CURRICURAM OF AL AZHAR UNIVERSITY

FACULTY OF SCIENCE : CHEMISTRY DEPARTMENT

First Year 1st Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. General Chemistry I	3	1	4
2. Mathematics			
3. Physics			
4. Biology			
5. English		–	
Total	3	1	4

2nd Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. General Chemistry II	3	1	4
2. Organic Chemistry I	3	1	4
3. Practical Organic Chemistry I	3	1	4
4. Mathematics			
5. Physics			
6. Biology			
7. English			
Total	9	3	12

Second Year 3rd & 4th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Inorganic Chemistry I	3	1	4
2. Practical Inorganic Chemistry	3	1	4
3. Physical Chemistry I	3	1	4
4. Experimental Physical Chemistry I	3	1	4
5. Analytical Chemistry I	3	1	4
6. Practical Organic Chemistry II	2	1	3
7. Organic Chemistry II	3	1	4
Total	20	7	27

Third Year 5th & 6th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Physical Chemistry II	3	1	4
2. Experimental Physical Chemistry II	3	1	4
3. Analytical Chemistry II	3	1	4
4. Instrumental Analysis	3	1	4
5. Inorganic Chemistry II	3	1	4
6. Introduction to Industrial Chemistry	3	1	4
7. Radiation Chemistry	3	1	4
8. Industrial Chemistry I	3	1	4
Total	24	8	32

Fourth Year 7th & 8th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Organic Chemistry III	3	1	4
2. Systematic Identification of Organic Compounds	2	1	3
3. Inorganic Chemistry III	3	1	4
4. Industrial Chemistry II	3	0	3
5. Physical Chemistry III	3	0	3
6. Seminar	1	0	1
7. Advanced Organic Chemistry	3	0	3
Total	18	3	21

FACULTY OF SCIENCE : BIOLOGY DEPARTMENT

First Year 1st Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Quran	1	–	1
2. Islamic Studies	2	–	2
3. General Chemistry I	3	1	4
4. General Physics I	2	1	3
5. Calculas I	4	–	4
6. Botany	2	1	3
7. English Language	2	–	2
Total	16	3	19

2nd Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Islamic Studies	2	–	2
2. General Chemistry II	2	1	3
3. Geology I	2	1	3
4. General Physics II	2	1	3
5. Calculas II	4	–	4
6. Zoology	2	1	3
7. English Language	2	–	2
Total	16	4	20

Second Year 3rd Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Quran	1	–	1
2. Islamic Studies	2	–	2
3. Invertebrates and Insects	2	1	3
4. Microbiology I	2	1	3
5. Inorganic Chemistry	2	1	3
6. Organic Chemistry	2	1	3
7. Plant Physiology	2	1	3
8. English Language	2	–	2
Total	15	5	20

4th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Islamic Studies	2	–	2
2. Vertebrates	2	1	3
3. Microbiology II	2	1	3
4. Analytical Chemistry I	2	1	3
5. Radiation Physics	2	1	3
6. Biochemistry I	2	1	3
7. Cell Biology	2	–	2
8. English Language	2	–	2
Total	16	5	21

Third Year 5th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Quran	1	–	1
2. Islamic Studies	2	–	2
3. Organic Chemistry II	2	1	3
4. Physical Chemistry I	2	1	3
5. Biochemistry II	2	1	3
6. Genetics	2	1	3
7. Virology	1	1	2
8. Environment and Pollution I	2	1	3
Total	14	6	20

6th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Islamic Studies	2	–	2
2. Organic Chemistry III	2	1	3
3. Inorganic Chemistry II	2	1	3
4. Fungi and Plant Disease	2	–	2
5. Environment and Pollution I	2	–	2
6. Animal Physiology	1	1	2
7. Molecular Biology I and Genetic Engenering	2	–	2
8. Statistic	2	–	2
Total	15	3	18

Fourth Year 7th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Quran	1	–	1
2. Islamic Studies	2	–	2
3. Parasitology	2	1	3
4. Molecular Biology and Genetic Engenering	2	1	3
5. Yeast	2	1	3
6. Physical Chemistry II	2	1	3
7. Analytical Chemistry II	2	1	3
Total	13	5	18

8th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Islamic Studies	2	–	2
2. Analytical Microbiology	2	1	3
3. Seminar	2	–	2
4. Immunology	1	1	2
5. Organic Chemistry IV	2	1	3
6. Antibiotics	1	1	2
7. Inorganic Chemistry III	2	1	3
Total	12	5	17

FACULTY OF SCIENCE : PHYSICS DEPARTMENT

First Year

1st Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Properties of Matter	3	1	4
2. Heat	3	1	4
Total	6	2	8

2nd Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Geometrical Optics	3	1	4
2. Electricity(1)	3	1	4
Total	6	2	8

Second Year

3rd Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Electricity(2)	3	1	4
2. Vibrations and Waves and Physical optics	3	1	4
Total	6	2	8

4th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Special relativity and Modern physics	3	1	4
2. Thermodynamics and statistical mechanics	2	1	3
Total	5	2	7

Third Year

5th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Electronics(1)	2	1	3
2. Quantum mechanics(1)	3	–	3
3. Electromagnetic theory(1)	3	–	3
Total	8	1	9

6th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Atomic and molecular physics	3	1	4
2. Solid state physics(1)	3	1	4
3. Nuclear(1)	3	–	3
Total	9	2	11

Fourth Year 7th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Solid state physics(2)	2	1	3
2. Electromagnetic theory(2)	2	–	2
Total	4	1	5

8th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Nuclear physics(2)	2	–	2
2. Electronics(2)	2	1	3
3. Special course			
4. Practical physics			
Total	4	1	5

FACULTY OF SCIENCE : GEOLOGY DEPARTMENT

First Year 1st Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. General Geology	2	1	3
Total	2	1	3

2nd Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Structural Geology	2	1	3
2. Crystallography and Mineralogy	2	1	3
Total	4	2	6

Second Year 3rd Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Optical Mineralogy	2	1	3
2. Invertebrate Fossils	2	1	3
Total	4	2	6

4th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Igneous Rocks	2	1	3
2. Historical Geology	2	1	3
Total	4	2	6

Third Year 5th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Sedimentary Rocks	2	1	3
2. Stratigraphy	2	1	3
3. Geochemistry or Geomorphology	2	1	3
Total	6	3	9

6th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Metamorphic Rocks	2	1	3
2. Field Geology and Survey	2	1	3
3. Paleoenvironment or Geophysics	2	1	3
Total	6	3	9

Fourth Year 7th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Microfossils	2	1	3
2. Hydrology	2	1	3
3. Engineering Geology or Economic Geology	2	1	3
Total	6	3	9

8th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Geology of Palestine	2	1	3
2. Petroleum Geology	2	1	3
3. Research	2	–	2
Total	6	2	8

FACULTY OF AGRICULTURE

First Year 1st Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Principles of Economic (A)	2	1	3
2. Principles of General Zoology	2	1	3
3. Land Surveying	2	1	3
4. Mathematics	2	1	3
5. Agriculture Chemistry (1)	2	1	3
6. Plant Morphology and Anatomy	2	1	3
7. Principles of Rural Sociology (1)	2	1	3
Total	14	7	21

2nd Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Principles of Economics (B)	2	1	3
2. Principles of Agriculture Entomology	2	1	3
3. Fundamentals of Physics	2	1	3
4. Agriculture Chemistry (2)	2	1	3
5. Plant Taxonomy	2	1	3
6. Meteorology	2	1	3
Total	12	6	18

Second Year 3rd semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. General Agriculture Biochemistry	2	1	3
2. Fundamentals of Soil Science	2	1	3
3. Principles of Animal Production	2	1	3
4. Principles of Agriculture Microbiology	2	1	3
5. Principles of Crops Production	2	1	3
6. Principles of Statistics Experimental Design	2	1	3
Total	12	6	18

4th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Principles of Dairy Science	2	1	3
2. Fundamental of Horticulture Production	2	1	3
3. Agricultural Zoology	2	1	3
4. Principles of Agriculture Plant Physiology	2	1	3
5. General Animal Physiology	2	1	3
6. Principles of Rural Sociology (2)	2	1	3
7. Principles of Agriculture Genetics	2	1	3
Total	14	7	21

Third Year for Plant Protection Department 5th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Principles of Pesticides	2	1	3
2. Principles of Plant Pathology	2	1	3
3. Fruits Production	2	1	3
4. Vegetables Production	2	1	3
5. Analytical Chemistry (General)	2	1	3
6. Agricultural Economics	2	1	3
Total	12	6	18

6th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Insecticide Chemistry	2	1	3
2. Agricultural Pests (Nematode + Acaros)	2	1	3
3. Economical insects (Entomology)	2	1	3
4. Physical Chemistry (Colloids)	2	1	3
5. Field Crops Production	2	1	3
6. Plant Nutrition and Fertilizers	2	1	3
7. Summer Training	2	1	3
Total	14	7	21

Third Year for General Agriculture Department 5th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Fruits Production	2	1	3
2. Principles of Plant Breeding	2	1	3
3. Agricultural Engineering	2	1	3
4. Poultry and Animal Health	2	1	3
5. Vegetables Production	2	1	3
6. Agricultural Economics	2	1	3
Total	12	6	18

6th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Flowers and Ornamentals	2	1	3
2. Agricultural Mechanics	2	1	3
3. Soil Technology	2	1	3
4. Economical Insects	2	1	3
5. Field Crops Production	2	1	3
6. Principles of Animal Breeding	2	1	3
Total	12	6	18

Fourth Year for Plant Protection Department 7th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Insect Physiology	2	1	3
2. Fungicide Chemistry	2	1	3
3. Herbicide Chemistry	2	1	3
4. Principles of Agriculture Extension	2	1	3
5. Plant Breeding	2	1	3
6. Advanced Analytical Chemistry	2	1	3
7. Seminar and Discussion	2	1	3
Total	14	7	21

8th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Pesticide Residue Analysis	2	1	3
2. Pesticide Toxicology	2	1	3
3. Biological Control	2	1	3
4. General Nematology	2	1	3
5. Medical Insects or Insect Resistance	2	1	3
6. Flowers and Ornamentals	2	1	3
7. Seminar and Discussions	2	1	3
Total	14	7	21

Fourth Year for General Agriculture Department 7th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Principles of Plant Pathology	2	1	3
2. Principles of Agricultural Extension	2	1	3
3. Honey and Silk Production	2	1	3
4. Agricultural Co-operation	2	1	3
5. Agricultural Business Management	2	1	3
6. Poultry Care	2	1	3
Total	12	6	18

8th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Agricultural Accounting	2	1	3
2. Principles of Food Technology	2	1	3
3. Animal and Poultry Nutrition	2	1	3
4. Plant Nutrition and Fertilizer	2	1	3
5. Agricultural Marketing	2	1	3
6. Extension Programs Evaluation and Planning	2	1	3
7. Comparative International Agriculture	2	1	3
Total	14	7	21

FACULTY OF PHARMACY

First Year 1st Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. General Physics 1	2	1	3
2. Inorganic Chemistry 1	3	1	4
3. Botany and Medicinal Plant	3	1	4
4. Calculas I	3	–	3
5. English I	2	–	2
6. Quran	1	–	1
7. Fekh	1	–	1
Total	15	3	18

2nd Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. General Physics 2	2	1	3
2. Inorganic Chemistry 2	3	1	4
3. Zoology	3	1	4
4. English II	2	–	2
5. Psychology	1	–	1
6. Jurisprudence	2	–	2
Total	13	3	16

Second Year 3rd Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Quran	1	–	1
2. Islamic Studies	2	–	2
3. Invertebrates and Insects	2	1	3
4. Microbiology I	2	1	3
5. Inorganic Chemistry	2	1	3
6. Organic Chemistry	2	1	3
7. Plant Physiology	2	1	3
8. English Language	2	–	2
Total	15	5	20

4th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Islamic Studies	2	–	2
2. Vertebrates	2	1	3
3. Microbiology II	2	1	3
4. Analytical Chemistry	2	1	3
5. Radiation Physics	2	1	3
6. Biochemistry I	2	1	3
7. Cell Biology	2	–	2
8. English Language	2	–	2
Total	16	5	21

Third Year 5th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Quran	1	–	1
2. Islamic Studies	2	–	2
3. Organic Chemistry II	2	1	3
4. Physical Chemistry I	2	1	3
5. Biochemistry II	2	1	3
6. Genetics	2	1	3
7. Virology	1	1	2
8. Environment and Pollution I	2	1	3
Total	14	6	20

6th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Islamic Studies	2	–	2
2. Organic Chemistry III	2	1	3
3. Inorganic Chemistry II	2	1	3
4. Fungi and Plant Disease	2	–	2
5. Environment and Pollution I	2	–	2
6. Animal Physiology	1	1	2
7. Molecular Biology I and Genetic Engenering	2	–	2
8. Statistic	2	–	2
Total	15	3	18

Fourth Year 7th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Quran	1	–	1
2. Islamic Studies	2	–	2
3. Parasitology	2	1	3
4. Molecular Biology and Genetic Engenering	2	1	3
5. Yeast	2	1	3
6. Physical Chemistry II	2	1	3
7. Analytical Chemistry II	2	1	3
Total	13	5	18

8th Semester	Theory Class Hour	Practice Class Hour	Credit Hour
1. Islamic Studies	2	–	2
2. Analytical Microbiology	2	1	3
3. Seminar	2	–	2
4. Immunology	1	1	2
5. Organic Chemistry IV	2	1	3
6. Antibiotics	1	1	2
7. Inorganic Chemistry III	2	1	3
Total	12	5	17

CURRICURUM OF DEIR EL BALAH POLYTECHNIC

Industrial Technology

– Electronic Course

	Theory Class Hour/Week	Laboratory Class Hour/Week	Credit Hour
1. Islamic Studies	3	–	3
2. Arabic Language	3	–	3
3. English Language	3	–	3
4. Development in the Arab World	–	3	
5. Math.	3	–	3
6. Engineering Drawing	–	6	2
7. Engineering Workshop	–	6	2
8. Industrial Organization & Supervision	1		
9. Physics	2	–	2
10. Experiment in Physics	–	3	1
11. Principle of Electrical Circuits	–	3	
12. Principle of Electrical Circuits/Practical	1		
13. Electronics 1	2	–	2
14. Electronics 2	2	–	2
15. Electronics 3	2	–	2
16. Electronics 2/Practical	–	3	1
17. Electronics 3/Practical	–	3	1
18. Electrical Measurements	2	–	2
19. Electrical Measurements/Practical	2	1	
20. Electricity Workshop	–	6	2
21. Electrical Drawing	1	2	2
22. Electrical Control & Protection Instruments	2		
23. Electrical Control & Protection Instruments/Practical	2	–	2
24. Radio Communications	3	1	
25. Radio Communications/Practical	2	–	2
26. Antenna Systems	2	–	2
27. Basics of TVs.	2	–	2
28. Color televisions	–	3	1
29. Television/Practical	–	2	
30. Broadcasting Studios & Acoustics	2	–	2
31. Television Studios	–	3	1
32. Studios/Practical	2	–	2
33. Visual Recording Techniques	1	2	2
34. TV, Radio tuning and repair	–	4	2
35. Project	–	9	3
36. Practical Training 1	–	9	3
37. Practical Training 2	–	9	3
Total	45	78	60

Industrial Technology
– Electric Course

	Theory Class Hour/Week	Laboratory Class Hour/Week	Credit Hour
1. Islamic Studies	3	–	3
2. Arabic Language	3	–	3
3. English Language	3	–	3
4. Development in the Arab World	–	3	
5. Math	3	–	3
6. Engineering Drawing	–	6	2
7. Engineering Workshop	–	6	2
8. Industrial Organization & Supervision	1		
9. Physics	1	–	1
10. Experiment in Physics	–	3	1
11. Principle of Electrical Circuits	–	3	
12. Principles of Electrical Circuits/Practical	1		
13. Electronics 1	2	–	2
14. Electronics 1/Practical	–	2	1
15. Electricity Workshop	–	6	2
16. Electrical Measurements	2	–	2
17. Electrical Measurements/Practical	2	1	
18. Electrical Drawing	1	2	2
19. Electrical Control & Protection Instruments	2		
20. Electrical Control & Protection Instruments/Practical		2	1
21. Electrical Machines	2	–	2
22. Electrical Machines/Practical	2	1	
23. Electrical Lighting	2	–	2
24. Distribution Networks	2	–	2
25. Domestic & Commercial Wiring	2	–	2
26. Domestic & Commercial Wiring/Practical	1		
27. Industrial Wiring	3	–	3
28. Auxiliary & Security Wiring	2	–	2
29. Motors Supply Wiring	2	–	2
30. Motors Supply Wiring/Practical	2	1	
31. Electrical Measurements & Specifications	2		
32. Power Measurements and Recording Devices	2		
33. Power Measurements and			
34. Project	–	4	2
35. Practical Training 1	–	9	3
36. Practical Training 2	–	9	3
Total	48	58	51

Industrial Technology

– Computer Technology

	Theory Class Hour/Week	Laboratory Class Hour/Week	Credit Hour
1. Islamic Studies	3	–	3
2. Arabic Language	3	–	3
3. English Language	3	–	3
4. Development in the Arab World	–	3	
5. Math	3	–	3
6. Engineering Drawing	–	6	2
7. Engineering Workshop	–	6	2
8. Industrial Organization & Supervision	1		
9. Physics	2	–	2
10. Experiment in Physics	–	3	1
11. Principle of Electrical circuits	–	3	
12. Principles of Electrical Circuits/Practical	1		
13. Electronics 1	2	–	2
14. Electronics 2	2	–	2
15. Electronics 2/Practical	–	3	1
16. Electrical Measurements	2	–	2
17. Electrical Measurements/Practical	3	1	
18. Electrical Workshop	–	6	2
19. Introduction to Computers	2	2	3
20. Logic Circuits	3	–	3
21. Logic Circuits/Practical	–	3	1
22. Programming with PASCAL	2	–	2
23. Programming with PASCAL/Practical	3	1	
24. Programming with Assembly Lang.	–	3	
25. Programming with Assembly Language/Practical	1		
26. Digital Electronics	2	–	2
27. Digital Electronics/Practical	3	1	
28. Microprocessor	3	–	3
29. Microprocessor/Practical	–	3	1
30. Computer Peripherals	3	–	3
31. Computer Peripherals/Practical	3	1	
32. Data Communications	2	–	2
33. Digital Systems Maintenance	1	3	2
34. Operating Systems	2	–	2
35. Project	–	4	2
36. Practical Training 1	–	9	3
37. Practical Training 2	–	9	3
Total	55	70	60

Industrial Technology

– Computer Programming

	Theory Class Hour/Week	Laboratory Class Hour/Week	Credit Hour
1. Islamic Studies	3	–	3
2. Arabic Language	3	–	3
3. English Language	3	–	3
4. Development in the Arab World	–	3	
5. Statistics	2	2	3
6. Accountancy	2	2	3
7. Management	3	–	3
8. Economics	3	–	3
9. Math. for Programming 1	2	–	2
10. Math. for Programming 2	2	–	2
11. Technical English	3	–	3
12. Introduction to Computer Science	–	3	
13. Programming with BASIC	2	3	3
14. Programming with FORTRAN	2	3	3
15. Programming with COBOL 1	1	3	2
16. Programming with COBOL 2	1	3	2
17. Programming with PASCAL	2	3	3
18. System Analysis	2	3	3
19. Data Structure & File Organization	–	3	
20. Word Processing & Office Automation	3	3	
21. Operating Systems	3	–	3
22. Operational Research	3	–	3
23. Introduction to Data Base	3	–	3
24. Project	1	6	3
25. Practical Training 1	–	9	3
26. Practical Training 2	–	9	3
Total	49	58	62

Administative Study Department

– Secretary and Office Automation

	Theory Class Hour/Week	Laboratory Class Hour/Week	Credit Hour
1. Islamic Studies	3	–	3
2. Arabic Language	3	–	3
3. English Language	3	–	3
4. Development in the Arab World	–	3	
5. Statistics	2	2	3
6. Economics	3	–	3
7. Accountancy 1	2	2	3
8. Accountancy 2	2	2	3
9. Management	3	–	3
10. Marketing	3	–	3
11. Fundamentals of Financial Administration	3		
12. Introduction to Computer	2	2	3
13. Technical English	3	–	3
14. Arabic Typing 1	–	3	1
15. Arabic Typing 2	–	3	1
16. Arabic Typing 3	–	3	1
17. English Typing 1	–	3	1
18. English Typing 2	–	3	1
19. English Typing 3	–	3	1
20. Fundamentals of Communications	3	3	
21. Business Letters	2	2	3
22. Secretary & Office Work	3	–	3
23. Fundamentals of Public Relations	–	3	
24. Administrative Information Systems	–	3	
25. Office Work/English	1	3	2
26. Practical Training 1	–	6	2
27. Practical Training 2	–	6	2
Total	41	55	51

Hotel Studies

– Hotel Management Course

	Theory Class Hour/Week	Laboratory Class Hour/Week	Credit Hour
1. Islamic Studies	3	–	3
2. Arabic Language	3	–	3
3. English Language	3	–	3
4. Development in the Arab World	–	3	
5. Management	3	–	3
6. Accountancy	3	–	3
7. Introduction to Computer	2	2	3
8. General Health	2	–	2
9. Fundamentals of Tourism	2	–	2
10. Front desk & Reception Techniques 1	–	2	
11. Front Desk & Reception Techniques 2	–	2	
12. Front Desk & Reception Techniques 3	3	2	
13. Front Desk & Reception Techniques 4	3	2	
14. Hotel Economics Techniques 1	1	3	2
15. Hotel Economics Techniques 2	1	3	2
16. Hotel Economics Techniques 3	1	3	2
17. Marketing	3	–	3
18. Typing & Communication Methods	6	3	
19. Technical English 1	3	–	3
20. Technical English 2	3	–	3
21. French Language 1	2	–	2
22. French Language 2	2	–	2
23. French Language 3	2	–	2
24. French Language 4	2	–	2
25. Practical Training 1	–	9	3
26. Practical Training 2	–	9	3
Total	53	43	51

Hotel Studies

– Catering Course

	Theory Class Hour/Week	Laboratory Class Hour/Week	Credit Hour
1. Islamic Studies	3	–	3
2. Arabic Language	3	–	3
3. English Language	3	–	3
4. Development in the Arab World	–	3	
5. Management	3	–	3
6. Accountancy	3	–	3
7. Introduction to Computer	2	2	3
8. General Health	2	–	2
9. Fundamentals of Tourism	2	–	2
10. Food Preparation & Production 1	2	2	
11. Food Preparation & Production 2	2	2	
12. Food Preparation & Production 3	2	2	
13. Food & Drink Services 1	1	2	2
14. Food & Drink Services 2	1	2	2
15. Food & Drink Services 3	1	2	2
16. Food Quality	3	–	3
17. Food Science	2	2	3
18. Nutrition	3	–	3
19. Technical English 1	3	–	3
20. Technical English 2	3	–	3
21. French Language 1	2	–	2
22. French Language 2	2	–	2
23. French Language 3	2	–	2
24. French Language 4	2	–	2
25. Practical Training 1	–	9	3
26. Practical Training 2	–	9	3
Total	52	37	57

Applied Art Department

– Media Studies

	Theory Class Hour/Week	Laboratory Class Hour/Week	Credit Hour
1. Islamic Studies	3	–	3
2. Arabic Language	3	–	3
3. English Language	3	–	3
4. Development in the Arab World	–	3	
5. History of Arts 1	3	–	3
6. History of Arts 2	3	–	3
7. Coloring & Drawing	–	9	3
8. Engineering Drawing	–	6	2
9. Engineering Perspective	2	3	3
10. Aesthetics	3	–	3
11. Introduction to Theater	3	–	3
12. Introduction to Cinema, Radio & TV 1	–	3	
13. Introduction to Cinema, Radio & TV 2	–	3	
14. Theater & Television Decoration	3	2	
15. Introduction to Lighting	1	3	2
16. Introduction to Acoustics	1	3	2
17. Media Advertisement	3	–	3
18. Theater Clothing	1	6	3
19. Photography	1	6	3
20. Applied Electricity	2	–	2
21. Applied Electricity/Practical	2	1	
22. Television Decoration	1	3	2
23. Television Photography 1	1	3	2
24. Television Photography 2	1	3	2
25. Lighting for Television	1	3	2
26. Acoustics Engineering	1	3	2
27. Television Montage	1	4	3
28. Practical Training 1	–	9	3
29. Practical Training 2	–	9	3
Total	43	85	63

Applied Art Department

– Fashion Design & Dressing Making

	Theory Class Hour/Week	Laboratory Class Hour/Week	Credit Hour
1. Islamic Studies	3	–	3
2. Arabic Language	3	–	3
3. English Language	3	–	3
4. Development in the Arab World	–	3	
5. History of Arts 1	3	–	3
6. History of Arts 2	3	–	3
7. Engineering Drawing	–	6	2
8. Engineering Perspective	2	3	3
9. Aesthetics	3	–	3
10. Principles of Design	2	3	3
11. History of Fashion	2	–	2
12. Fashion Design	1	3	2
13. Design on Models	–	4	2
14. Fabrics	2	3	3
15. Sewing Technology 1	1	3	2
16. Sewing Technology 2	1	3	2
17. Marketing	3	–	3
18. Embroidery	–	3	1
19. Machine weaving	1	6	3
20. Pattern Design & Sewing 1	–	6	2
21. Pattern Design & Sewing 2	–	6	2
22. Pattern Design & Sewing 3	–	6	2
23. Children Clothing	–	6	2
24. Project	–	6	2
25. Hand Weaving	1	3	2
26. Practical Training 1	–	9	3
27. Practical Training 2	–	9	3
Total	34	91	64

AL AZHAR UNIVERSITY STUDENT AND TEACHING STAFF

1994/95 academic year

Faculty/ Department	Freshman			Sophomore			Junior			Senior			Total			Total No. of Teachers	Student/ Teacher
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total		
Science	229	212	441	192	99	291	47	36	83	–	–	–	468	347	815	54	15.1
Chemistry	82	84	166	73	58	131	15	15	30	–	–	–	170	157	327	18	
Physics	26	25	51	24	7	31	13	–	13	–	–	–	63	32	95	13	
Biology	67	65	132	46	14	60	8	17	25	–	–	–	121	96	217	11	
Geology	18	–	18	–	–	–	–	–	–	–	–	–	18	–	18	3	
Math	36	38	74	49	20	69	11	4	15	–	–	–	96	62	158	9	
Pharmacy	71	73	144	53	57	110	38	45	83	–	–	–	162	175	337	9	37.4
Agriculture	42	–	42	43	–	43	22	–	22	–	–	–	107	–	107	9	11.9
Commerce	346	137	483	139	57	196	–	–	–	–	–	–	485	194	679	15	45.3
Arts	31	131	162	167	74	241	60	38	98	–	–	–	258	243	501	46	10.9
Arabic	–	11	11	–	–	–	–	–	–	–	–	–	–	11	11	14	
English	–	50	50	–	–	–	–	–	–	–	–	–	–	50	50	13	
History	11	48	59	–	–	–	–	–	–	–	–	–	11	48	59	9	
Geography	20	22	42	167	74	241	60	38	98	–	–	–	247	134	381	10	
Education	154	239	393	315	313	628	323	166	489	329	326	655	1,121	1,044	2,165	36	60.1
Arabic	50	120	170	109	123	232	81	48	129	133	127	260	373	418	791		
English	50	65	115	86	78	164	82	45	127	63	94	157	281	282	563		
Chi./Phy.	20	–	20	45	26	71	75	22	97	47	25	72	187	73	260		
Math	25	24	49	49	33	82	44	24	68	49	48	97	167	129	296		
Islamic study	9	30	39	26	53	79	41	27	68	37	32	69	113	142	255		
Law	1,350	200	1,550	218	–	218	103	–	103	70	–	70	1,741	200	1,941	9	215.7
Total	2,223	992	3,215	1,127	600	1,727	593	285	878	399	326	725	4,342	2,203	6,545	180	36.4

DEIR EL BALAH POLYTECHNIC
STUDENT ENROLLMENT

	First Year	Second Year
Industrial Technology		
– Electronic course	25	25
– Electric course	25	25
– Computer programming	25	25
– Computer technology	25	25
Hotel Study		
– Hotel management course	25	25
– Catering course	25	25
Administrative Study Department		
– Secretary and office automation	25	25
Applied Art Department		
– Fashion design and dress making	25	25
– Media studies	25	25

بسم الله الرحمن الرحيم

Al Azhar University - Gaza
Tel. 07-824010/20
Fax. 07-823180
P.O.Box : (1277)
GAZA - PALESTINE

جامعة الأزهر - غزة
هاتف : ٠٧-٨٢٤٠١٠/٢٠
فاكس : ٠٧-٨٢٣١٨٠
ص.ب : (١٢٧٧)
غزة - فلسطين

Ref :
الرقم :

Date :
التاريخ :

Instruments in the laboratory - Faculty of Pharmacy

	Item	model	maid in	Qt.	year
1	Microscope	Nikon	Japan	3	92
2	Microscope	Leica	China	10	93
3	Deionized water tube		Israel	1	93
4	Distelator	Galaxy 4	England	1	93
5	Rotatary Evaporator	Heidolph	Germany	1	94
6	Kymograph	Harvard	Germany	2	93
7	Compact Balance 0-610 gm. 0-3100 gm.	Mettler	Switzerland	 1 1	94
8	Analatycal Balance (Sartorius) 210 - 0,0001 gm .	Sartorius	Germany	 1	92
9	Centrifuge Labfuge Centrifuge Heamofuge Centrifuge Biofuge	Herows	Germany	1 1 1	93
10	Projector	Liesegang	Germany	1	93
11	Oven	Herows	Germany	2	92
12	Vortex mixer	Freed Electric	Tiwan	2	94
13	Homogenizer	Blender	Israel	1	94
14	Ultraviolet lamp	Vilber	USA	1	93
15	PH - meter	Harvard	Italy	2	93
16	Sphygmomanometer Stethosocpe	Mercuriql	Janan	3 3	93

We get a spair parts for the instruments from Israel- through their impirting companies .

بسم الله الرحمن الرحيم

Al Azhar University - Gaza
Tel. 07-824010/20
Fax. 07-823180
P.O.Box : (1277)
GAZA - PALESTINE

جامعة الأزهر - غزة
هاتف : ٠٧-٨٢٤٠١٠/٢٠
فاكس : ٠٧-٨٢٣١٨٠
ص.ب : (١٢٧٧)
غزة - فلسطين

Ref : الرقم :

Date : التاريخ :

Instruments in the laboratory of Faculty of Agriculture

	Item	model	maid in	Qt.	year
1	Spectrphotometer	Jenway	England	1	91
2	Hotplate	Snjers	Holland	1	91
3	Hotplate with four heaters	Fried	Israel	1	91
4	PH meter	Hanna	Italy	1	91
5	Digital Balance	Ohaus	USA	1	91
6	Blinder Mixer	Waring	USA	1	91
7	Oven	Horo	German y	1	91
8	Flame photometer	corning	England	1	91
9	Spectronic 20	Milton	USA	1	91
10	Conductivity meter	Hanna	Italy	1	91

We get a spair parts for the instruments from Israel- through their impirting companies .

بسم الله الرحمن الرحيم

Al Azhar University - Gaza
Tel. 07-824010/20
Fax. 07-823180
P.O.Box : (1277)
GAZA - PALESTINE

جامعة الأزهر - غزة
هاتف : ٠٧-٨٢٤٠١٠/٢٠
فاكس : ٠٧-٨٢٢١٨٠
ص.ب : (١٢٧٧)
غزة - فلسطين

Ref : الرقم :

Date : التاريخ :

Instrument in the laboratory -Biology lab.

No.	INstrument	Qut.	Model	Made In
1-	Micrscope	11	Kyowa	Japan
		10	Hund	Germany
2-	Spectrophotometer	1	LKB	Germany
3-	Distillator	1	A8S/Aquatron	England
4-	Magnetic stirer	11	Heidolph	Germany
5-	Oven	1	Levy	Israel
6-	Incuvater	1	Heraeus	U.S.A
7-	Balander	2	Tolegpo	Israel
8-	Test tube shaker	1	Gemmy	Tiwan

*- All equipment are arrived 1993 .
*- Ihorer to get a spair pasts for the instruments from Israel .

بسم الله الرحمن الرحيم

Al Azhar University - Gaza
Tel. 07-824010/20
Fax. 07-823180
P.O.Box : (1277)
GAZA - PALESTINE

جامعة الأزهر - غزة
هاتف : ٠٧-٨٢٤٠١٠/٢٠
فاكس : ٠٧-٨٢٢١٨٠
ص.ب : (١٢٧٧)
غزة - فلسطين

Ref : الرقم :

Date : التاريخ :

Instruments that are available at the chemistry labs.

No	Item	Qut.	Made in	Model
1-	Dring ovens	3	Israel	Gemmy
2-	Laboratory furance	1	Israel	Biffa
3-	Hot plates with magnetic stirrer	9	Germany	MR 2000
4-	PH-meters "digital"	3	Italy	HI-8519
5-	A-4S Distillaters	2	U.K.	A-4S Aquqtron
6-	Melting point Apparatus	1	U.K.	Stuart
7-	Digital balances	3	U.S.A.	Ohaus
8-	Water baths with thermostat	4	Israel	Gemmy

*- All of the above listed Instruments were brought in 1992 .
*- The spare parts are braught from Israeli companies when needed .

بسم الله الرحمن الرحيم

Al Azhar University - Gaza
Tel. 07-824010/20
Fax. 07-823180
P.O.Box : (1277)
GAZA - PALESTINE

جامعة الأزهر - غزة
هاتف : ٠٧-٨٢٤٠١٠/٢٠
فاكس : ٠٧-٨٢٢١٨٠
ص.ب : (١٢٧٧)
غزة - فلسطين

Ref :
الرقم :

Date :
التاريخ :

Instrument in the laboratory - Physics lab.

No.	INstrument	Qut.	Model	Made in	Year
1-	Oscillcope	7	Sampo	Taiwan	1993
2-	Power supply	6	Horizon	Germany	"
3-	Signal generator	6	Sampo	Taiwan	"
4-	Laser beam source	3	PHYWE	Germany	"
5-	Multimeter	3	Fluke	U.S.A	"
6-	Frequency meter	2	PHYWE	Germany	1994
8-	Amplifier	1	PHYWE	Germany	"
9-	Teslameter	4	PHYWE	Germany	"
10-	Experment lamp	3	PHYWE	Germany	"

*- WE get a spair for the instrument from Israel-through their impring companies .

بسم الله الرحمن الرحيم

Palestinian National Authority
Ministry of
Education & Higher Education

السلطة الوطنية الفلسطينية
وزارة
التربية والتعليم العالي

EXISTING EQUIPMENT AT DEIR EL BALAH POLYTECHNIC

1- Computer Lab.

No.	Qty.	Equipment	Manufacturer	Receiving Date
1.	20	IBM compatible with - 486 Dx - 33 Processor (Intel) - 4 Mega Ram - I 10 Controller (UMC) - 1.44 MB Drive (Teac) - 1.2 MB Drive (Teac) - Hard Disk 120 MB (Segate) - S. Vga Monitor (0.28) Samtron - S.Vga Card (512)MB with (256) MB (Reattek) - Keyboard Arabic/English (Ortek) - Seriel Mouse (Super)	 - USA, KOREA -- - KOREA /92 - JABAN /92 - JABAN /92 - SENGAPHORE - KOREA/91 - TAIWAN - CHINA - TAIWAN	10.Oct.93
2.	1	Microprocessor Controlled UPS	- TAIWAN	16.Apr.94

2. Radio & TV Lab. AND ELECTRONICS

No.	Qty.	Equipment	Manufacturer	Receiving Date
1.	10	Oscilloscope - 20 MHZ dual Trace	- TAIWAN	1993
2.	10	Function generator Fg 1617	- TAIWAN	1993
3.	10	MBU universal regulated Power supply	- ISRAEL	1993
4.	10	Unit EB-101 EB-2000 library DC	- ISRAEL	1993
5.	10	Unit EB-102 EB-2000 library DC	- ISRAEL	1993
6.	10	Unit EB-103 EB-2000 library AC	- ISRAEL	1993
7.	10	Unit PU-2001 Mainframe for EB-2000	- ISRAEL	1993
8.	40	Digital Multimeter	- ISRAEL	1993
9.	1	Serevice set itt instrument MX 12005	- TAIWAN	1993

3. Electricity Lab:- (General Electricity)

No.	Qty.	Equipment	Manufacturer	Receiving Date
1.	3	Three Phase Watt meter 30A	- Germany	1993
2.	3	Motor Asynchronous Type 71/4 220 V	- ITALY	1993
3.	2	Motor Asynchronous Type 90/4 220 V	- ITALY	1993
4.	3	Motor Asynchronous Type 80/2 220 V	- ITALY	1993
5.	3	Motor Asynchronous Type 71/14 220v	- ITALY	1993
6.	1	Digital Tachometer, Contact	- TAIWAN	1993
7.	4	Digital Tachometer, Photo	- TAIWAN	1993
8.	4	Insulation meter	- TAIWAN	1993

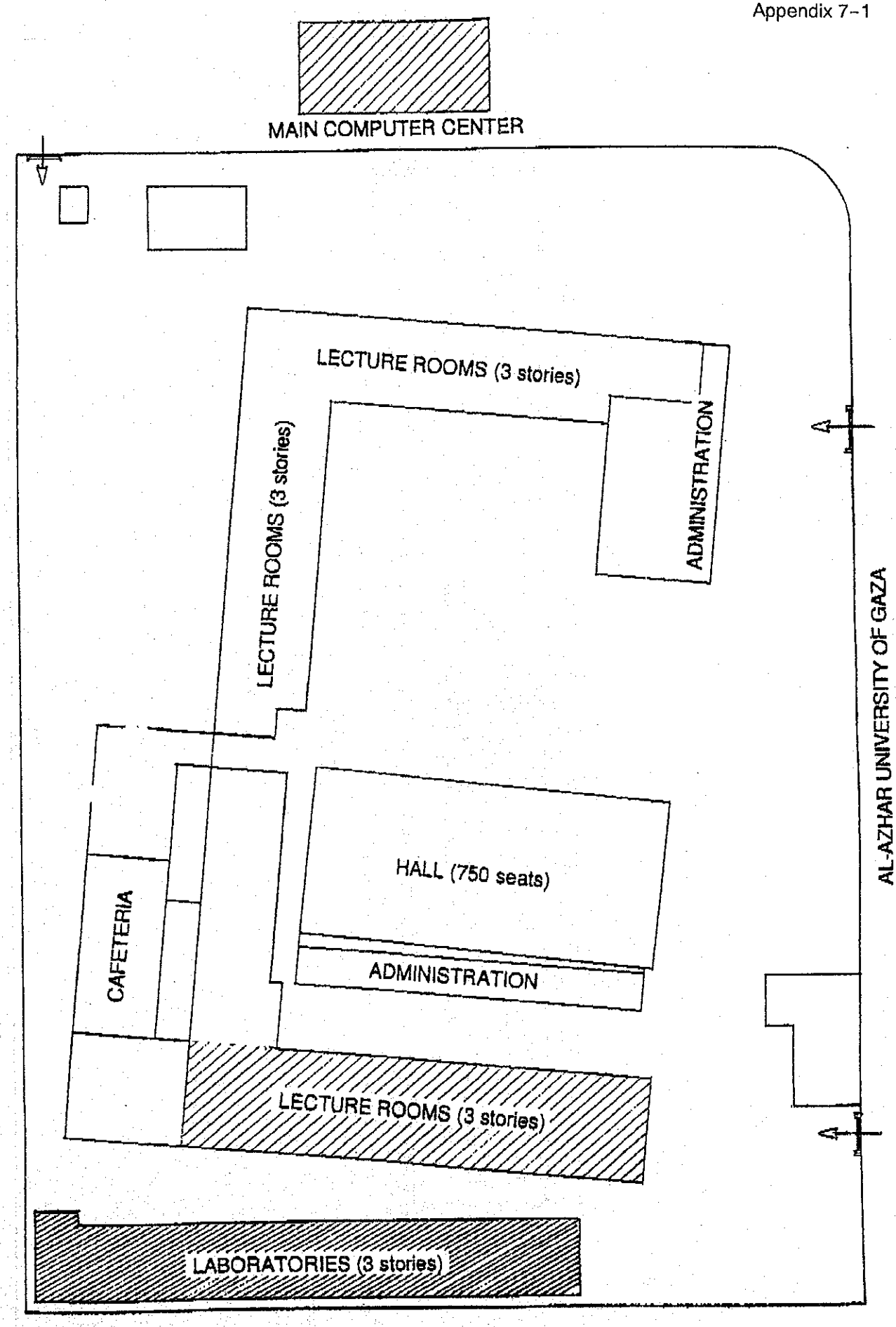
4. Physics lab :-

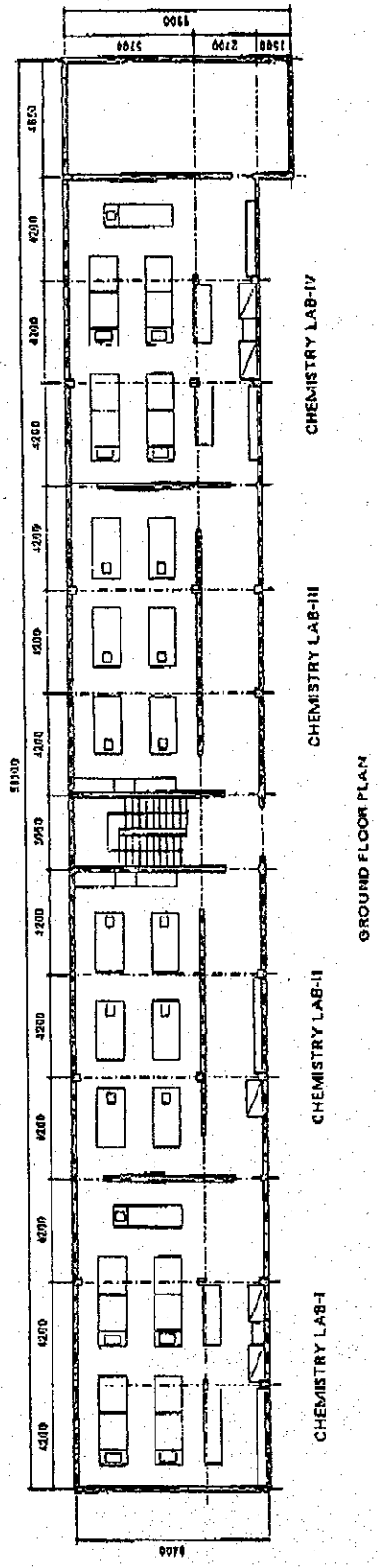
No.	Qty.	Equipment	Manufacturer	Receiving Date
1.	8	Newton second law (set)	- ISRAEl	1993
2.	8	Work Energy fraction (set)	- ISRAEL	1993
3.	8	Optics Geometry (set)	- ISRAEL	1993

16/3

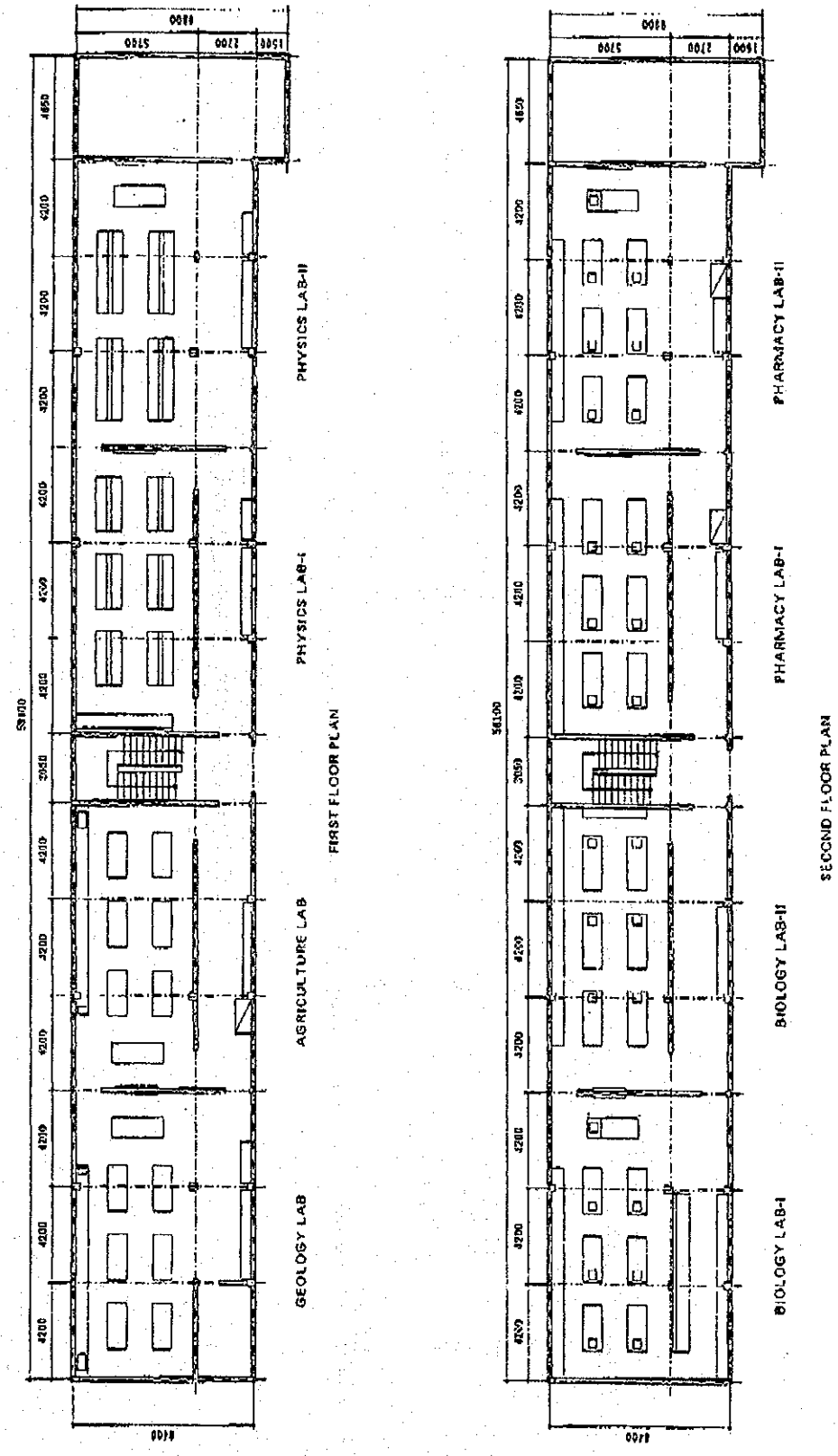
محمد يوسف ابو جراد
المدير العام المساعد
للتعليم التقني وكليات المجتمع
بوزارة التربية والتعليم العالي

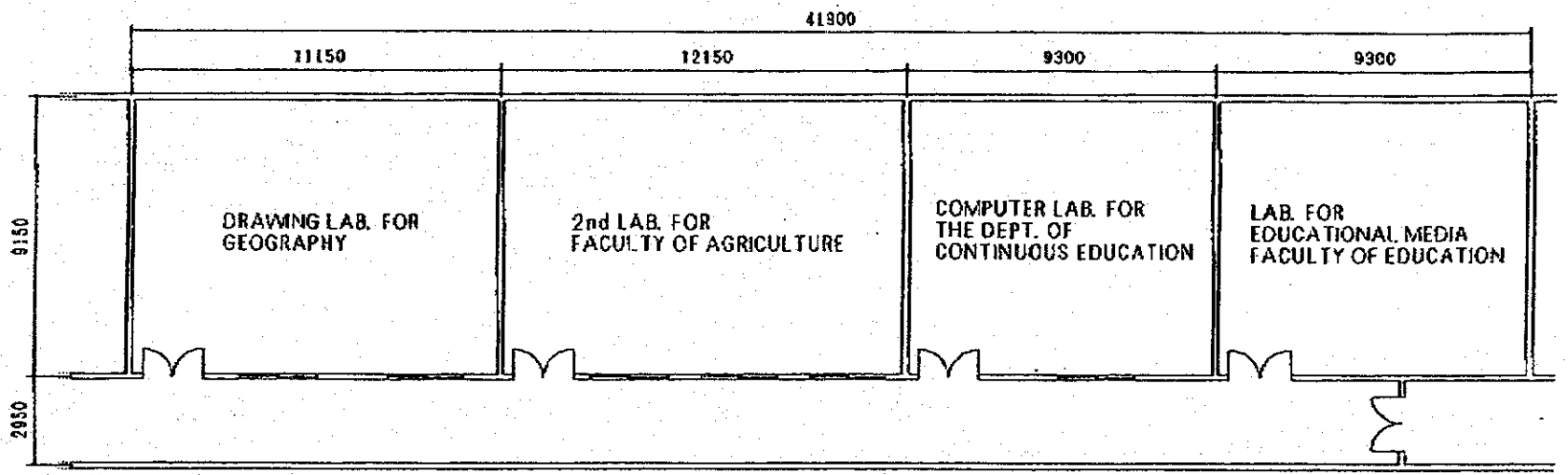
PALESTINIAN NATIONAL AUTHORITY
Ministry of Education and Higher Education


MAIN COMPUTER CENTER
LECTURE ROOMS (3 stories)
LECTURE ROOMS (3 stories)
ADMINISTRATION
AL-AZHAR UNIVERSITY OF GAZA
HALL (750 seats)
CAFETERIA
ADMINISTRATION
LECTURE ROOMS (3 stories)
LABORATORIES (3 stories)

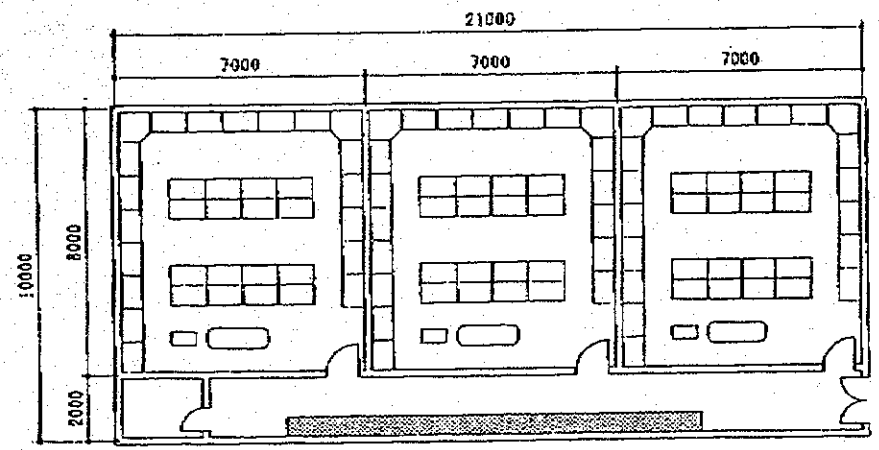


GROUND FLOOR PLAN

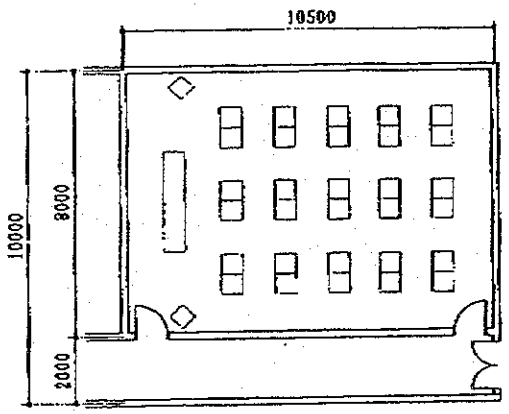

PHYSICS LAB-II
PHYSICS LAB-I
AGRICULTURE LAB
GEOLOGY LAB
FIRST FLOOR PLAN
PHARMACY LAB-II
PHARMACY LAB-I
BIOLOGY LAB-II
BIOLOGY LAB-I
SECOND FLOOR PLAN



2nd FLOOR EASTERN BUILDING (LECTURE ROOM)



PLACE OF THE MAIN COMPUTER CENTER

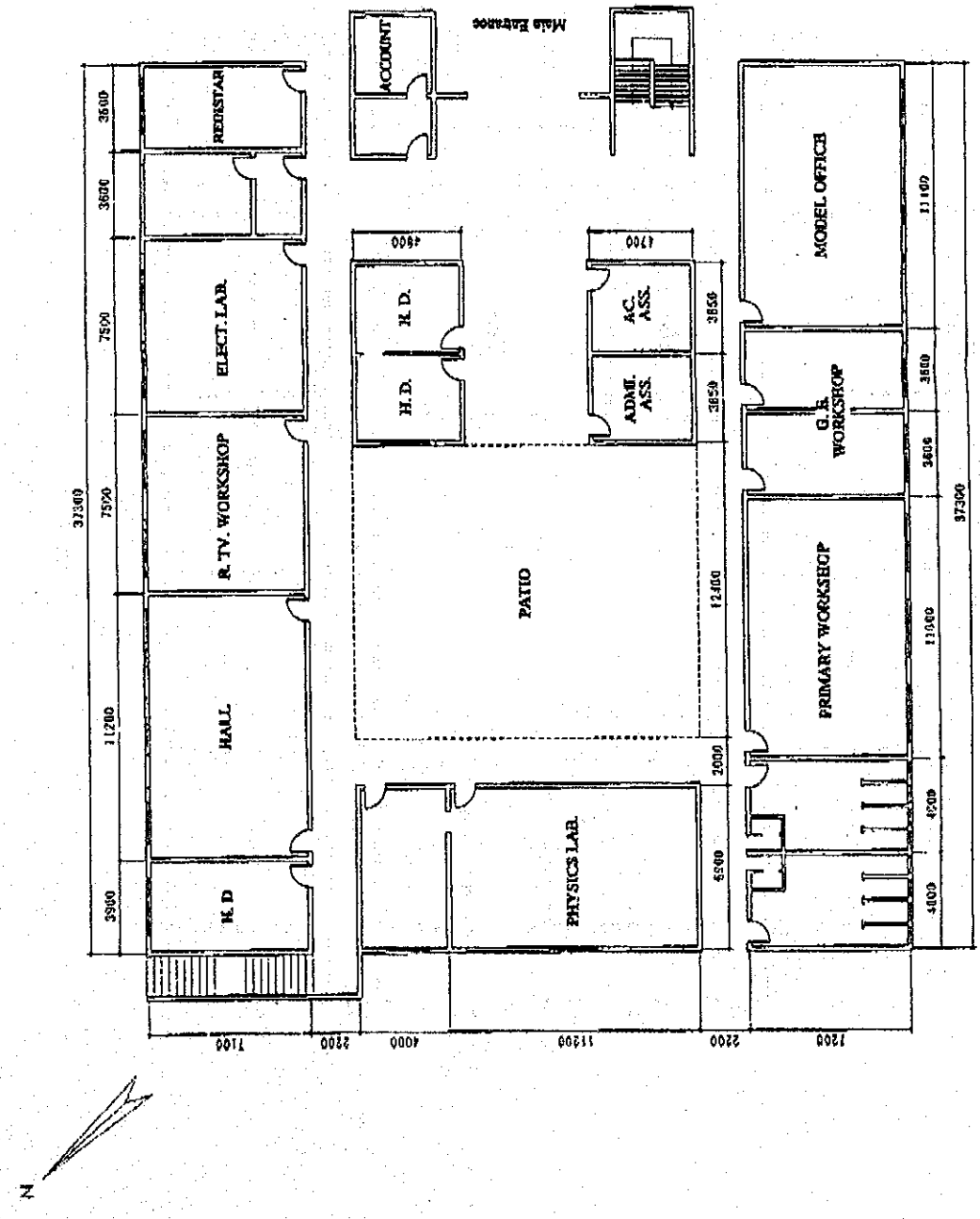


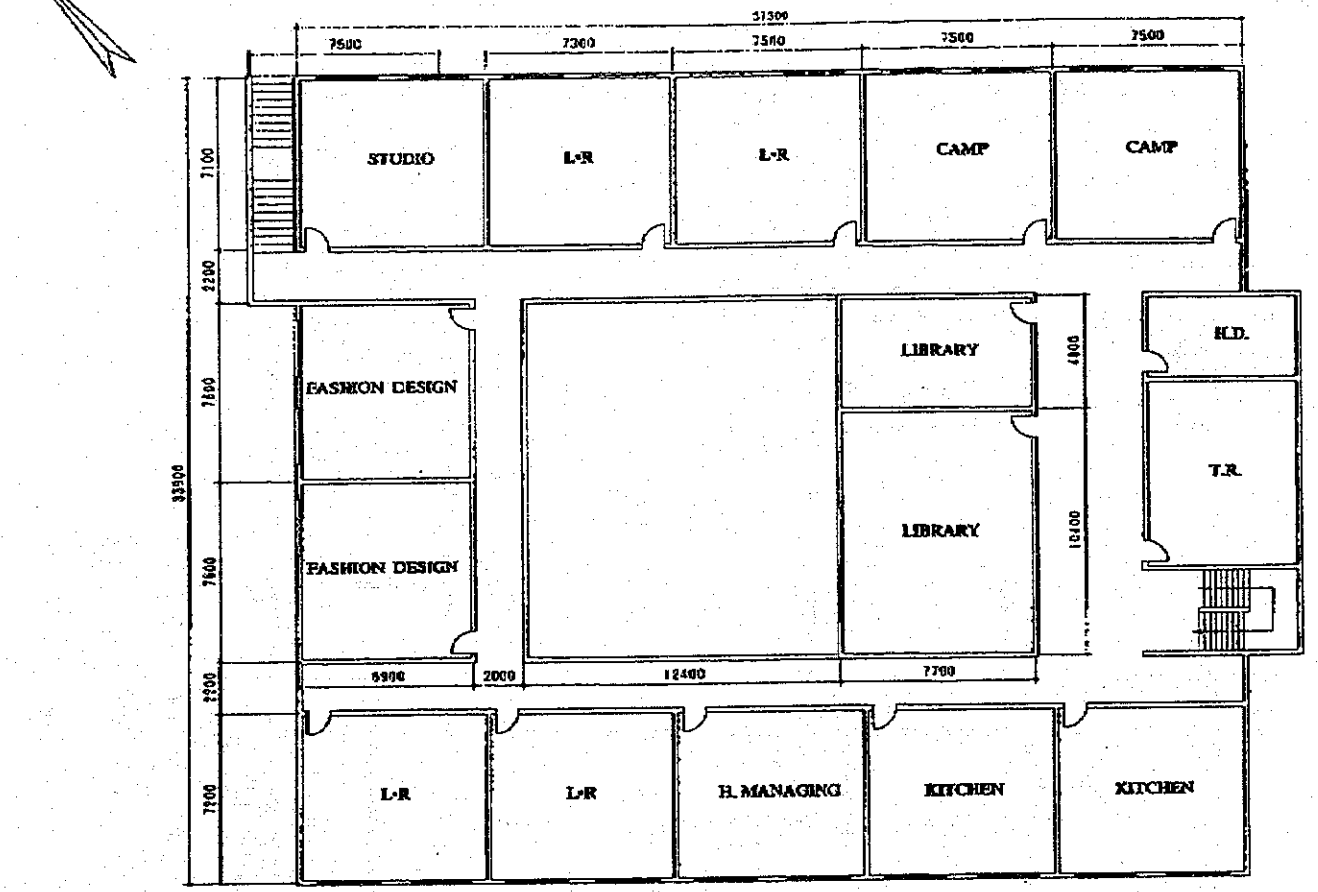
PLACE OF THE L/L ROOM (30 persons)

AL-AZHR UNIVERSITY
OF GAZA

DEIR EL BALAH
POLYTECHNIC
GAZA

GROUND FLOOR PLAN





DEIR EL BALAH
POLYTECHNIC
GAZA

FIRST FLOOR PLAN

A7 - 2 - 2

ANNEXES

MEMBERS OF THE STUDY TEAM

1) Mr. Eiichi KAWAHARA — Leader
Deputy Director, Grant Aid Div., Economic Cooperation Bureau,
Ministry of Foreign Affairs

2) Mr. Itaru HAMAKAWA — Grant Aid Implementation Programme
Deputy Director, Second Project Management Div.
Grant Aid Project Management Dept., JICA

3) Mr. Ichirou MUKAI — Project Coordination
Second Basic Design Study Div., Grant Aid Design and Study Dept., JICA

4) Mr. Atsushi KAMEDA — Project manager of the Consultants
UNICO International Corporation

5) Mr. Soichi TAKAI — Equipment Planning
UNICO International Corporation

6) Mr. Yasumichi DOI — Equipment Planning
UNICO International Corporation

7) Mr. Katsuhiko HIGUCHI — Procurement Planning
UNICO International Corporation

ANNEX-2

SCHEDULE OF FIELD SURVEY

No.	Date		Itinerary				
			Mr. Kawahara	Mr. Hamakawa	Mr. Mukai	Consultants	
						M/s Kameda, Takai	M/s Doi, Higuchi
1	Mar. 4	Sat	Lv. Narita via London				
2	5	Sun	17:05 Ar. Telaviv				
3	6	Mon	AM Telaviv → Ramallah Courtesy call on the Ministry of Education and Higher Education (MOE), Palestinian Council for Higher Education (PCHE) PM Courtesy call on PECDAR Ramallah → Telaviv Courtesy call on the Japanese Embassy				
4	7	Tue	AM Telaviv → Gaza Meeting with Al Azhar Univ. and Survey of Facilities PM Meeting with Khan Unis College of Science and Technology and Survey of Facilities Gaza → Jerusalem				
5	8	Wed	AM PCHE, Discussion on the Inception Report PM Ramallah → Gaza Deir El-Balah Polytechnic (Palestine Technical Colloge (PTC)), Survey of Facilities Gaza → Jerusalem				
6	9	Thu	AM PCHE, Discussion on a draft of Minutes PM Signing the Minutes of Discussions at MOE				
7	10	Fri	AM Jerusalem → Telaviv Reporting to the Japanese Embassy		PM Telaviv → Gaza		
8	11	Sat	08:35 BA675 Lv. Telaviv		Meeting with Deir El-Balah Polytechnic		
9	12	Sun	13:35 NH202 Ar. Narita	Seminar in Gaza	Meeting with Al Azhar Univ. Gaza → Jerusalem		
10	13	Mon		Seminar in West Bank	Survey of universities in West Bank (Al-Quds Univ., Birzeit Univ., An Najah National Univ.)		Meeting with MOE in Gaza on PTC
11	14	Tue		06:10 AF1761 Lv. Telaviv	Survey of universities in West Bank (Bethlehem Univ., Hebron Univ., College of Eng. and Tech.		Meeting with Al Azhar Univ. Gaza → Jerusalem
12	15	Wed				Meeting with PCHE Meeting with Public Relations	
					Jerusalem → Telaviv Reporting to the Japanese Embassy		
13	16	Thu		Ar. Narita		Telaviv → Ramallah Meeting with PCHE	
14	17	Fri			08:05 BA675 Lv. Telaviv	Data Arrangement	
						Mr. Kameda / Mr. Higuchi	Mr. Takai / Mr. Doi
15	18	Sat				Meeting with PCHE Meeting with the Ministry of Finance	→ Gaza 09:30 Survey of Gaza Training Center 11:30 Meeting with the MOE in Gaza
16	19	Sun			Ar. Narita	Meeting with PCHE Meeting with MOE	Meeting with PIC of each faculty in Al Azhar Univ. 10:00 Agriculture 10:00 Biology Meeting with the MOE in Gaza on PTC

ANNEX-2

No.	Date		Itinerary				
			Mr. Kawahara	Mr. Hamakawa	Mr. Mukai	Consultants	
						Mr. Kameda / Mr. Higuchi	Mr. Takai / Mr. Doi
17	20	Mon				Investigation of Carriers and transport route in Israel	Meeting with PIC of each faculty in Al Azhar Univ. 09:00 Common 11:00 Physics Meeting with the MOE in Gaza on PTC
18	21	Tue				Visit to NGO Visit to Carriers → Ashdod, Port Survey → Ashkelon	Meeting with PIC of each faculty in Al Azhar Univ. 10:00 Chemistry 11:00 Geology Meeting with the MOE in Gaza on PTC
19	22	Wed				→ Gaza Investigation of Carriers and transport route in Gaza	Meeting with PIC of each faculty in Al Azhar Univ. 09:30 Geography Meeting with the MOE in Gaza on PTC
20	23	Thu				Companies Survey in Gaza	Meeting with PIC of each faculty in Al Azhar Univ. 09:30 Pharmacy Meeting with the MOE in Gaza on PTC
21	24	Fri				Data arrangement, Internal Meeting	
22	25	Sat				Meeting with Al Azhar Univ. Meeting with the MOE in Gaza on PTC	
23	26	Sun				Meeting with the MOE in Gaza Islamic Univ., Survey of Facilities Meeting with Al Azhal Univ. → Jerusalem	
24	27	Mon				Ditto	Supplemental Survey (Equipment)
25	28	Tue				Ditto	Ditto
26	29	Wed				Reporting to PCHE → Telaviv	
27	Mar. 30	Thu	Reporting to the Japanese Embassy				
28	31	Fri	Lv. Telaviv				
29	Apr. 1	Sat					
30	2	Sun	Ar. Narita				

LIST OF MEETING PARTICIPANTS

The Ministry of Education and Higher Education

Mr. Yasser Amro	Minister
Dr. Naim Abu Hommos	Deputy Minister
Mr. Chill Mashie	Director General, Cultural Affairs & Public Relations
Mr. Jabr Fadda	Ass. of the Director General of Cultural Affairs & Public Relations
Mr. George B. Sahhar	Head of the Section, UNESCO & International Relations
Dr. Mohammad Y. Abu Jarad	The General Director Assistant for Technical Education & Community Colleges – Gaza Affairs, and Assistant of the Deputy Minister Assistant for Gaza

Palestinian Council for Higher Education (PCHE)

Dr. Gabriel Baramki	Consultant on the Higher Education to the Ministry of Education – Sec. Gen. of Council
Dr. Hesham Kuhail	Director General, Technical Education & Community Colleges
Mr. Youssef Dajani	Coordinator of the Council for Higher Education
Mr. Tawfic C. Raad	Projects Coordinator/ Public Relations
Mr. Samer Salameh	Information Department

Palestinian Economic Council for Development and Reconstruction (PECDAR)

Mr. Adnan El-Amad	Acting Director – Aid Coordination Dept.
Mr. Samir Abdallah	Director of Economic Policies Dept.
Mr. Ammar Aker	Desk Officer
Miss Lily Habash	Desk Officer for Europe Aid Coordination and Facilitation Dept.
Mr. Fawaz Abu Ramadan	Technical Assistance, Coordinator
Mr. Sami Tarazi	Technical Assistance and Training

The Ministry of Finance

Mr. Nasser Tahboub	Director General

Al-Azhar University

Prof. Dr. Riyad El-khoudary	President
Dr. Abdel Kaveem Nljim	Vice President
Dr. Omar Abou-Teim	Head of Chemistry Dept.

Dr. Sadi M. El-Krunz	Head of Mathematics Dept.
Dr. Hazem F. Sakeek	Head of Physics Dept.
Mr. Usama Zain Eldeen	Geology Department
Dr. Fouad Ridwan	Dean, Faculty of Science
Mr. A. Nasser Abushahla	M.A. Biochemistry Dept.
Mr. Mahmoud S. Sirdah	Teaching Assistant, Biology Dept.
Dr. Jamal M. Safi	Dean, Faculty of Agriculture
Dr. Amin Hamed	Pharmacy Dean
Dr. Mazen Elsakka	Faculty of Pharmacy – Pharmacognosy
Dr. Sulaiman Eljaboul	Faculty of Pharmacy – Phar. Chemistry
Dr. Salah Awad El-Sousi	Faculty of Pharmacy – Pharmaceutics Dept.
Dr. Sameer El-isa	Head of the English Dept.
Dr. Asad Abusharlc	Dean, Faculty of Arts
Dr. Jehad Abu Taweeli	Dean, Geography
Dr.Ahmed Dahlan	Dept. of Geography
Mr. Emad Abu Shaban	Head of the Accounting Dept.
Dr. Nabeel Abu-Shaaban	Assist. Prof. of Electronics & Computer Science

Deir El-Balah Polytechnic

Mr. Nour El Din El Rayyes	College Director, Electrical Engineer
Mr. Rafiq Maliha	Ph. D. in ME, Instructor in AC
Mr. Rateb A. Thaher	Mechanical Engineer (RAC Dept.)
Mr. Suied M. Jad-el-haq	Master in Electronics and Communication Eng.
Mr. Abdulla S. Muhanna	B.A. in Mathematics
Mr. Nasa K. Elkahlout	B.A. in Computer Eng.
Mr. Hamid Mohmoud Mahdi	B.A. in power and Electrical Eng.
Mr. Ashraf Abu Jarad	Tech. in Electrical Eng.

Minutes of Discussions
on
the Basic Design Study on the Project for
Upgrading and Development for Higher Education (Phase I)

In response to a request from the Palestinian Economic Council for Development and Reconstruction (PECDAR), the Government of Japan has decided to conduct a Basic Design Study (hereinafter referred to as "the Study") on the Project for Upgrading and Development for Higher Education (Phase I) (hereinafter referred to as "the Project"), and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent the Basic Design Study Team headed by Mr. Eiichi KAWAHARA, Deputy Director, Grant Aid Division, Economic Cooperation Bureau, Ministry of Foreign Affairs, from the 4th March to the 2nd April, 1995.

The team held discussions with the Palestinian officials concerned and conducted a field survey at the study area.

As a result of discussions and field survey, both parties confirmed the main items described on the attached sheets.

Ramallah ,the 9th March, 1995

EIICHI KAWAHARA
Leader,
Basic Design Study Team, JICA

YASER AMRO
Minister,
Ministry of Education
and Higher Education

ATTACHMENT

1. OBJECTIVE OF THE PROJECT

The objective of the Project is to develop Human Resources necessary for Palestine development and reconstruction by providing Equipment for Higher Education to the Al-Azhar University and the Deir El-Balah Polytechnic.

Note: The Ministry of Education and Higher Education withdrew the Khan Unis College from the request submitted to the Government of Japan in view of the fact that European Union already made financial commitment to the facilities and equipment for the above college. The Ministry requested the Deir El-Balah Polytechnic as alternative institution for the Project.

2. CONCEPT OF THE PROJECT

Referring to the above mentioned objectives, contents of the project will be designed with the following concept.

The equipment provided under the Project must be:

1) indispensable for Higher Education,
2) necessary for Human Resources development in Palestine development and reconstruction,
3) effectively utilized by the recipient University and College, and
4) maintained properly by the recipient University and College.

3. IMPLEMENTING AGENCY OF THE PROJECT

1) The Ministry of Education and Higher Education is to be the Implementing Agency of the Project. Therefore, all the coordination and decision necessary for Project implementation is responsible by the Ministry.

2) The Ministry designated Mr. Youssef Dajani as a Coordinator to the Study Team. The Coordinator represents the Palestinian side in all aspects of the Project in the course of the Team's field survey.

4. CONTENTS OF THE REQUEST BY THE PALESTINIAN SIDE

1) After further consultation with the Team, the contents of the final request will be attached as Annex 1.

2) Both sides have agreed that the equipment covered under the Project will be selected in accordance with the following criteria.

a) Each equipment should be for Under-graduate education purpose;

b) Each equipment should comply with the requirement of the present curriculum;

c) Each equipment must have its own space for installment in existing facilities,

d) For effective operation of each equipment, consumable or other necessary materials for effective operation must be easily and sustainably supplied locally;

e) Each equipment must be maintained and operated in proper manner; and

f) Should the equipment requires special utilities (eg. electricity and water supply) for its operation, such utilities must be provided by the recipient institution, in principle.

It is also agreed the size and the quantity of each equipment should be determined based on the number of students and teaching staff, curriculum at each institution, space for installation, and capacity of utilities like power supply.

3) Government of Japan will finalize the contents of the Project based on the Study Report prepared by the Team.

5. PROJECT SITE

The Project site location is shown in Annex 2.

6. THE JAPAN'S GRANT AID PROGRAMME

The Palestinian side has understood the system and characteristics of Japan's Grant Aid Programme explained in Annex 3 by the Team.

The major items are highlighted as follows.

1) Japan's Grant Aid is extended in the form of financial assistance which makes available the funds for procuring services and products necessary for implementing the project defined in "Exchange of Notes" (E/N). Therefore the usage of the fund provided under the Japan's Grant is strictly limited by the stipulation of E/N.

2) An arrangement between the recipient government and an authorized

Japanese foreign exchange bank is concluded in accordance with E/N.
Two kinds of commissions, Advising commission of Authorization to Pay, and Payment commission, are to be paid to the Japanese foreign exchange bank by the recipient country for its banking services.

3) A Project assisted by the Japan's Grant Aid must be implemented under "Japanese single-year budget system". This means that the project cycle must be, as a rule, completed, from signing on E/N to the final payment, within the same fiscal year in which the E/N signed.
4) For smooth implementation of a Project, a consulting firm that was selected by JICA for the Basic Design Study (UNICO International Corporation) will be recommended by JICA to the recipient country in principle as a Project Consultant by the recipient country.
5) The recipient country will conclude the contract for implementing the Project with Japanese company(-ies) through competitive tendering. And all such contract to be concluded shall be verified by the Ministry of Foreign Affairs of Japan through JICA.
6) Procuring services and products for implementing the Project shall be executed in accordance with "GUIDELINES FOR PROCUREMENT UNDER THE JAPANESE GRANT, 1991, JICA".

7. NECESSARY MEASURES TO BE TAKEN BY THE RECIPIENT COUNTRY

The recipient country will take necessary measures described in Annex 4 for smooth implementation of the Project on condition that the Grant Aid by the Government of Japan is extended to a Project.

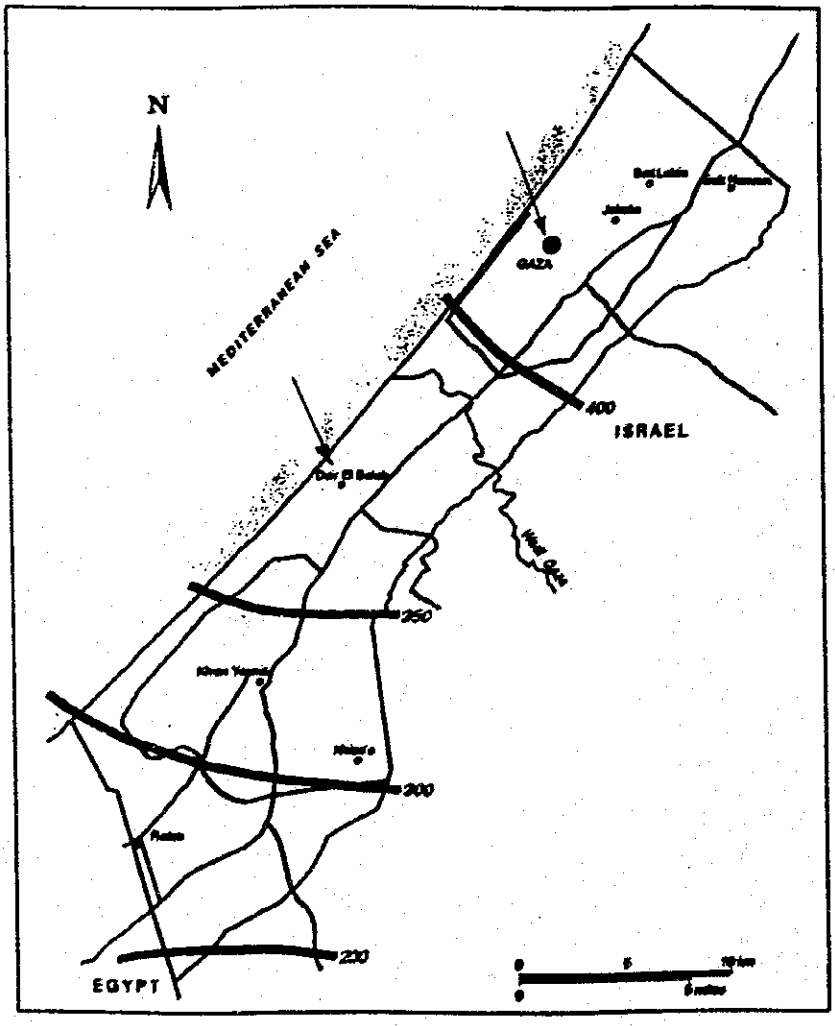
8. FURTHER SCHEDULE OF THE STUDY

1) The Consultants will proceed to further studies in the Project site until the 31st of March, 1995.
2) JICA will prepare a STUDY REPORT and send it to the Palestinian side by September, 1995.

ANNEX-1 CONTENTS OF THE REQUEST FOR JAPAN'S GRANT AID

The contents of the Project covered under the Japan's Grant Aid finally requested by the Palestinian side are as follows in the order of the priority.
However, the final contents of the Project will be determined by the Team at their discretion.

ANNEX-2 LOCATION OF THE PROJECT SITE



Annex 3

Japan's Grant Aid Scheme

1. Grant Aid Procedures

1) Japan's Grant Aid Program is executed through the following procedures.

Application	(Request made by a recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal & Approval	(Appraisal by the Government of Japan and Approval by Cabinet)
Determination of Implementation	(The Notes exchanged between the Governments of Japan and the recipient country)

2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study), using a Japanese consulting firm.

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

2. Basic Design Study

1) Contents of the Study

The aim of the Basic Design Study (hereinafter referred to as "the Study"), conducted by JICA on a requested project (hereinafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Japanese Government. The contents of the Study are as follows:

a) Confirmation of the background, objectives, and benefits of the requested project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation.

b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid scheme from a technical, social and economic point of view.

c) Confirmation of items agreed on by both parties concerning the basic concept of the Project.

d) Preparation of a basic design of the Project

e) Estimation of costs of the Project

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid scheme.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of discussions.

2) Selection of Consultants

For such implementation of the Study, JICA uses a registered consultant firm. JICA selects a firm based on proposals submitted by interested firms. The firm selected carries out a Basic Design Study and writes a report, based upon terms of reference set by JICA.

The consulting firm used for the Study is recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency and also to avoid any undue delay in implementation should the selection process be repeated.

3. Japan's Grant Aid Scheme

1) What is Grant Aid ?
The Grant Aid Program provides recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

2) Exchange of Notes (E/N)
Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

3) "The period of the Grant Aid" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the notes, concluding contracts with a consultant firm and a contractor and final payment to them must be completed.

However in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

4) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However, the prime contractors, namely, consulting, contracting and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

5) Necessity of "Verification"
The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese tax payers.

6) Undertakings required of the Government of the Recipient Country
In the implementation of the Grant Aid project, the recipient country is required to undertake such necessary measures as the following:

(1) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to the commencement of the construction.
(2) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites.
(3) To secure buildings prior to the procurement in case the installation of the equipment.
(4) To ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.
(5) To exempt Japanese nationals from custom duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.
(6) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

7) "Proper Use"

The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

8) "Re-export"

The products purchased under the Grant Aid should not be re-exported from the recipient country.

9) Banking Arrangements (B/A)

a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.

ANNEX-4 NECESSARY MEASURES TO BE TAKEN
BY THE RECIPIENT COUNTRY

Following measures shall be taken in principle by the recipient country on condition that the Grant Aid by the Government of Japan is extended to a Project:

1. To provide data and information necessary for the Project;
2. To secure necessary space for the Project;
3. To provide the following incidental facilities to the Project;
   (1) Electricity distributing line to the site,
   (2) City water distribution main to the site,
   (3) Drainage main to the site,
   (4) Telephone trunk line to the site,
   (5) General furniture such as carpets, curtains and others, and
   (6) Other incidental facilities necessary for the Project realization;
4. To bear commissions to the Japanese foreign exchange bank for its banking services based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and payment commission;
5. To ensure and take necessary measures for prompt unloading, tax exemption, customs clearance at the eventual port of disembarkation and the Project sites and prompt internal transportation therein of the materials and equipment for the Project purchased under the Grant Aid;
6. To exempt Japanese juridical and physical nationals engaged in the Project from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts;
7. To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contracts such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work;
8. To provide necessary permissions, licenses and other authorizations for implementing the Project;
9. To allocate appropriate budget and to assign necessary teaching and administrative staff for proper and effective operation and maintenance of the facilities and equipment provided under the Grant Aid;

10. To use and maintain properly and effectively the equipment provided under the Project; and
11. To bear all the expenses, other than those to be borne by the Japan's Grant Aid within the scope of the Project.