for people with disabilities is located in the reference department.
- Students in reserve duty: Students called up for reserve military service during the academic year are provided with assistance to bridge the gap of missed class hours (flexibility regarding deadlines, authorization for additional dates for examinations, and coupons for photocopying class notes).

All geography students may benefit from the various facilities provided by the university, as the facilities listed above are available at the Mt. Scopus campus.

3.4.7.2 Are counselling and assistance provided to students with regard to possible directions for their future professional careers? If so, describe these procedures. Are there work placement services for the graduates? If so, please describe this activity.

Undergraduate students are referred to the BA counselor for assistance regarding future directions and possibilities. These include information regarding the different MA and PhD study tracks, application procedures, and information regarding options for future employment. However there are no formal work placement services at the departmental level. On the university level, the office of the Dean of Students assist in job finding, organize job fairs, etc.

3.4.8 What are the mechanisms that deal with student complaints?

Several mechanisms in the department deal with students' complaints:

- Each lecturer is required to hold office hours during which the students can discuss the academic material and / or other issues that might arise.
- Students can turn to the BA Counselor with their problems or complaints, which are forwarded to the relevant authority (Head of the Department, teacher, administrative coordinator, faculty offices, etc.).
- An open-door policy is customary in the case of the office for student affairs. Complaints are referred the relevant body. If a problem is not resolved satisfactorily, the student can appeal to the Head of the Department.
- The University performs an annual survey to assess students' opinion about the quality of the teaching and administrative services. This mechanism allows the department to identify problems and complaints, which are dealt with to the best of our ability.
- The Teaching Committee deals with academic issues, including course curriculum, overlapping material, teaching rules, exam regulations, exam scoring, etc.
- Students can complain about any topic in the office of the Dean of Students. The Dean investigates the matter and/or interacts with the academic units to resolve the complaint.
- Any student who has been sexually harassed can contact the Ombudsman for Cases of Sexual Harassment

3.4.9 What financial assistance is provided to students with financial problems and to outstanding students? What other types of financial support is available to students?

The Hebrew University and the Faculty of Social Sciences offer special rewards to outstanding students based on their academic achievements. Students on the Rector's list or the Dean's list are granted fellowships encouraging them to complete their studies at HU.

In 2006, Prof. David Amiran, the founder of our Department of Geography (1949), left the Department an endowment of about **two million dollars** and created the *Prof. David Amiran Geographic Foundation for Academic Excellence at Hebrew University's Department of Geography*.

The foundation awards scholarships on an annual basis to students excelling in the study of geography. Scholarships are awarded to students in the following stages of study: 1. Graduate students in the research track, 2. Doctoral candidates. Scholarships are awarded in all of the geographic fields including physical, human, and environmental geography.

3.4.10 Does the institution and/or the parent unit maintain contact with their alumni, employers, and with employment market. Please specify the measure of integration of alumni into the labour market (especially relevant when the study program a "professional" one): where have they found employment, what positions do they hold, how much time has elapsed between graduation and employment, and how many students continue their studies to advanced degrees or other areas (specify area of study and degree level). Relevant surveys on this matter would be most appreciated.

The Department does not maintain formal contact with its graduates. However, the Alumni Association of the Hebrew University is in the process of being restructured, and will hopefully provide this important service. Still, last year the department organized an alumni conference in celebration of its 60th anniversary. Approximately 500 alumni participated in the event. The department also started to issue a bi-annual newsletter that is distributed to all the alumni's on our electronic mailing list (see appendix 6.8).

Graduates of the Department's MA program have found positions in both the private and public sectors. Several have assumed senior professional positions over the years (such as the Prime Minister's advisor for planning, district planners etc.). The Department's graduates have found positions in planning, development, and protection of environmental quality in government offices (the Prime Minister's Office, Ministry of the Environment, the Planning Authority of the Ministry of Interior, local authorities, the Israel Nature and National Parks Protection Authority) non-governmental organizations (Society for the Protection of Nature in Israel, Council for Restoration and Preservation of Historic Sites in Israel, etc.), as well as in private consulting firms (mainly in the fields of urban environmental and regional planning and in transportation).

3.4.11 In summary, what are the strengths and weakness of the issues specified above?

Strengths: The dropout rate for undergraduates is approximately 10%, which is acceptable and below the averages of most of the other departments in the Faculty of Social Sciences. Dropout rates from the MA program are slightly higher, approximately 15% on average. This is usually the result of early integration into the labor force of students that mostly are in their late twenties and early thirties, some of them already married and with children.

With recent years developments of electronic means of communication with students, using the Internet, emails, and text messaging services, students are promptly updated on all types of information, including class enrollment, course information (syllabi, presentations, reading material, etc.), changes in course schedules, grade reports, and course evaluations. All of these services are now available online for the students.

As described above, the department offers information and counseling services to deal with students' questions and problems at multiple levels, including online information available on the department website, the Office for Students' Affairs, the main geography office, the BA and MA advisers, teachers' office hours, and communication with the Department Head. We know that most students are satisfied with these services. In recent Student Satisfaction Surveys (administered by external polling agencies) students expressed great satisfaction. In 2010, the Department administrative staff was given university-wide recognition for outstanding student service, on the basis of this survey.

Drawbacks: The department wishes it had more financial resources to award to outstanding students. This becomes more important for advanced degrees; MA and particularly PhD level, where we sometimes lose outstanding students to programs that can offer greater financial support (fellowships).

Another weakness of the department is the absent of a tighter relationship and follow-up with alumni. Graduates of the department serve in top positions both in academia and in the public and the private sectors. Maintaining connection with them could be advantageous to the Department and its students.

3.5 Human Resources

3.5.1 Teaching Staff

3.5.1.1 Describe the profile of the program's teaching staff in the format of the tables (appendix 6.2).

The academic staff of the Department of Geography consists of the following categories of teachers (for the school year of 2010/11):

- Tenured and tenure-track faculty members (16). Two of them are with joint appointment with the School of Public Policy.
- Adjunct Professor appointment (1)
- Adjunct lecturers with a PhD (8)
- Adjunct lecturers with an MA (4)
- Adjunct lecturers with an BA (1)
- Technical staff with PhD (1)
- Technical staff with BA (2)
- PhD-level graduate students (8)
- MA-level graduate students (11)
- Retired academic faculty who volunteer their time to teach elective courses (2)
- Visiting Lecturer from abroad (1)

3.5.1.2 How are the staff members divided into areas of specialty in the discipline and to what extent does the faculty profile allow flexibility within the study program.

Today, the working groups in the Department are arranged in three main paradigms: Physical Geography, closely related to the Natural Sciences; Urban, Social, Political, and Economic Geography, and Environmental Planning and Policy, closely related to the Social Sciences; and Historical and Cultural Geography, related to the Humanities.

Physical Geography
Prof. Dayan Uri - Atmospheric Sciences
Prof. Frumkin Amos - Speleology
Dr. Levin Noam – Remote sensing and Aeolian Geomorphology
Dr. Morin Efrat - Hydrology/Hydrometeorology

Urban, Social, Political, and Economic Geography
Prof. Felsenstein Daniel – Economic geography
Prof. Hasson Shlomo – Political geography
Prof. Razin Eran – Local government, urban planning and development
Dr. Rosen Gillad – Social geography
Prof. Shoval Noam – Tourism geography and tracking technologies

Environmental Planning and Policy
Dr. Cohen-Blankshtain Galit - Transportation

Prof. Feitelson Eran – Environmental policy and politics
Dr. Fischhendler Itay – Water politics
Prof. Salomon Ilan – Transportation, behavioral geography

Historical and Cultural Geography
Dr. Aaronsohn Ran - l9th and 20th centuries
Prof. Ellenblum Ronnie – Crusader period
Prof. Rubin Rehav – Late Antiquity, ancient maps

A more detailed description of the faculty research interests appears in chapter 4.

The nature of modern geography with its many specializations require a large enough faculty in order to support the current study program and research ambitions of the Department, since the specialization within the discipline does not allow much flexibility within the study program.

3.5.1.3 What specializations and skills (including experience and training) are required of the staff members teaching in the study program, including those who teach practical courses/practical training.

Teaching responsibilities are allocated based on the faculty members' fields of expertise, while taking into consideration both their preferences and the Department's teaching needs. A tenured or tenured-track faculty member is typically responsible for teaching a large required course in his/her general area of expertise, and smaller, more advanced courses/seminars in his/her specific research area. Adjunct lecturers are hired to teach in their respective areas of expertise. Outstanding graduate students serve as teaching assistants in required courses in their area of specialization. Their main responsibility is to help in composing and grading exams and to provide one-on-one tutoring during office hours. In large methodological courses (e.g., research methods, statistics, and GIS) teaching assistants also conduct weekly exercise classes under the supervision of the senior teacher (in addition to holding office hours).

3.5.1.4 What steps are taken to ensure that staff members are updated, academically and professionally, with regard to the program?

All faculty members of the Department conduct cutting edge research in their respective fields (see chapter 4). They all participate in (and often organize) international conferences. Most take sabbaticals once every few years to maintain their international contacts, make new ones, and expand their research interest.

3.5.1.5 What are the rules, criteria and procedures for appointing the head of the study program and the staff, including tenure and promotion, the standard duration of service at each position, renewal of appointment in elected positions and dismissals? What steps are taken to ensure that the faculty are informed of these policies and procedures? Are you satisfied with these procedures?

The Department Head is appointed for a period of 3 years. He or she is a senior faculty member elected by the General Assembly of all teachers in the Department, based on recommendations made by a search committee (consisting of three members – usually past chairpersons).

Decisions concerning tenure and promotion are based on the quality of the individual's research, as well as teaching evaluation and contribution to the institution ("citizenship"), using the standard procedures of the Hebrew University as they appear in the published rules (attached). The important criteria for promotion are, first of all, quality of academic publications and research grants. Teaching performance is also one of the significant criteria used in the tenure procedure. It is also an important factor in determining promotions.

The procedure and criteria for recruiting academic staff are described in 3.5.1.9 below.

3.5.1.6 What is the definition of the position of the head of the study program? What credentials (experience and education) are required for this position?

The Head of the Department is a senior faculty member, typically at the rank of professor or full professor. Chairpersons normally have prior experience in departmental, faculty, and university-level committees and are familiar with the University's institutional structure and procedures.

The Head of the Department appoints three advisors, an MA counselor, a BA counselor, and a BA Geoinformatics program counselor. The advisors are senior faculty and their functions are: (1) to assist them in choosing a curriculum and to approve changes in the curriculum, and (2) to offer advice regarding any academic problems.

The Head of the Department also appoints coordinators for the various areas in MA program of the Department. These coordinators are responsible for the operation of each area's program.

Two committees are headed by the Head of the Department:

A. *The Teaching and Doctorate Committee*. The Head of the Department appoints this committee, which consists of representatives of the various areas and the Department's administrative director. This committee meets several times a year, as much as needed. Its major functions are:
   1. To examine and approve changes in the curriculum of each program.
   2. To approve new courses offered by members of the Department.
   3. To discuss all matters regarding courses and/or teaching in the Department.
   4. To approve candidates for PhD studies.

B. *The Fellowship Committee*. The Head of the Department appoints this committee, which consists of representatives of the various areas and the Department's administrative director. This committee meets several times a year. Its major function is to rank candidates for the various scholarships

and fellowships offered by the Department, Faculty of Social Sciences and the University.

3.5.1.7 How is full employment defined in the institution for senior and junior staff, and how many hours are they required to teach in each of the study programs?

- Tenure-Track faculty members in the Faculty of Social Science teach 12 annual credits, i.e., six teaching hours a week per semester.
- Adjunct teaching staff may teach one or two courses per semester (2-4 credits) and up to 8 credits per academic year.
- Teaching assistants (PhD students) may tutor up to 22 weekly hours or give classroom lectures up to 8 weekly hours (full-time position).
- Teaching assistants (MA students) may tutor up to 18 weekly hours (half-time position).

3.5.1.8 Are staff members obliged to serve as advisors for final projects, theses and dissertations? Are there criteria for assigning advisors to the above-mentioned papers and projects?

Staff members are not obligated to serve as thesis advisors. However, all of them choose to supervise students working on their MA or PhD thesis. The number of MA and PhD students supervised by each faculty member is monitored on a regular basis. Once a faculty member agrees to serve as a thesis advisor, he/she is obligated to see the student through to the end of his/her degree. The number of supervised students is one of the criteria considered during the tenure and promotion procedures.

3.5.1.9. What is the policy regarding recruiting and absorbing teaching staff (senior as well as junior) and what are the plans for the <u>future</u> recruitment to the study program? How are these plans made and by whom?

New tenure-track academic staff members are selected both for their distinct excellence in research and for their work in their fields of expertise. New faculty members must have broad international experience. The Department requires that its new faculty members have a PhD from a world-class university abroad or have spent a year or more at a top university abroad during either PhD or post-doctoral studies.

Recruiting strategy is developed by the Department's recruitment/development committee; plans are then discussed and approved by the Department's entire senior faculty and subsequently outlined in a five-year Development plan. Once the Department resolves to begin a recruitment process, a national and international search is initiated using listserves and various job listings (such as the Association of American Geographers' "Jobs in Geography" page online). All candidates are evaluated and ranked according to their overall achievements. The merits of the different candidates are discussed by the committee, which decides which of the highest ranked candidates to recruit. These candidates are then presented to the Faculty of Social Sciences' development committee for

further evaluation and ranking within the candidates of the Faculty of Social Sciences, and potential recruits have to be approved by the rector and the president.

It is the Department's policy to maintain excellence in a broad range of fields in geography. This policy guarantees its ability to provide high-level courses and supervision in a wide variety of fields. The teaching record and experience of new faculty recruits is an important (but not always decisive) factor in deciding whom to recruit. Once hired, new faculty members are offered a short course in teaching techniques administered by the Office of the Rector. New teachers are hired for a trial period of four years (which can be extended up to six years). Their teaching performance is one of the criteria used to determine their acceptance as tenured members of the university staff. In addition, a faculty member's teaching level is an important factor in determining promotions. Promotions are at times held up or even denied due to an unsatisfactory teaching record.

Plans for future recruitment

The Department of Geography prepares development plans periodically, usually spanning approximately five years. In preparing plans in the past, the Department identified the areas in which Israel has a relative advantage as a laboratory for geographic research from a global perspective, as well as the forefront of research to which the Department can and should contribute. Furthermore, the areas in which the Department has a relative advantage vis-à-vis other departments in Israel were identified as a basis for the plan. A major factor driving the preparation of the development plan was the realization that the number of faculty members is low relative to the breadth of the discipline and its rate of change.

The areas in which Israel appears to have a relative advantage are:

- Cultural historical geography, with an emphasis on the impact of religion on space and landscapes;
- Human-environment relationships over time, focusing on environmental history, which can be based on the relative abundance of historical and archeological data on transformations in Israel and its particularly varied physiography.
- Political geography, on various scales: national conflicts, divided cities, the development of political boundaries, ethnic minorities, cross-boundary cooperation in the areas of water, environment, etc.
- The highly diversified physical setting, the historical, cultural and geo-political transformations that occurred in Israel, as well as current rapidly changing development patterns make Israel a particularly interesting laboratory for geographical study.
- A sharp gradient of climatic conditions, including Mediterranean, semi-arid and arid regime, over a relatively small area, allows investigating the physical environment at a range of these conditions. In addition, since a large part of Israel area is under dry climatic conditions, large research

efforts have been invested to study the issue of "water", over its different aspects.

The areas in which the Department has a relative advantage at present were seen to include: analyses of urban and regional systems; analyses of urban, transportation, water and environmental policies; historical geography of Israel; geoinformatics; and hydro-climatological analyses, with an emphasis on regional and global changes in the past and present. In the future, the areas of relative strengths should be maintained by recruitment of new faculty.

While the previous development plan focused on sub-disciplines, the current development plan—following the changing emphasis in the discipline toward integration across scale and sub-disciplines—proposes that new appointments advance such integration, while building upon the relative advantages of Israel as a venue for research and addressing the new themes emerging in the discipline. Thus, current priorities for future appointments[2] are proposed in the following sub-fields:

- *Political Geography*—particularly on the municipal or international level (geopolitics).

- *Cultural Geography*—with an emphasis on social and historical approaches, geography of religion, and urban culture.

- *Environmental Geography*—environmental history, transportation and environmental policy, primarily within urban settlements.

- *Geomorphology and Geo-Ecology*—the shaping of the landscape and environment, the study of the interrelationship between soil, water, flora, fauna, and man.

In making these appointments the Department will be preference to candidates who utilize innovative qualitative and quantitative research methods (such as—but not limited to—expertise in GIS) and those who specialize in the Middle East.

3.5.2 Technical and administrative staff

Describe the technical and administrative staff, including the number of staff members and their job descriptions. What kind of support does the technical and administrative staff provide for the academic activity?

The administrative staff of the Department's secretariat consists of four administrative positions: the Department Administrator (Mrs. Meital Stein), the

[2] Taking into account the most recent appointments in the areas of Social Urban Geography and Remote Sensing.

Students' Affairs Secretary (Mrs. Ora Achituv). There are two general secretaries, one is assisting with budgetary issues and fieldtrips (Mrs. Sarit Azran) and the other is in charge of grade reporting in addition to other responsibilities. (Mrs. Dalia Nachum).

The Department Administrator is responsible for:

- The general management of staff and offices.
- Preparation of the Department's course catalogue.
- Preparation of the teachers' yearly teaching schedule, taking their credit obligations into account.
- Management of the Department's budget, including external funds.
- Representation of the Department when dealing with faculty and university authorities.
- Management of the appointments of junior academic personnel and administrative staff.
- Management of scholarships (students and guests)
- Hiring of teaching assistants and supervisors, and their job assignments.
- Maintenance of teaching equipment, offices, workshop rooms, etc.

The responsibilities of the Students' Affairs Secretary include:

- Providing information and guidance for BA, MA, and PhD students, regarding student affairs and the course catalogue and program.
- Correspondence with potential students.
- Overall coordination of student exams.
- Verifying prerequisites for courses
- Verifying BA and MA entitlement and completion of requirements.

The general secretaries' responsibilities include:

- General office tasks, such as distribution of the department's mail, billing, filing, and assistance with various projects such as organizing the many fieldtrips of the Department. In addition, providing information to students and teachers, taking care of photocopying, typing and coordinating test questionnaires.

In addition, there is six additional technical administrative staff that is affiliated to the Center of Computational Geography: Dr. Tamir Grodek – Administrative Director of the Center for Computational Geography. Mrs. Tamar Soffer, Mrs. Michal Kidron and Mrs. Miri Shmida at the Cartographic Laboratory and Mrs. Tali Aviram – a computer programmer.

3.5.3 In summary, what are the points of strength and weakness of the human resources (teaching staff, technical and administrative staff)?

Strengths: Our diverse teaching staff enables us to offer a wide range of courses (both basic and advanced) in all the major fields of Geography. The undergraduate and graduate methodological courses introduce students to the

way geographical research is performed. Undergraduate and graduate level research seminars provide the students with an opportunity to conduct geographical research. Finally, the abundance of research grants obtained by our faculty enables us to educate a large number of master and doctoral students, many of whom can later be found in geography departments in Israel and abroad (in fact, a sizable amount of our own faculty are former doctoral students in the Department).
Technical and administrative staff: The newly established Center for Computational Geography that includes out cartographers and computer programmer assists the Department members with their research work.

Weaknesses: The group of faculty members who can teach methodological courses (GIS, remote sensing and statistics) is too small. To date, we have had to employ adjunct teachers for those areas. The same is true for members who can teach the required course on the Historical Geography of Jerusalem, which forces us to hire an adjunct teacher. We are aware of these problems and our recruitment plans assign high priority to hiring suitable people to teach these courses.

The computer programmer of the Department is funded by the "soft money" component of the Department budget, since a permanent position is not currently available. The shrinking budget of the Department will not allow this arrangement to continue in the long run. This is a threat to the current level of service in the laboratories, our Center for Computational Geography and the program in Geoinformatics.

3.6 Infrastructure

3.6.1 Administration

3.6.1.1 What is the physical location of the unit in the institution, in which building is it located, and where does the study program under evaluation operate? Do other study programs share the building?

The Department of Geography is located on the Mount Scopus campus, in Wing 6 of the Faculty of Social Sciences building, in the 1st, 3rd and 4th floors.

3.6.1.2 How many rooms serve the academic staff (senior, junior and adjunct) and technical staff of the program, and what equipment is available in each room?

The academic staff (including emeriti, post-docs and guests) has 19 individual offices, 6 rooms allocated for research laboratories, 3 rooms are available for storage and one is dedicated to the Department's servers. There is one large conference room for departmental seminars, an additional smaller conference room for meetings, one common room for master doctoral students equipped with 5 computer stations and space for additional 5 laptops, 3 individual rooms for doctoral students, and one room for teaching assistants to meet with students. The main office has 2 rooms. An additional room serves for storing audio-visual equipment and a photocopy machine (for details see appendix 6.15).

The offices of the academic staff are equipped with computers connected to the University Ethernet system. Support for problems with software such as MS Office and Windows is given by the Computer services located in Wing 1 of the Faculty Building. Equipment for the administrative staff (printers, FAX machines, and the like) is purchased by the Department and maintained by the Faculty of Social Sciences.

3.6.2 Classes

3.6.2.1 How many classrooms, seminar rooms, rooms for group activities, and auditoria serve the study program, how many seats do they have, and what is the equipment can in each room /classroom/auditorium (including reference to the possibility of using personal laptop computers on campus).

The Department of Geography, as part of the Faculty of Social Sciences, uses classrooms that belong to the Faculty. The Faculty has 43 classrooms: 7 lecture halls with the capacity for 100-350 students, all equipped with audio-visual equipment (computer, projector, etc); 13 classrooms with the capacity for 40-100 students, 5 of them fully equipped with audiovisual equipment, 2 of them partly equipped (no computer); 23 classrooms with the capacity for 10-40 students, 4 of them equipped with audio-visual equipment. Most classrooms contain two or three electrical outlets for students with laptops. The campus (including the library, but excluding the classrooms) is equipped with a wireless internet connection. Currently the students enjoy wireless access to the Internet in the computer halls, libraries, main hallways of the Social Sciences and the Humanities buildings, the Main Forum, selected instruction halls, etc. An updated list of the areas where wireless networking is available is posted on the

University website. Additionally, dozens of electrical outlets were installed in the Social Sciences building and the libraries for students' use (even before the wireless communication era).

3.6.2.2 Do the parent unit and study program have access to additional facilities for special purposes, e.g. conference rooms, study centres, research centres and meeting rooms? If teaching activities take place outside the campus, please specify which activities and the frameworks in which they are carried out.

As stated in Sec. 3.6.1.2., the Department has one seminar room used for workshops, seminars and meetings.

Field Vehicle: The Department owns a field vehicle (Toyota Hilux 2004) that is used by the researchers for their fieldwork. Researchers, from their research grants, finance the maintenance of the vehicle.

3.6.3 Computerization

Please specify the computer layout, and how does it serves the study program. E.g., how many computer labs serve the students in the program, and how many computers are there in each lab? Specify the existing hardware and software, and state if it includes special hardware and/or software.

There are two main computer centers for students on the Mount Scopus campus with approximately 430 computers. Each center contains 8 instruction classrooms. In addition, there are approximately 400 computers in 25 stations in open campus areas, special computer halls and public stations in the libraries. There are over 20 public printers in the computer centers and in various areas on campus for students' use. The computers are equipped with Office software, Internet, electronic email, statistics software (Jump, SPSS, SAS), GIS software, access to the library catalogue and to all the information databases and academic journals, as well as access to the information technology network. The computers in the computer center classrooms are installed with Class-net hardware, which allows the instructor to "broadcast" his/her computer screen onto the students' screens to demonstrate the study material. Detailed information on the computing systems available to students in Mount Scopus can be found at: http://msfarms.huji.ac.il. The institution's computing arrangements include the Computerization, Communication and Information Authority and the Information System Department. These divisions are centrally responsible for the computing infrastructure, the computing servers (Internet servers, electronic mailing services, library catalogues, files, information systems, technological learning devices and video), the administrative information systems, the devices for backing up and securing information, public computing throughout the campus, wireless network connections, and a variety of other computing services. The University's computing bodies set up the entire infrastructure so as to improve teaching and reduce costs, providing quality service to students and instructors. These bodies relieve the academic departments of computer technology work so that they can concentrate on academic activity. Some of the departments employ their own systems to coordinate computing in order to

technically support their staff's and department's activities. These coordinators are also part of the University's central computing bodies.

3.6.4 Laboratories

What laboratories serve the program, who makes use of them, how are they equipped, and how many seats do they have?

GIS Lab

The GIS Lab in the Department of Geography is part of the Hebrew University GIS center. The GIS Lab offers both, teaching and research facilities supported by a variety of current hardware and software resources. These resources are available for students, faculty, staff, and non-profit organizations working on GIS related research or projects.

Facilities - Software: ArcGIS 10 desktop and workstation, ENVI, IDRISI, Matlab and SPSS statistical software.
Hardware: 10 workstations, 2 servers supported by 1GB single port and 100MB Switching Hub.

Data Holdings - Data Holdings in the GIS Laboratory include networked online data concentrating on Israel and the Middle East region. Available data includes censuses, political boundaries, infrastructure facilities: roads, rails, biological inventories, high resolution imagery, scanned maps for Israel etc. The GIS Lab is dedicated to maintaining an active spatial data library, which our projects can incorporate and draw on.

Personnel - Mr. Adi Ben-Nun is the Hebrew University GIS technical director. The Faculty of Sciences finances his position. He is active in teaching and technical management in the GIS Lab of the Department of Geography. The Department is a partner in the GIS Center and responsible to its main branch on Mount Scopus Campus.

Mr. Ben-Nun collaborates with Dr. Tamir Grodek, who is part of the Department's administrative staff and with a group of teaching assistants from the Department.
Responsibilities: Management of the Hebrew University GIS Lab includes all the relevant aspects of:
1. Technical issues – hardware and software;
2. Teaching basic and advanced GIS courses;
3. Supporting students studying GIS;
4. Supporting research activities.
5. GIS data layers management

Teaching Activities in the GIS Lab
1. Introduction to GIS
2. Introduction to Remote Sensing
3. Advanced course in Remote sensing
4. GIS applications in planning

5. Digital cartography
6. Advanced tracking technology and implementation
7. Raster G.I.S workshop
8. Vector G.I.S workshop
9. Selected methods of historical geography analysis – GIS applications
10. Evaluation analysis and planning of environmental resources
11. Urban and Regional Analysis - GIS applications
12. GIS and conservation planning

Geomorphology Lab

Field monitoring site

A field site for teaching purposes is installed in the botanical garden on the Mount Scopus Campus of the Hebrew University, near the Department. The site is equipped with rain recorders and rain collectors, stem flow collectors and moisture sensors for monitoring the water budget in a Mediterranean forested area. In addition, rainfall simulation tests are conducted during the rainy season. The main purpose of the site is to analyze the effects of the vegetation on the water regime of the Mediterranean forested area. Advanced undergraduate and graduate students, in the framework of two courses, conduct the monitoring of the site:

1. Field and Laboratory Methods in Physical Geography (40826)
2. Field Methods in Surface Hydrology (40730)

Laboratory in Physical Geography

The laboratory is equipped with (a) facilities for the analysis of soil physical properties, and (b) a teaching device for the measurement of flow velocities in sandy or gravely channels and alluvial fans.

MA and PhD students conducting research, where analysis of soil properties and hydrological measurements are required, use the laboratory.

The following courses use the laboratory facilities for demonstration purposes:

40730 Field Methods in Surface Hydrology
40103 Introduction to Geomorphology
40826 Field and Laboratory Methods in Physical Geography
40634 Laboratory Methods in Geomorphology
40558 Environmental Issues in Karst Landscapes
40678 Field Excursion to Northern Israel: Physical Processes and GIS Analysis

Aerial Photograph Archives (http://ccg.huji.ac.il/MainMapGis.aspx)

The Department of Geography owns a large collection of aerial photographs of Israel. The number of photographs in the collection is estimated at around 100,000. About 24,000 are from before 1948 and it is the largest and most complete collection of historical aerial photographs for this period and area.

Over the last decade, most of the pre-1948 photographs were scanned in high resolution in order to preserve them. A large part of the collection is exhibited on a website, which is part of the Department's site, and the number of visitors is great.

The pre-1948 part collection includes six main groups:

1. Photographs from 1917-1918, taken by the (German) Prussian Air Squadrons 300, 301, 302, 300, 305, and the Bavarian 304b, during World War I.
2. Photographs from 1917-1918, taken by the Australian Air Squadrons, during World War I.
3. Photographs made by the Jerusalem American Colony in 1946-1948, originals now kept in the Library of Congress, Washington, D.C.
4. Photographs taken by the British RAF as part of the systematic topographic mapping of Palestine in 1944-1948.
5. Photographs taken by the British RAF for other (sometimes unknown) purposes in earlier part of the British Mandate period.
6. Photographs taken by Israeli organizations like the Jewish Agency, the Palmach etc. pre-1948 and during the War of Independence.

Many of those photographs are not available elsewhere in Israel and some of them are not available anywhere else. This fact makes the collection an indispensable resource for students and scholars, both at the Hebrew University and at other institutions.

The Map Library

The Geography Department benefits greatly from the existence of the rich map library of the Bloomfield Library for Humanities and Social Sciences and from the special relations between the Department and the map library. This library was founded by the Geography Department and was part of it until the early 1980s when Mount Scopus Campus was built and its central library was established. The location of the Map Library is near the Department and our students and faculty use it for both teaching and research on a daily basis. In many courses, some of the exercises are prepared in this library, using maps and atlases as sources of information.

The library has about 70,000 maps from all over the world. The main part, about half of the maps, is the collection of maps of Palestine/Israel from the 19th and 20th centuries. The earliest maps are the Napoleonic maps of Egypt and Palestine (mapped in 1799, published in 1812). This is the largest and the most complete collection of maps of Israel in the world (even better than the collection of the Survey of Israel). It includes a wide range of maps from the large-scale maps of specific villages (1:1250 and 1:2,500) to the topographic series (1:20,000 and 1:100,000).

A large part of the catalogue of the pre-1948 collection is already computerized.

There is also a collection of about 350 Atlases, starting with 19th century and ending with modern atlases on CD Rom.

3.6.5 Library and Information Technology (IT)

3.6.5.1 Describe the library, which serves the students and the teaching staff of the study program: location, physical structure, number of titles according to subjects, journals and e-journals, computerised databases, number of obligatory books relative to the number of students, opening hours, number of seats, number of computers, the library's professional staff and their qualifications. To what extent do the students receive assistance and guidance in the library, the ability of

students and teaching staff to use the databases from outside the library? Specify likewise the policy guiding the purchase of material for the library: who make the decisions with regard to the purchase of books, journals, computerised databases etc. and based on which recommendations/requirements, what are the procedures for updating the library, is there a clear and well-defined budget for the library?

Bloomfield Library for the Humanities and Social Sciences:

Introduction

The Bloomfield Library for Humanities and Social Sciences was established in 1981 with the merging of 24 departmental libraries from the Givat Ram campus in one new building on Mt. Scopus. The library was intended to serve teachers, researchers and students of the Faculties of Humanities, Social Sciences and Business Administration. In fact, the entire Hebrew University community patronizes the library. About 14,000 borrowers are registered.

Building Facility

The library's five-story building is located in the center of the Mt. Scopus campus, between the buildings of the Faculties of Humanities and Social Sciences. The entrance floor includes the Reference, Circulation, Periodicals, Cataloging, and Acquisitions Departments and the Administrative offices. The lower level houses the Photocopy Service and storage facilities. The three floors of reading rooms are divided according to field of study. Each reading room is approximately 3,000 square meters. There is a modern media department for the music, audio and video collection. The map collection, located in the Social Sciences building, includes sheet and wall maps, atlases, etc. All areas of the library building are accessible to the handicapped through ramps and elevators. A new worksite for people with disabilities is located in the Reference Department.

The Collection

538,623 cataloged titles, including:

- 1,078 print journal subscriptions
- 20,000 electronic journal subscriptions
- 6,131 DVD and videocassettes
- 19,842 phonograph records and CDs
- 870,000 items on the shelves
- 125 electronic databases

Required Reading for Courses

The Reserved Reading Collection is updated every semester. It includes textbooks and a database of scanned articles and digitized music based on the lists of required reading submitted by teachers. If a title is on a required reading list, the library must provide one copy for every 30 students (the ratio can be changed if necessary). This year 5,212 books and 5,628 scanned articles are on reserve. Access to the on-line database of scanned materials is open to students only after they log in with their personal identification code.

Circulation Services
The majority of monographs can be borrowed, and each patron may borrow up to 50 books simultaneously. There are approximately 3,400 circulation transactions on an average day during the school year. The patrons themselves enter requests into the system. Daily renewals are performed automatically by the Aleph500 system after a check that there are no requests for an item or problems with a reader. Materials that are not available in the collection may be obtained by inter-library loan or document delivery service for a fee. This service handles about 4,300 requests for articles and books annually.

Library Hours
During the school year:
Sun.-Wed. 9:00-22:00
Thurs. 9:00-19:00
Summer hours:
Sun.-Thurs. 9:00-19:00

Seating Capacity
There are about 1,700 seats in the various reading rooms, some in quiet areas and some in areas designated for group study. There are also individual carrels throughout the building for students who seek a quiet, private corner. In addition there are classrooms for collaborative learning. The Periodicals Reading Room, where current periodicals are displayed, offers comfortable informal seating.

Computer Stations
About 150 stations are available for patrons in all areas of the building. Patrons can search the library's catalogs, databases and electronic journals from all stations.. Access to the Internet, email, Microsoft Office and many programs provided by the University Computer Authority are also available on the library stations. The library has set up areas for wireless connection for students bringing their own laptop computers.

Library Staff
The library staff comprises 36 librarians (28.5 tenured positions), one computer specialist, one technical assistant, and one administrative assistant. The library also employs student assistants, for approximately 54,000 hours annually. All librarians have academic degrees in library science and in the fields of humanities and social sciences, while several have advanced degrees. The librarians are fluent in many languages, which is necessary for serving the researchers. There is a subject specialist for each area of study covered by the library. During all opening hours there is always a librarian to give reference services. The librarians are active in both inter- and intra- university forums, publish in professional journals, lecture at conferences, and have served as chairpersons of national committees.

Library Instruction and Reference Services
Library orientation sessions are offered to new students at the beginning of each semester by the reference staff. These include tours of the library facilities and explanations of the use of the OPAC. There are specialized instruction classes

coordinated by subject specialist librarians and teachers keyed to particular course subjects. In-depth training is given to acquaint students with the databases and reference tools in their field of study. In each of the reading rooms there is a subject specialist librarian on duty to answer individual questions and help guide the students.

Library Homepage
The library homepage (www.mslib.huji.ac.il) is arranged to help students and researchers find material in their subject area. There are general pages on "How to find…" and pages devoted to a particular subject (e.g. linguistics, music). Each page has explanations about the materials and links to on-line resources. A detailed database page offers descriptions of each of our 125 databases. All pages are in both English and Hebrew. Any patron in need of help can reach a librarian directly from the homepage and will receive a reply by email.

Access to Electronic Resources
Students, teachers and researchers can access most of the electronic journals and databases from any computer that is connected to the university network on campus. They can access electronic resources from their home or dorm by entering a personal identification code. This means that the electronic collection is accessible 24 hours a day, 7 days a week, to the entire Hebrew University community.

Collection Development
At the beginning of each academic year the Library Authority allocates an acquisitions budget to each faculty. Each Faculty Library Committee, whose members are appointed by the Dean, decides on the division of the budget among the many departments and fields of study in the faculty. Part of the budget is allotted to subscriptions to journals and databases. The remaining budget is for monographs and non-book materials. During the last few years there has been an increasing effort to cooperate with other libraries in the Hebrew University and, through Malmad, to purchase subscriptions jointly. Subscriptions to new databases are approved only after a trial period and evaluation by librarians, researchers and teachers. The collection development is a joint effort of librarians and faculty members. Heads of departments annually appoint a member of the department as a liaison with the library in dealing with the requests of his/her colleagues. Selections are made from required reading lists, teachers' recommendations, publishers' catalogs, professional publications and on-line resources. The library fortunately receives donations that help build up the more expensive collections.

3.6.5.2 Do the institution and the study program take steps to enable the convenient access of the students with special needs to the study material and the different facilities, e.g. classrooms, laboratories, library? If part of the programs takes place on different campuses, how is equal opportunity of access to the facilities and equipment at the main campus ensured for all students?

As a result of a continuous increase in awareness during the last few years, the university administration has seriously addressed the issue of students with special needs. In 2007, the Office of the Dean of Students established an Accessibility Unit, which aims to provide handicapped students equal opportunities in using all the university services and taking part in all the activities and programs the university offers. More details on facilities for students with special needs or with learning disabilities can be obtained at the Office of the Dean of Students.

3.6.5.3 In summary, what are the points of strength and weakness of the physical infrastructure?

Weaknesses:

Teaching:

- The infrastructure of the Faculty of Social Sciences requires additional upgrading: Some lecture halls are still without audio-visual capabilities.
- Some classrooms are still not air-conditioned, making it difficult to teach effectively in the second part of the spring semester and in the summer courses.
- The library has undergone immense budget cuts. For years, budgetary constraints have prevented updating reference books and textbooks. Our library currently lags significantly behind social science libraries in institutions of comparable size around the world.

Research:

Some rooms and laboratories in the Department are still not air-conditioned, making it difficult to do research effectively during the hot summer months.

Strengths:

In spite of the above difficulties, the Department of Geography offers state of the art research opportunities for its faculty members and graduate students in all the major fields of Geography.

Chapter 4 - Research

4.1 What is the department's perception of research, and what are the expected outcomes?

From the outset, the Department of Geography at the Hebrew University has emphasized excellence in research. This objective has been achieved by imposing a strict policy of recruiting new faculty members, which involves meticulous screening of their research record and expressed research intentions. Clearly the state of research in the Department is best reflected in the CVs of the individual faculty members (see appendix 6.9) and in their cooperative research projects (see appendix 6.10). Still, at the departmental level four main objectives in the area of research can be identified:

1) High standards of research by all of the Department's faculty members.
2) Interaction among the Department's researchers in order to establish quality research groups in the discipline's sub-fields.
3) Success in securing research funding from competitive and other funding sources.
4) Participation of the Department's faculty in international research networks.

The Department's faculty members have always been highly successful in obtaining research grants. In particular, **grants in the past 5 years (2007-2011) have reached equivalent of more than 4 million US Dollars in external funding** (the part of the funding that belong to the Department's researchers). See graph in page 60 and a list in appendix 6.11.

On a per-capita basis the Department is among the most successful departments in the Social Science faculty in obtaining research grants, from both competitive and non-competitive sources. Members of the Department received grant support from national and international external funding agencies. These include the ISF (Israel Science Foundation), the BSF (Binational Science Foundation), the GIF (German Israeli Foundation), the DFG (German Research Foundation) and various European Union grants schemes.

An important aspect of the research at the Department of Geography involves international collaborations based on joint research grants and programs, with scientists from North America, Europe and Asia. Members of the Department have obtained bi-national research grants from the US-Israel Bi-national Science Foundation and the German-Israel Foundation and from other agencies that support international collaboration (see appendix 6.10). Over this period some of our faculty members have been involved in research groups as part of multi-national projects financed by the European Union and the DFG (see details from page 63 onwards in this chapter).

Other faculty members are affiliated with laboratories or research institutes around the world. These multinational collaborations not only result in productive research, but also bring prestigious scientists from around the world to the Department of Geography, and provide the necessary contacts for placing our post-doctoral students in the best departments in North America and Europe.

Next we list the main research topics of the faculty members in the Geography Department. Then we briefly summarize their research collaborations,

publication records, lists of editorial activity, research grants, graduate students, and awards. These brief summaries are accompanied by detailed tables in Chapter 6: Appendices. Finally, at the end of this chapter, we outline the future development of research in the Department as we envision it.

Research interests of the Department's faculty

Ran Aaronsohn is a senior lecturer. His main areas of research include the development of Palestine/Israel in the 19th and 20th centuries; early modern Jewish colonization, especially the First Aliya settlements; personality, philanthropy and historical geography; rural settlements, with an emphasis on collective ones; urban preservation of historical sites.

Galit Cohen-Blankshtain is a lecturer. She holds a joint appointment at the Department of Geography and the School of Public Policy at the Hebrew University. Her main research interests include public policies in various fields such as transport, urban policy, and environmental policy.

Uri Dayan is a full professor. His research interest focuses on three major fields, all of them related to synoptic-scale circulation: extreme weather studies (e.g., heavy rain, flash floods, and dust outbreaks), air pollution meteorology studies, and boundary layer meteorological studies (e.g., spatio-temporal variability of the atmospheric boundary layer over the Mediterranean Basin and the Eastern Mediterranean).

Ronnie Ellenblum is an associate professor, specializing in the geography, history, and archaeology of the Crusades and in urban geographical history. The Cambridge University Press published his two books: one on the agricultural settlements during the Crusader Period, the second deals with medieval castles and modern interpretations of the Crusades. He is a former head of the University's School of History.

Eran Feitelson is a full professor and the former head of the Hebrew University's Federmann School of Public Policy and Government. His research interests focuses on water policy issues and the management of trans-boundary water resources, particularly groundwater, as well as on environmental policy, transport-environment interfaces and planning issues.

Daniel Felsenstein is an associate professor. His main areas of interest are urban geography, economic geography, and regional science. He specializes in local and regional economic development, urban simulation modeling, inter-regional disparities and temporal-spatial regional analysis.

Itay Fischendler is a senior lecturer. His research interests focus on environmental conflict resolution; natural resources management and governance, as well as decision making under conditions of political and environmental uncertainty.

Amos Frumkin is a full professor. His research interests cover cave morphology and sediments as indicators of paleoclimate, paleohydrology, and the development of karst aquifers. He also studies geoarchaeology and ancient water supply systems using speleological evidence.

Shlomo Hasson is a full professor. His major fields of research are: urban political geography, emphasizing the role of neighborhood organizations and the local state in shaping local life; social deprivation, poverty and social protest; self-administered neighborhood councils; divided cities and societies and cultural geography.

Noam Levin is a senior lecturer. His research interests focus on land cover and land use changes as well as on aeolian geomorphology, their impacts of land cover processes on biodiversity, and how land cover changes and processes are driven by physical and human factors. He specializes in using remote sensing and GIS to study environmental phenomena.

Efrat Morin is a senior lecturer. Her main research interests are hydrometeorology, drainage basin hydrology, flash floods, precipitation estimation from from meteorological radar, precipitation patterns, climate change, and droughts. Research methodologies include mathematical models, advanced statistical methods, and remote sensing precipitation data.

Eran Razin is an associate professor, director of the Institute of Urban and Regional Studies and head of Floersheimer Studies (a policy studies framework within the Institute). His main field of research contends with comparative local government, local government reforms, municipal boundary conflicts, local government finance, as well as urban planning and metropolitan development.

Gillad Rosen is a lecturer. His main research interests are: urban social geography, gated communities, private governance, residential segregation, housing, social justice and downtown regeneration.

Rehav Rubin is a full professor. His main areas of research: man and settlement in the desert in late antiquity; the history of cartography and mapping of Jerusalem and the Holy Land; three dimensional maps and models of monuments in the Holy Land; geographical aspects of pilgrimage and holy places; historical geography of Israel/Palestine, especially in late antiquity.

Ilan Salomon is a full professor. He holds a joint appointment at the Department of Geography and the School of Public Policy at the Hebrew University. His main research areas focus on travel behavior, telecommunications, transportation and spatial behavior, urban transportation and land use policy, as well as energy and the environment.

Noam Shoval is an associate professor and presently Head of the Department of Geography. His main research interests are: tourism and culture as tools for urban regeneration, models of hotel location, tourism management in heritage cities and the implementation of advanced tracking technologies in various areas of spatial research such as tourism, urban geography and medicine.

4.2 What are the department's special strengths and uniqueness in research (areas, fields?).

The research areas in which the Department has special strengths and uniqueness at present includes: analyses of urban and regional systems; analyses of urban, transportation, and environmental policies and politics; the historical geography of Israel; Geoinformatics; hydro-climatological analyses, with an emphasis on regional and global changes in the past and present.

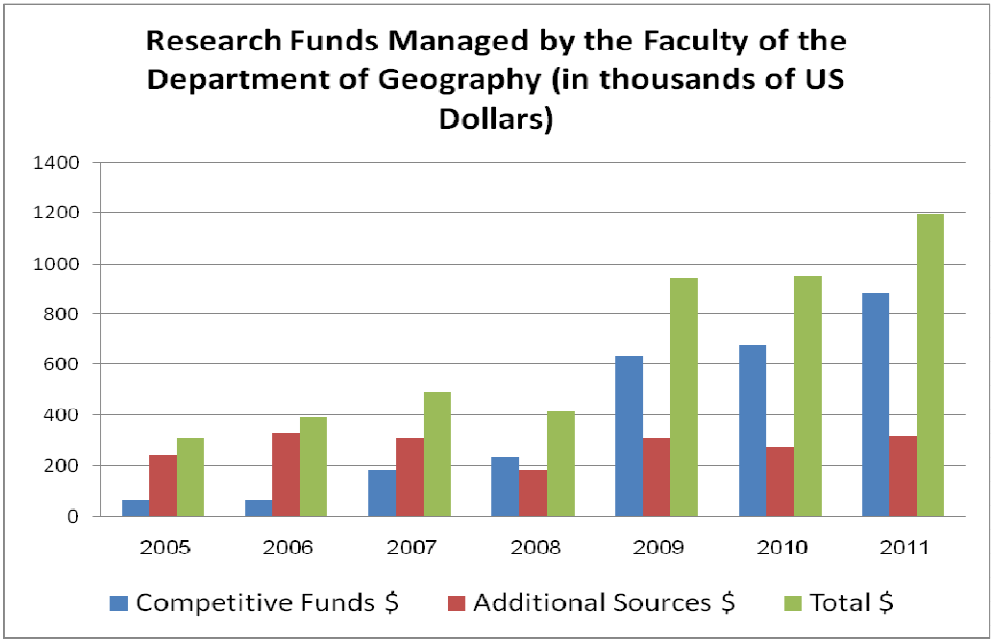
In addition, (1) there is a growing use of new technologies, particularly GIS, tracking technologies and remote sensing. This is reflected in the establishment of The Center for Computational Geography that provides infrastructure and guidance to researchers and advanced students. (2) Members of the Department of Geography have become increasingly involved in interdisciplinary large scale research projects that amongst other things create a large number of well funded research students and postdoctoral students from Israel and abroad.

4.3 Please list the leading journals in the field (including ranking, if possible).

Journals (in alphabetical order)	5 Year Impact Factor	Impact Factor 2009	Ranking
Annals of the Assoc. of American Geographers	2.568	3.413	5/62 Geography
Area	2.018	1.380	16/62 Geography
Atmospheric Environment	3.14	3.584	12/63 Meteorology and Atmospheric Sc.
Bulletin of the American Meteorological Society	5.682	6.123	1/63 Meteorology and Atmospheric Sc.
Climatic Change	4.184	3.635	8/63 Meteorology and Atmospheric Sc.
Cultural Geographies	1.317	1.143	31/62 Geography
Environment and Planning A	2.326	1.763	12/62 Geography
Environment and Planning B	1.747	1.218	30/66 Env. Studies
Environment and Planning C	1.230	1.044	39/66 Env. Studies
Environment and Planning D	2.350	1.784	11/62 Geography
Geoforum	1.547	2.020	15/62 Geography
Geographical Analysis	2.36	1.641	14/62 Geography
Geomorphology	2.683	2.119	13/36 Phy. Geography
International Journal of Urban and Regional Research	2.139	1.430	15/62 Geography
Landscape and Urban Planning	2.868	2.170	9/62 Geography
Journal of Economic Geography	4.705	3.937	1/62 Geography
Journal of Historical Geography	0.800	1.119	33/62 Geography
Political Geography	2.729	2.267	8/62 Geography
Professional Geographer	1.712	1.747	12/62 Geography
Quaternary Research	3.462	2.675	7/36 Phy. Geography
Regional Studies	2.610	1.462	18/62 Geography
Sedimentology	2.645	2.114	5/49 Geology
Social and Cultural Geography	1.6	1.440	19/62 Geography
Transactions of the Institute of British Geographers	4.768	3.143	4/62 Geography
Urban Studies	2.138	1.301	5/34 Urban Studies
Water Resources Research	2.902	2.447	3/66 Water Resources

Cartography, Remote Sensing and GIS
Cartographic Journal (IF = 0.750; 42/62, Geography)
Cartographica
Imago Mundi
International Journal of Geographic information Science (IF 1.533; 16/62, Geography)
Remote Sensing of Environment (IF 3.612; 1/13)

4.4 What are the research funds (in $) of the evaluated unit/study program in each of the last five years according to the source of funding: competitive sources, government/public funds, internal funds, other.



Members of the Department have been very successful in obtaining grant support from national and international external funding agencies. These include the ISF (Israel Science Foundation), the BSF (Binational Science Foundation), the GIF (German Israeli Foundation), Marie Curie, The European Union grants and DFG. **Over the last 5 years (2007-2011), faculty members of the Department were awarded more than 4 million dollars of external funding** (the part of the funding that belong to the Department's researchers).

The dramatic growth in the external funding is the result of the success of faculty members in recent years to play leading roles in several large scale international interdisciplinary research grants as described below. A list detailing all the grants obtained by our faculty members in the last 5 years appears in appendix 6.11.

SENTRA (The Use of Advanced Tracking Technologies for the Analysis of Mobility in Alzheimer's Disease and Related Cognitive Disorders)
A five-year, 1.5 million Euro grant from the German-Israeli Project Cooperation (DIP) program committee, funded by the German Federal Ministry for Education and Research and the German Aerospace Center (managed by the DFG), for a project entitled "The Use of Advanced Tracking Technologies for Analysis of Mobility in Alzheimer's Disease and Related Cognitive Disorders". Noam Shoval is coordinating the interdisciplinary work of five research teams from Israel and Germany in the fields of geography, social work, gerontology, psychology, and medicine. The main aim is to better understand spatial activities of elderly people at different stages of Alzheimer's disease and related cognitive disorders. Considering ethical aspects involved in the tracking, the project will

critically evaluate the potential of modern communication and tracking technologies to increase the quality of life of patients, family members and care-givers.
Duration: 5 years, 2007-2011; Source of Funding- German Federal Ministry for Education and Research and the German Aerospace Center; Total Budget 1.5mEU, HU share = 900,000EU; Principle HU investigators, Noam Shoval (Geography) and Gail Auslander (Social Work).

SECOA (Solutions for Environmental Contrasts in Coastal Areas)
The increasing number of persons, houses and enterprises in urban coastal areas determines the pressure on the coastal environment, and its natural and cultural resources. The ever changing coastal natural environments affected by climate change further complicate the situation, often in the direction of negative consequences. The problem is how to manage those contrasts through sustainable urban planning, consisting of environmental protection, economic development, and social cohesion. An integrated ecosystem approach incorporating social, economic and natural disciplines is essential in understanding and dealing with the complex and dynamic problems facing the coastal city environments. SECOA aims to: identify the ongoing and possible contrasts, analyze their quantitative and qualitative effects on the environment, create models to synthesize the complexity of the different social, economic and environmental systems. The project is focussed on eight metropolitan areas of international/global importance and eight metropolitan areas of regional/national importance in European and Asian countries (United Kingdom, Belgium, Portugal, Italy, Israel, India and Vietnam). The composition of the national teams guarantees a multidisciplinary approach to the case studies. Four areas of interest are investigated: economic factors, social features, natural and cultural resources, spatial organization, characterizing the analyzed coastal areas. SECOA is expected to contribute to an advancement of knowledge in terms of institutional development, conflict mitigation, more effective and fair distribution of scarce resources.

Duration: 4 years, 2010-2013; Source of Funding- EU 7th Framework; Total Budget 6.2mEU, HU share = 840,000 EU; Principle HU investigators, Daniel Felsenstein, Itai Fischhendler, Eran Razin (Geography)

DESURBS (Designing Safer Urban Spaces)
The DESURBS project has the following goals: 1) the creation of an urban space security event database that includes incidents or 'near misses' that have (or might have) resulted in injury or loss of life, damage to urban spaces, the auxiliary infrastructures supporting those spaces, or the surrounding natural environment 2) the development of an integrated security and resilience (ISR) design framework that engages local stakeholders for identifying vulnerabilities and improving urban spaces with respect to security threats. 3). The development of comprehensive and generic supporting tools and methodologies including urban resilient design guidelines and quantitative risk and vulnerability assessment models, tools and technologies to facilitate the qualitative ISR assessment process. 4) the creation of a web-based Decision Support System Portal integrating the project's outputs and including tailored visualization and

mapping tools to help end users better understand the vulnerabilities and design possibilities. Primary case studies with end users in Jerusalem in Israel, Nottingham in the UK and Barcelona in Spain inform the development process. The consortium consists of eight partners from five countries, and includes academic and research institutions as well as an SME for exploiting the project's outputs among end-users and stakeholders.

Duration - 4 years, 2011-2014. Source of Funding- EU 7th Framework; Total Budget 3.2mEU, HU share = 400,000 EU; Principle HU investigators, Daniel Felsenstein, Noam Shoval (Geography)

SEARCH (Sharing Knowledge Assets: Inter-regionally Cohesive Neighborhoods).

The EU has experienced successive enlargements in recent years with the incorporation of new countries. This integration of the new countries offers new opportunities, however it also implies some risks. Even though the ENP has demonstrated to be an integration tool, which has provided an effective framework to establish cooperation links within neighboring countries, some important areas with considerable potential for further progress and have been neglected in the analysis of the impact of the ENP, but which are of central interest in the economic literature on cohesion (regional dimension and sectoral approach, geo-spatial dimension, human capital, role of innovation and institutional framework). SEARCH is divided into seven work packages. WP1 will set the background framework. From WP2 to WP5, scientific research will be carried out analyzing different aspects that ENP should strengthen in the future in order to avoid barriers among the EU and NC. WP6 will collect and analyze the policy implications from previous research and WP7 will communicate research results and policy recommendations to target groups. One of the key strengths of SEARCH is the existence of a remarkable and well-balanced consortium, including partners from 16 different countries (covering EU and NCs), with different backgrounds and expertise (research and policy/institutional dimension).

Duration - 3 years, starting date September 2011- September 2013. Source of Funding- EU 7th Framework; Total Budget-2.6m EU, HU share = 144,000 EU; Principle HU investigators, Michael Beenstock (Economics), Daniel Felsenstein (Geography), Guy Harpaz (Law).

CLICO (Climate Change, Hydro-conflicts and Human Security)

The CLICO project will mobilize 14 research teams from Europe, North Africa, Sahel and the Middle East and will bring together for the first time some of the world's leading researchers in water resource, vulnerability, and peace and security studies. Eleven cases of hydro-conflicts will be studied. A large dataset – the first of its kind – of hydro-conflicts will be regressed against climatic, hydrological and socio-economic variables. Natural and social scientists will work together in a trans-disciplinary fashion.

Duration of the project is three years. The Israeli team's budget is 250,000 EU. The projected is funded by the EU (7th Framework Programme).

4.5 Please provide data on research students (master degree with thesis, doctoral degree): overall number (internal/external), sources of funding, level of funding, number of graduates (of the university, faculty/school, parent unit/study program) in each of the last five years.

Overall number of research students in the department of Geography 2006-2011

Year	M.A. Research Track	Ph.D.	Total
2010-2011	15	28	43
2009-2010	26	28	54
2008-2009	25	27	52
2007-2008	25	33	58
2006-2007	36	36	72

* Not including additional 37 Master thesis and 21 PhD Dissertations that were supervised by the Department's faculty of students that were not registered at the Department.

As is typical in leading departments, our research is conducted in collaboration with students. Over the past 5 years faculty members in the Department have supervised **110 MA students, 59 PhD students, and 9 post-doctoral students** (see appendix 6.7).

Sources and level of funding for research students

1. The Prof. David Amiran Geographic Foundation for Academic Excellence at Hebrew University's Department of Geography awards scholarships on an annual basis to students excelling in the study of geography. Usually two scholarships are awarded to Master students in the research track (about $6,000 per year for two years) and two scholarships are awarded to Doctoral students (about $12,000 per year for three years). Scholarships are awarded in all of the geographic fields including physical, human, and environmental geography.
2. The Hebrew University's President's Scholarships for outstanding Doctoral Students is a highly competitive scheme that awards four year fellowships (until approval of PhD proposal $12,000 per year and then $17,000 per year). Since the establishment of this program three years ago five Doctoral students have won this prestigious scholarship: Michal Isaacson, Ron Horne, Emir Galilee, Amit Birenboim and Amit Tubi.
3. There are various scholarships and opportunities for funding for Doctoral students of Geography at the Hebrew University, for example from various Minerva centers, the Hoffman program for leadership, Eshkol Institute, etc. However, **most of our research track Master students and Doctoral students are funded today by research funds that are raised by the Department's faculty**. Average funding for a Master

student that is employed in a research project is about $12,000 per year and about $17,000 per year for a doctoral student.

4.6 Are faculty members required to serve as advisors of senior projects, theses and dissertations? Are there criteria for assigning advisors to different research projects?

Staff members are not obligated to serve as thesis advisors. However, all of them choose to supervise students working on their MA or PhD thesis. The number of MA and PhD students supervised by each faculty member is monitored on a regular basis. Once a faculty member agrees to serve as a thesis advisor, he/she is obligated to see the student through to the end of his/her degree.

4.7 Please provide a list of publications in the last five years (only by the teaching staff of the evaluated study program) according to refereed journals, books (originals or editions), professional journals, conference proceedings, professional reports, etc.

The Department's excellence in research is clearly reflected by the publication records of the faculty members. All in all, over the last five years members of the Department have published over 300 peer-reviewed articles, over 70 book chapters, and a dozen books or edited volumes. These publications are listed in **appendix 6.12.** As can be seen in this list, many of the publications appear in highly prestigious journals and publishing houses such as Annals of the Association of American Geographers, Environment and Planning A, Urban Studies, The International Journal of Urban and Regional Research, Journal of Historical Geography, Professional Geographer, Regional Studies, Political Geography, Cambridge University Press, Atmospheric Environment, Bulletin of the American Meteorological Society, Water Resources Research, Geomorphology, Routledge, Springer and many other leading journals in related fields, such as: Transportation, Tourism, Regional Science, Public Policy, Water Research, etc.

4.8 Is there a commercialization unit in the institution? Briefly describe its function: number of patents registered and where have they been registered.

Yissum Research Development Company of the Hebrew University of Jerusalem Ltd. was founded in 1964 to protect and commercialize the Hebrew University's intellectual property. Ranked among the top technology transfer companies in the world, Yissum has registered over 7,000 patents covering 2,023 inventions; has licensed out 530 technologies and spun-off 72 companies. Products that are based on Hebrew University technologies and were commercialized by Yissum generate today over $2 Billion in annual sales. Yissum's business partners span the globe and include companies such as Syngenta, Vilmorin, Monsanto, Novartis, Johnson & Johnson, Roche, Merck, Teva, Google, Adobe, Phillips and many more. For further information please visit www.yissum.co.il

4.9 Please describe the research infrastructure: research laboratories, specialized equipment, budget for maintenance (level and sources of funding).

In the previous chapter we described the GIS lab, the Geomorphology lab, the map library and the aerial photograph archives since they have a strong link with the teaching aspects of the program. However it is clear that they have an important role in research as well. Below we describe infrastructure that is research related per se.

The Center for Computational Geography (CCG)

In light of changes that have taken place in geographical research over the past decade, both in terms of geographic information systems (GIS) around the world and, more specifically, in the work of a number of researchers in the Department of Geography, the need to establish a center dedicated to supporting computerized research has become evident. The Center for Computational Geography provides infrastructure and guidance to researchers and students preparing graduate and doctoral work based on GIS, remote sensing, advanced tracking technologies, large data sets, and more.

As part of the process of establishing the Center for Computational Geography (http://ccg.huji.ac.il), the Department of Geography now offers a program of study for undergraduate students in Geoinformatics that began during the 2009/10 academic year and is described in chapter 3.

Advanced Tracking Technologies Laboratory

In 2003 Prof. Shoval established a research group in order to gather information using GPS devices about tourists' time-space activities in the Old City of Akko. Later the research of this research group expanded to theme parks such as the "Mini-Israel Miniature Park" (2007). In 2008 Prof. Shoval began to collaborate with Prof. Paolo Russo and Prof. Salvador Anton Clave in regards to the PortAventura theme park in Catalonia (Spain). In 2008, collaboration began with Prof. Bob McKercher at the Hong Kong Polytechnic University, regarding the tracking of visitors to Hong Kong. Lately Prof. Shoval began to study the time space activities of tourists in Jerusalem (2009) and on a national scale (2010).

In 2007 Prof. Shoval started a five-year research together with the Heidelberg University on "The Use of Advanced Tracking Technologies for Analysis of Mobility in Alzheimer's Disease and Related Cognitive Disorders". The research is sponsored by the German Federal Ministry for Education and Research. This is an interdisciplinary project of five research teams in the fields of geography, social work, gerontology, psychology, and medicine. The main aim is to better understand spatial activities of elderly people at different stages of Alzheimer's disease and related cognitive disorders. Lately the research in the medical field was expanded (2008) due to collaboration with the orthopedic department at the Hadassah University Hospital in Jerusalem. The aim is to use GPS technology in order to develop objective outcome measures for orthopedic surgeries.

Recently (2009) the research group began to use tracking technologies for urban research in Jerusalem in order to investigate the relationship between mental maps of city residents and their activities in time and space. In 2011 Prof. Shoval began collaborating with Aalborg University and the Danish Technical University regarding the new Danish National Master Plan for transportation (ACTUM).

Currently, three Doctoral students and three Master Students are affiliated with this research group.

Cave Research Unit

The Cave Research Unit (CRU), headed by Prof. Amos Frumkin, is an annex of the Department of Geography. Its offices are located in the Department of Geography, and in Ofra, (a village half an hour drive north of Jerusalem). The same staff operates both offices. The office in Ofra serves as a front base for expedition work, containing most field equipment and the library. The CRU office on Mount Scopus deals with research and university teaching. The CRU also conducts guided tours to caves, lectures, and similar activities upon request for various non-academic groups.

Interdisciplinary speleologic research has been developed within the framework of the CRU, which became the core of speleologic research in Israel. Several students are studying caves with the CRU, under the tutoring of Prof. Frumkin and/or other researchers from several universities. Using wide connections with cavers and researchers, The CRU established a community of observers and researchers, resulting in a database of caves and karst phenomena in Israel, for scientific and applied purposes. The database is currently being computerized.

Most of CRU research is concerned with cave geology. In addition, several research projects in archeology and biology have been established and stimulated by the CRU. The CRU was among the pioneers in studying the 'hiding complexes' of the Roman period in the Judean Shephela. The CRU took part in the new findings of ~2000 years old manuscripts in the Judean Desert caves, in finding the first large hoard of silver and gold coins of the Bar-Kokhba Revolt, and in finding the oldest gold in the Levant. The caves involved were found and identified as important sites by the CRU, and later excavated by the relevant academic institutions, with the CRU playing an important role in the expeditions. An interdisciplinary working scheme were established, in which CRU team do the geologic-geomorphologic-exploratory-survey work, parallel with the excavation coordinated by the archaeologist. We have also cooperated with biologists to conduct biological studies of bats, cave ticks, troglobitic-chemoautotrophic ecosystems, and salt cave ecosystems.

The CRU is often requested to perform applied karst-related studies and consultation for development in karst regions, in Israel and abroad. Common subjects of such studies are development of caves for tourism, hydrogeology, mineral prospecting, and danger of collapse into cavities while quarrying or building. These applied studies give us a unique opportunity to investigate otherwise inaccessible sites, which are often destroyed in the process of development. Such projects are important for rendering the basic scientific work useful for the society, and bridging the gap between academia and the wider public.

CRU Database The aim of the Database is to collect any cave and karst data in Israel. Two systems of data organization are used. The 'old' filing system is based on regional files, each covering areas of 10x10 km. The basic data is gradually being transferred into the 'new' system, based on Microsoft Access. The new system allows for elaborate spatial data analysis in geomorphologic, environmental, and hydrological studies.

Research Detailed research projects often follow basic cave surveys. Research topics include karst, geomorphology, paleoclimate, environment, biology, and archeology. Research results are often published in international publications.

'Niqrot Zurim' - Journal of Israel Cave Research The journal covers all aspects of caves and speleology in Israel. It appears in Hebrew with English abstracts. Numbers 1-20 have been published. Two books on Israeli karst are also available (Hebrew with English abstracts): *The Karst System of the Mount Sedom Salt Diapir*' and *Vertical Shafts in a Mediterranean Environment (Ofra, Israel).*

Cartographic Laboratory

The cartography lab has been an inseparable part of the Department of Geography since its establishment. The lab is renowned as one of the most professional in the field, and is the leading lab of its type in geography departments. Today, the lab is part of the Center for Computational Geography.

The primary task of the lab is to produce maps, diagrams, and other graphic aids for the Department's faculty for research and teaching purposes. In addition, the lab prepares cartographic materials for advanced-degree students in the Department of Geography. The lab creates, among other things, maps for academic publications in scientific literature and journals and posters for scientific conferences. The lab's staff is responsible for the Aerial Photograph Archive and for maintaining the Department's website.

Aside from the students and faculty in the Department, researchers from other departments at Hebrew University – History, the National Library, the Division for Development and Public Relations, and the university spokesman – are also clients. The lab produces diplomas for undergraduate and graduate students in the social sciences and humanities.

In addition to these activities, the lab has been in contact with the Survey of Israel to create five editions of the *Atlas of Israel*. The lab is a partner in the project and plays an integral role in the planning and design of the maps published in the atlas.

In the past, a good deal of the lab's work revolved around manual drafting of maps, but today all cartographic work is done in a computerized setting. Collection of data is done through geographic information systems (GIS) and its transfer to graphic software such as Illustrator.

Lab staff: Tamar Soffer, Michael Kidron, and Miriam Shmida

Equipment: Macintosh computers, PCs, black-white laser printer (A4), color printer (A3), plotter (42"), scanning equipment (up to A3), paper cutter (45" wide).

Hydro-Meteorological Laboratory

The main objective of the Hydrometeorological Lab at the Department of Geography is to investigate hydrological and meteorological systems and their interactions utilizing in-situ and remote sensing information, experimental field sites, mathematical models and advanced computational techniques. The lab staff includes Dr. Morin and several graduate students.

The Hydrometeorological Lab has a vast research experience in rainfall and runoff analysis, radar hydrology, climate change, hydrological processes and models, radar quantitative precipitation estimation, and flash-flood generation processes. Current research in the lab includes: investigation of convective rain cell patterns and their relation to hydrological response, radar-based flash-flood prediction in dry and Mediterranean climate areas, effect of climate change on flash floods magnitude and frequency, radar rainfall estimation, and drought analysis.

The major software packages used are Matlab and ArcGis. Databases of rainfall (gauges and radar) and runoff information are constructed for the different research projects and software to handle these databases is developed in the lab.

The Synoptic Meteorology Laboratory

Prof. Dayan leads a research group at the Hebrew University of Jerusalem that is investigating issues in synoptic meteorology and synoptic climatology, extreme weather studies (i.e., heavy rain, flash-floods and dust outbreaks), air pollution meteorology, boundary layer meteorology and others. All of these studies are interdisciplinary by nature and related to synoptic scale circulation.

The Laboratory of Synoptic Meteorology of Prof. Dayan is a well-developed and equipped research lab and includes a number of M.Sc. and Ph.D. students, several working stations linked to a high-speed server, several accessible databases (meteorological and monitoring air quality data, satellite digital data, and synoptic classification schemes), visualization software (e.g., Gridded Analyzing and Display System, MSG Animator, DSNP) and programming languages used for data analysis (e.g., IDL etc). The laboratory is equipped with a satellite receiving station enabling caption and archiving of the 11 Channels Meteosat Second Generation Satellite.

The Remote Sensing Laboratory

The Remote Sensing lab run by Dr. Levin focuses on several research themes, including: dune dynamics, land cover/land use changes, vegetation mapping, and human impacts on natural environments. The lab facilities include remote sensing software (ENVI, ATCOR, PC-MODWIN, IDRISI). To conduct basic remote sensing studies and field calibration/validation, the lab has a portable field/lab spectroradiometer, the SVC HR-1024, manufactured by the Spectra Vista Corporation. This new spectroradiometer has 1024 channels between 350-2500 nm with a rugged PDA/Bluetooth for wireless operation. It can acquire spectral measurements in several modes, including a fiber optic light guide 25 degree FOV, a 4 degree FOV lens, or direct contact measurements using a specially designed leaf/fruit probe. In addition the Lab has a Fuji IS-1 digital camera that is specially adapted for taking photos in the near infrared as well as in the visible bands.

4.10 Please list grants, honors, fellowships/scholarships, etc received by faculty (senior and junior).

Four faculty members were awarded the Israel Prize, the highest and most prestigious award given in Israel for academic achievement. Only two other

academics from Tel Aviv University were the recipients of the Israel Prize in the field of Geography.
The grants, honors and scholarships obtained by our faculty members in the last 5 years are listed in appendix 6.11.

4.11 Please list cooperation activities by department members both in Israel and abroad.

Members of the Department of Geography collaborate internationally with top scientists and laboratories in the USA, Europe and Asia, and nationally with all the universities in Israel. Research ties are formed mainly, but not exclusively, through joint grants.
The full list of cooperation activities by our faculty members in the last 5 years are listed in appendix 6.10 and in the respective CVs (appendix 6.9).

Another parameter for evaluating the status of research at the Department is the number of leading foreign researchers who wish to spend a sabbatical year in the Department. During the last five years the Department hosted several scholars on their sabbaticals: Prof. Mark Gottdiener, an urban sociologist at the Department of Sociology at SUNY Buffalo, Prof. David Eaton from the Lyndon B. Johnson School of Public Affairs at the University of Texas at Austin, Prof. Anne Shlay, an urban sociologist and geographer from Temple University, and Prof. Paul Kay from University of Waterloo. Next year we will host Prof. Sharon Megdal the Director of The University of Arizona Water Resources Research Center.

The Department is also a desirable place for post-doctoral scholars. During the past five years, the Department hosted a total nine post-doctoral students (for more details see appendix 6.7).

4.12 Please list the major consulting activities done by faculty.

Since its inception faculty members of the Geography Department have been active in the public sphere, primarily through applied work. In recent years faculty members have been involved in senior positions in multiple planning teams; have worked on applied environmental quality issues, and the preservation of open spaces in particular; have addressed the delineation of boundaries between municipal and local government units and headed commissions that examined proposed changes; have been involved in many historical preservation efforts and controversies, and more. Faculty members hold positions on many national committees and boards, such as the National Parks and Nature Reserves Commission, various boundary inquiry committees, National Council for Surveyors and Land Appraisers as well as other national ad-hoc committees and planning teams that counsel different governmental bodies, mainly in the Ministry of Interior and Ministry of Environment. Other members have participated in multiple committees at the municipal level, mainly in Jerusalem. Graduates of the Department, particularly graduates of the Department's specialization programs, have found professional positions in private companies, institutions, governmental offices, and NGO's. In addition, several faculty members participate in alternative planning initiatives and in planning programs that include public involvement.

Below is a partial list of research projects and applied academic activities in which the contributions of the Department and its members to Israeli society have been significant.

- Contributions to the foundations of knowledge for the understanding of the Land of Israel, its spaces, and landscapes through projects such as the Atlas of Jerusalem and the Atlas of Israel.
- Contributions to the development of civil society through activities with local and environmental organizations and groups along with critical research that focuses on the political and economic systems in Israel.
- Planning: the projects included leading roles in: the Master Plan for Israel – Israel 2020; the National Plan for Immigration Absorption; the National Plan of Israel – TAMA 35, Master plans for metropolitan areas – Tel Aviv, Beer Sheva, Haifa – and the Tel Aviv-Jerusalem Axis; District plans for the Jerusalem, Tel Aviv, Haifa, and Central districts; Master plan for Jerusalem and the strategic plan for Tel Aviv.
- Evaluation of statutory district master plans.
- Assessment of the regional impact and multiplier effects of Intel's Qiryat-Gat Fab 18 plant.
- Preservation and development of heritage sites.
- Sustainable Jerusalem: Several members were among the founders of a coalition of NGO's, active in Jerusalem future development plans
- Assistance in the analysis of projects: encatchment of floods, airports, public transportation arteries, industrial location, etc.
- Advisory roles for the Ministry of Interior, the Ministry of the Environment, the Israel Airports Authority, Ministry of Transportation, Ministry of Tourism, Israel Water Commission, Israel Nature and Parks Authority, etc.
- Advocacy work with NGOs, mainly in opposition to various development and legislation proposals, including appearances before Knesset committees, the National Planning Board and other national and local level committees.
- Policy-relevant research with Palestinian NGOs on various issues, including the management of transboundary water, the future and history of Jerusalem and transportation.
- Education: participation in the development of teaching programs and the preparation of textbooks for the educational system.
- Participation in public committees and democratic commissions including the Government's Place Name Committee in the Prime Minister's Office, Boundaries Committees, the Nature and National Parks Protection Authority, Highway 6 Committee, Council for the Restoration and Preservation of Historic Sites in Israel, Council for Surveyors and Land Appraisers etc.
- Museums and museuology, including participation in advisory committees, academic committees, and professional consultancy.

4.13 What is the level of synergy between research strengths and teaching needs at the various degree levels?

The curriculum maintained by the Department is broad, varied, and encompasses most of the sub-fields in Geography. This becomes evident when one examines the structure (and number) of the introductory and required courses offered, especially in the undergraduate program. In addition, the Department offers a large number of undergraduate elective courses in varied sub-fields in the graduate studies program. However, there are certain sub-fields in the discipline in which only a single course is offered, and some sub-fields that are not covered at all (such as gender studies). This is due to the specialization of single faculty members in the specific sub-fields or the lack of faculty members specializing in certain sub-fields. These gaps in the teaching program will most likely continue as they reflect the limited number of faculty relative to the breadth of the discipline.

The teaching program of physical geography warrants special attention. This sub-field of geography, which is important in itself, is conceived to be an essential foundation in the training of students in human geography. This is particularly true since environmental studies have become a central theme in Geography, and a focus of a graduate specialization in the Department. The experience of other geography departments in Israel points to the dangers that may arise when sub-fields in physical geography are not nurtured. This has resulted in the weakening of the field of human geography and the interaction between the two fields at some of the other geography departments in the country.

The curriculum offered by the Department, and specific courses within it, have been continuously up-dated. This updating has occurred in part through faculty turn-over, as new faculty introduced new courses, while the scope of older sub-fields, perhaps most notably regional geography, diminished. Thus, Dr. Cohen-Blankshtain has introduced the courses on the city in the era of information and technological change. Dr. Morin has developed the research and teaching field of hydrometeorology that did not exist at the Hebrew University beforehand. Dr. Fischhendler teaches issues related to the management of trans-boundary water resources and trans-boundary environmental conflict resolution. Dr. Levin teaches courses in the area of remote sensing and Dr. Rosen renewed courses in social geography that disappeared from the curriculum with the retirement of Prof. Amiram Gonen. As new faculty also assume the teaching of obligatory introductory courses, the curriculum of these courses has too been updated.

4.14 In summary, what are the points of strength and weakness of the research, and are you satisfied with the research outcomes of your department?

As the Department of Geography at the Hebrew University was the first of its kind in Israel, and has striven to maintain its position as the leading department, it has sought, since its establishment in 1949, to advance the full scope of the discipline, by establishing centers of excellence in all the major sub-fields of the discipline: physical, urban, historical, economic and behavioral geography. In more recent years environmental and political geography were added to this list of sub-fields. Concurrently, the research conducted at the Department has sought

to address and integrate the various scales of geographical inquiry, from the local to the global. Consequently, the Department has been continuously struggling with several dilemmas, which are inherent to the discipline:
A) The focus on local case studies, which can be studied in depth and may have important ramifications for Israel, versus inquiries about global processes.
B) The choice between empirical studies and their application to real world situations and more abstract theoretical investigations.
C) The choice between quantitative and qualitative facets of geographic research.

The desire to maintain centers of excellence in all the major sub-fields of the discipline raises a clear dilemma regarding appointments and the department's development. The dilemma is between the desire to have a wide range of themes represented in the Department and the desire to preserve and promote existing themes by ensuring a sufficient critical mass in order to ensure the sustainability of high quality research groups that will be the foundation for research discussions and a variety of courses in those themes. Overall, the Department has opted to maintain its broad coverage of the discipline, and yet to keep the effective size of the research groups within each sub-discipline. In doing so, the Department has been assisted by the flexibility and breadth of its faculty, who have over time widened their interests. Today, most of the senior faculty are active in more than one sub-field, and are continuing to adapt their methodologies and interests to the changes in the discipline.

Geography as a discipline is an integrative field of science, incorporating insights from the Humanities, the Social Sciences, and the Natural Sciences. Hence, it is not surprising that the Department of Geography at the Hebrew University has members and students who come from three Faculties, and have a strong background in more than one discipline. This is one of the main strengths and advantages of the discipline, and of the Department.
Israel provides a particularly interesting laboratory for geographic research, due to its history, its physiography and the societal and political processes occurring in it and around it. Thus, the Department of Geography has the potential for conducting cutting edge research within the discipline. Moreover, many of the issues that Israel currently faces, such as the setting of boundaries, the accommodation of rapid population and economic growth in a densely settled land with meager natural resources, the preservation and protection of a diverse and highly contested heritage, water management and the protection of landscapes and ecosystems are central to geographic research and informed by it. Hence, the work conducted at the Department of Geography has important practical implications, internationally, nationally and locally.

In order to maintain its status as the leading department in Israel, to fulfill its academic potential, maintain high-quality research and make contributions to society, the Department needs to take a number of steps.

1. Advance the development of a research center affiliated with the Department that will support research and advanced students in the Department, as found in most departments in the Faculty of Social Sciences.

2. To continue to foster the MA program and the specializations that attract graduate students from a variety of disciplines, who understand the relevance of the discipline to the fields of spatial planning, administration, and the environment.

3. To advance the cooperation in teaching and research between sub-disciplines and research groups within the Department. Particular attention should be given to strengthening the cooperation between the physical geography sub-discipline and the environmental, historical, and human sub-disciplines.

4. To continue with the incorporation of new technologies, particularly GIS and remote sensing, in research conducted in the Department through the continuous development of the newly established Center for Computational Geography (CCG).

Chapter 5 - The Self-Evaluation Process, Summary and Conclusions

5.1 Please describe the way that the current Self-Evaluation process was conducted, including methods used by the parent unit and the study program in its self-evaluation process, direct and indirect participants in the process etc. What are your conclusions regarding the process and its results?

The Hebrew University has adopted a monitoring and review process as a deliberate and systematic policy of proper administration. It is regarded as an integral part of the functioning of all academic units. Review and evaluation at regular intervals are essential in order to prevent stagnation and to allow for improvement, rectification of problems, adequate use of available resources and growth.

The review process is instantiated in one of two forms. In the first, together with the Council for Higher Education (CHE), most of the academic units at the Hebrew University are reviewed once every seven years. Each of the review committees visit all the higher-education institutions (Universities and Colleges) in which a particular academic area is being taught. The monitoring and review process includes self evaluation done by the to-be-reviewed unit, a visit by the reviewing committee, a phase of learning of the committee report, followed by a decision about implementation of the recommendations. In order to ensure a professional and objective approach, the Review Committees consist of internationally renowned experts in the reviewed field, mostly from leading universities abroad. For this reason, their reports are written in English.

The second form of review involves academic units that are not monitored by CHE, because they are unique to the Hebrew University. These units undergo a similar monitoring and review process by ad-hoc committees consisting of international as well as local renowned experts. Naturally, because of the fewer constraints, the committees are able to devote more time and cover a broader set of issues than the CHE committees.

The Committees are asked to examine all aspects of the reviewed unit: infrastructure, administrative personnel, curricula, students' level and the activity of faculty members in both research and teaching. The research activity of the reviewed unit forms an important part of the review. The underlying assumption being that in a research university, teaching and research are interconnected and mutually enriching. Even introductory courses taught in a research-oriented environment gain an added dimension, let alone advanced seminars. At the same time, the interaction with students in general and graduate students in particular, is a vital ingredient in stimulating scientific research.

The Committee's report is submitted to the Rector, and its recommendations are carefully studied by the reviewed units and the deans. The report is then discussed by the University's Committee for Academic Policy, which decides on steps to be taken both in the long and in short term. The person responsible for the reviews and the academic evaluation at the Hebrew University is the Vice-Rector, Prof. Yaacov Schul.

The Department of Geography (and Institute of Urban and Regional Studies) **were reviewed by an International Evaluation Committee in 2006.** The members were: Prof. Susan Fainstein, Harvard University (Chair); Prof. Yoram Avnimelech, Technion; Prof. Alan Baker, University of Cambridge; Prof. Genevieve Guiliano, University of Southern California; Prof. Chris Hamnett, King's College London.

As a result of suggestions made by the International Evaluation Committee (see appendix 6.4), a departmental committee was established to implement the recommendations, working in conjunction with the University Committee for Academic Policy. Over the course of the past five years, the Department has done much deliberating, planning, and implementing changes in the study program as described in chapter 3.

The current review is a direct continuation of the evaluation process that was initiated in 2006 and another milestone in the Department's strive for excellence in teaching and research.

5.2 Describe the consolidation process of the Self-Evaluation Report, including its preparation and final approval (including a description of the contributions of staff members to the process).

The Department of Geography formed a team of senior faculty members, headed by Prof. Noam Shoval, the Department Head, to perform the evaluation and write the report. To collect data for the various questions about the academic staff, we conducted a survey of all faculty in the Department, including a structured CV and questions about research and teaching activity, additional academic activities, research interests, and laboratory space. Faculty members were requested to fill out a structured table for each course they teach, and provide English translations of course syllabi and reading lists. With the invaluable assistance of the Department administrative staff, especially the Department Administrator, Mrs. Meital Stein, and the help of the Faculty and the University, we collected the administrative information required for this report. The involvement of our academic and administrative staff in preparing the report is of much value as it increases the sense of unity and common purpose.

Preparing the report served as an incentive for the Department to gather a great deal of information about courses, teaching programs, student supervision, grants, faculty members' publications, etc., which will undoubtedly be useful in the future. The self-evaluation provided the Department of Geography with the opportunity to critically examine its programs and its research activities. Although these issues are carefully considered on a regular basis by the Department's head and various committees, the evaluation processes motivated us to re-discuss some of the issue from a longer term perspective. Moreover, we anticipate that the evaluation will provide us with feedback from external observers concerning our relative standing vis-à-vis other departments in Israel and abroad.

5.3 If a mechanism/structure has been decided upon for the future treatment of weaknesses that were highlighted by the self-evaluation activity, please specify it while referring to those within the institution who would be responsible to follow up on this activity. Please refer to the question: how do the institution and the parent unit intend to deal in the future with quality assessment and its implementation?

Upon completion of the self-evaluation the Department will discuss and decide on special mechanisms to deal with issues raised in this report. Given the fact that the Department underwent an international review in 2006 and the time span needed in order to realize its implementation, many new mechanisms for restructuring both the undergraduate and graduate degree programs have recently been operated. Most of the issues highlighted in the current self evaluation are already being dealt with via these mechanisms and through the offices of various department and faculty committees, the department Head, the Office of the Dean of Social Sciences, and other university units.

5.4 Is the full Self-Evaluation Report accessible? If 'yes' - to whom it is accessible and to what extent?

The Hebrew University regards the transparency and accessibility of evaluation reports as essential to the usefulness of the self-evaluation. The reports of external review committees established by Council for Higher Education and the HU are first studied by the unit reviewed and the University's administration and discussed by the University's Committee on Academic Policy. The reports are then made public and posted on the University's website. Upon completion of the full report, the report and its appendices will be available to all interested persons (academic and administrative as well as student representatives) at the Department Head’s office. The ensuing feedback we receive as a result of the internal review by the University and the review by the Council for Higher Education will also be available to all interested persons in the Department.